

## Benefits of Implementing a Public Sector Conducive Ecosystem (EKSA): A case study of Tun Dr. Ismail Library, Universiti Teknologi Mara, Johor, Malaysia

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### Abstract

The Public Sector Conducive Ecosystem (EKSA) was established in 2014 to enhance the quality of work environments in the Malaysian public sector. Specifically, it involves rebranding the 5S practices that have traditionally been used to create a conducive workplace environment. This study has utilized a qualitative approach via interview as data collection to explore the benefits of adopting EKSA practices in a library located within a higher education institution in Malaysia. The study findings have revealed that implementing EKSA practices in the public sector can enhance productivity and cost efficiency and improve the working environment, particularly in developing countries.

Keywords: 5S; EKSA; Management Accounting; Higher Education Institutions Library

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### 1.0 Introduction

The Lean philosophy gives organizations effective techniques to increase productivity while keeping costs low. Observing the production process, identifying areas for improvement, and adopting a Lean mindset can minimize waste, such as over-processing, transportation, and motion (Azevedo et al., 2019). The most utilized Lean methodologies and tools include 5S, Kaizen, Kanban, mistake-proofing, cellular manufacturing, pull production, value stream mapping, total productive maintenance, Takt time, visual management, and set-up time reduction (Vinod et al., 2015). The 5S ideology originated in Japan and is an abbreviation for five Japanese words: Seiri (sort), Seiton (set in order), Seiso (shine), Seiketsu (standardize), and Shitsuke (sustain) (Vinod et al., 2015). 5S has been implemented in Malaysian universities, including Universiti Teknologi MARA (UiTM). UiTM Johor Branch started with 5S implementation in 2009, and Perpustakaan Tun Dr. Ismail (PTDI) of UiTM Johor Branch is the first university library to obtain the 5S Certification from Malaysia Productivity Corporation (MPC) in 2009 (Universiti Teknologi MARA, Perpustakaan Tun Abdul Razak, 2021).

Since 2014, the Malaysian Administrative Modernisation and Management Planning Unit (MAMPU) has introduced the Public Sector Conducive Ecosystem (EKSA) to improve the quality of work environments. EKSA is an initiative that builds on the Public Sector 5S practices and is tailored to the needs of public sector departments/agencies in Malaysia (Noor Mohamad Shakil Hameed, 2017a). The main components of EKSA are based on improved 5S practices, adding new elements such as Corporate Image, Creativity and Innovation, Green Practice, Conducive Environment, and Agency Diversity. EKSA aims to improve the 5S element and create a better work environment rather than replace it (Unit Pemodenan Tadbiran dan Perancangan Pengurusan Malaysia (MAMPU), 2020). Meanwhile 2018, the UiTM Johor Branch implemented EKSA, which was rebranded as 5S (Hafizahfpm, 2019). Presently, there is limited research on the benefits of EKSA implementation, particularly on the benefits of EKSA in Malaysia. This study is motivated by the advantages of 5S methods that have been proven successful with significant benefits. This study aims to discover the benefits of EKSA Implementation in PTDI of the UiTM Johor Branch.

## 2.0 Literature Review

The 5S Practice was initially started in the 1980s, introduced by Takashi Osada, and commonly used to intensify human capability and productivity among Japanese firms (Ho et al., 1995). In Malaysia specifically, the Standards and Industrial Research Institute of Malaysia (SIRIM) encourages the use of the 5S concept among Malaysian industries (Ho et al., 1995). Meanwhile, EKSA is a program that rebranding 5S Practice in the public sector prioritizes innovation, environmental responsibility, and creativity that meets the stakeholders' expectations (Unit Pemodenan Tadbiran dan Perancangan Pengurusan Malaysia (MAMPU), 2023).

### 2.1 Benefits of Implementing 5S

Bharambe et al. (2020) and Cahyono et al. (2020) investigated the association between 5S use, contextual characteristics, and performance. Contextual variables include the company's structural aspects, the environment, human resources and technology, and quality management, and it is observed that 5S is frequently regarded as a prerequisite for adequate programme quality. The 5S implementation can improve productivity in the workplace, including the workplace becoming more organized, workers adopting a new structured method for efficient work, and accidents and physical exertion decrease (Chandrayan et al., 2019). Sati and Adam (2019) showed that implementing the 5S method in an engineering company in Sudan led to identifying and removing unnecessary items, eventually improving productivity and a better work environment. Wan Asri Wan Ab Aziz et al. (2015) defined 5S as a Lean methodology that aims to enhance overall quality, increase work efficiency, reduce errors, and improve safety by promoting a clean and organized work environment after integrating the 5S approach with a noticeable increase in cleanliness and structure. Norhaslina Jumadi et al. (2015) discovered that the 5S approach increased their departments' cost-efficiency by minimizing inventory, storage costs, and room requirements. Michalska and Szewieczek (2007) found that enforcing the 5S rules creates significant changes in the business process improvement through cost reduction, increased effectiveness and quality in processes, maintenance, and improved system efficiency, safety, and reduction of industrial emissions and decision-making processes.

### 2.2 Benefits of Implementing a Public Sector Conducive Ecosystem (EKSA)

Noor Mohamad Shakil Hameed (2017) found that a higher education institution in Malaysia had successfully implemented EKSA and experienced a positive outcome, including a neater service counter and lobby with a corporate image, the introduction of practical Go Green and recycling corners, and the cultivation of creativity and innovation through the orderly arrangement of items. Boon (2015) identifies Malaysia's public sector will be evaluated using EKSA based on their ability to meet particular criteria. This evaluation technique eliminates unnecessary procedures and saves costs.

## 3.0 Methodology

Qualitative research is a type of social action that focuses on how people interpret and make sense of their experiences to better understand individuals' social realities (Zohrabi, 2013). This study used a qualitative approach to discover the benefits of EKSA at PTDI on the Segamat and Pasir Gudang campuses of UiTM Johor, Malaysia.

### 3.1 Data Collection Method

Bernard (2012) indicates that no fixed number of interviews is required to reach data saturation. To ensure data saturation, it is essential to structure interview questions so multiple participants can answer the same questions (Guest et al., 2006). This study applied primary sources as a data collection method focused on the individuals interviewed at the PTDI to provide a comprehensive understanding of the benefits of implementing EKSA. Semi-structured interviews and purposive sampling were used to collect data; 17 participants were interviewed, including executives and non-executives directly involved in the EKSA implementation at the PTDI.

### 3.2 Data Analysis

Google Meet and Microsoft Teams were used for the recording. The interviews were transcribed, and the information was divided into themes. This is a common approach in qualitative data analysis that involves gathering relevant data and organizing it into themes that reveal patterns and lead to a theoretical understanding of the subject under study (Lowe et al., 2018). The data was manually entered into Microsoft Excel and translated into English, as some interviewees responded in *Bahasa Melayu*. The information derived from the transcription was classified into several themes and codes based on word repetition, such as reduction in cost, systematic, corporate image, and organization. These themes and codes were used to interpret the data and compared to previous research to reach conclusions.

## 4.0 Findings

This section discusses several advantages associated with EKSA implementation.

### 4.1 Reduction in Cost

The implementation of EKSA in the PTDI of UiTM Johor has decreased library usage costs due to the more efficient use of stationery items and paper. Employees are now more careful in their paper usage and recycle most of the used papers. Additionally, some used papers are repurposed as memo pads for students. One librarian confirmed this.

*"We do make memo pads for the students using recycled paper, as it can help the students,"*

Furthermore, the employees were advised to print on both sides of the paper to reduce paper usage. As stated by a librarian:

*"We advise employees to print out on both sides of the paper, even if it looks small. Eventually, it is a big saving."*

As a result, the process of ordering papers is more efficient. An executive librarian stated:

*"Last time, we did order much paper; eventually, it reduced the number of orders for the A4 paper".*

The usage of stationery and electricity consumption has been reduced. The electricity was turned on during weekdays and working hours, but since EKSA was introduced, the library has been closed during lunchtime, and the electricity is turned off. Though it is only for an hour, it saves significant money. A librarian explained this in detail:

*"We closed the operation of the library for an hour, and subsequently, we have turned off the electric power usage and... mmm..., even if it is only for an hour, we turned off the electricity every day on the working days and, in a month, we do many cost savings".*

Ultimately, it was discovered that EKSA has led to cost reduction. EKSA has not only had a significant impact on cutting down stationery expenses but also on power usage. This has resulted in a more efficient and cost-effective environment that benefits the library and its users.

#### 4.2 Alterations to the Library's Corporate Image

The implementation of EKSA has shifted the library's image towards corporate looks. Most employees have expressed their thoughts on this change, with one comment standing out.

*"When we transitioned from 5S to EKSA...aa...the first thing we notice is a change in the library images to a more professional corporate image...and we have a comfortable work area".*

When implementing the 5S methodology in a library setting, it is crucial to pay close attention to the labelling of items. Failure to properly label items can lead to decreased efficiency and increased costs, as employees may spend unnecessary time searching for misplaced items. However, implementing EKSA has proven to be a game changer, significantly reducing the need for labelling and improving the corporate image. As a result of this change, one librarian has noted a positive impact on the library's workflow and efficiency.

*"The differences between 5S and EKSA appear to be... During 5S, the library's image resembled a school... However, when EKSA is implemented, it emphasizes a corporate image. So, we do not need to label all the items for EKSA. For example, during 5S, we label a trolley as such, but during EKSA, we do not... The image has been completely transformed into a corporate image... and stationery use is also decreasing... In this case, Sellotape... This would eventually save money...."*

The library has changed its labelling system since switching from 5S to EKSA. They no longer label items like staplers with their name but have instead created a Standard Operating Procedure (SOP) for specific equipment. For example, they have created the SOP for using the printer rather than simply labelling it as a printer. This way, users can quickly learn how to use the equipment.

*"Previously, when we first entered the library, we noticed that all the items were labelled... Using a stapler as an example, we stick the label to indicate what it is known as it is... EKSA, on the other hand, is nothing like that... Instead of writing the name of the equipment, we adhere to how to use it... For instance, how to operate the printer and the self-service photocopy printer... I believe EKSA makes the office space cleaner than it was previously."*

Implementing the EKSA has significantly affected the library's overall image, transforming it into a more professional and corporate environment. The changes include the labelling system, which has undergone a significant alteration, and the library has created SOPs for specific equipment like printers, simplifying user learning. This approach ensures that users can quickly adapt to the library's new system and enhances the efficiency of the library's operations.

#### 4.3 Neat and Tidy Space

EKSA transformed the library into a more streamlined and hygienic workspace. Redundant items have been removed, creating a more visually appealing and spacious environment. One librarian commented that this alteration has significantly enhanced the overall perception of the library.

*"There is a difference in the implementation of EKSA; the office space is neat and not cluttered. We eventually use what we require and discard what we do not require. Even I have things I do not need that I have accumulated for a long time. Nevertheless, after using EKSA in my daily routine, I realized the item was unnecessary and discarded it. As a result, the space has become neater and tidier".*

Librarians have agreed that EKSA has made the library look tidier and minimalistic, with better organization. One of the librarians remarked that the system had improved overall efficiency and cleanliness in the working environment and explained it:

"EKSA has been implemented... as a result of EKSA implementation in the office space, it appears more minimal, neat, and well organized".

It makes the library and workstation look more organized and allows the employees to quickly find any required items and reduce spending time searching for them. The librarian explained:

"The documents are well organized, and I was challenged to find a file in 30 seconds or less, and I managed it... thank you to EKSA".

Furthermore, whenever an employee is absent and another individual is in charge of the specific job scope, that employee can find whatever necessary documentation due to the meticulously organized and managed work environment. The librarians clearly outlined this:

"When things are organized, they are easier to find... For example, if the employees in charge of the materials are on vacation, other employees can easily search for the materials due to the implementation of EKSA".

The incorporation of EKSA into the library system had a significant impact on the overall appearance and functionality of the establishment. Many of the librarians have taken note of the clean, organized, and minimalistic look that has emerged because of this implementation. This finding proves that the EKSA has significantly contributed to creating a neat, tidy, and well-organized workspace in the library.

## 5.0 Analysis and Discussion

Table 1 provides a summary of the benefits obtained from both the 5S practices and the EKSA practices. The benefits of EKSA practices are similar to 5S practices and provide additional advantages. The finding indicates that the integration of the EKSA has significantly contributed to cost reduction, a more systematic area, a change in the library's image, and a neat workspace.

Table 1: Summary of the benefits of 5S and EKSA

Benefits	Benefits of 5S	Benefits of 5S and EKSA
1. Cleanliness and tidiness	<ul style="list-style-type: none"> <li>Chandrayan et al. (2019). - promote cleanliness and tidiness.</li> </ul>	<ul style="list-style-type: none"> <li>The benefit focuses on the workstation, transformed into a more organized and clean space resulting in discarded unnecessary items.</li> </ul>
2. Enhance workflow productivity and improve the working environment	<ul style="list-style-type: none"> <li>Sati and Adam (2019). - enhanced workflow productivity and improved the working environment in the workplace.</li> <li>Wan Asri Wan Ab Aziz et al. (2015) achieve quality improvement, increase workplace performance, reduce errors, and improve safety by keeping work environments clean and tidy.</li> </ul>	<ul style="list-style-type: none"> <li>The benefit includes enhanced workflow productivity by allowing the staff to quickly find any items that they require or require in a few seconds rather than spending time searching for them.</li> <li>It improved the working environment, such as any library employees finding necessary documentation due to the meticulously organized and managed work environment.</li> </ul>
3. Cost efficiency	<ul style="list-style-type: none"> <li>Norhaslina Jumadi et al. (2015). - Cost efficiency.</li> <li>Michalska and Szewieczek (2007). - significant changes in the business, such as process improvement by cost reduction and increased effectiveness.</li> </ul>	<ul style="list-style-type: none"> <li>The benefit included a reduced cost through the placement for ordering papers less than previously.</li> <li>Most library employees reduce paper usage, recycle it as a memo pad, and print it on both sides of the paper.</li> <li>The electricity consumption is reduced.</li> </ul>
4. Alterations to corporate image		<ul style="list-style-type: none"> <li>The vibrant image has been transformed into a corporate image in the library and looks more professional.</li> </ul>
5. The usage of SOP		<ul style="list-style-type: none"> <li>The library has reduced the use of labels on all items, and they have improvised with the SOP on how to use specific equipment.</li> </ul>

(Source:) Authors

## 6.0 Conclusion

This comprehensive research sheds light on the benefits of EKSA implementation. This research finding aligns with and supports the conclusions of Noor Mohamad Shakil Hameed (2017) and Norhaslina Jumadi et al. (2015). EKSA significantly reduces costs using recycled paper and double-sided printing and considerably decreases electricity usage. The library image transformed into a corporate image by inculcating SOP instead of labelling all items. The library and workstations are meticulously arranged and tidy, reducing time-

consuming searching for documentation. These benefits demonstrate that the advantages of implementing EKSA extend beyond the system and are comparable to those of 5S. Overall, implementing EKSA is a game-changer for any organization prioritizing sustainability, efficiency, and organization. This research enhances the current literature on EKSA, provides some insight to policymakers and universities, and may encourage other organizations to consider implementing EKSA. This study has some limitations. First, this study only considered interviewees as a data collection method, thus unable to generalize the findings. Future research may consider other types of data collection. Second, this study only considered librarian perspectives; therefore, future research may consider other portfolios in determining the EKSA benefits.

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## Paper Contribution to Related Field of Study

The research provides insight into the benefits of EKSA implementation in higher education institutions' libraries.

## References

- Azevedo, J., Sá, J. C., Ferreira, L. P., Santos, G., Cruz, F. M., Jimenez, G., & Silva, F. J. G. (2019). Improvement of the production line in the automotive industry through lean philosophy. *Procedia Manufacturing*, 41, 1023-1030.
- Bernard, R. H. (2012). *Social research methods: Qualitative and quantitative approaches (2<sup>nd</sup> ed.)*. Sage.
- Boon, P. (2015, August 31). Eksa to lead the way in innovation for the public sector. *Borneo Post Online*. <https://www.theborneopost.com/2015/08/31/eksa-to-lead-the-way-in-innovation-for-public-sector-entulu/>
- Bharambe, V., Patel, S., Moradiya, P., & Acharya, V. (2020). "Implementation of 5S in Industry: A Review. *Multidisciplinary International Research Journal of Gujarat Technological University*, 2(1), 12–27.
- Cahyono, Y., Purwanto, A., Muliansyah, D., & Soesanto, D. R. (2020). Did Kaizen and 5S Affect Company Performance? Evidence from Indonesian Manufacturing. *Solid State Technology*, 63(1s), 242-248.
- Chandrayan, B., Solanki, A. K., & Sharma, R. (2019). Study of 5S lean technique: a review paper. *International Journal of Productivity and Quality Management*, 26(4), 469–491.
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59-82.
- Hafizahfpm. (2019, November 04). *Panduan EKSA-FPM*. FLIPHTML5. <https://fliphtml5.com/muemf/lwgl/basic>
- Hirano, H. (1995). *5 Pillars of the Visual Workplace*. Productivity Press, Oregon.
- Ho, S. K., Cicmil, S., & Fung, C. K. (1995). The Japanese 5-S practice and TQM training. *Training for Quality*, 3(4), 19–24.
- Lowe, A., Norris, A. C., Farris, A. J., & Babbage, D. R. (2018). Quantifying thematic saturation in qualitative data analysis. *Field Methods*, 30(3), 191–207.
- Michalska, J. , & Szewieczek, D. (2007). The 5S methodology is a tool for improving the organization. *Journal of Achievements in Materials and Manufacturing Engineering*, 4.
- Noor Mohamad Shakil Hameed (2017). Ekosistem Kondusif Sektor Awam (EKSA): perkongsian amalan di Bahagian Hal Ehwal Pelajar, Universiti Putra Malaysia. *Seminar Pragmatis 2.0 : Perkongsian Amalan Terbaik Dalam Pengurusan Universiti 2017*. Universiti Sains Islam Malaysia.
- Noor Mohamad Shakil Hameed (2017, January 17a). EKSA Perkasa Sektor Awam. *Harian Metro*. <https://www.pressreader.com/malaysia/harian-metro/20170117/283527975513367>
- Norhaslina Jumadi, Nurul Sahida Fauzi, Lizawati Abdullah, Wan Nur Syazwani Wan Mohammad and Johana Yusof (2015). The Effectiveness of the Implementation of QE/5S towards Quality Environment at Workplace. *Proceedings of Postgraduate Conference on Global Green Issues (Go Green)*. UiTM (Perak), Malaysia.
- Sati, S. A., & Adam, A. I. (2019). Evaluating the effectiveness of 5S implementation in the industrial sector. *International Journal of innovative science and research technology*, 4(10), 804-808.
- Unit Pemodenan Tadbiran dan Perancangan Pengurusan Malaysia (MAMPU) (2020, August 26). *Ekosistem Kondusif Sektor Awam (EKSA)*. <https://www.mampu.gov.my/ms/ekosistem-kondusif-sektor-awam-eksa>

Unit Pemodenan Tadbiran dan Perancangan Pengurusan Malaysia (MAMPU) (2023, September 11). *Public Sector Conducive System (EKSA)*. <https://www.mampu.gov.my/en/government-agency/ekosistem-kondusif-sektor-awam-eksa>

Universiti Teknologi MARA, Perpustakaan Tun Abdul Razak. (2021, May 18). *EKSA*. <https://johor.library.uitm.edu.my/history/84-ptdi/about/189-eksa>.

Vinod, M., Devadasan, S. R., Sunil, D. T., & Thilak, V. M. M. (2015). Six Sigma through Poka-Yoke: a navigation through literature arena. *The International Journal of Advanced Manufacturing Technology*, 81, 315-327.

Wan Asri Wan Ab Aziz, Nurlidaini Jaafar & Azman Che Mat (2015). Implementation of 5s practices at 3k elite schools in Terengganu. *Academia Journal UiTMT*, Volume 4 Issue 1, 7.

Zohrabi, M. (2013). Mixed method research: Instruments, validity, reliability, and reporting findings. *Theory and practice in language studies*, 3(2), 254.