

Analysis of The Implementation of E-Canteen in Creating A Healthy Environment and Guaranteed Nutrition for Children in Indonesia

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ABSTRACT

This study is a qualitative study with a descriptive approach, namely an approach that explains the researcher's main objectives with descriptive narratives. There are main narratives described in this study including e-canteen, healthy environment, and good nutrition. The data used in this study are secondary data that the researcher obtained indirectly from books, scientific articles, magazines, and so on. The data obtained was carried out in several stages: collected, selected, reduced, and presented using descriptive narratives. The conclusion in this article show that E-Canteen significantly supports the creation of healthy canteens for the reasons mentioned above. A healthy canteen creates a healthy environment. A healthy canteen environment ensures the availability of good nutrition. Based on this, implementing E-Canteen can indeed create a healthy canteen, a healthy canteen environment, and provide good nutrition.

Keywords: *E-Canteen, Healthy Environment, Guaranteed Nutrition*

ABSTRAK

Penelitian ini merupakan kajian kualitatif dengan pendekatan deskriptif, yaitu pendekatan yang menjelaskan tujuan pokok peneliti dengan narasi deskriptif. Ada narasi utama yang dijelaskan dalam penelitian ini antara lain *e-canteen*, lingkungan sehat, dan gizi yang baik. Data yang digunakan dalam penelitian ini adalah data sekunder yang diperoleh peneliti secara tidak langsung dari buku, artikel ilmiah, majalah, dan sebagainya. Data yang diperoleh dilakukan dalam beberapa tahap: dikumpulkan, dipilih, dikurangi, dan disajikan dengan menggunakan narasi deskriptif. Kesimpulan dalam artikel ini menunjukkan bahwa *E-Canteen* secara signifikan mendukung terciptanya kantin sehat karena alasan yang disebutkan di atas. Kantin yang sehat menciptakan lingkungan yang sehat. Lingkungan kantin yang sehat memastikan ketersediaan nutrisi yang baik. Berdasarkan hal tersebut, penerapan *E-Canteen* memang dapat menciptakan kantin yang sehat, lingkungan kantin yang sehat, dan memberikan gizi yang baik.

Kata kunci: *E-Canteen, Lingkungan Sehat, Nutrisi Terjamin*

INTRODUCTION

A canteen is a commercial establishment whose scope of activities includes providing food and beverages to the public on its premises. A canteen is a public facility, serving not only as a place to sell food and beverages but also as a meeting place for all types of people, particularly schoolchildren and teachers within the school environment, to address any illnesses they may have (Neyfa & Tamara, 2018).

A canteen is a public facility that serves not only as a place to sell snacks but also as a meeting place for many people who have the potential to transmit diseases. Canteens play an important role in promoting health messages and can influence daily eating behavior through the provision of snacks. Canteens can provide food as a substitute for breakfast and lunch at home, as well as healthy, safe, and nutritious snacks and beverages. In addition to cleanliness, the safety of the food sold is an important factor that must be considered to avoid food poisoning and other health problems (Agus Purwanto, 2019).

Canteens can be divided into two types: closed canteens and open canteens, such as those in corridors or school yards. Although canteens are located in open spaces, the food preparation and serving areas must be enclosed. Both types of canteens must have the following facilities and infrastructure: a clean water source, storage areas, processing areas, serving areas and dining areas, sanitation facilities, work equipment, and waste disposal areas (IRHAM, 2024). In schools, canteens are essential supporting facilities for providing food that supports teaching and learning activities and other activities at the university. Provision of a good canteen can help the community in the campus environment easily find food comfortably, quickly, and at affordable prices, as well as provide a comfortable place to rest and refresh. Therefore, college canteens must be designed to meet customer needs. At every college, canteens face intense competition with many food vendors in the surrounding area. Food vendors around universities are numerous, offering various types, qualities, and prices of food. This competition affects the canteen's attractiveness to tenants. If the canteen does not look attractive enough to tenants, then the canteen will have difficulty finding good tenants and in turn fail to attract customers to come (Risnawati et al., 2024).

Over time the concept of the canteen has evolved. Currently, it is known as e-canteen. The implementation of the e-canteen system is a significant advancement in food service management in educational institutions and workplaces. This system utilizes digital technology to simplify the ordering process, thereby increasing efficiency and user satisfaction. The e-canteen system is designed to minimize the time spent by customers and staff, because it automates the ordering process, allowing users to order via mobile devices or computers without having to queue physically (Cahyani, 2023). This transition from traditional to digital canteen management not only reduces waiting times, but also improves the overall quality of service (Lalitha, 2022).

One of the main advantages of e-canteen systems is their ability to facilitate online ordering, which is particularly beneficial in environments where time is valuable, such as universities and corporate settings. Studies have shown that the use of mobile apps for food ordering can significantly reduce the time required for transactions, thereby increasing customer satisfaction and staff productivity (Absari, 2023). For example, features such as menu selection, price display, and in-app payment processing enhance the user experience by providing a comprehensive and user-friendly interface (Pandey, 2022). Furthermore, the use of QR codes for ordering has been shown to further simplify the process, allowing customers to order food

quickly and efficiently. In addition to improving the ordering process, e-canteen systems also integrate advanced features such as reorder recommendations and delivery services, tailored to the preferences of repeat customers (Alfaruq, 2022). This personalization not only increases user engagement but also encourages repeat business, as customers appreciate the convenience of having their favorite food options readily available. Furthermore, the integration of e-wallet systems for payment processing adds an additional layer of convenience, enabling fast and secure transactions.

The design and implementation of an e-canteen system also involves consideration of the user interface and user experience, using methodologies such as design thinking to optimize functionality and usability. This approach ensures that the system meets the needs of its users while addressing potential challenges, such as system errors or connectivity issues that can hinder the ordering process (Bali, 2024). By focusing on user-centered design, developers can create applications that not only meet functional requirements but also improve the overall dining experience for users. The e-canteen concept that the researchers have explained above is believed to be able to create a healthy environment and guaranteed nutrition for a number of children in Indonesia.

RESEARCH METHODS

The introduction above demonstrates that this study aims to propose the idea of implementing an e-canteen to create a healthy environment and ensure nutritional quality for children in Indonesia (Amane et al., 2023). Based on the sentence above, it can be concluded that this study is a qualitative study with a descriptive approach, namely an approach that explains the researcher's main objectives with descriptive narratives (Lexy J. Moleong, 2018). There are main narratives described in this study including e-canteen, healthy environment, and good nutrition (Imam Gunawan, 2014). The data used in this study are secondary data that the researcher obtained indirectly from books, scientific articles, magazines, and so on (Abdurahman, 2016). The data obtained was carried out in several stages: collected, selected, reduced, and presented using descriptive narratives.

RESULT AND DISCUSSION

E-Canteen

A canteen is a commercial establishment whose scope of activities includes providing food and beverages to the public on its premises. A canteen is a public facility, serving not only as a place to sell food and beverages but also as a meeting place for all types of people, particularly schoolchildren and teachers within the school environment, to address any illnesses they may have (Neyfa & Tamara, 2018). A canteen is a public facility that serves not only as a place to sell snacks but also as a meeting place for many people who have the potential to transmit diseases. Canteens play an important role in promoting health messages and can influence daily eating behavior through the provision of snacks. Canteens can provide food as a substitute

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The application of E-Katin to a number of schools in Indonesia, especially in high schools, researchers believe that it can create a healthy environment. Healthy canteens according to Febrianti A (2016; 1) is a space or building in a school that is used to provide healthy food and drinks to serve school residents where the purpose of providing healthy canteen services to serve school residents is to provide safe and nutritious food, provide facilities to apply health and nutrition science, and implement clean and healthy living behaviors. Ministry of Education and Culture of the Republic of Indonesia (2018:5), the School Healthy Canteen is an activity unit in schools that benefits health. Therefore, a healthy canteen must be able to provide healthy main or light meals, which are nutritious, hygienic and safe to consume, for students and other school residents. Through this concept, students and students can see firsthand the food sold, the ingredients, and so on. If the material presented in the application is not appropriate, then students can report directly through the assessment column and the school can follow up.

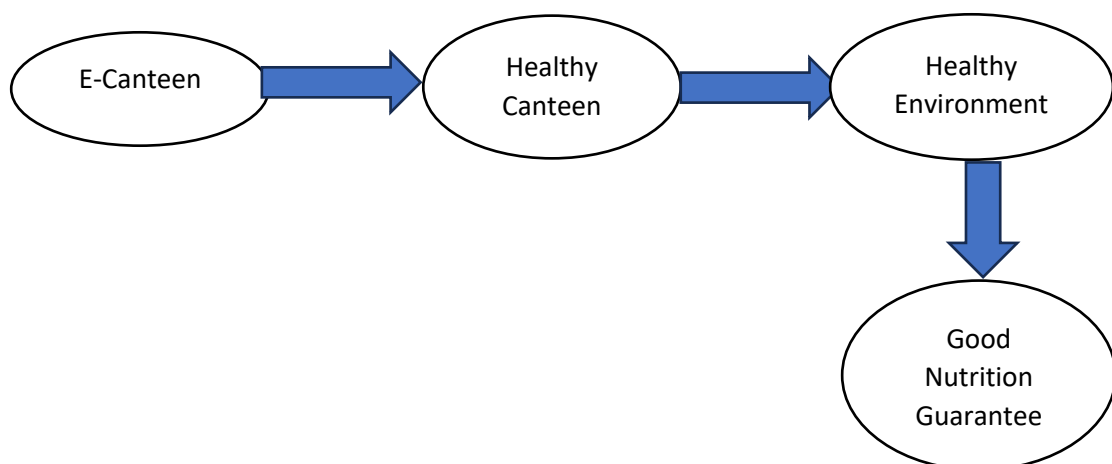


Figure 1. Purpose of E-Canteen

Thus, it can be concluded that E-Canteen significantly supports the creation of healthy canteens for the reasons mentioned above. A healthy canteen creates a healthy environment. A healthy canteen environment ensures the availability of good nutrition. Based on this, implementing E-Canteen can indeed create a healthy canteen, a healthy canteen environment, and provide good nutrition.

CONCLUSION

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REFERENCES

- Abdurahman, S. (2016). *Metodologi Penelitian*. Sinar Grafika.
- Absari, D. T. (2023). Repeat Order Recommendation Model To Digitalize The Canteen. *Jurnal Bisnis Terapan*, 7(1), 1–10. <https://doi.org/10.24123/jbt.v7i1.5336>
- Agus Purwanto. (2019). Pengembangan Aplikasi. *Jurusan Pendidikan Teknik Informatika*, 2(1), 195–204. <http://journal.univetbantara.ac.id/index.php/jp/article/view/347/291>
- Ahmad Zarkasyi. (2016). Program Unggulan. *Jurnal Al-Makrifat*, Vol 1, No(1), 35–52.
- Alfaruq, A. (2022). Design And Implementation Of Database Prototype For A Portable Electronic Transaction Device. *International Journal Of Online And Biomedical Engineering (Ijoe)*, 18(09), 12.
- Amane, A. P. O., Kertati, I., Hastuti, D., Purwanto, R., Shodiq, L. J., & Ridho'i, M. (2023). Metode Penelitian Kualitatif: Perspektif Bidang Ilmu Sosial. In *Sonpedia: Publishing Indonesia*.
- Bali, M. M. E. I. (2024). Islamic Boarding Schools Management Strategies In Conducting Illegal Moneying Students. *Manazhim*, 5(2), 750. <https://doi.org/10.36088/Manazhim.V5i2.3473>
- Cahyani, P. R. (2023). Analisis Dan Desain Sistem Aplikasi Kantin Elektronik (E-Canteen) Bagi Mahasiswa Dan Staff Universitas. *J. Digit. Bus. Innov. Manag.*, 2(2), 164–179. <https://doi.org/10.26740/jdbim.V2i2.58084>.
- Dewi, N. (2017). Pengaruh Kemiskinan Dan Pertumbuhan Ekonomi Terhadap Indeks Pembangunan Manusia Di Provinsi Riau. In *Jom Fekon* (Vol. 4, Issue 1).
- Ferari, S. W. (2022). Analisis Indeks Pembangunan Manusia Terhadap Pertumbuhan Ekonomi Di Kabupaten Lampung Timur. In *Fakultas Ekonomi Dan Bisnis* (Vol. 4, Issue 2). <https://doi.org/10.30596/Aghniya.V4i2.12807>
- Handayani, P. N. S., Bendesa, I. K. ., & Yuliarmi, N. N. (2016). Pengaruh Jumlah

Penduduk, Angka Harapan Hidup, Rata-Rata Lama Sekolah Dan Pdrb Per Kapita Terhadap Pertumbuhan Ekonomi Di Provinsi Bali. *E-Jurnal Ekonomi Dan Bisnis Universitas Udayana*, 5(10), 3449–3474.

Imam Gunawan. (2014). *Metode Penelitian Kualitatif*. Bumi Aksara.

Irham, M. (2024). *Rancang Bangun Website E-Kantin Inovasi Dalam Sistem Jual Beli Makanan Dan Minuman Menggunakan Framework Laravel: Studi Kasus Kantin Stt Terpadu Nurul Fikri* (Issue Table 10). Sekolah Tinggi Teknologi Terpadu Nurul Fikri.

Lalitha, V. (2022). E-Canteen Management System Based On Web Application. *Research Gate*, 2(1), 19. <https://doi.org/10.1109/Ic3iot53935.2022.9767984>.

Lexy J. Moleong. (2018). *Metode Penelitian Kualitatif*. Pt Remaja Rosdakarya, 2018.

Manik, T. (2019). Analisis Pengaruh Kemakmuran, Ukuran Pemerintah Daerah, Inflasi, Intergovernmental Revenue Dan Kemiskinan Terhadap Pembangunan Manusia Dan Pertumbuhan Ekonomi. *Jurnal Organisasi Dan Manajemen*, 9(1).

Muh.Suriadi. (2019). *Pengaruh Indeks Pembangunan Manusia (Ipm) Terhadap Pertumbuhan Ekonomi Di Kabupaten Wajo*. Universitas Muhammadiyah Makassar Makassar.

Neyfa, B. C., & Tamara, D. (2018). Perancangan Aplikasi E-Canteen Berbasis Android Dengan Menggunakan Metode Object Oriented Analysis & Design (Ooad) “ E - Canteen ” Android -Based Application Design Using Object Oriented Analysis & Design Method Tempat Makan Pada Umumnya , Dimana Area K. *Penelitian Komunikasi Dan Opini Publik*, 20(1), 83–91.

Pandey, N. (2022). Automated Canteen Ordering System. *Int J Resappl Sci Eng Technol*, 10(5), 3617. <https://doi.org/10.22214/ijraset>

Prasetyoningrum, A. K. (2018). Analisis Pengaruh Indeks Pembangunan Manusia (Ipm), Pertumbuhan Ekonomi, Dan Pengangguran Terhadap Kemiskinan Di Indonesia. *Equilibrium: Jurnal Ekonomi Syariah*, 6(2), 217. <https://doi.org/10.21043/Equilibrium.V6i2.3663>

Qodir, F. A. (2023). *Kh Ali Yafie: Perlindungan Alam (Hifz Al-Bi'ah) Adalah Bagian Dari Maqashid Asy-Syari'ah*. Mubadalah.Id. <https://mubadalah.id/kh-ali-yafie-perlindungan-alam-hifz-al-biah-adalah-bagian-dari-maqashid-asy-syariah/>

Rahman, H. A., & Mutakin, A. (2023). Fiqh Ekologi ; Upaya Merawat Lingkungan Hidup Berbasis Konsep Maqashid Syariah Pendahuluan Perubahan Iklim Yang Terjadi Belakangan Ini Merupakan Wujud Nyata Dari Gagalnya Model Pembangunan Global (Global Development Models). 1 Pernyataan Ini Telah Disep. *Journal Of Fiqh Studies*, 1(December), 107–126. <https://doi.org/10.21093/Mj.V12i2.331>.

Risnawati, E. R., Nifsu, W., Sukma, M., Laisa, M. R., & Fitri, A. S. (2024). Analisis Dan

Desain Sistem E-Canteen Berbasis Aplikasi Dengan Metode Ooad. *Jurnal Widya*, 5(1), 360–379. <https://jurnal.amikwidyaloka.ac.id/index.php/awl>

Sari, U., -, H., & Falatehan, A. F. (2019). Strategi Meningkatkan Angka Harapan Hidup (Ahh) Melalui Alokasi Anggaran Kesehatan Di Provinsi Jawa Barat. *Jurnal Manajemen Pembangunan Daerah*, 8(1), 29–41. https://doi.org/10.29244/jurnal_mpd.v8i1.24657

Shiddiq, G. (2009). Teori Al Maqashid Syari'ah Dalam Hukum Islam. *Jurnal Sultan Agung*, 154(04), 119.

Wahidmurni. (2017). *Pernikahan Pasangan Usia Lanjut Perspektif Maqashid Syariah*.