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KNOWLEDGE MANAGEMENT AND BUSINESS INTELLIGENCE MAGAZINE (KMBIM)

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EMPOWERING GROWTH THROUGH KNOWLEDGE MANAGEMENT

This edition explores knowledge management's role in tackling challenges, fostering collaboration, and driving growth across education, agriculture, and business sectors.

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First and foremost, I would like to praise Allah and Prophet Muhammad SWT for blessing me with strength to complete this task timely without facing difficulty which might cause discouragement. Without His help I might possibly not have made it in time. Besides, I would like to express my gratitude to my lecturer Dr Suriana Ramli, families and friends who helped me either directly or indirectly in making it possible to complete this book by giving ideas, opinions and comments so that I can improve my book in many ways. This book's accomplishment brings great joy to me. I really appreciate the faith given in my ability to produce this book on time. I hope by publishing this book will help readers to gain insights in regard to knowledge management.

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Nurhayaty Binti Abdullah

PREFACE

Knowledge Management (KM) is the key to organizational success, encompassing cultural, technological, managerial, and legal dimensions. However, implementing effective KM strategies often comes with significant challenges. Many organizations struggle with understanding cultural barriers and generational gaps that lead to employee resistance in adopting new ways of working. A common oversight is failing to address knowledge workers' needs for skill development and system proficiency.

Another critical challenge lies in managing and utilizing vast amounts of data. The abundance of information can hinder efficient processing, analysis, and decision-making when organizations fail to identify and prioritize relevant data. Additionally, inadequate knowledge management practices can result in legal risks related to data usage, integrity, and protection. High-profile cases involving intellectual property or misuse of personal consumer data highlight gaps in organizations' understanding and adherence to data protection regulations.

Recognizing these challenges, Knowledge Management and Business Intelligence Magazine (KMBIM) is a collection of articles authored by learners from Arshad Ayub Graduate Business School (AAGBS). Drawing insights from lectures and class exercise on knowledge management and business intelligence, these contributors explore the pressing issues and challenges faced by modern organizations and knowledge workers. The articles offer practical perspectives, discussion and solutions, aiming to enhance readers' understanding and support the effective implementation of KM strategies within their organizations.

At AAGBS, we are committed to fostering industry collaboration and developing responsible leaders who drive organizational growth and innovation. By facilitating engagement and sharing knowledge on effective KM practices, we aim to empower organizations to achieve their objectives and contribute meaningfully to their fields.

I would like to congratulate the learners from the class of Knowledge Management and Business Intelligence (MGT784), Semester 20244, for their efforts and commitment in ensuring the successful completion of this magazine.

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INTRODUCTION

In today's fast-changing world, knowledge has become one of the most valuable resources for organizations. Managing this knowledge effectively whether it's information, expertise, or insights can give companies a competitive edge. However, knowledge management (KM) is not without its challenges. While it aims to improve how organizations create, share, and use knowledge, many barriers can stand in the way of success.

This book explores the key challenges that organizations face when dealing with KM, focusing on five critical areas: cultural differences, technological barriers, information overload, employee resistance, and legal issues. These obstacles, though common, are often underestimated in their complexity and impact.
Cultural differences, for instance, can affect how employees from diverse backgrounds communicate and share knowledge, particularly among younger generations like Gen Z. In contrast, the lack of technology adoption in industries such as agriculture highlights how innovation is not always evenly embraced.

Meanwhile, the abundance of information in today's digital era creates risks of overload and misinformation, making it harder for organizations to make informed decisions. Employee resistance is another challenge, particularly when introducing new technologies or shifting towards digital transformation. Resistance can slow progress, affecting sectors like logistics, corporate training, and education. Lastly, legal issues such as customer data privacy and intellectual property rights add another layer of complexity, requiring organizations to navigate regulations carefully while maintaining trust and compliance.

Through a KM lens, this book discusses these challenges and examines how organizations can overcome them to build stronger, more efficient systems. Real-world examples, strategies, and insights are presented to show how businesses and institutions can use KM to turn obstacles into opportunities for growth and innovation.

Whether you are a student, professional, or business leader, this book offers practical knowledge and simple solutions for tackling KM challenges in an increasingly interconnected and digital world. It is an invitation to explore how knowledge, when managed well, can truly transform the way we work, think, and grow.

Section 1

Knowledge Management: Cultural and Employee Perspectives

EXPLORING THE CHALLENGES OF KNOWLEDGE MANAGEMENT IN HUMAN RESOURCES MANAGEMENT

BY: NUR SYAHIRAH BINTI MOHD LOKMAN

INTRODUCTION

Today's rapid change of technology has transformed the business environment. The adoption of advance technology including Artificial Intelligence (AI) requires organisation to develop new methods of working. The changes require employees to have relevant knowledge and experience to perform their tasks. Ultimately, the organisation work culture should align with the knowledge management. The organisational work culture plays an important role in determining the beliefs, values, and work system that encourages or discourages both knowledge sharing and knowledge creation (Alshammari, A. A., 2020) Therefore, as companies drive to stay competitive, they realise that people active involvement are important. Therefore, it is the role of human resources department to ensure the integration of human and technology are enhanced with regard to knowledge management.

Human Resources (HR) plays a critical role in managing knowledge in the organisation to ensure that employee knowledge stay updated from time to time. HR is responsible to collect employee's data such as salary, insurance, details of roles, contracts, taxes, warning letters and many more. Not only collecting data, but HR also ensure that the employee's work performance and well-being are taken care by the organization. Whenever employees have certain issues, they can refer to the HR Department for assistance and solutions. HR can act as independent advisor to help the employees to address their situation. Adopting extensive knowledge management framework in HR would assist in manging employee effectively and efficiently.

Knowledge management is a crucial tool for Human Resources, ensuring that information remains accurate and accessible while leveraging expertise to benefit employees and the organization. It encompasses strategies, guidelines, and the application of knowledge to enhance decision-making and overall performance. By streamlining access to the right information, knowledge management could help improve the efficiency by reducing duplicates or error information It is beneficial for Talent Management as well because knowledge management systems are able to provide historical information with regard to employee development.

Furthermore, knowledge management help the organisation gaining insights on how the employees feel about their current work. By obtaining good feedbacks from the key performance indicator (KPI) performance at the end of the year, organization can develop better human resources policies or improve work structure. That is how knowledge management is capable of being useful for the big or small medium enterprise (SME). Application of comprehensive knowledge management system which include knowledge creation, knowledge retention, knowledge acquisition and knowledge sharing would benefits the organisation in the long run..

CHALLENGES OF KNOWLEDGE MANAGEMENT IN HR

Working in SILO

Working in silo refers to someone who is not willing to collaborate with other teams or teammates. This article investigates what makes people work in silos and what are the solutions that can prevent these issues from happening in order to achieve the company's goals. Here, we define silo mentality in teams as a situation where teams consider themselves as separate, distinct and potentially independent of other teams (Jeske, D., 2024). When the individual chooses to work in silo, it will make the progress of work slower and lead to difficulties to change for not to be open and gain recognition to other teams or external such as stakeholders. There are lots of companies that have to deal with these issues.

Lack of Knowledge Sharing.

Knowledge sharing refers to people who are willing to share the knowledge specifically their tacit knowledge. Tacit knowledge refers to the experiences one's own or gain through training programs, mentorships, education. Research shows that in cases where knowledge is not actively common within employees, their intellectual resources will remain under-utilised within the team (Ahmed, T., Khan, M. S., Thitivesa, D., Siraphatthada, Y., & Phumdara, T., 2020). This article also said that when knowledge sharing is not happening, not only individuals' performance affected but also the organisational performance will decrease. Furthermore, having larger organisations would also lead to the difficulties to discourage employees to work in silos. Some big companies have multiple departments in one building; therefore, sharing information might post a challenge.

Communication Barriers

Another factor that influences working in silo is communication barriers. Communication barriers are like obstacles that prevent people from sharing information from one and another. It can be either formal meetings or conversations. This also creates misunderstanding as well. That is why people are tempted to work in silos because they aren't able to express through words or even share the information they have. In addition, in the absence of clear communication and a sense of mutual cohesion, expert-led teams will create their own roadmaps, agendas and priorities (Jeske, D., 2024).

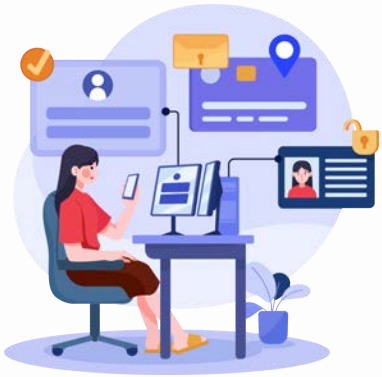
Ensuring Data Privacy

When organisations, especially HR collect data of the employees, there is possibility of data leaking, mistakes, or missing information. HR data is often dispersed across multiple systems and sources, making it challenging to access and integrate (Okatta, C., 2024). For example, it can either be some details of the information that have been missing out or wrong information of the employee's profile and so on. HR data is critical to make decisions such as hiring, promoting or training needs. It is crucial to have complete and accurate data before they proceed to the next step.

Another factor that would likely happen when it comes to privacy data breach could be weak security. Some of the HR data contain sensitive information such as employee's health records, compensation benefits or salaries details and performance evaluations. Therefore, ensuring the privacy and security of the data is crucial to protect from being exposed to someone else. The data must comply with the regulation of data protection law. If the HR failed to protect the individual's data, they may be punished through fine or penalties or lawsuit. In addition, when there is data breached, people will slowly lose trust with the organisations which might affect their reputation.

Unavailability to access the data information.

Other than that, another significant challenge is unavailability to access the data information. Since HR is in charge of keeping the data, their formats and system will be different for each section. In large companies, they have several functions in Human resources such as payroll, talent management, performance management or employee training. This means that some of their documents are scattered in different formats in different systems like payroll software, performance tracking tools and so on. This also could create difficulties to understand and hard to access the information as well. According to the article mentioned, the quality of HR data can vary widely, with inconsistencies, errors, and missing information hindering the accuracy and reliability of analytics insights (Okatta, C., 2024).



Furthermore, the factors that lead to the above issue when the organisation **did not provide a system** to organise the data smoothly. For example, payroll may keep their data in the specific software system then talent management kept in a separate platform. As results Human resources professionals usually need to generate reports or analyse the trend, which may give them difficulties after combining from different platforms where some of the data can happen like errors or be unable to be read. It can be either duplicates or missing information.

SOLUTION AND IMPLEMENTATION

In today's modern era with advanced technologies and globalisation has spread about the work environment where organisations faced many challenges that occurred. There is no company that would want their organisation to fail achieving their objectives without having solutions to prevent the issues. To address the working in silo issues for the solutions are:-

Inculcate culture of sharing

One way to prevent working in **SILOS,** the leaders need to monitor the engagement with others to encourage positive working culture with regard to knowledge sharing. Observing the environment of how they work would be useful and also promote openness to change. Sometimes, those who often worked alone happened because of the experiences or traumas they had. In order to change their behaviour, the other team members have to make the first step in helping them to be more approachable. This ensures that the team may be able to gather, work and share their knowledge easily without leaving anyone behind. To keep on sustaining the positive work culture, the leaders must engage with the team members by giving praise or recognition to them, so they are motivated to work together and becoming more productive.

In this context, the organisation should establish a collaborative program for the employee to enhance their communication and encourage knowledge sharing. The platform allows employees to communicate and collaborate for a teamwork through online meeting in digital platforms such as Google meeting or zoom. This can also enhance their social skills and have better understanding by getting to know each other as well. It also can be implemented for those who work remotely.

Data governance

Next, to address data privacy issues, the organisation should establish data governance mechanism. Organisation must set new policies regarding knowledge sharing or guidelines on how to upload data information into the system. This effort would ensure that everyone follows the rules correctly in order to prevent any error or misinformation. The organisation needs to hire professional or competent employee who is in charge to see the process and procedure of data management is adhere to. Another option is that the organisation should implement data protection measures such as access controls with password or data anonymization. Therefore, this could improve the data collection and validation progress. For example, making sure the employee's name is accurate including other information as well. This may help to build more trust between the organisation and the employee, including to be safe from spreading to the scammers or hackers.

Provide infrastructure such as knowledge sharing platforms.

Human resources data is often stored in different platforms as mentioned in earlier section. Payroll, talent management, recruiting, training employees has different work and using different platforms to share the information. Therefore, the organisation should establish a centralised data system where it involves bringing all these different pieces of information together into a single system so that each respective employee is able to access the data and complete their work effectively and efficiently. This could help the employees to stay updated with the current information with a single access without worrying to generate from different platforms. It also could increase efficiency as it could ease the employee's work as well.

CONCLUSION

Addressing the working in silo, data privacy and data availability and quality of HR data in a diverse workplace is crucial for the productive environment. Ethical leadership can navigate the long-term success and sustainability. Ethical leaders play a crucial role in organizations by guiding employees effectively, fostering a safe and supportive workplace, actively listening to their concerns, enhancing organizational data security, and alleviating employees' burdens. This can reduce employee's turnover, job dissatisfaction and problems of mental and physical health. Ultimately, it could improve trust and loyalty of employee due to a positive engagement. Furthermore, ethical leaders need to ensure sustainability of the organisation they work with. Leaders should be smart in decision making before proceeding to the next step. This can promote a better impression for the future new employees and gain a good reputation in the long run. By prioritising employees' well-being and improvement, ethical leaders are able to create sustainable long-term growth in the organisation.

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ABOUT THE AUTHOR

Nur Syahirah Binti Mohd Lokman is a big fan of kpop group Ateez, a lover of interior design and a person who loves to try new things. Her education is Bachelor in Business Administration (hons) Human Resources Management. After 6 months of internship in Kilang Mamee Sdn Bhd, she had an amazing experience of how Human Resources operate. Syahirah believes that life's journey may be rough but good things will come eventually. Currently, she is studying for a Master of Business Administration and hopefully she can use the knowledge she earns to adapt into the work environment.

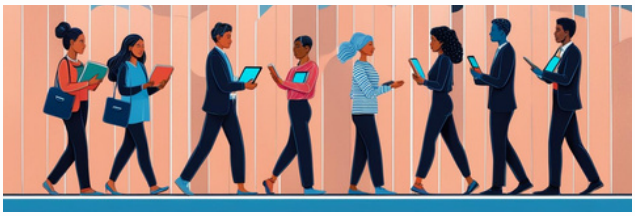
UNDERSTANDING GEN Z WORKING CULTURE: KNOWLEDGE MANAGEMENT PERSPECTIVE

BY: AHMAD EIZLAN SHAH BIN AHMAD SUKRI

INTRODUCTION

In today's knowledge-driven economy, effective Knowledge Management is essential for organizations seeking to capture, share, and retain valuable insights that drive innovation and support strategic decision-making (Dalkir, 2017). Knowledge Management systems facilitate knowledge flows across departments, promoting a collaborative culture where employees can access critical information. However, as Generation Z (Gen Z) are typically defined as those born between 1997 and 2012 who enters the workforce, organizations face new challenges in aligning Knowledge Management practices with the unique expectations and working styles of this tech-savvy generation (Hickman & Akdere, 2018). Cultural barriers such as fear of job insecurity, internal competition, and issues with trust compound these generational differences, creating additional obstacles for effective Knowledge Management (Garcia & Elbeltagi, 2021).

During my internship at a startup in the ed-tech industry, I observed how these generational and cultural barriers impacted Knowledge Management engagement among Gen Z employees. Many colleagues, including myself, often bypassed the formal Knowledge Management system in favor of direct communication channels like Slack, where information could be accessed instantly. Additionally, there was a sense of hesitation to share knowledge openly, as some employees feared that doing so might undermine their job security or diminish their competitive advantage (Sutherland & Jarrahi, 2018). This report examines these cultural barriers in Knowledge Management, explores their root causes, analyzes their impact on the Knowledge Management process, and proposes solutions to improve engagement. By drawing on personal experience and relevant literature, this report highlights the importance of adapting Knowledge Management practices to better align with Gen Z's values and address cultural fears.



BACKGROUND AND CASE DESCRIPTION

The case analyzed in this report is based on my internship experience at a rapidly growing edtech startup. This company implemented a Knowledge Management platform designed to centralize knowledge, allowing employees across teams to access shared insights, research findings, and best practices. Despite the platform's capabilities, many younger employees, especially those from Gen Z, were reluctant to engage with it consistently. Instead, they preferred informal communication tools like Slack, which allowed for immediate feedback and direct access to colleagues (Razmerita et al., 2016).

A notable example from my internship illustrates these challenges. While working on a project, I needed to retrieve data from a previous study conducted by our team. Navigating the Knowledge Management system was time-consuming, requiring multiple steps to locate relevant documents. Frustrated, I found it easier to reach out to a colleague on Slack, who provided the information within minutes. This experience underscored a broader issue: traditional Knowledge Management systems often fail to meet Gen Z's expectations for instant access, transparency, and ease of use (Lee & Lim, 2020). Moreover, I observed a reluctance among some colleagues to document their specialized knowledge, as they believed that holding onto unique insights provided job security in an environment of high competition (Garcia & Elbeltagi, 2021). This case exemplifies a broader pattern in Knowledge Management, where cultural and generational dynamics create barriers to effective knowledge-sharing and retention.

ROOT CAUSES OF CULTURAL BARRIERS IN KNOWLEDGE MANAGEMENT

Through observations and supported by research, I identified several root causes that contribute to cultural barriers affecting Knowledge Management among Gen Z employees:

Fear of Job Security Loss

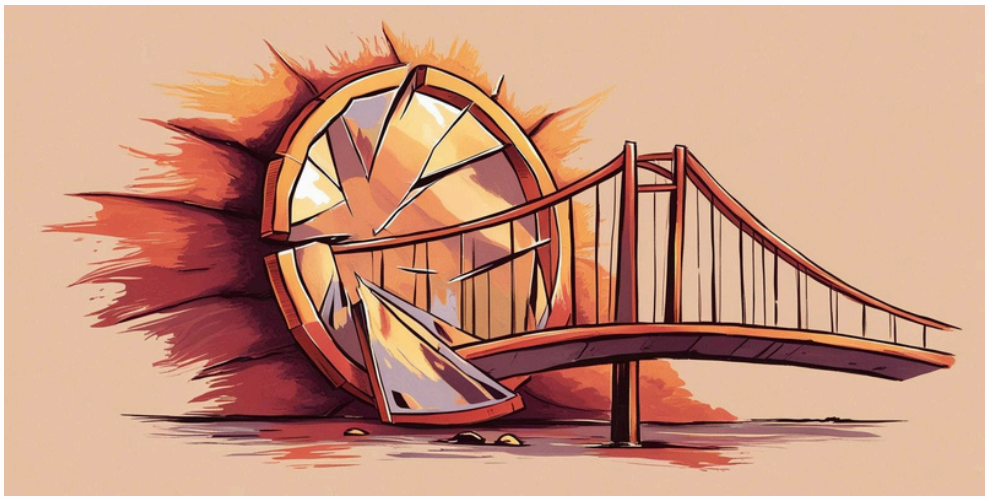
One of the most significant barriers to knowledge sharing is the **fear that openly sharing knowledge** could make employees less valuable or replaceable. This fear is often seen among newer or younger employees, who may believe that withholding their specialized knowledge provides them with job security. In my internship, I noticed this hesitation among colleagues who felt that their unique expertise was a personal asset, leading them to avoid sharing it openly on the Knowledge Management platform (Garcia & Elbeltagi, 2021).

Impact on Knowledge Management: This fear of job insecurity disrupts knowledge sharing by fostering a knowledge-hoarding mentality, where employees retain critical insights to maintain their value within the organization. As a result, Knowledge Management systems lose their effectiveness, as valuable information remains siloed rather than shared (Hickman & Akdere, 2018).

Resistance to Hierarchical Knowledge Management Systems

Gen Z values collaborative, flat structures and **resists hierarchical systems** that restrict access to information. Traditional Knowledge Management platforms, which often segment information based on position or department, can feel restrictive to Gen Z employees. During my internship, I sometimes had to request authorization to access specific documents, a process that felt inefficient and discouraged me from fully utilizing the Knowledge Management system (Bolisani & Bratianu, 2018).

Impact on Knowledge Management: This resistance to hierarchy reduces engagement in the knowledge creation phase, as Gen Z employees may feel constrained by Knowledge Management systems that emphasize seniority over open access. This lack of engagement in knowledge creation can lead to missed opportunities for innovation and collaborative input (Gerpott & Lehmann-Willenbrock, 2020).



High Expectations for Technology and Instant Access

As digital natives, Gen Z employees **expect workplace technologies**, including Knowledge Management platforms, to provide immediacy, ease of use, and mobile accessibility. In contrast, the Knowledge Management system at my internship was slow and required complex navigation, making it less appealing. Many Gen Z employees preferred using tools like Slack for instant communication, as these tools aligned better with their digital experiences and expectations (Sutherland & Jarrahi, 2018).

Impact on Knowledge Management: Outdated or overly complex Knowledge Management tools hinder knowledge acquisition, as Gen Z employees may avoid using the Knowledge Management system if it does not deliver quick, intuitive access to information. The risk is that they will bypass the Knowledge Management platform in favor of informal communication tools, which may not be designed for knowledge retention (Lee & Lim, 2020).

Internal Competition and Trust Issues

In environments with high internal competition, employees may be hesitant to share knowledge for fear of losing a competitive edge. Additionally, a **lack of trust** within the organization can lead to concerns that shared knowledge will be misused or result in credit being given to others. In my internship, I noticed some employees were reluctant to document their processes, as they were wary of internal competition or potential misuse of their insights (Parry & Urwin, 2011).

Impact on Knowledge Management: Internal competition and trust issues impact knowledge retention and knowledge sharing. Employees are less likely to contribute their knowledge to the Knowledge Management platform if they feel vulnerable or fear that sharing could negatively affect their standing within the organization (Razmerita et al., 2016).

ANALYSIS OF CULTURAL BARRIERS IMPACTING KNOWLEDGE MANAGEMENT STAGES

Each stage of Knowledge Management: creation, acquisition, sharing, and retention are affected uniquely by these cultural barriers:

Knowledge Creation

Gen Z employees' **desire for collaboration** and flexibility shapes their engagement in knowledge creation. Hierarchical Knowledge Management systems can feel stifling, reducing willingness to contribute. During my internship, brainstorming sessions using digital whiteboards, where spontaneous ideas were encouraged, generated more creative input compared to formal Knowledge Management documentation, which felt restrictive (Hickman & Akdere, 2018).

Knowledge Acquisition

Complex Knowledge Management systems that require **extensive navigation** create barriers to knowledge acquisition, as Gen Z employees expect immediacy. I frequently bypassed the Knowledge Management platform to obtain information from colleagues via direct messaging, which provided faster, though undocumented, knowledge access (Lee & Lim, 2020).

Knowledge Sharing

The **fear of losing job security** and internal competition are significant barriers to knowledge sharing. I observed that employees were often reluctant to share unique insights on the Knowledge Management platform, fearing that it might reduce their perceived value. This reluctance limits collaboration and weakens Knowledge Management's effectiveness in fostering collective learning (Garcia & Elbeltagi, 2021).

Knowledge Retention

High turnover rates among Gen Z employees, coupled with competition and trust issues, pose challenges to knowledge retention. Interns and short-term employees may not prioritize documenting insights, leading to loss of valuable knowledge. In my internship, interns frequently left without fully transferring their knowledge, resulting in gaps within the Knowledge Management system (Bolisani & Bratianu, 2018).

SOLUTIONS CONSIDERED

The following solutions address the key cultural barriers impacting Knowledge Management for Gen Z employees:

Flexible Knowledge Management Platforms with Collaboration Tools

Adopting flexible, real-time collaboration tools like Slack or Microsoft Teams aligns with Gen Z's preference for accessible, collaborative platforms. Integrating these tools with the Knowledge Management system can increase engagement by providing a user-friendly, familiar interface (Razmerita et al., 2016).

Example: At the edtech startup, using Slack for project collaboration allowed team members to share resources and ideas instantly, fostering a more collaborative environment. Integrating Slack with the Knowledge Management platform could improve knowledge-sharing engagement.

Mobile-First, Intuitive Knowledge Management Systems

Implementing mobile-friendly, intuitive Knowledge Management tools meets Gen Z's expectation for immediate access to information. For example, a mobile Knowledge Management app can provide quick, on-the-go access, making knowledge acquisition easier and more engaging (Sutherland & Jarrahi, 2018).

Transparent and Open Knowledge Management Practices

Promoting a transparent knowledge-sharing culture reduces fears of job insecurity and improves trust. Recognizing and rewarding contributions to Knowledge Management can incentivize employees to share insights openly without fearing job insecurity or internal competition (Garcia & Elbeltagi, 2021).

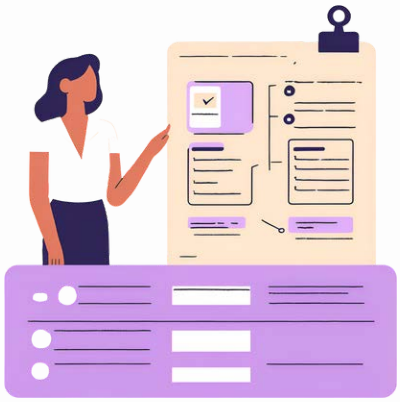
Example: Establishing a reward system for knowledge contributions within the Knowledge Management platform can help build a culture of openness, reducing fear-based barriers and encouraging collaboration.

IMPLEMENTATION OF THE SOLUTION

Implementing these solutions involves a structured approach as specified below:

1. Assessment: Conduct surveys and focus groups to understand Gen Z's Knowledge Management preferences and pain points.
2. Pilot Testing: Introduce collaborative Knowledge Management tools to a pilot group of Gen Z employees to test engagement and receive feedback.
3. Feedback Loops: Create regular feedback sessions to gather ongoing insights from employees, allowing continuous improvement of Knowledge Management practices.

These steps, coupled with transparent communication about Knowledge Management's benefits, can help alleviate job security concerns and foster a more open, inclusive Knowledge Management environment.



CONCLUSION

Adapting Knowledge Management practices to align with Gen Z's expectations and addressing cultural fears is essential for creating an inclusive and effective knowledge-sharing environment. Key cultural barriers, such as fear of job insecurity, hierarchical systems, and internal competition, significantly impact Knowledge Management processes. Implementing flexible, mobile-friendly Knowledge Management systems and fostering a transparent, trust-based culture can help reduce these barriers. Ethical leadership that recognizes generational and cultural differences will be instrumental in building a sustainable Knowledge Management environment that supports long-term organizational success.

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ABOUT THE AUTHOR

Ahmad Eizlan Shah Bin Ahmad Sukri is a passionate and forward-thinking MBA student with a bachelor's degree in digital marketing. His academic journey and professional interests center on exploring the intersections of culture, technology, and business in an increasingly globalized world. Eizlan is the author of Understanding Gen Z working culture: Knowledge Management Perspective, a thought-provoking article that delves into the unique challenges faced by Gen Z in embracing knowledge-sharing practices in today's fast-paced workplace. With a strong commitment to bridging cultural divides and fostering innovation, Eizlan combines his expertise in digital marketing with a deep curiosity for solving modern business challenges. Beyond his academic and professional pursuits, he is an avid sports enthusiast, drawing inspiration from the discipline, resilience, and teamwork inherent in athletics—values that guide his personal and professional growth. Eizlan believes that success is built on a foundation of continuous learning, adaptability, and collaboration. Dedicated to making a meaningful impact, he aspires to drive innovation, empower others, and inspire transformative change in the digital marketing and knowledge management landscapes.

NAVIGATING KNOWLEDGE MANAGEMENT CHALLENGES AMID TECHNOLOGICAL UNCERTAINTY: ADDRESSING EMPLOYEE RESISTANCE IN EDUCATION AND CORPORATE TRAINING

BY: AIN SABRINA BINTI ALIAZHAR

INTRODUCTION

A business is an organization that creates, purchases, and sells goods or services for a profit. Some firms, such as social enterprises and non-profits, aim to achieve social, environmental, or community goals in addition to profit. In the education and corporate training industry, they primarily focus to deliver solutions in skill development and knowledge sharing. Education and corporate training industry is actually a backbone of company, as it provides sufficient opportunities to be properly trained. These organizations, which include educational institutions, e-learning platforms, and corporate training providers, operate for dual aim, generating profit and meets society needs with readiness. Businesses in education and corporate training are key contributions to innovation and career advancements.

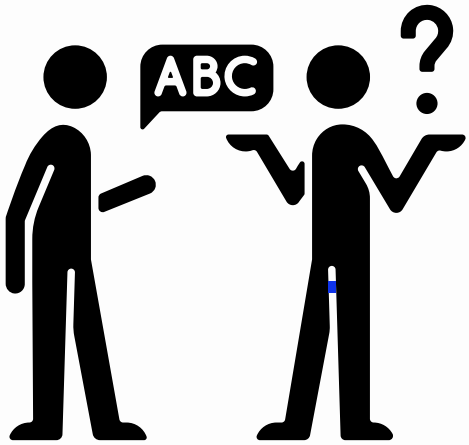
Knowledge management involves creating, identifying, and organizing an organization's knowledge so that employees and teams can use it effectively and efficiently. Organizational knowledge includes a range of information, such as strategies for increasing revenue, best practices for hiring, successful project proposals, specialized employee skills, IT protocols, and legal team approaches, among other things. (Kaur, 2022).

By using knowledge management, organizations can build a system that creates and shares knowledge to make the most of different opportunities. Growing knowledge often means organizing work processes better and gaining a competitive edge. However, in today's fast-changing business world, it also involves fostering a culture that supports innovation and adaptability. (Arduini, Manzo, & Beck, 2023). Therefore, we can see that knowledge management helps organizations adapt by systematically capture and utilize information.

THE ROOT CAUSE OF THE CHALLENGE

Cultural Barriers

To understand the root causes of these knowledge-related issues, one key factor to consider is the **cultural barriers**. According to a journal article, people's ability, willingness, and readiness to share knowledge heavily depend on the corporate culture. (Al-Shammari & M. Almulla, 2024) Employees, for example, are more willing to share insights, assist one another, in organizations with collaborative culture. In a more competitive atmosphere, people may see information as a personal asset and be less ready to share it. For example, different communication styles. Some might directly communicate while others prefer indirect. This cause confusion and misinterpretation of information as the way people communicate are different based on their cultural background.



Lack of Leadership Support

Secondly, another root cause of these issues is the **lack of foundational support from top management.** According to supporting article, factors like insufficient backing from leadership, lack of pilot testing, inadequate end-user training, resistance to change management, and poor integration of processes all contribute to resistance and knowledge management challenges. (Zuma & Sibindi, 2023) For example, when new systems or procedures are introduced without pilot testing, employees frequently feel unprepared, which leads to discontent. Employees who lack formal change assistance and process integration are likely to have knowledge gaps, since they feel separated and unclear about their roles.

Competition Among Staff

Afterwards, poor communication is a key factor leading to a **competition among staff.** This kind of environment may be the fundamental cause of employee resistance. When unprofessional behavior prevail, employees are more likely to feel underappreciated and unsupported. This can lead to resistance, as employees may become less ready to participate in new changes, questioning whether management appreciates their well-being or contributions. It happened when managers fail to communicate openly and honestly with employees. (Adel A. Fridan & E. Maamari , 2023). Competition also may arise when staff withhold knowledge to safeguard their positions. Examples of a bad environment include supervisors showing favoritism. This happened during my friend's internship experience. During her internship, she experienced favouritism, which made her feel anxious and question her abilities. This favouritism created a competitive atmosphere, where interns were subtly compared against one another based on perceived performance.

EFFECTS OF EMPLOYEE RESISTANCE

Employee resistance can have noticeable impacts on knowledge creation, acquisition, sharing and retention. In **Knowledge Creation**, employees may avoid creative problem-solving or innovation when they feel undervalued or mistrust new ideas introduced by management. Feeling valued is important as noted by a journal article finding, valuing their contributions, helping them when needed, and providing more ways to show support to individual employees, it would serve as clear reasons for management to focus more on knowledge management. (Rehman, Poulová, Syed Arslan Haider, & Fakhra Yasmin, 2021)

Afterwards, in **Knowledge Acquisition**, employees may avoid learning new skills if they feel it is unnecessary or overwhelming, which limits process improvements and innovation. Let us take an example of a private limited company which is PERODUA. They recognized that knowledge acquisition is important, that is why they implemented training platform called DOJO for corporate learning and manufacturing training. The word DOJO is a combination of the words "do" and "jo" which mean "the way" and "the place" respectively. These enables employees to acquire knowledge, ready to the face the automotive industry challenges and deliver company's quality and service standards.

In terms of **Knowledge Sharing**, some employee may resist to maintain a competitive edge due to fearing that others' skill advancements could threaten their job security. An example of overcoming such resistance can be seen in Microsoft Learn Community. This platform promotes knowledge sharing across the company by encouraging employees to collaborate and share their insights and expertise. In addition, the community provides opportunities for learners to connect with other experts, ask and answer questions, and share resources. (Welcome to the Microsoft Learn Community, 2023) Therefore, this community hub is actually considerable for other corporate to adopt.

Lastly, for **Knowledge Retention,** employees may withhold information if they feel disconnected from leadership or doubt managerial intentions. Those past negative experiences may reinforce this reluctance, impacting overall knowledge-sharing. An example of a company that were impacted with knowledge retention is Nokia during its decline in the smartphone market. Nokia's middle managers were afraid to share the truth about the company's issues, fearing they might lose their jobs. At the same time, top management was focused on meeting short-term goals and did not want to admit Symbian OS was falling behind, worrying this would scare off investors. Executives pressured middle managers to hit ambitious targets, so in response, managers felt they had to hide the truth. (The Tragic Downfall Of Nokia: From A Giant To A Shadow [Case Study], 2024)

SOLUTIONS AND IMPLEMENTATION OF THE ISSUES

What are the solutions and implementation can be taken for addressing employee resistance?

Culture Transformation for Sharing and Acceptance: Company should provide **open, transparent communication** about the purpose and benefits of change. Regular updates and addressing employee concerns can help build trust. As highlighted in a journal article, it is recommended for managers to involve employees in the change process, allowing them to participate and share feedback at every step. Effective communication, especially when leaders explain "the why" behind changes can be crucial at all levels, from top management to direct supervisors. (Nowak, 2023). Leaders should reinforce value-sharing as critical component for company's success. This can be done through workshops or team-building activities. Clear communication helps everyone stay informed and shows that their opinions matter. Listening to feedback also builds trust and reduces worries, creating a more open and supportive workplace. One of the research done by Chaturong Napathorn, from Thammasat Business School, Thammasat University found that employees in Thai family firms with a strong, family-like corporate culture show high commitment to their job companies. And these firms who provide employees with specialized, firm-specific skills, making it challenging to leave without personal or professional costs. (Napathorn, 2022)

Offer Procedures and Policies: Companies should provide hands-on programs to help employees get comfortable with new tools or systems. For instance, coaching can make employees feel more prepared and supported. As noted by (A. Dauda, Ajayi , Omotayo, Oladiran, & Ilori, 2023) employees and business partners should be properly trained in lean methods and encouraged to use them in their work. In addition, develop a clear manuals and guidelines that outline expectations for knowledge sharing and collaborative work. These manuals should include detail procedures and best practice for teamwork. Having these kind of guidelines ensures everyone understand and follow the standard approach.

Encourage Adaptation with Rewards: Recognize and reward employees who actively support change, whether through public acknowledgment, small rewards, or celebrating progress. This can inspire others to join in and back the initiative. Management could also create new policies for incentives and rewards that align with employees' personal interests and align with company's goals. Developing these incentives can help reward employees who is actively engage and support the change process. Rewards might include public recognition, bonuses, or extra benefits. This approach aims to motivate employees while reinforcing the importance of adapting to change.

CONCLUSION

To summarise, managing employee resistance is critical for any organisation facing change. Cultural barriers, lack of leadership support and competition among staff are common causes of employee resistance, which can lead to dissatisfaction and impede organizational progress. Organisations can minimise anxiety and develop trust by implementing a culture transformation for sharing and acceptance, offer procedures and policies, and encourage adaptation with rewards. Involving employees in the transition process and providing visible leadership support contribute to a pleasant atmosphere, making employees feel valued and prepared to embrace new approaches. By prioritising these techniques, businesses can help boost employee engagement and motivation.

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ABOUT THE AUTHOR

Ain Sabrina Binti Aliazhar is a girl who enjoys a variety of hobbies that allow her to express her creativity. She has a passion for reading, cooking and listening to R&B songs. Sabrina also has a fondness for 2000s movies, she loves nostalgic classics that remind her of simple times. She is an MBA student at UiTM Shah Alam with a background in Business Administration, specializing in Islamic Banking. Throughout her academic and industrial training journey, she has developed a strong interest in understanding employee resistance in the workplace, which is an essential aspect of organizational change. Sabrina believes that recognizing and addressing resistance is crucial for creating sustainable and positive transformations within any company. Sabrina is dedicated to exploring new opportunities that allow her to expand her knowledge and gain hands-on experience. She is excited with what the future holds. Sabrina looks forward to continuing her journey and making a positive impact wherever she goes.

EMPLOYEES RESISTANCE AFFECTING DIGITAL TRANSFORMATION IN LOGISTICS SECTOR

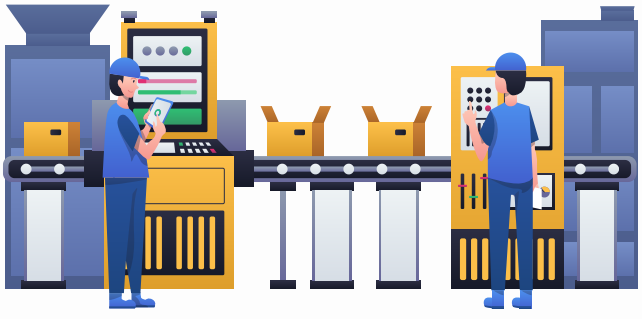
BY: NUR NADHIRAH BINTI IDRIS

BACKGROUND

Science and technology are undergoing dramatic changes at a global scale. With the evaluation of digital technologies comes a rapidly growing recognition that most workplaces are experiencing change. It becomes evident that the emerging digital technologies are not only automating repetitive machines but are also beginning to change the landscape of knowledge management which brings in the need for better control complexity. In contrast, knowledge management depends greatly on individual cognitive abilities where it involves individuals to carry out procedures and manual actions. As a matter of fact, it appears that knowledge has become important for the growth of organisations to sustain its success in the future.

Besides, digital transformation (DT) in terms of knowledge management has been recognized as an important source of competitive advantage especially in the logistics systems that have been responding to changes in the infrastructure in the sector (Singh et al, 2021; Cichosz et al, 2020). It can be said that logistics is the supply chain services in transporting and delivering goods and is now being embraced because of digitalization possibilities. In fact it become popular topics among expert that DT has a positive impact on the economies and society in the general, since it carries out the modification of the logistics operations through incorporation of technological aspects in the business models that seeks to enhance effective and efficient services while meeting the customers expectations (Muhammad & Anton, 2022; Herold et al. 2021; Cichosz et al., 2020).

Currently in India, logistics companies need to deal with complex systems of supply chains in which they involve multiple stakeholders, locations and different modes of transport. India witnessed the growth of customers depending on online shopping in which e-commerce activities significantly increase. In order to ride this growing market, every logistics company should embrace digital solutions where it can effortlessly connect to online trading, implement automatic processing of the orders and last mile delivery meeting e-commerce requirements. With the use of DT firms can effectively accommodate the unique characteristics of the e-commerce industry. In this context, the transformation from conventional structures to modern information systems for logistic companies can be one of the effective ways to achieve competitive advantage. Whereas, the penetration of DT in Indian logistic firms remains weak though a fair share of Indian logistic firms have adopted DT. To survive in the logistics business, Indian logistic firms have to implement DT (Tran et al. 2023).



However, it is not easy to implement DT in the logistics sector especially in terms of knowledge management because of the resistance from the employees. Employee resistance is not a new issue in organisations. Factors such as lack of employee engagement, lack of information with regard to the changes, fear of losing the job and complacent current will hinder implementation of DT in the logistics sector. In fact it is the cause for employees to resist changing to DT. As a result the organisations face challenges in managing knowledge management as employee resistance affects digital transformation in the logistics sector.

ROOT CAUSES OF THE CHALLENGE

Knowledge management are crucial factors in today's competitive and uncertain businesses as it aims to measure the effects of knowledge management process such as knowledge acquisition, knowledge sharing, knowledge creation and knowledge retention and approaches specifically on job satisfaction and to assess how knowledge management can affect employees performance. Without good handling in knowledge management can cause employee resistance to change, especially involving the changes when utilising digital transformation in the logistics sectors as technology has become important not only for enhancing efficiency and streamlining supply chains but also for satisfying consumer demands. Thus, what are the causes for employees to resist change?

Lack of Employee Engagement

The first factor causing employee resistance is due to **lack of employee engagement**. Lack of employee engagement can be regarded as one of the key factors of employee resistance especially during digital transformation in the logistics industry. It is important to have engagement in the organisation because by built engagement can increase trust towards the leaders and employees can understand about the decision that the leaders make. When engagement levels are low, employees are less likely to support or adapt to changes, such as implementing new technologies or processes. Just imagine what will happen if there is no trust in the leader due to lack of engagement? It may cause employees to suspect the digital transformation changes that are suggested by leaders where might possess harm towards the working environment. As a result, the employees will not understand the benefits of changes made and in fact the employees will resist more.

Lack of Information with regard to the Changes.

The second factor is **lack of information with regard to the change**. Because of the lack of information with regards to the changes from the organisations will cause employees to feel uncertainty and fear of unknown since employees are not being informed in advance regardings to change which will make them feel prejudice towards organisations and as such situation will impact them think negative towards the changes like job loses, increased workloads or even role obsolescence. Besides, it can also cause anxiety where it can bother employees performance and personality from being active to passive. However, when employees have a better understanding it will help them to see the value of the change and align their efforts accordingly. On the other hand, the organisation should take the opportunity of communication to introduce the employees to digital transformation because of its relevance and the need of the logistics company especially for the technology since it will not only benefit the organisation but also the employees as it will make work much easier in the future. As a result, with enough information will smoothen the process of changes.

Fear of Losing The Job

The third factor causing employee resistance is **fear of losing the job**. This is because with the utilisation of digital transformation such as automation and digital tools may be a threat to manual or repetitive jobs which will cause employee resistance to change due to fear of redundancy and as the world moves forward it will impact rapid technological advancements where the transformation of technology and industry practices occurs more rapidly than the rate at which the workforce can adjust. With the introduction of new tools and methods, the other skills may become irrelevant in a short period of time and leave knowledge gaps in the more recent systems required for its functioning. For example, the logistics companies use Boston Dynamics robots to pick up and arrange the goods in the warehouse which will make it easier for the workers because they do not need many people to lift heavy goods. As a result, employees will always feel fear of losing a job which causes them to resist change since they feel that at any time their services are no longer needed in the businesses due to the replacement of new technology.

Complacent With Current

The last factor causing employee resistance is **employee complacent with the current** in which interfere with knowledge retention. It can be said that, in most organisations there will be more older generation rather than younger generation in which they have more experience. So those with more experience are used to the traditional ways and become complacent with current processes. Consequently, it will hinder digital transformation because their mindset often arises from satisfaction with the status quo, a reluctance to leave comfort zones, or scepticism about the necessity for change. For example, back in the days the process of delivery of a parcel usually utilised a manual process whereby details of the recipient is usually taken down on a piece of paper. However, the process has changed whereby the delivery man just needs to scan the parcel barcode and take a picture as a proof of delivering the parcel. This process has become much easier and reliable as it adapts to the technological advancement as well the demands of customers.

SOLUTIONS AND IMPLEMENTATION CONSIDERED

To resolve the root causes of employee resistance the organisations can implement **Kotter's 8 Steps Change Model**. By implementing Kotter's 8 Steps Change Model will assist the companies on leading successful organisational change. To execute new DT like introducing the use of AI in the logistics sector where most employees will resist to change since some days with the use of AI might cause reduction in job opportunities and can create chances for employers to lay off their workers. Here are the implementing steps of Kotter's 8 Steps Change Model:

Step 1: Create a Sense of Urgency.

The logistics company can **create a sense of urgency** where it can encourage the entire organisation to take the changes seriously as people tend to follow when the leader shows decisive characteristics. The reason why the organisations should create the sense of urgency is because to focus on key changes in order to motivate employees to act quickly and actively involved in the changes made by organisations. In logistics sectors, the organisations must create a sense of urgency especially when dealing with digital transformation such as AI because not everyone will agree with the usage of technologies in the task and not all logistics organisations are up-to-date. Thus, it is necessary for organisations to put pressure on their employees to use digital transformation so that they will not fall behind their competitors in adopting advanced technologies.

Step 2: Build a Guiding Coalition.

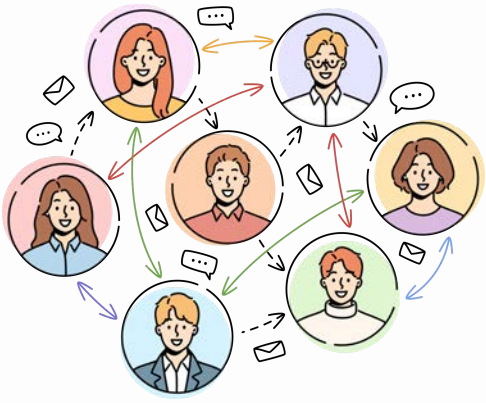
The next step is to **build a guiding coalition** because it will build trust when there is someone that they trust to drive it forwards and lead the changes especially in a team. To build trust between employees and organisations, the leader who leads the changes must have characteristics like good morals and knowledge. For example, in one group there must be managers from a variety of departments including operations, IT and supply chain to brainstorming and share their perspective. Consequently, it can build trust between employees and leaders since in that main teams have someone that they feel worthy to trust.

Step 3: Form a Strategic Vision.

In order to reduce employee resistance, the organisation must **establish a clear vision and outlines**. So that they can accomplish their aims to make technological changes in the logistics sector. Having a clear vision will not only lead them to follow the right path in order to implement new digital transformation in the logistics industry but also showing how technologies such as IoT and AI will improve efficiency and reduce human error which will improve customer satisfaction. To do so, the organisation must furnish a detailed plan that includes milestones, a timeline, and quantifiable targets which will lead the organisation to achieve their objective.

Step 4: Communicating the Change of Vision.

Besides, it is crucial for the organisations to **communicate when making changes**. This is because either employee or employer, both will have the same vision so by consistently sharing the vision will explain the purpose and advantages of the change to everyone. The organisations need to create multiple communication channels to make it possible for two way communication especially when the organisation has large numbers of employees as sometimes some of the employees will miss out the information or misunderstand the information given due to lack of communication especially when they are in a team. For these purposes the organisations can make a few selection of communication tools like open discussions, suggestion box, regular meeting and surveys, even Q&a sessions during town hall. So that the employees have the option to submit their views, critics or opinions via both official and unofficial channels particularly when inventing new digital technologies.



Step 5: Remove Barriers to Action.

Furthermore, the organisation can **remove barriers to action** in order to remove obstacles that hinder change and enable employees to take ownership of the process. The organisation can equip the employees with the required resources such as training and development programs and also user-friendly digital tools so that it will help employees to adjust easily. Other than that, the organisation must recognize and deal with resistance through more open communication and through the addressing of role related anxieties because without good communication will affect employees since they might misunderstand the instructions given. By consistently communicating with employees will help to emphasise that it is imperative to effectively distribute information in one channel. So that no one will fall behind on new information.

Step 6: Accomplish Short-Term Wins.

In order to build momentum and value the employees commitment the organisation can **make a quick celebration** so that it can motivate employees more in achieving goals and show gratitude to the changes that have been made. The organisation can show their gratitude when achieving something such as by implementing digital tools that show improvement in specific areas like the operations department displaying their achievement by lessening the number of errors made throughout the business activities. As a result it will motivate others to make efforts by showing their improvement.

Step 7: Built on the Change.

Creating short-term wins will aid organisations to **built on the momentum**. The organisation should keep on built momentum in order to grow the usage of digital solutions in the other parts of the organisation, such as instruments of route optimization or predictive analytics for demand forecasting. Collecting employee views on a continuous basis will ensure and maintain a sustainable process. As a result the changes keep moving forward in the right path.

Step 8: Make a Change Stick.

The last step to reduce employee resistance is when the organisation has made decisions to make changes in technology especially in the logistics sector, the organisations should ensure that the **changes made are permanent** in which it must be set with its core values and practices. This is because it is not easy for the changes to be made in the logistics sector specifically for digital transformation since it will involve many parties. Even if one party did not cooperate to stick with changes it will cause ripple effects since if one department collapses another one will also follow. As a result the business activity will be interrupted. To ensure that the changes stick, the logistics organisations must frequently train the employees to adapt with digital systems as the technologies will transform from time to time and the organisations can reward the employees on the improvement made.

CONCLUSION

In conclusion, factors such as lack of employee engagement, lack of information with regard to the changes, fear of losing the job and complacent current should be considered and taken into account as without any measures it can disrupt productivity of the organisations in order to face technological uncertainty within organisations. Solution like implementing change management like Kotter's 8 steps change may help the organisation to face challenges but it might be a short term situation as digital technologies change from time to time. Besides, it is necessary to keep a focus on knowledge management, since intelligent machines, built on AI and Machine Learning, are changing the ways of knowledge production and exchange within organisations since it becomes essential for the business to survive by enhancing competition in order to have advantages over the competitors. Therefore, it is important to have ethical leadership for long term success and sustainability as employees will follow leaders that have good morals and knowledge so that it will help organisations to build a workplace that values transparency, collaboration and inclusion in which every employee feels safe to express their thoughts.

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Nur Nadhirah Binti Idris is a girl who is introverted but at the same time she enjoys reading manga and watching anime. Sometime during her free time, she will bake some dessert. With her background from Bachelor Degree in Business Admin (Hons.) Transport and experience in internship at Panasonic Manufacturing Malaysia Berhad then she decided to pursue her studies in MBA at Arshad Ayub Graduate Business School as she felt that with the knowledge gained from masters will help to build her skills. Nadhirah believes that pursuing an MBA will give her more opportunities in job selection and make more connections with others.

Section 2

Knowledge Management: Technological Perspectives

ADDRESSING LOW TECHNOLOGY ADOPTION IN MALAYSIAN AGRICULTURE: THE POWER OF KNOWLEDGE MANAGEMENT

BY: NUR BATRISYA BINTI MOHD ZAMRIZAMAN

BACKGROUND OF INDUSTRY

Agriculture in Malaysia serves as a backbone to the economy of the country, the sector provides a mainstay to the rural areas and contributes remarkably to the Gross Domestic Product (GDP) of the nation (Department of Statistics Malaysia, 2022). The agricultural industry embraces different fields of activities, including oil palm, rubber, rice, fruits, and vegetables, even though the most important export-oriented commodities among these are oil palm and rubber (Malaysian Palm Oil Board, 2023). Recently, there has been an increase in the use of technology in agriculture to improve productivity and sustainability while tackling rising concerns such as labour shortages, climate change, and food security (Food and Agriculture Organisation, 2023). Precision agriculture, smart irrigation systems, drones, and IoT sensors are gradually revolutionising the agricultural sector, allowing farmers to make better decisions based on increased crop productivity (Zainuddin et al., 2021). While exciting, such advancements are only a few examples of how digital technologies have been unevenly adopted across the industry, posing obstacles to consistent growth in many agricultural industries (Ismail & Rahim, 2022).

PROBLEM STATEMENT

Despite the fact that technology may bring many benefits to Malaysia's agriculture, **rate of adoption is still low.** Usually, resistance to changes occurred due to conservative attitudes, especially among small-scale farmers who have insufficient awareness and confidence to adopt such sophisticated technologies (Ismail & Rahim, 2022). Most of them in the sector are **hitched to traditional methods**, which feel more comfortable and dependable than the envisioned complexities of machinery in agriculture. In addition, **the costs and lack of technical support** discouraging the implementation of advancements such as Internet of Things (IoT) sensors and precise agricultural machinery due to the financial investment and training (Zainuddin et al., 2021). In this regard, such an attitude towards the application of new technologies has become a serious barrier to productivity and response in the face of constraints related to climate change and labor shortages (Food and Agriculture Organization, 2023). These scenarios helped to bring into focus the urgent need for finding practical solutions that could help smooth the way towards adoption of technology throughout the industry.

The adoption of technology in the agriculture sector of Malaysia is still low for many interlinked causes. One major barrier is the **conservative approach** of the small-scale farmers; they prefer traditional farming methods simply because they are comfortable with it and can rely on it. Farmers are uninformed and skeptical about applying IoT sensors and precision agriculture systems, which they feel are too complicated and fatal (Ismail & Rahim, 2022). Moreover, the **high costs of purchase and maintenance** of most of these modern equipment are beyond the reach of many people, especially smallholders with meager budgets. The problem is generally aggravated by the absence of technical support and training in that farm operators are usually not aware of the full application of these technologies or their troubleshooting techniques (Zainuddin et al., 2021). Besides that, the **misconceptions about potential benefits of technologies**, along with a lack of proper promotion and demonstration of practical benefits, facilitate further disincentives toward innovating solutions for farmers. All of these factors together impede productivity, sustainability, and resilience against the challenges presented by climate change and labor shortages (Food and Agriculture Organization, 2023).

PRACTICAL SOLUTIONS

The Technology Acceptance Model (TAM) can help to explain Malaysian agriculture's low technology adoption rate. According to this concept, two critical factors influence technology adoption: perceived usefulness (PU) and perceived ease of use (PEOU). PU is the degree to which people believe that using technology would improve their job performance. In incentives provided by the government, such as grants, tax breaks, and subsidies, besides reducing the financial burden, the tangible advantages of technology are more clearly shown to farmers, in increasing yield of crops and efficiency (Shamsudin et al., 2023). IoT sensors in agriculture comprise a wide range of real-time data: soil moisture, temperature, crop health-that is very useful for farmers to make informed decisions. This leads to increased production due to better utilization of resources like water and fertilizers, which in turn results in high output for agriculture. Drones, with their capability to monitor large agricultural fields efficiently, improve job performance and reduce time and human labor involved in manual scouting. Precision agriculture technologies use GPS and data analytics to maximize effectiveness by delivering precise, site-specific solutions to planting and irrigation. Collectively, the technologies make farming activities easier and more efficient, which is consistent with the key components of PU as stated by Davis in 1989. **Awareness campaigns** and case studies increase PU by highlighting real-life success stories that emerge from the profitability of tools such as IoT sensors and precision agriculture systems (Food and Agriculture Organisation, 2023). As a result, Public-Private Partnerships (PPP) provide on-farm demonstrations, allowing farmers to test how new technologies can improve their operations (Ismail & Rahim, 2022).

PEOU is defined as the degree to which technology is perceived as easy to learn and use**. The training and educational workshops,** arranged by colleges, NGOs, and agricultural institutions in Malaysia, are considered crucial to overcome shyness among farmers and to build up better technical awareness for developing PEOU (Zainuddin et al., 2021). This also makes attaining and integrating these technologies into farming relatively easy. Most IoT sensors come with interfaces that are easy to handle and understand, with clear instructions for those who will use them. Drones are fitted with intuitive controls and automated features that make it simple, even for a person with very poor technical skills, to operate. Most precision agriculture systems boast software that provides pictorial data analysis as well as flexible options that reduce decision-making burden. These attributes are consistent with elements of PEOU that illustrate how technologies are simple in use and adaptable. Davis 1989. Besides, the invention of more user-friendly tools according to the various scales of farming decreases the technological solution's complexity. **Establishing support networks**, such as helplines and online networks, creates a forum for ongoing support that can enable farmers to continually troubleshoot problems and learn from fellow farmers in a networked environment (Shamsudin et al., 2023). Combining traditional farming with more modern improvements in farming creates a hybrid strategy that connects familiarity with progress while reducing additional problems (Hamid et al., 2022). Other external elements that may influence the development of confidence and social acceptability of such technology in farming communities include the role of community leaders or social influencers (Food and Agriculture Organisation, 2023).

Solutions highlighted herein also align well with TAM, as they address PU and PEOU, and other external factors, like cultural compatibility and social influence, reduce barriers to adoption. Showing the benefit and simplifying the process of adoption will enhance the chance of advanced technologies being widely accepted in Malaysian agriculture

IMPLEMENTATION OF THE SOLUTION

Of the many proposed solutions to increase the adoption of low technology in Malaysian agriculture, a **multipronged approach** involving government incentives, thorough training, and community-driven initiatives seems most effective. Government incentives, such as grants, tax breaks, and subsidies, will directly reduce the financial burden of adopting advanced technologies, thus making them more accessible for small-scale farmers. Such incentives not only cut upfront costs, but also highlight the true benefits of equipment like IoT sensors and precision agriculture, increasing their perceived usefulness (Shamsudin et al., 2023). It is also accompanied by such incentives; targeted training programs and workshops by universities, NGOs, and agricultural organisations are critical to increasing farmers' technical knowledge and confidence, hence enhancing Perceived Ease of Use (Zainuddin et al., 2021). These programs ensure that farmers have the essential skills to operate and troubleshoot the technology.

On-farm demonstrations through PPPs make it possible for hands-on experiences, where farmers may experience the practicalities of innovations in real-world scenarios (Ismail & Rahim, 2022). Combining old ways of traditional farming with modern practices gives way to a hybrid approach that bridges familiarity with progress and further reduces apprehensions (Hamid et al., 2022). Furthermore, community leaders and influencers can help to develop trust and promote social acceptance in farming areas (Food and Agriculture Organisation, 2023). This comprehensive approach addresses financial, technical, and cultural constraints, enhancing the chance of widespread adoption of agricultural innovations in Malaysia.

CONCLUSION

In a nutshell, the low adoption of advanced agricultural technologies in Malaysia is chiefly due to various challenges, including lack of exposure, limited technical knowledge, and resistance from small-scale farmers. Fitting these issues requires comprehensive strategy integration, which includes incentives by the government, training programs, and community-driven initiatives. It will reduce the barriers to adopting the technology, increasing the perceived usefulness and ease of use of IoT sensors, drones, and precision agriculture through accessible demos and support networks. This will ensure the long-term growth, resilience, and productivity of the agriculture sector in Malaysia.

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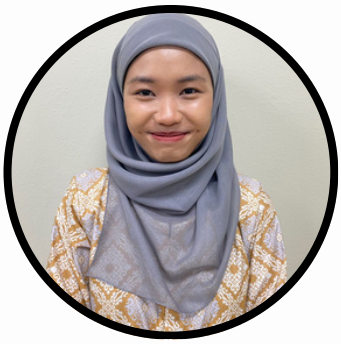

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Nur Batrisyia Binti Mohd Zamrizaman, Master in Business Administration candidate of Arshad Ayub Graduate Business School (AAGBS), known for her proactive participation in various activities. A Bachelor of Science (Hons.) in Biology graduate with internship experience at Forest Research Institute Malaysia (FRIM), adept at using advanced tools like CIRAS-3, LI-6800 Photosynthesis System, and Spectrum Soil Moisture. Also completed an AI Business Automation Workflow project titled Regression Data Summary: Demand for Food Delivery Services. Outside her profession, she's a cinephile of thriller movies on Netflix. She's attached to Spotify where she spends all her time singing along and appreciating the music.

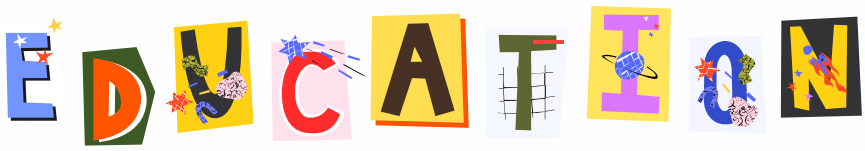
TOWARDS DIGITAL TRANSFORMATION AND IMPROVING KNOWLEDGE MANAGEMENT IN MALAYSIA'S SCHOOL EDUCATION SECTOR

BY: SYAHIDAH BINTI AHMAD

INTRODUCTION OF KNOWLEDGE MANAGEMENT IN SCHOOL EDUCATION SECTOR

The education industry such as school relies very much on the dependence of knowledge management (KM), which enhances the acquisition, transfer, and use of knowledge in order to improve the results of teaching and learning (Alavi & Leidner, 2001). KM methods are implemented so as to improve collaboration and to hasten access to important resources of educational institutions primarily in school. As a result, this will ensure that administrative staff, teachers, and students can all benefit from common sense, and best practices (Nonaka, 1994). Effective knowledge management in education demands an organized approach to bringing together, ordering and sharing knowledge generated by researchers and educators for further use (Davenport & Prusak, 1998). Technologies such as data repositories, learning management systems, and content management systems that contain abundance of instructional resources, research results, and instructional techniques are available to all schools and aid in this effort (Bélanger & Crossler, 2011).

Additionally, KM facilitates the education sector's ability to make data-driven decisions by providing tools that compile and analyze data on student achievement, course efficacy, and pedagogical tactics (Sälzer, 2018). Knowing this information is important in identifying effective teaching strategies, bridging knowledge gaps and making pointers for curricular adjustments (Baker, 2016). In addition, KM fosters professional development through supporting communities of practice where educators share resources, and, ideas, and insights (Wenger, 1998). As a whole, it will improve the instruction and alter the teaching strategies according to the demands of the students (Hattie, 2009). Simply put, knowledge management in education leads to a culture that encourages sharing and use of information, institutional memory, and continual learning, which all together create a more flexible, creative, learning environment (Desouza & Paquette, 2011).



The digital transformation in the school involves using contemporary technological tools for teaching and learning such as elearning platforms, Artificial Intelligence (AI), virtual classrooms and data analytics (Rosenberg, 2001). This shift reimagines traditional education by offering individualized learning pathways, providing remote access to instructional resources, and increasing student engagement through immersive and interactive experiences such as gamification, augmented reality and virtual reality (Johnson et al., 2016). Real time data analysis allows to track students' development and to learn where students may need to improve, while digital tools also enhance the cooperation between parents, teachers and students (Siemens, 2005). Ultimately, the digital revolution in education creates even better learning arrangements, diversity and flexibility (Selwyn, 2016).

Since the adoption of AI, the educational sector has witnessed amazing advancement in personalized learning efficiency and accessibility (Luckin et al., 2016). AI based solutions analysis student data to develop personalized learning plans based on students' different learning preferences and speeds, thereby creating personalized educational experiences (Holmes et al., 2019). Automated grading, intelligent tutoring systems, and adaptive learning platforms are being implemented that are reducing their administrative burden so that teachers can spend more time teaching and mentoring (Anderson & Rainie, 2018). AI improves student support, though, thanks to virtual assistants and instant feedback, the flexibility and accessibility of education extends (Goyal & Gupta, 2021). Moreover, AI analytics can also allow you to detect trends in student performance and quickly intervene to make better decisions to enhance learning results (Caldwell et al., 2016). Finally, using AI in education makes education an efficient, student centered, and data driven institution (Baker et al., 2021)

Malaysia also saw a leap in the use of AI powered platforms for distance education, during the COVID 19 pandemic (Shah et al., 2021). Open University Malaysia (OUM) for example, has used the aid of AI in monitoring remotely the student obeying, giving virtual classes, individual tutoring, etc (Nor Azian & Tharmalingam, 2021). Artificially driven data enabled teachers to identify pupils at risk of falling behind and arrange the appropriate intervention. However, the quick change was revealing gaps in teachers' and students' digital literacy, some of whom struggle with using these new resources (Shaffril et al., 2020). This experience revealed that AI technologies are being adopted on their own, leaving little room for user feedback, and came with the need for better training and help when adopting AI technologies to ensure future successful adoption and flexibility in case of future distant education scenarios (Hamzah & Karim, 2021).

Malaysia’s primary and secondary education systems are already using AI driven adaptive learning platforms to provide individualized instruction with a twist – the learning platform adjusts to meet each student’s unique learning preference and speed (Soh & Ibrahim, 2020). Real time analytics programs like Malaysia's Ministry of Education Malaysia's "Smart Classroom" initiative is designed to bring AI powered platforms to public schools which allow teachers to better understand the development of the students (Ministry of Education Malaysia, 2021). For example, the incorporation of these platforms in a few urban schools has improved student engagement and learning outcomes. But in rural areas, where there is a lack of infrastructure, rural schools haven't been able to take advantage of these resources and as such the digital gap stands and the need for fair access to AI technologies in the spheres of education (Chong & Teoh, 2019).

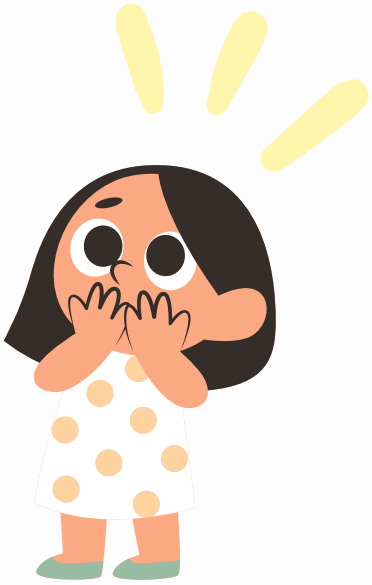
CHALLENGES OF DIGITAL TRANSFORMATION IN KM

A key barrier to implementing KM in educational institutions is that many institutions remain unclouded by technology as far as infrastructure and not moving fast enough to adopt KM systems (Alavi & Leidner, 2001). In underdeveloped nations, several educational institutions **may lack funds to invest** in the complete knowledge management (KM) platforms, or even the digital streaming infrastructure that is required for doing so which undermines their ability to efficiently gather, store and share the knowledge (Davenport & Prusak, 1998). For instance, while some of the universities in Malaysia have adopted AI and data analytics to the educational systems, many of the primary and secondary schools fall behind in putting into place these technologies owing to financial restraints or the lack of IT assistance (Hamzah & Karim, 2021). In addition, **outdated systems** are an issue related to the quick paces of technological advancement that make legacy tools unfit or incompatible with newer knowledge management systems (Davenport & Prusak, 1998). The existing technological disparity limits the effectiveness of knowledge management practices and impairs access to a number of distributed knowledge repositories in various systems (Nonaka & Takeuchi, 1995). Further, **lack of technical training** for educators and staff limits their ability to use knowledge management tools proficiently and results in a lack of engagement and underuse of all knowledge management practices (Bélanger & Crossler, 2011).

Different companies have taken on different projects at varying scales and scopes, this means that **the cost involved** in implementing AI in Malaysia **fluctuates heavily**. For instance, Microsoft announced previously that it will invest $2.2 billion over four years to build cloud and AI infrastructure in Malaysia — the company's largest commitment to date (The Wall Street Journal, 2020; Reuters, 2020). Eros Investments of India and its Immerso AI-IP division say they have plans to invest $1 billion to build an AI park and film studio in Malaysia, and create 5,000 jobs over the next five years (Reuters). This is just another indication of the investment tail these things are really going to require for real integration of AI. Evaluating AI expenditures for small and medium sized businesses (SMEs) tells a different story. There are significantly lower but important costs to cover both the AI software, hardware & specifically, training and maintenance. Whilst specific numbers for SMEs are not well documented, the Malaysian government has launched a number of incentives and subsidies (Mohammad & Harun, 2019).

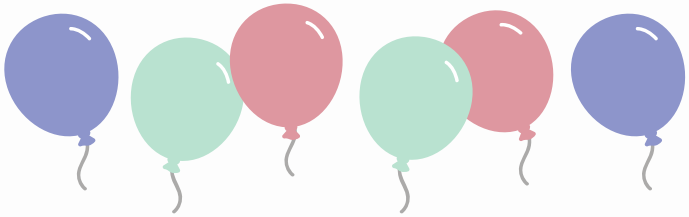
The SECI Model of Nonaka and Takeuchi embodies how crucial phases of the processes of Knowledge generation and sharing are interrupted in institutions of education by the presence of technology constraints and a lag in the adoptability of KM technologies (Nonaka & Takeuchi, 1995). There is a **shortage of sharing of tacit information** via real time digital communication during the socialization stage. The documentation and centralisation of explicit knowledge in an Externalized state is hindered by outdated systems (Nonaka, 1994. The Coherence in knowledge resource organization at the combination stage is limited by inadequate legacy system integration (Davenport & Prusak, 1998). Finally, trainers are not sufficiently trained to help teachers and students apply knowledge during internalization, which mar learning objectives (Wenger, 1998). These technological gaps diminish the institution's capacity to innovate and disseminate knowledge, and also erode the continual flow of knowledge generation (Desouza & Paquette, 2011).

Digital transformation plays a major role in Knowledge management (KM) as it enhances the effectiveness, efficiency and accessibility of knowledge stock and share. The seamless acquisition, organization, and dissemination of information by educational institutions and other organizations using cutting edge digital tools and platforms enable real time access to important knowledge resources across locations (Rosenberg, 2001). With artificial intelligence (AI) and data analytics, you have predictive insights, adaptive learning and personalized knowledge paths that support better decisions and continued growth (Luckin et al., 2016). Through digital transformation, including tools such as cloud storage, communication apps and collaborative platforms, it **promotes a collaborative i**nformation management environment by breaking down departmental silos and boosting departmental knowledge sharing. This shift also requires strong investment, training, and ongoing adaptivity to overcome technological obstacles and fully take advantage of digital knowledge management initiatives (Siemens, 2005). By doing so we'll ensure that knowledge is still available, useful, and usable in fast changing organizational environments (Bélanger & Crossler, 2011).



The legal restrictions, outdated tools and the unwillingness to change all work together to impede innovation in educational institutions during the knowledge creation stage (Baker, 2016). **Reduced opportunities** to develop and execute new ideas come into play when employees are reluctant to adopt new technology or when regulations tie the utilization of data (Shaffril et al., 2020). Moreover, outdated tools prevent scientists from doing their job: they simultaneously constrain their experimental and collaborative abilities, which are crucial for the ultimate innovation. Along similar lines, knowledge acquisition is thwarted by language obstacles and slowness in technology adoption. Without modern knowledge management (KM) systems, institutions have difficulty collecting and organizing information in a timely manner, and linguistic cleavages in multicultural or multilingual teams often result in miscommunications that prevent easy accessibility and free knowledge flow (Alavi & Leidner, 2001).

All of the **cultural and communication hurdles**, **lack of enabling policies** and **culture of information sharing** have an equal impact on knowledge sharing and knowledge retention (Sälzer, 2018). Silos are created from communication breakdowns and constrictive organizational cultures that prevent departmental cooperation and knowledge sharing. During the knowledge retention phase, without knowledge preservation rules or incentives institutions stand a greater risk to lose critical insights when their employees leave, eroding the organizational memory (Desouza & Paquette, 2011). Without a culture, to promote knowledge exchange, it becomes an essential knowledge that goes undocumented and consequently deplete the important institutional knowledge and affects the organization's growth and continuity (Wenger, 1998).



PROBLEMS OF ADOPTION DIGITAL TRANSFORMATION IN KM

However, in Malaysia's education industry, there are considerable obstacles attributable to technological constraints and the slow uptake of Knowledge Management (KM) solutions particularly for rural institutions. Despite government interest in encouraging digitalization, **inadequate infrastructure and slow implementation** result in poor knowledge sharing and learning outcomes (Ministry of Education Malaysia, 2021). A 2021 assessment by the Ministry of Education showed that only over 33 percent of schools have consistently high speed internet connectivity, and the difference between urban and rural areas is wide (Ministry of Education Malaysia, 2021). But, policies such as the Digital Economy Blueprint and Industry 4WRD focus on digital transformation, but give industry sectors an upper hand over education; an approach that impedes the spread of knowledge management (Malaysian Communications and Multimedia Commission, 2020).

The problem is **integrating KM tools** and parents and teachers often have difficulties in facilitating the integration. However, many teachers indicate they have low IT confidence and over 40% say they struggle to integrate digital technology into the classroom, and while many parents voice concerns about how data privacy and increased screen time for children will affect learning outcomes (Tan & Karim, 2020). Money is a second difficulty, in particular for smaller organizations, relying on government grants or funding, which may not be sufficient to meet the costs of KM implementation (Mohammad & Harun, 2019). Though MDEC provides funds and offers incentives to adopt digitization, it often springs on STEM and pilot projects when, in reality, it should have taken all necessary steps to put proper knowledge management strategies in place (MDEC, 2020). More focused policies, financing and training are needed to establish an inclusive, knowledge driven learning environment throughout Malaysia.

CONCLUSIONS AND RECOMMENDATIONS

This study concludes that in order to create a knowledge rich, creative learning environment, it is imperative to overcome the technology constraints and the delayed adoption of Knowledge Management (KM) tools in Malaysia's education system in order to benefit students from all the regions. While the government is working hard to promote digitalization through the likes of the Digital Economy Blueprint, there is grossly unequal progress, particularly for smaller institutions and rural schools faced with crippling infrastructure and financial constraints. Without current accessible KM technologies, the education sector risks preserving learning outcome disparities and making knowledge transmission between instructors, students and parents less effective.

To deal with these problems, the government and educational agencies are advised to place priority in funding digital infrastructure for deprived areas to ensure fair knowledge management resources access for urban and rural schools. In addition, focused training sessions will also teach teachers the skills and confidence they need to use KM tools and digital literacy successfully in the classroom. This would further enhance the digital transformation sector, amid increased partnerships with private technology providers and the coverage of funds from Malaysian Digital Economy Corporation (MDEC) to include comprehensive knowledge management (KM) systems for all subjects, not only STEM. Finally, increased parent involvement and parent education initiatives emphasizing the benefits of digital learning and knowledge management systems can eliminate privacy concerns and cultivate a culture of collaboration and information sharing within the school community.

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Syahidah Ahmad is a person who thrives on adventure, with a deep love for camping. For her, the beach is more than just a place, it's where she reconnects with nature, refreshes her mind, and embraces the calm energy of the sea. Professionally, Syahidah is currently furthering her studies with a Master in Business Administration while working as a Project Engineer in the food manufacturing industry. This combination of work and study allows her to grow both personally and professionally, constantly seeking opportunities for improvement. Syahidah's personal motto, "Choose courage over comfort," reflects her belief in the importance of stepping out of her comfort zone to achieve personal growth. She believes that true growth happens when we challenge ourselves to take risks and embrace the unknown, and she tries to live this philosophy every day in both my academic and professional endeavors.

Section 3

Knowledge Management: Challenges on Information Overload

COMPANY A: TACKLING INFORMATION OVERLOAD

BY: ANIQ AIMAN BIN IMRAN

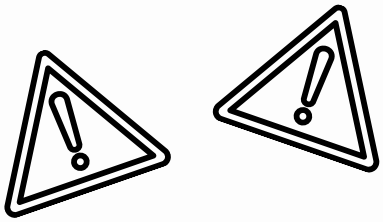
SUMMARY

This case study looks at how Company A, a Malaysian EdTech startup, dealt with information overload during its fast growth. With a small core team and a reliance on temporary interns, the company had workflow irregularities, client dissatisfaction and inefficiencies due to a lack of standard operating procedures (SOPs) and a decentralized data system. To solve these challenges, the company utilized several knowledge management solutions. These included developing standard operating procedures (SOPs), implementing a centralized ticketing system, prioritizing high-value projects through a development pipeline, and nurturing talent through structured training. These measures increased operational efficiency, simplified client communication, and decreased reliance on manual processes (Nonaka & Takeuchi, 1995). The study emphasizes the importance of structured knowledge management and ethical leadership in sustaining long-term growth in a highly competitive EdTech industry. This instance provides useful information for other small enterprises facing similar operational issues.

COMPANY BACKGROUND

Company A is a Malaysia-based EdTech software firm specializing in streamlining administrative processes for early childhood education facilities like kindergartens and nurseries. Working in one of the fastest-growing areas, the EdTech business, the company creates innovative technologies to improve the educational experience and improve processes for parents, teachers, and administrators (Stoddart, 2020). Company A uses its own app to manage two categories of data: parent-related information (e.g., registrations and school matching) and school-related data.

Despite its rising clientele and industry demand, the company employs only five full-time staff and primarily relies on interns. This employment strategy, along with a lack of standard operating procedures (SOPs), has resulted in inefficiencies, inaccuracies, and discrepancies in managing information and customer demands. The EdTech industry is distinguished by rapid technology innovation and increased competitiveness. Scaling operations while maintaining service quality has proven difficult for Company A, especially as client requirements become more complicated and frequent. These challenges underscore the importance of effective knowledge management strategies for promoting long-term growth (Davenport & Prusak, 1998).



DESCRIPTION OF THE ISSUE

Company A has faced considerable operational issues as it expands to satisfy the increased demand in the EdTech industry. The primary issue is information overload, which occurs when the volume of information exceeds the organization's processing capabilities (Eppler & Mengis, 2004). This difficulty is worsened by the company's reliance on a small team of full-time employees and the high turnover of interns, which results in constant onboarding and training requirements. Workflows are inconsistent without Standard Operating Procedures (SOPs) or organized documentation, resulting in inefficiencies and errors.

The company's reliance on manual processes, such as using WhatsApp and Slack to manage client communication, complicates operations. The absence of automation and integration between these tools leads to missing client insights, delayed replies, and operational bottlenecks. Furthermore, free software plans have restricted data retention capabilities, which adds to inefficiencies (Turban et al., 2011). A lack of centralized methods for tracking client feedback and requests has resulted in missed chances for service improvement, lowering customer satisfaction.

These issues have overwhelmed employees, made them rely on a single individual for training and feedback, and increased the risk of burnout. Workflow inefficiencies, overlapping goals, and unclear priorities have caused deadline delays and hampered the company's ability to grow efficiently. Addressing these difficulties has become critical for maintaining a competitive edge in the EdTech business and ensuring long-term success.

SOLUTIONS CONSIDERED

To address the operational inefficiencies and issues caused by information overload, Company A considered different knowledge management options. The first method was creating **Standard Operating Procedures (SOPs)** and extensive documentation for all important tasks. This would establish a standard foundation for procedures, speed up training, and eliminate errors caused by miscommunication as stated by Nonaka & Takeuchi (1995). The SOPs were designed to incorporate role definitions, communication procedures, and scenario-based rules to ensure consistency and structure throughout the business.

Another approach suggested **developing a centralized ticketing system** to handle client feedback and requests. The company might route requests based on category and priority by streamlining customer communications into platforms the client is familiar with, such as WhatsApp. It would shorten response times, eliminate duplicates, and encourage team collaboration. To address data retention difficulties, the company's Slack account was changed from a free plan to a subscription service, allowing you to track data for longer periods of time and interact more efficiently inside the organization (Turban et al., 2011).

The third option centered on **creating a strategic pipeline** to prioritize high-value initiatives and link them with team goals. By implementing a development plan, the organization was able to increase productivity, decrease project aim overlaps, and better manage resources (Davenport & Prusak, 1998). The pipeline also allowed the team to focus on customer-driven objectives, which improved service quality.

Finally, the corporation realized that it needed to **develop its own talent** to reduce its reliance on temporary interns. The company seeks to build a pool of long-term talent by developing standardized training materials, matching interns with experienced mentors, and fostering skill growth. It was also assumed that incorporating skilled interns into permanent positions would reduce turnover and the burden of ongoing onboarding (Stoddart, 2020).

These solutions were chosen because of their ability to reduce information overload, streamline procedures, and position the organization for long-term success. They tackled the underlying causes of inefficiency while increasing client happiness and employee productivity.

IMPLEMENTATION OF THE SOLUTION

The recommended solutions were carried out in a gradual and organized manner to ensure smooth integration to current operations. During the first phase, Company A concentrated on creating and implementing Standard Operating Procedures (SOPs). Each department established essential processes, developed sequential procedures, and included channels of communication for various scenarios. Subject matter experts assessed the SOPs for reliability and precision. Employees were given detailed briefings, and the finalized manuals were provided as reference guides. Regular feedback was gathered to help refine the SOPs, ensuring they remained relevant and practical (Nonaka & Takeuchi, 1995). This method greatly reduced training time, improved workflow consistency, and relieved the stress of regular intern turnover.

The second phase saw the implementation of a centralized ticketing system to manage customer interactions. The organization adapted WhatsApp to categorize and prioritize client requests and route them to the right departments. Additionally, Slack's premium features were used to create separate channels for bug tracking, sales, and support. Employees were instructed on how to use these technologies successfully, with a focus on systematic tracking and resolution of concerns. Regular monitoring and performance reviews were performed to guarantee that the system improved response times and client satisfaction (Turban et al., 2011).

In the third phase, a strategic development pipeline was implemented to match initiatives with the company's objectives and client needs. To make project execution easier, detailed deadlines, resource allocation, and progress-tracking systems were established. Regular team meetings were held to monitor progress, remove barriers, and incorporate comments, ensuring that goals were clear and attainable (Davenport & Prusak, 1998). This structured approach aided in prioritizing high-value tasks while also reducing inefficiencies caused by overlapping objectives.

The fourth phase centered on talent development. The organization identified skill shortages and used standardized training modules to optimize intern onboarding. Each intern was assigned a mentor for role-specific training and practical experience. To engage employees and promote continual learning, a progress tracking and reward system were implemented. Absorbing trained interns into permanent positions reduced reliance on temporary labour and boosted talent sustainability (Stoddart, 2020). By decentralizing knowledge and promoting mentorship, the organization reduced bottlenecks and increased production. Company A addressed operational inefficiencies and established the groundwork for long-term success by implementing these gradual changes. Each solution complemented the others, resulting in a unified system that improved internal procedures and increased client satisfaction. The implementation could be seen from the Gantt chart below.

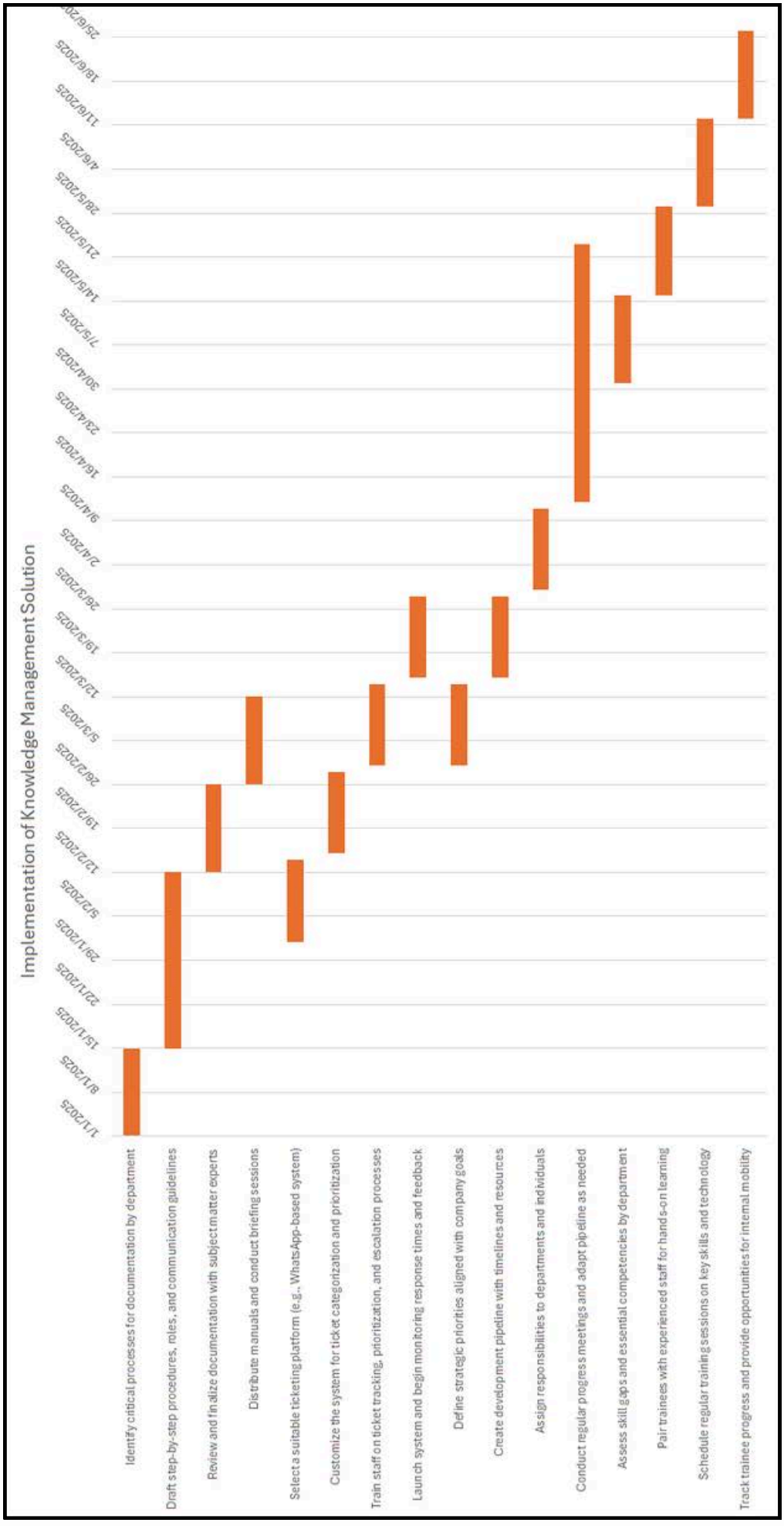


Figure 1.0: Example of Gantt chart

CONCLUSION

The case of Company A demonstrates how small, fast growing EdTech firms can overcome operational challenges caused by information overload by implementing strategic knowledge management strategies. The company standardized workflows by creating Standard Operating Procedures (SOPs), which accelerated training and reduced errors. Implementing a centralized ticketing system improved customer communication, response times, and overall satisfaction, while a structured development pipeline ensured that high-priority projects were completed swiftly. Furthermore, the emphasis on talent development through standardized training and mentorship programs helped to lessen reliance on temporary interns while also developing a long-term talent pipeline.

These initiatives boosted operational efficiency, improved service quality, and set the organization up for long-term success in a competitive industry (Nonaka & Takeuchi, 1995; Stoddart, 2020). The instance emphasizes the importance of established systems, ethical leadership, and collaborative cooperation in handling information overload and promoting corporate performance. Company A's example can provide significant insights for other small businesses facing similar issues, illustrating how intelligent knowledge management solutions can drive development and sustainability in a developing market.

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ABOUT THE AUTHOR

Aniq Aiman Imran moves through life as a quiet force—methodical, relentless, and deeply introspective. With a Bachelor's degree in Computer Science (Artificial Intelligence), he has carved out a path in the shadowed corridors of the tech world, serving as the Operations Manager of a startup. In his role, he confronts the inevitable entropy of systems and human endeavors, managing chaos while knowing it can never truly be tamed. Aniq's early career in backend development taught him a harsh truth: every structure, no matter how robust, contains the seeds of its collapse. This lesson shapes his approach to work and life—focused, yet resigned to the fragility of it all. Outside the office, Aniq turns to the solitary rituals of swimming, jogging, and cooking. These acts are not mere hobbies but escapes, moments where he wrestles with the weight of existence. In the quiet rhythm of these pursuits, he finds a fleeting reprieve, though the questions of purpose and permanence remain, ever lingering in the background.

COMBATING MISINFORMATION THROUGH EFFECTIVE KNOWLEDGE MANAGEMENT

BY: NURHIDAYAH FITIAH BINTI ELFFENDI

BACKGROUND

Digital and social media marketing has evolved into a sophisticated domain where experts emphasize the critical interplay between electronic word-of-mouth (eWOM), artificial intelligence integration, mobile marketing strategies, and customer engagement paradigms (Dwivedi et al., 2020). Companies now rely heavily on various marketing channels, including social media, online advertising, and influencer collaborations, to reach and engage with their target audience. As marketers must maintain between leveraging multi-platform opportunities and managing potential risks, particularly regarding negative feedback that can rapidly amplify across digital channels.

The digital age has also changed how consumers make decisions in an interesting way. While the internet makes it easier for people to find information about products and services, it also makes decision-making more complicated. Nowaday, people can quickly search online for reviews, prices, and product details, which seems helpful at first. However, there's so much information available that it becomes difficult to know what's true and what's not. It's like having access to hundreds of opinions but not knowing which ones to trust. So while finding information is simpler than ever, making sure that information is reliable has become a bigger challenge. This means that even though consumers have more power through easy access to information, they might actually find it harder to make confident decisions because they need to filter through so much potentially misleading or incorrect information.

CURRENT ISSUE

Have you ever experienced a situation in your family WhatsApp group where an elderly family member shares medical misinformation, such as false claims about COVID-19 vaccines being harmful to our bodies? False information circulating on social media platforms has evolved into a significant challenge across society, particularly affecting businesses in retail and services. Some companies have experienced revenue losses when consumers spread misleading information about them through online networks (Bermes, 2021).

Real case of viral misinformation occurred on WhatsApp involving claims about Pepsi products being contaminated with HIV-infected blood. The circulated message included an image showing police officers escorting a handcuffed man, with text claiming the story was covered by Sky News. However, after fact-checking by 211 Check, this was proven to be entirely false news. This incident demonstrates how easily misinformation can spread through social media platforms.

Screenshot from the WhatsApp group describes the above situation.

This raises concerns among Pepsi consumers about the possibility of the Human Immunodeficiency Virus (HIV) being transmitted to them. For your information, HIV does not survive well outside the human body. The virus cannot spread through food or drinks, as several factors would neutralize it such as air exposure, cooking temperatures, and stomach acid would all destroy the virus. Even if food somehow contained traces of HIV-positive bodily fluids like blood or semen, these environmental conditions would render the virus inactive. Both the World Health Organization (WHO) and Centers for Disease Control and Prevention (CDC) have concluded, based on scientific research, that people cannot get HIV from consuming food or beverages.

Due to such fake news, customers' trust in brands can be severely damaged, and in worst-case scenarios, they might switch their preferences to substitute products. This case demonstrates how modern organizations must manage knowledge in an environment where information overload and fake news can rapidly impact business operations, requiring new approaches to information verification and crisis response.

ANALYZE THE ROOT CAUSES (PROBLEM)

1) Bad habit of sharing information without checking

In the era of social media, particularly TikTok, people increasingly rely on quick, visually appealing content for information, such as political, history, news and et cetera. This highlights a growing tendency towards passive consumption, where individuals prefer watching short videos. The appeal of TikTok and similar platforms lies in their ability to deliver fast, easily digestible content that requires little cognitive effort. People are drawn to the idea of learning something new in seconds, often without realizing the depth and context that might be missing. Unfortunately, this behavior leads to a dangerous habit of uncritically accepting and sharing information without verifying its accuracy or authenticity. The instant gratification of scrolling through bite-sized content encourages laziness in fact-checking, resulting in the rapid spread of potentially misleading or incorrect information across digital platforms.

2) Platform accountability for misinformation spread

The proliferation of communication channels and information sources, including emails, social media, and internal databases, has significantly impacted the way information is disseminated and accessed (Allcott & Gentzkow, 2017). The management approach of messaging platforms like Telegram regarding misinformation has raised significant concerns about their responsibility and accountability. Cybersecurity experts have highlighted significant weaknesses in Telegram's content moderation system compared to other social media and messaging platforms. Telegram's large group sizes of up to 200,000 members are seen as enabling the spread of misinformation, conspiracy theories, and other harmful content. False narratives can spread rapidly through the forwarding feature, reaching numerous groups and channels within minutes. The ability to create anonymous channels further complicates accountability, as sources of misinformation can remain hidden. The platform's structure allows content to be amplified quickly through its network of interconnected groups and channels, making it difficult to contain false information once it begins circulating.

3) Gaps in Malaysia's fact-checking infrastructure and capabilities

In Malaysia, fact-checking remains a critical challenge, with the country struggling to keep pace with global misinformation trends compared to the Philippines and Indonesia. Rapid digitalization and technological advancements leading to exponential growth in data generation (Dhillon & Moncur, 2023). Despite establishing **SEBENARNYA.MY**, a government-led online fact-checking platform, Malaysia continues to face challenges with tools for effective fact-checking. The lack of robust and reliable fact-checking mechanisms in Malaysia has made the country susceptible to misinformation and disinformation. Despite evidence showing the effectiveness of independent fact-checking agencies in combating the spread of false information, this gap in Malaysia has drawn criticism (Jalli et al., 2024). The current landscape reveals a significant gap in Malaysia's ability to combat fake news compared to international counterparts, underscoring the urgent need for more comprehensive training, infrastructure development, and digital literacy initiatives to address the growing challenge of misinformation in the digital age. Lack of digital literacy and information filtering skills among employees is a significant concern in the modern workplace (López et al., 2023).

SOLUTIONS

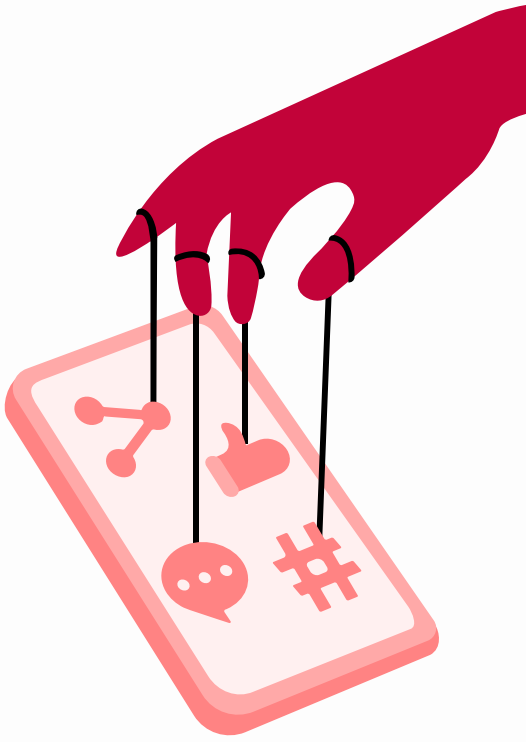
As an individual or employee in an organization, we need to play a role by enhancing critical thinking. Developing **critical thinking** skills to evaluate information sources and content before sharing, rather than passively consuming and forwarding unverified claims. This includes recognizing the difference between an opinion piece and a factual news report, or understanding the mechanics of how viral content is often engineered to provoke emotional reactions. We should also encourage a workplace culture that values evidence-based decision making and discourages the casual sharing of unsubstantiated information. This can help break the habit of uncritical acceptance and rapid sharing of potentially misleading information.

An organization that needs **effective content** moderation requires a comprehensive and well-defined set of policies to address various types of harmful, illegal, or misleading content. Telegram and similar platforms need to strengthen their content moderation systems to better detect and remove misinformation, conspiracy theories, and other harmful content. This could involve leveraging advanced natural language processing and machine learning techniques, as well as expanding their team of human moderators.

The government should establish an independent, non-partisan fact-checking body that can provide significant benefits for businesses as well, not just focus on fact-checking about politicians. Fact-checking can help identify and address misinformation that could potentially harm a company's reputation or lead to unnecessary legal and financial risks. The fact-checking body should collaborate with experts from various fields and implement robust knowledge management practices. This can involve documenting case studies, identifying patterns, and developing best practices to continuously improve their processes.

CONCLUSION

Knowledge management refers to the methods and processes used by organizations to identify, create, distribute, and enable the adoption of insights and experiences. It's a multidisciplinary approach aimed at achieving organizational objectives by leveraging knowledge. In this digital age, we must recognize that the proliferation of misinformation and fake news can have a significant impact on businesses. A single instance of misinformation or fake news, if left unchecked, can lead to serious problems for an organization. At the individual or employee level, there is a pressing need to develop critical thinking skills to evaluate information sources and content before sharing, rather than passively consuming and forwarding unverified claims. This can help break the habit of uncritical acceptance and rapid sharing of potentially misleading information. At the organizational level, companies must establish comprehensive content moderation policies and strengthen their content moderation systems to better detect and remove misinformation, conspiracy theories, and other harmful content. This could involve leveraging advanced technologies, as well as expanding their teams of human moderators to maintain oversight and accountability.



The important role of the government in establishing an independent, non-partisan fact-checking body that can collaborate with experts from various fields. This fact-checking initiative should implement robust knowledge management practices to continuously improve its processes, capture insights, and develop best practices. Such a comprehensive, multi-stakeholder approach can provide significant benefits for businesses as well, by helping to identify and address misinformation that could potentially harm their reputation or lead to unnecessary legal and financial risks. Success in today's business environment requires not only efficient information management but also ensuring information credibility and maintaining organizational integrity in an increasingly complex digital ecosystem where misinformation can spread rapidly across multiple platforms.

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ABOUT THE AUTHOR

Nurhidayah Fitiah Binti Elffendi is a dedicated MBA candidate at Universiti Teknologi MARA (UiTM), known for her strong foundation in international business and analytical prowess. With a Bachelor's degree in International Business and hands-on experience from her internship at Petronas, where she excelled in SAP training and cross-functional collaboration, Nurhidayah has developed a robust skill set in business management. Her academic projects and leadership roles, including serving as Vice President of the International Business Society, highlight her commitment to excellence and teamwork. Additionally, her international exposure from a student exchange program in Türkiye has enriched her global perspective. Outside of her professional and academic pursuits, Nurhidayah enjoys watching dramas and savoring quality coffee, reflecting her appreciation for storytelling and life's simple pleasures. Guided by the philosophy that "life is a journey, not a destination," she embraces each experience as an opportunity for growth and learning.

Section 4

Knowledge Management : Legal Perspectives

LEVERAGE ON IT AS CATALYST INNOVATION: THE IMPORTANCE OF IP IN GOVERNANCE THE BUSINESS FOR SMEs

BY: NURHAYATI BINTI ABDULLAH

INTRODUCTION

Fast-changing phenomena in technological advancement generate uncertainty for the business world today. The high-spirited competition between players in the industry needs a set of rules to regulate the economy. Rapid innovations fundamentally reshaped the landscape of Knowledge Management and Business Intelligence within organizations. It requires businesses to endorse agile and resilient KM. SMEs are demanded to be profound in the impact of IT as a catalyst to sustain growth and mitigate the risks associated with current trends. One of the problem-solving methods for the governance of the industry is through Intellectual Property rights. Malaysian's well-known brand, Sambal Nyet, is a compelling case to examine the role of Intellectual Property (IP) governance, Business Intelligence (BI), and Knowledge Management (KM), especially through the lens of leveraging IT as a catalyst for managing and protecting IP. An article from Bernama on April 26, 2024, intended to spread awareness of the importance of IP rights to business owners.

CASE STUDY BACKGROUND

Khairul once posted on his Instagram, "*Eight years ago, I filmed my first cooking video while sitting on the floor. Today, I have the privilege of sitting next to the Prime Minister of a renowned nation. Keep hustling, you'll be amazed at where life can take you.*" With this kind of statement, surely, we understand how successful his business has grown. It shows perseverance, hard work, and of course such a handful of capital to finance the business growth. However, those sweat, and tears have been disrespected by the unethical acts of irresponsible sellers. Khairul Amin Kamarulzaman, known as Khairul Aming, the brand's owner, has sent a demand letter for the infringement of intellectual property rights, warned a trader for imitating nearly 90 percent of the packaging of Sambal Nyet, which was introduced four years earlier. He started as a media influencer turned entrepreneur and has effectively used digital platforms for branding purposes. The widespread of Sambal Nyet's popularity has led to malicious tactics as numerous traders copying Sambal Nyet. Thank goodness, Sambal Nyet was registered as a trademark with the Intellectual Property Corporation of Malaysia (MyIPO) in November 2021. In the same year, Sambal Nyet became a success, with sales reportedly reaching RM33.5 million annually.

Intellectual Property Rights (IP) in Malaysia.

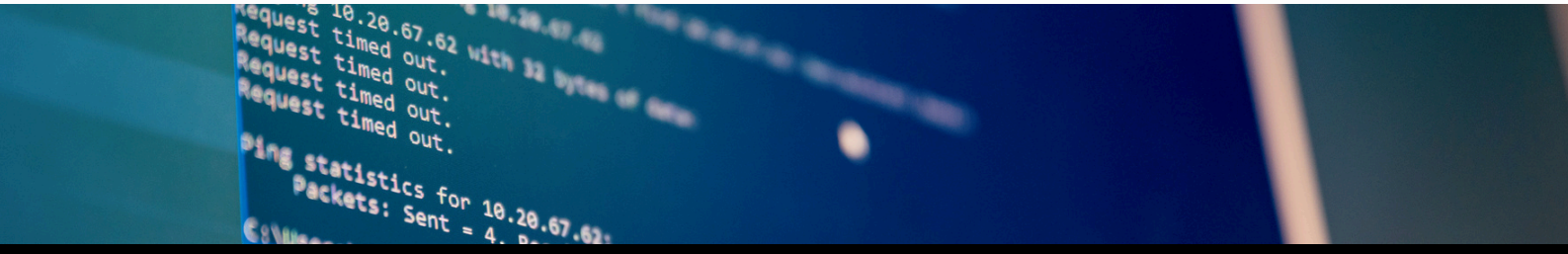
The evolution of IP rights management in Malaysia started in the 1980s. Pejabat Cap Dagangan dan Jaminhak was established, which later became the Intellectual Property Corporation of Malaysia, now known as the Malaysian Intellectual Property Office (MyIPO). Patents Act 1983, Copyright Act 1987, and Trademarks Act 1976 (Sagar, 2018) were developed to mandate various forms of IP protection. MyIPO's IP regulations support not only proprietary innovations and ideas but also contribute to effective BI by providing a legal framework that strengthens market differentiation and rivalry, including patents, copyrights, trademarks, and trade secrets. Based on the relevant legislation, an IP owner can file a civil suit in a High Court for infringement of any IP. The party concerned may have to compensate the IP owner if found guilty. The IP owners can also complain to the Ministry of Domestic Trade and Cost of Living. Criminal charges can also be pressed on infringers of trademarks and copyrights.

1. Trade Marks Act 1976 [Act 175]
2. Patents Act 1983 [Act 291]
3. Copyright Act 1987 [Act 332]
4. Industrial Designs Act 1996 [Act 552]
5. Layout-Designs of Integrated Circuits Act 2000 [Act 601]
6. Geographical Indications Act 2000 [Act 602]

Based on Sambal Nyet's case, this act has been applied to straighten the law; -
Trademarks Act 2019: This Act provides the legal framework for registering trademarks in Malaysia. It protects entrepreneurs' brand names, logos, and other identifying marks. For instance, registering the "Sambal Nyet" trademark protects Khairul Aming from brand infringement by competitors who may try to copy his branding. Malaysia's Intellectual Property Corporation (MyIPO) collaborates with the World Intellectual Property Organization (WIPO) to align Malaysia's IP policies with international standards, facilitating access to global IP protections. As a WIPO member, MyIPO adheres to key international treaties, such as the Patent Cooperation Treaty and the Madrid Protocol, enhancing IP enforcement and supporting Malaysia's innovation and economic goals.

Leveraging Information Technology (IT) as a Catalyst for SMEs.

With technological advancement, the government ensures that the economic sectors in Malaysia are well adapting to uncertainty and a fast-changing world. This is to ensure that Malaysian brands able to compete internationally and be accepted globally. Being the backbone of the Malaysian economy, SMEs account for 97.2% of total business establishments, generating 38.2% of GDP. This business scale has generated employing 7.3 million people all over the country. The government has supported this sector to boost the country's economy by providing various aid in overall aspects needed to business owners.



It is unavoidable for business owners nowadays to change the systems and culture as fast as they can to suit current trends in trading. To do so, they need to leverage Information Technology (IT) as a catalyst for innovation, especially in governing particularly within the context of BI and KM, which requires structured approaches that align best practices for entrepreneurs. Moreover, they need IT-driven governance in BI to build a systematic environment by having strong foundations in KM within the organization. The investment in IT as a catalyst for innovation refers to specific elements processes or strategic approaches to embrace development within the industry or organizations. IT will act as sparks that drive new concepts and stimulate transformative change. It aids in innovative conditions helps in experimentation, improves efficiency, and manages the resources before they open to market.

The risk of globalization has put the SMEs on their feet in preserving company data. The interchangeable information in the blink of an eye will require organizations to be intense in ensuring the information is shared with outsiders. The high competition had molded the business nature to hunt for all the valuable information firsthand. For SMEs lack of awareness in the care of their data. For example, cloud computing allows companies to scale IT resources quickly, accelerating the development and deployment of new digital services. AI-driven data analytics can enable better decision-making, which can lead to the creation of more effective products from the original ideas. SMEs must grasp the situation if sustainability is the long-term goal. They drive changes in processes, business models, and customer interactions which an important asset to the brand growth.

IT in governance frameworks enables the collection, storage, and organization of knowledge assets, which are essential for effective BI. In the KM context, these assets are structured to provide consistent, accurate information across the organization. IT systems such as Enterprise Resource Planning (ERP) and Document Management Systems (DMS) support structured data governance. With IT, it ensures that data is collected, categorized, and made accessible in compliance with organizational protocols, facilitating accurate analyses and supporting informed decision-making, improved organizational agility, and continuous innovation.

The challenge as a developing country is that many SMEs operate as trading companies. They don't focus on inventing unique products from scratch. Instead, they often engage in "rebranding" trends. This business model allows them to bypass the higher costs and resource investment typically needed for original product development. However, since they're not producing distinctive products, they may not feel a need to register intellectual property, as the IP value often lies with the original manufacturer. This dynamic can contribute to the lack of IP awareness or registration efforts among SMEs. Sadly, Malaysia is still deemed low on the awareness of the protection of the business recipe. The rebranding trend might be useful for making profits shorter time however when we see the economy, we are looking for sustainability and legacy.

The Importance of IP in Governance BI & KM for SMEs

Sambal Nyet is not the only case that has wide coverage in Malaysia. Previously, in 2017, The High Court ruled that Faiz Rice Sdn Bhd and its managing director, Fikri Abu Bakar, must pay RM4.16 million in damages to Syarikat Faiza Sdn Bhd, managed by Faiza Bawumi Sayed Ahmad, for copyright and trademark infringement. This lawsuit, filed by Faiza Bawumi and her company against Fikri and Faiz Rice, included charges of passing off goods using the plaintiff's trade name and unauthorized business interference. Faiz Rice was responsible for infringing six of Syarikat Faiza's rice brands: TAJ MAHAL, MOGHUL FAIZA BASMATHI, FAIZA, FAIZA RICE FOR LIFE, FAIZA EMAS, and the FAIZA logo. The damages comprise RM3.9 million for compensatory losses, RM100,000 for exemplary and aggravated damages, RM100,000 for loss of goodwill, and RM60,000 in statutory damages.

In a recent intellectual property case, Thaqwa (Malaysia) Sdn Bhd, a nasi kandar restaurant chain, agreed to pay RM221,773.20 to Measat Broadcast Systems Sdn Bhd, a subsidiary of Astro Malaysia Holdings Bhd, after unlawfully extending its pay-TV broadcast access to eight unauthorized locations. The Kuala Lumpur High Court facilitated the settlement via consent judgment, with Thaqwa committing to use its Astro subscription exclusively at approved sites and to uphold Astro's copyright and IP rights. This case is part of Astro's broader efforts to protect its intellectual property, following significant rulings against unauthorized broadcasting in commercial spaces. Additional recent enforcement actions included fines for individuals selling Android boxes preloaded with illegal Astro content in Ipoh and Seremban. These cases highlight Astro's commitment to combating digital piracy and enforcing subscription compliance.

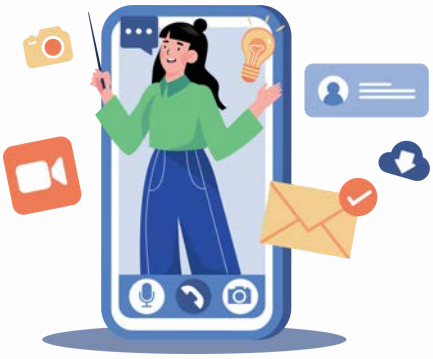
Business owners often don't register their intellectual property because they lack awareness of its importance. Many are simply not informed about the value IP protection can add to their business. Financial factors also play a role, as many SMEs operate primarily to sustain themselves and may not have the resources to invest in IP registration fees. This focus on survival in a competitive market often leaves little room in their budgets for additional expenses like IP protection. IP plays a crucial role in governance and knowledge management, as it provides a framework for protecting a company's unique information and intellectual assets. It helps in safeguarding unique data, knowledge, and strategies within an organization. IP also helps is the frontlines in maintaining the quality of the products. Most imitations and copycats products only repack or copying the labels. The piracy activity In a competitive corporate environment, having ownership rights over intellectual assets enables organizations to sustain their competitive edge and resilience. IP in KM ensures that innovations and knowledge within the organization are managed and shared systematically, without risking the loss of strategic value or the originality of information. IP ensures that critical information and innovations are protected from imitation, allowing organizations to optimize their knowledge resources without the risk of theft or unauthorized use. With IP in place, strategic information in BI and KM maintains its integrity and can be utilized more effectively in business decision-making. Exclusive rights to intellectual property are only attainable when the IP is registered or when proper protective measures are implemented, giving them a competitive advantage in the market.

For government authorities, IP promotes innovation by granting exclusive rights to creators and researchers, thereby contributing to national economic development. In terms of economies of scale, IP enables organizations to invest sustainably in R&D without concerns about unfair competition. In knowledge management, IP helps protect and commercialize knowledge, transforming it into an asset for organizational growth.

Create Healthy Competition Among Business Players

To increase innovations among inventors in Malaysia, the government has issued various aids and services to develop a structured creativity to boost the economy. However, the percentage of business owners to indulge themselves with IP as a business tool is still low. To encourage healthy competition among businesses in Malaysia, the government can make IP as a medium to govern KM and BI in few ways. These approaches can make IP a cornerstone of Malaysia's KM and BI infrastructure, ultimately encouraging fair competition, innovation, and sustained economic growth.

1. **Implementing IP awareness program**s to educate businesses on the strategic value of IP in innovation and competitiveness can encourage companies to develop unique products, services, and processes. Training provided to understand IP law and KM practices can be delivered through partnerships with MyIPO and WIPO. It helps businesses to understand how IP rights can be an asset in managing knowledge effectively and gaining market insights. This also a way to Mold the business owners to be more ethical in handling their business by respecting others genuine ideas.
2. **IP as a foundation for long-term competitive advantage** by offering tax incentives, grants, or funding for companies that create, register, or license IP can motivate more businesses to innovate responsibly. These incentives could target sectors with high potential for KM and BI, such as technology, biotech, and manufacturing.
3. **Establishing industry-specific IP and knowledge-sharing platforms**, where companies can collaborate on non-core competitive areas while respecting IP rights, could enhance access to BI and KM resources. These hubs can be particularly beneficial for SMEs, providing a legal and controlled environment for sharing best practices and industry data without compromising proprietary knowledge.



4. **Ensuring robust IP enforcement protects companies** that invest in innovation from unauthorized use or imitation of their IP. This creates a level playing field, where businesses are being paid to compete based on quality and creativity rather than copying others, thereby fostering a healthy competitive landscape. Law needs to be enforced with stricter regulation by authorize body.

5. **The government can integrate IP as a core element in Malaysia's BI and KM policies,** supporting data collection and analytics initiatives that help businesses make informed, competitive decisions. By encouraging companies to leverage their IP in BI strategies, the government can help businesses stay agile and responsive to market trends. It also helps the company to monitor the progress of the business in systematic way and legally.

6. Promoting open innovation initiatives with clear IP governance guidelines can help companies work together on projects that benefit from shared knowledge, such as joint R&D, while still retaining their competitive IP. This can be facilitated by standardized IP agreements that protect each party's IP interests, thus boosting innovation and collective learning across industries.

CONCLUSION

Patents and copyrights protect businesses in terms of legal security and strategic planning in innovation creation. Furthermore, the benefits of this governance support Malaysia's economic resilience. The IT as a catalyst, IP dominataes innovations by play a major role in transforming business and encouraging progress. They initiate new ideas and help create frameworks and environments where creativity can grow. For instance, in Knowledge Management, laws in Intellectual Property embrace knowledge sharing and inspire further variation. The requirement of the inventors to disclose technical details to the public in exchange for exclusive rights creates an information repository that boosts industry-wide advancement and abreast decision-making in Business Intelligence practice.

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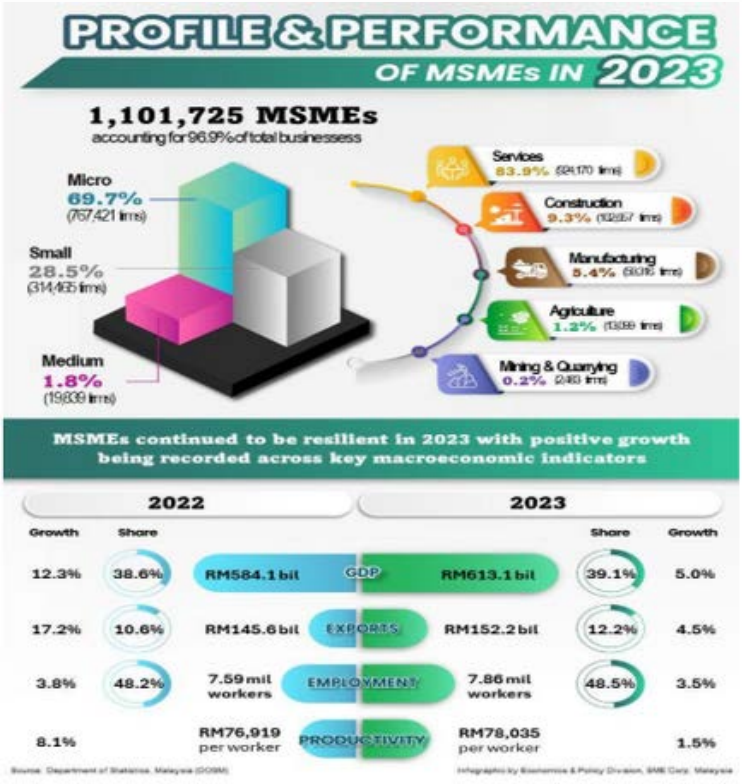

Index 1.: Profile and Performance of MSMEs in 2023

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Nurhayaty Binti Abdullah is deeply passionate about travel and cultural exploration, constantly seeking new adventures and experiences. Travel has broadened her perspectives and forged connections with diverse individuals worldwide, enriching both personal and professional growth. As a former sportswoman, Hayaty honed discipline, resilience, and teamwork, which continue to influence her approach to challenges. Her enthusiasm for outdoor activities keeps her physically active and fosters a profound appreciation for nature's vitality. Driven by ambition and experience, Hayaty is committed to advancing in the fields of Operations Management and Education. She is focused on developing her expertise and skills in AAGBS, UiTM Shah Alam, as an MBA student, to contribute to the knowledge, efficiency, and success of organizations while striving to make a meaningful impact in the business world.

CUSTOMER DATA PRIVACY IN KNOWLEDGE MANAGEMENT: NAVIGATING LEGAL COMPLEXITIES

BY: AISAAH BINTI ABD. TALIB

INTRODUCTION

Knowledge Management (KM) is one of the crucial processes in the data-driven world, enabling innovation and decision-making for organizations. On the one hand, customer integration might be an outside in approach where different customer data is pulled into KM systems which may pose several challenges with respect to data privacy and regulatory compliance such as General Data Protection Regulation (GDPR) regulation for Europe or Malaysia's Personal Data Protection Act (PDPA). Organizations can face serious legal and financial repercussions, as well as reputational damage that erodes trust in the brand due to breaches of data privacy policies. The paper discusses the legal complications involved in managing customer data as a part of KM and its interaction with data privacy laws, features case studies on Meta, Google, and Apple along with first-mover experiences with the risks associated with the failure to maintain sovereignty over personal information to provide recommendations for organizations to deal effectively with such issues.

KNOWLEDGE MANAGEMENT IN PERSPECTIVE

The role of Knowledge Management (KM) is to enhance organizational performance in a few different domains. According to Nonaka and Takeuchi (1995), a good KM promotes innovation and competitive advantage through timely knowledge that enables teams to adjust product development in response to changing market requirements. KM improves decision making by enabling access to accurate information, thus aiding data-driven strategies and operational agility (Lee & Chan, 2021).

Furthermore, fast and efficient KM processes are known to increase operational efficiency by eliminating redundancy oriented towards providing a timely response to customers including the ability of the organization to competitively interact with customer queries subsequently leading to employee satisfaction (Maraqa, 2019). Moreover, Maraqa points out that KM is essential for establishing an organizational way of learning and retaining knowledge; organized practices to share knowledge help safeguard important information which minimizes the chance of losing knowledge due to replacing personnel.

All together, these perspectives highlight the importance of effective KM systems in terms of ensuring innovation and organizational decision making and efficiency so that organizations can capture a competitive edge enabling them to fulfill the demands from constantly changing business world.

KM, which can be defined as the process of capturing, sharing and effective use of organizational knowledge as a source for driving innovation, enhancing operational efficiency and facilitating data driven decisions to ensure better customer service through deployment of proprietary knowledge from within an organization and also for more streamlined internal processes (Maraqa, 2019; Lee & Chan, 2021), is considered to be playing a crucial role for organizations. But, with the use of Customer Data and increment in it KM systems have a high level of privacy concern this is off late become a unique challenge as regulatory requirements are prominent. This means that nowadays with regards privacy, effective KM necessitates a compromise between using knowledge and applying privacy safeguards (Xu et al., 2020).

LEGAL FRAMEWORKS IN CUSTOMER DATA PRIVACY

The General Data Protection Regulation (GDPR)

Formulated in 2018, the GDPR set out some fundamental principles of data protection such as lawfulness, fairness and transparency; purpose limitation; data minimization; accuracy storage limitation and integrity (European Commission, 2021). Organizations need to have clear consent from individuals for collecting any data, must provide them with the necessary protective measures & offer options of accessing, editing or deleting their personal data. It appears in fact, that the regulation will reach out to organizations carrying on activities in the European Union and those who have to deal with the personal data of EU residents, stating thus a benchmark at global level for an implementation of data protection.

The financial penalty is one of the key consequences of non-compliance with GDPR. An example of this is Meta (previously Facebook) for receiving a €1.2 billion fine by the Irish Data Protection Commission in May 2023 after an investigation on how it handled user-centric data regarding not only transparency but violations in GDPR principles of transfer of data outside EEA territory (Milmo & O'Carroll, 2023). This penalty highlights the fact that compliance is crucial for organizations to avoid big fines and lose their reputation.

The Personal Data Protection Act (PDPA)

The personal data protection act, PDPA administrates the processing of personal data in Malaysia. In 2024 the Act has been amended by making significant alignment with global privacy norms for better protection and information security of personal data (Personal Data Protection Commission Malaysia, 2021). The new law imposes stricter data protection obligations on organizations in Malaysia and relates to the way they collect, store and share customer data.

This legislation protects against misuse and breach of customer data. The continuous evolution of these laws denotes that the world is gearing up to protecting data privacy, which challenges organizations to frequently upgrade their data management and process ranks as per the compliance.

IMPLICATIONS FOR KNOWLEDGE MANAGEMENT

Reputational Harm and Loss of Customer Trust

All businesses today are aware of the fact that a breach of customer data privacy can tarnish an organizations reputation. One such example is the Cambridge Analytica scandal of Meta, which resulted in negative public sentiment gravely damaging the firm's brands and credibility (Lee & Chan, 2021). Likewise, fines for violating privacy laws such as GDPR left a mark on Google's reputation and customer loyalty. These incidents underline the importance of incorporating privacy protections by design in KM systems by organizations to avoid losing the trust of their customers.

Compliance Challenges Across Jurisdictions

For organizations that operate across multiple regions, this becomes even more challenging due to the variety of privacy regulations that exist, including but not limited to: GDPR and PDPA. Example: Meta's KM needs are complicated by scrutiny it has faced from numerous regulators around the globe (PwC Malaysia, 2023) Navigating multiple, and sometimes contradictory, privacy laws can be resource intensive often necessitating expensive legal oversight, cybersecurity tools, and employee training.

Data-Driven Innovation and Privacy Constraints

Organizations struggle with the fine line between data-driven innovation and privacy. As a result, privacy regulations like GDPR and PDPA restrict how an organization would collect, share and analyze data which also limits data insights (Morden, 2023). Such limitations, though also an impact on KM systems in broader terms, is something that companies are constantly adapting to; when Apple imposed privacy first initiatives their implications meant the majority of consumer insights gained could only be at a surface level.

Implications of Data Privacy Breaches and Legal Liabilities

Data breaches can hurt the reputation of organizations and customers causing huge reputational costs and financial in the future. Truecaller estimated that in its 2023 report, 56.2 million U.S. adults lost $25.4 billion as a result of scam calls resulting from their data privacy breaches (LaMont, 2024). Increased scams, phishing and other access to our data shows how bad practice with security affects Society.

Compromises of personal data harms more than the people whose information is compromised. It hurts the organization that has failed to protect it. Violations of anti-competitive agreements and similar legislation may lead to heavy monetary penalties, as well as legal actions that can adversely affect both a corporation's bottom-line and its brand image. One instance of the steep cost of data privacy violations is that of Meta's €1.2 billion fine (Milmo & O'Carroll, 2023). In addition, non-compliance with data protection regulations can drive customers to lose trust in organizations, resulting in long-term losses in business revenues and reputation.

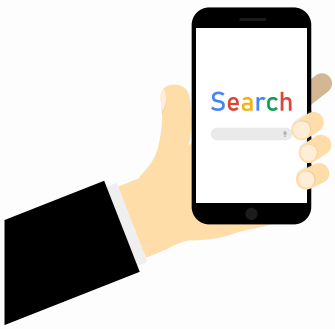
It is evident that companies which must deal with high volume of critical and sensitive customer data should embrace a strong KM system. These systems protect consumer data and facilitate compliance with applicable legal regimes. They enable businesses to know how to manage this data in a safe manner and gain trust from customers, which is essential in this era of privacy awareness.

CASE STUDIES OF PRIVACY BREACHES

Meta: GDPR Fine and Privacy Challenges

One of the largest GDPR fines ever levied against a single entity is Meta's €1.2 billion penalty, In short, the case stemmed from Meta having failed to inform users in an appropriate manner of the risk that their data would be transferred to the US without adequate protection — which breaches GDPR's transparency and accountability requirements. This penalty not only reflects the realities of regulatory fines in today's world but also acts as a warning for organizations without proper management of large sets of user information within their own KM systems.

Google: Data Privacy Violations



In a similar move, Google was also fined $57 million in 2019 for not complying with GDPR's consent requirements when the company targeted users with personalized ads without collecting sufficient "affirmative" (i.e. explicit) consent from the users (Satariano, 2019). While Google like Meta has been attempting to improve its data governance and transparency, the fine is a blunt reminder of the potential costs associated with regulatory non-compliance over data protection issues.

Apple: Privacy-First Approach

Apple has been aggressively marketing itself as a privacy-first company, bringing forward features in relation to App Tracking Transparency wherein users can have more control over their data. But even Apple is struggling to balance delivering global privacy law requirements with innovation of its products and services. The focus on privacy is a deliberate strategic step resulting from the KM of company ensuring that user data is treated with high level of care despite coming under regulatory cloud (Xu et al., 2020).

Personal Experience: Privacy Risks in Daily Life

I encountered a privacy breach when I received a scam call from someone claiming to be from Poslaju, informing me of an uncollected parcel containing several credit cards and my identification card. The caller threatened that the parcel was being held due to my personal data being misused and pressured me to file a police report. I was transferred to the Kuantan District Police, then to Bukit Aman, where they demanded a payment of RM2,000 and instructed me not to inform anyone.

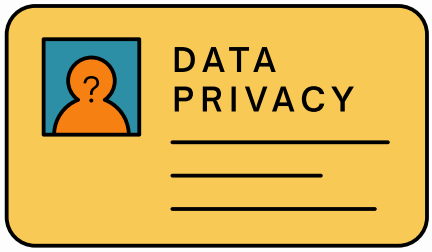
Before proceeding, I consulted a friend who suggested verifying the caller's number on the CCID website. Upon checking, I discovered the number was flagged as part of a scam. Fortunately, using the SemakMule service or the Commercial Crime Investigation Department (CCID) website (Royal Malaysia Police, n.d.), I could identify the caller and avoid falling victim to the scam. This experience reinforced the vulnerability of personal data and emphasized the importance of being vigilant and having strong protocols to protect personal information.

Apart from my personal experience, recent surveys and reports have also highlighted how Malaysians are becoming more conscious of the importance of data privacy. According to Morden (2023), three in ten Malaysians remain concerned about online privacy, and "seven in ten felt that technological advancement is 'ending lives'". This comes amid rising concern over the safety of personal data in the digital age. Tan (2023) also noted data breach cases hit a staggering four folds higher in 2023, compared to previous year and were at the peak ever recorded in Malaysia. Such alarming statistics highlight the need for data governance programs at an individual and national level. My own experience with a scam call where my details were misused also highlights the vulnerabilities we face and the importance of ensuring that there are safeguards in place to protect data.

Recommendations

- **Ensure Privacy-by-Design Principles Organizations** need to integrate privacy protection at all stages of their KM process steps from data collection to retention. Such an approach not only touches upon the compliance but also helps in gaining customer's trust.

- **Invest in Advanced Data Security Measures**: Use encryption, AI-driven misuse detection and other high tech-to protect personal data from being compromised and/or misused (PwC Malaysia 2023)



- **Educate Employees and Consumers**: Ongoing training on best practices, updated records, compliance, and effective communication on consumer data privacy are important for both employees and customers to know how they should handle personal information (Xu et al., 2020).

- **Ensure Compliance with Local and International Regulations**: One of the main priorities for organizations should always be updated on new changes related to privacy laws like for example the 2024 amendments with respect to Malaysia's PDPA, anything in their data handling practices which are non-compliance (Personal Data Protection Commission Malaysia, 2021).

CONCLUSION

The privacy of customer data is not only a legal, compliance issue anymore, potentially an organizational strategic differentiator in the new competitive landscape. Organizations can protect sensitive data, comply with regulations and earn customer trust by embedding privacy protections in Knowledge Management systems. Such an approach enables organizations to allow incremental and responsible use of data while also encouraging innovation, ultimately keeping a competitive edge in the market.

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END

SYNOPSIS

In an interconnected world, effective Knowledge Management (KM) has become indispensable for addressing organizational and societal challenges. This book delves into five critical areas, offering insights and solutions to overcome barriers and leverage KM for innovation and collaboration. Firstly, cultural differences significantly impact KM practices, with diverse workplaces encountering challenges in collaboration and trust. The book explores these barriers in human resources and examines generational differences, particularly among Gen Z, who prefer adaptive and transparent systems over traditional hierarchical models. Secondly, technological barriers hinder KM implementation, especially in sectors like agriculture and education. The book highlights the slow adoption of advanced tools in Malaysian agriculture and proposes strategies to overcome resistance through education and incentives. It also examines how digital transformation in schools can be enhanced by addressing gaps in digital literacy and infrastructure. Thirdly, the abundance of information creates operational inefficiencies and risks of misinformation. A case study on an Ed Tech company illustrates how KM can tackle information overload through streamlined processes, while another section emphasizes the role of KM in combating misinformation by fostering critical thinking and responsible information sharing. Fourthly, employee resistance emerges as a significant challenge during technological transitions. The book explores strategies for overcoming resistance in education, corporate training, and logistics by emphasizing transparent communication, leadership support, and engaging employees in the change process. Lastly, legal issues related to KM, such as intellectual property (IP) governance and data privacy, are discussed. The book underscores the importance of protecting IP to sustain innovation and explores how organizations can navigate complex legal landscapes to ensure customer data privacy while fostering compliance and trust. Rich with real-world case studies and actionable strategies, this book serves as a comprehensive guide for those looking to harness KM's potential and turn challenges into opportunities for growth and collaboration.

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