

Innovative Interior Design Strategies for Enhancing Functionality and Aesthetic Value in Halal Hub Facilities

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Abstract

The rapid growth of Halal Hub facilities within Small and Medium Enterprises (SMEs) in Malaysia reflects an increasing need for culturally favourable and operationally effective retail space. However, the absence of well-defined interior design guideline has left a lot of SMEs uncertain on the choice of suitable and creative interior designs that ensure both functionality and aesthetic aspects are adequately addressed. This paper explores these strategies in two particular case by conducting a qualitative case study of a leading Halal Hub facility in Kuala Lumpur, which has been noted for its good design practices. Observation, and semi-structured interviews with designers and stakeholders, and user survey were performed to collect data. Thematic analysis was used to analyze the qualitative data collected through interviews and observations and to detect repeated themes, categories, and critical design themes. This method allows a flexible however systematic analysis of complicated human-environment relationships. Furthermore, a basic description and analysis of survey responses are also use to gain insight into overall customer perceptions of and preferences. The results bring to the fore key design factors that improve spatial performance, communicate cultural identity, and enrich customer experience in Halal retail spaces. By filling a crucial knowledge gap in design practice, this paper introduces a new set of interior design principles that are suited for the operational, cultural and spatial requirements of Malaysia's Halal SME sector.

Keywords: Halal Hub Design, Innovative Interior Design Strategies, SMEs Retail Environment, Cultural and Spatial Integration

Introduction

In recent years, the establishment of Halal Hub facilities among Small and Medium Enterprises (SMEs) in Malaysia has indicated the increasing necessity of retail spaces that not merely fulfilling halal standards but also culturally-sensitive and operationally-effective. These clusters serve as the backbones for trusting and halal-comliant trade by providing products

and services in places that are maximally consistent with Islamic tenets, and in conflict-driven urban designs.

Although there is a growing number of Halal Hub building driven by the Small and Medium Enterprises (SMEs) in Malaysia, there still lacks such interior design guidelines suited with halal principles, user preferences and profitability. Many are built ad hoc without design and professional planning based on the Islamic perspective beyond functional design level, causing inconstant quality, uncomfortable users and no usage and benefits of space. The absence of a structured design approach causes SMEs to overlook possibilities for improving customer satisfaction, brand identity, and operational efficiency. Although various design features such as prayer spaces, gender-proper zoning, halal-approved signage are sometimes incorporated, they tend to be piecemeal and largely decorative. So, many SME owners are left to grapple with interior design without reference, guidelines, best practices, or cultural common sense. This study responds to the pressing demand of an all-encompassing, creative and contextually-relevant design approach for the interior settings that will support and direct the Halal Hub development in a matter which is operationally functional and aesthetically resonant of Islamic cultural values.

However, despite the increasing number of such facilities available there are very few formalized guide-lines or approaches to interior design for these facilities. To fill this gap, Small and Medium Sized Enterprises (SMEs) are in doubt in choosing design concepts to optimize spatial functionality against appearance and cultural symbolism. This research will attempt to uncover and recognize novel interior design solution by doing few case study on a prime Halal Hub facility in Kuala Lumpur. The aim of this task is to design a basic reference that can help to improve Halal Hub spatial performances, user experiences, and cultural fit.

Literature Review

Halal Retail Environment Design

The concept of Halal is more to catering and product certification, it also involves the environment space for the services and goods delivery (Fischer, 2012). In this sense, the retail context can contribute to maintaining an Islamic way of life, by providing the right environment marked by purity, structure and moral spatial organization. Prayer rooms, ablution facilities, gender-specific areas and a well-delineated zoning of halal and non-halal products (if relevant) are vital elements (Latif, 2020). In terms of design, this means maintaining consilience in terms of space, directionality (Qibla orientation) and Shariah compliance (Fischer, 2012). Studies on halal retail spaces also underline the importance of design not only in ease of compliance, but also in enhancing the moral and spiritual aspect of users need (Musa et al., 2023). However, most of this research is based on product-based nature of halal compliance and little has been studied about interior spatial strategies -a gap this research endeavors to fill.

Cultural and Religious Symbolism in Design

Cultural identity and religious symbolism play a vital role in the making of meaningful interiors spaces in Muslim majority societies (Incorporating Islamic Principles in Residential Architecture: Cultural Perspectives and Design Approaches, 2021). Islamic architectural legacy presents a vocabulary of design elements including geometric patterns, arabesques, calligraphy and lighting, whose adaption inside modern interiors will help to improve the

spiritual atmosphere as well as the visual unity (Dariyadi et al., 2022). In Malaysia, the combination of domestic Islamic motifs forms an indigenous design language (Asif et al., 2019). The emotional appeal of such symbolism and the corresponding psychological impact is given significant focus in the literature as a contributor to user comfort, recognizability and self-esteem (Said, 2012). Utilize these attributes in a Halal Hub to support brand identity and connect space, belief and community.

Functionality in SME Retail Layouts

Malaysia as the Regional Halal Hub Malaysia continues to boast one of the largest numbers of Halal-certified Small & Medium Enterprises (SMEs) to date, and moving toward becoming a global halal hub. Based on market estimates from the Halal Development Corporation (HDC) there are more than 7,000 SMEs in Malaysia, with Halal certification. These companies operate in different industries (Halal Development Corporation, 2020; Industrial Malaysia, 2023).

Apart from the SMEs, 14 strategic Halal Malaysia (HALMAS) industrial parks have been developed in Malaysia covering some 200,000 acres of land. The parks will cater for Halal industry participants by offering world class infrastructure, trained manpower and access to Halal-certified service providers for over 200 local SMEs. Some of the well-known multinational corporations also work in these parks, showing the cooperation of SMEs and large companies from across the world (Halal Development Corporation, 2020).

The Halal Industry Master Plan 2030 (HIMP 2030) on the other hand, aspire to enhance the Malaysia's Halal industry Gross Domestic Product (GDP) contribution to the nation and create more than 700,000 jobs by year 2030. The strategic plan highlights the critical role of SMEs in ensuring the facilitation and promotion of Malaysia's Halal economy (Industrial Malaysia, 2023). Such numbers depict a strong foundation and ecosystem to grow the number of Halal-certified SMEs and make Malaysia one address to reckon with in the world as a prominent Halal hub.

Practicality is a must in an SME retail atmosphere and the classic swivel aspect of this retro design makes it ideal for smaller premises in which space is at a premium (Mao et al., 2012). Design of circulation, product placement, storage and the service counters should be in accordance with ergonomic catalogue in order to minimize crowd, optimize the visibility of the products to display and enable the interaction between the staff and the customers (Maximising Customer Experience through Strategic Retail Space Design, 2023). Retail ergonomic and space optimization research indicates that simplified zoning, adaptable furniture, and modular configurations can indeed promote smoother operation and more pleasant user experiences (Aghazadeh, 2005). In a Halal Hub, faith and community purposes may coexist alongside commercial activity and the difficulty is concerning how combine these without compromising usability (Musa et al., 2023). Based on the literature, there is need for multi-functional spaces incorporating display zones, customer seating, and religious facilities in limited spaces advocating spatial intelligence as a crucial design aspect.

Innovative Interior Design Strategies

Interior design innovation includes the inventive application of material, technology, organization, shape, and form to accommodate changing needs of consumers, etc (ANA et al.,

2019). On the international retail scene, biophilic design, intelligent lighting systems, immersive branding and sustainable materials have redefined how consumers think and feel about their environment (Arof et al., 2020). These techniques can be extended to Halal Hub settings to create extra value not merely aesthetic, but through air quality, energy efficiency, and mental well-being (Suki & Salleh, 2018). According to the literature new solutions should be context-dependent, especially so when considering culturally bound environments. For Halal Hubs, this translates to adopting global critical best practices, but also respects Islamic standards and the users' expectations as users. The convergence of modular display, digital signage and responsive environments has implications for the SME retail customer experience and the competitiveness of Halal Hubs.

User-Centered Design in Retail Spaces

User-centered design (UCD) focuses on end-users by involving the users' needs, behaviors, and preferences from the beginning of the design process and focusing on that information as the project grows and becomes more complicated (Halbusi et al., 2020). In a retail environment, UCD becomes instinctive floor plans, clear signage, relaxing seating areas and influences that appeal to the chosen target audience (Hartung & Rottenberg, 2021). The range of users in the Halal Hub facilities such as families, elders, youth and foreigners, require inclusive design considerations (Muhammad et al., 2014). Studying literature shows that the successful retail environment is one which uses sensory materiality; light and sound, the perceptual experience of surface tactility, as well as emotional messages like comfort, trust, familiarity to capture the attention and motivate the family during engagement (Musa et al., 2023). Applied to Halal Hubs, UCD is used to mean compliant and technically good, but more than that, inviting, culturally rich, and satisfying. It's a link between the design theory and the satisfaction of their potential clients, making it an important part of interior spaces.

Technological Integration in Innovative Design

The use of technology in interior design is changing how consumers experience shops, with the introduction of smart systems, digital displays and environments that respond to behavior (AbdulGhani et al., 2011). In Halal Hub centers, technology is used to make facilities more functional, however, with respect for the cultural and religious context (Fischer, 2012). As an example, to enhance the user comfort without involving any religious issues, digital Qibla Compass, automatic ablution system, interactive kiosks and navigation mobile applications can be used (Musa et al., 2023). Also, smart lighting and climate-control systems being energy efficient, falls in line with the Islamic environmental ethos (Suratkon et al., 2014). The literature indicates that technology, when strategically utilized, adds increased operation and enhanced user engagement and thus it represents a significant component of the contemporary Halal design strategies.

Methodology

This research is based on qualitative case study that aimed to investigate innovative interior design approaches in Halal Hub premises in Malaysia, with the study concentrating on two long-existing center in Kuala Lumpur. For the current case, the facility was specifically chosen through purposive sampling as it is widely known for its credible design excellence in design, cultural alignment and operational efficiency in short, regarded a SME's model in the Halal field. Qualitative case study seemed suitable for the purposes as it enables to conduct a rich, context-dependent examination of complex spatial, cultural and aesthetic matters that

cannot be adequately addressed quantitatively. The objective was whether bold design decisions that were made in Halal context had any effects on functionality, user experience and cultural representation.

For a robust data, three main data collection techniques were used which are observation, user interview and user survey. On-site observations were done systematically to record shop layout, material use, customer flow, environmental conditions such as lighting, ventilation etc. 30 key informants that include interior designers, Halal Hub managers, SMEs operators, Islamic teachers, and retail consultant were interviewed through in-depth semi-structured interviews. The interviews included discussions on spatial pragmatics, cultural sign systems and visual tactics in Halal design. Structured questionnaires were also undertaken to the general users and satisfaction with spatial design, cultural appropriateness and usability of the facility were measured using a 5-point Likert scale. The demographic information is also gathered to frame user comments.

A combination of theme and simple descriptive methodology was used for analyzing the data. The qualitative data from the interviews and the observation notes were exposed to thematic analysis which enabled the researcher to trace design themes, spatial challenges and culturally significant features. The results of the survey data were analyzed using simple descriptive, frequencies and percentages in relation to user preference and trend analysis. Those analyses permitted an understanding of current design strategies and identified possibilities to enhance the relationship between the designs with cultural identity and place-making in Halal Hub projects.

Results

Contextual Integration of Islamic Design Elements

The results found that the main design elements which helped in enhancing the identity and sense of place in Halal Hub are the use of Islamic design features including geometric patterns and Arabic Calligraphy, direction of Qibla. These components were integrated in such a way that they became part of the building, encompassing both the structure and interior finishes such as wall treatments, signs and spaces for prayer. Rather than decorative, these elements were objects of discrete cultural signification that signaled to users of the facility that was indeed in keeping with Islamic notions of propriety. The inclusion was meant, according to the designers, out of with knowledge of Islamic aesthetics, which did not merely add visual appeal, but also gave the spiritual feel of the place a boost. People really loved these culturally driven design decisions and people felt more emotionally attached and culturally attached to the place. Table 1, shows the contextual integration of Islamic design elements, reflecting feedback from respondents.

Table 1

Summary of Islamic Design Elements

No.	Design element	Purpose/function	Respondent feedback
1.	Geometric patterns	Enhances visual harmony and Islamic identity.	27 (90%) respondents agreed feels culturally connected through patterned visuals.
2.	Arabic calligraphy	Reinforces religious values and cultural aesthetics.	28 (93%) respondents agreed inspires spiritual calm and authenticity.
3.	Qibla orientation	Aligns spatial layout with spiritual direction.	29 (97%) respondents agreed improves sense of religious alignment.
4.	Prayer space demarcation	Marks sacred zones with clarity and respect.	25 (83%) respondents agreed supports focused prayer in clearly marked spaces.
5.	Culturally-inspired signage	Supports wayfinding and cultural familiarity.	27 (90%) respondents agreed simplifies navigation in a culturally respectful manner.

Adoption of Sustainable and Flexible Design Approaches

The results show use green materials of sustainable materials and flexible spatial planning as one of the most effective means. The building was constructed from local materials, natural lighting and low-energy lighting, in line with Islamic environmental ethics. Modular and multi-functional furniture including foldable display tables and stackable chairs enabled SME vendors to transform their stalls to fit varying programme needs from everyday operations to pop-up events. This flexibility allowed for lower cost and easier maintenance. Flexible partitions and ergonomic floor plans all helped to facilitate easier customer traffic, increasing ease of navigation and accessibility. This type of design choices showed a progressive attitude between ecology and operation in balance. Table 2, shows the adoption of sustainable and flexible design approaches, presenting the design strategies, their purposes, operational benefits, and feedback from respondents.

Table 2

Summary of Sustainable and Flexible Design Strategies

No.	Design strategy	Purpose/function	Respondent feedback
1.	Locally sourced timber	Promotes environmental sustainability and cultural relevance.	25 (83%) respondents agreed supports local suppliers and reduces waste.
2.	Bamboo panels	Encourages use of renewable, aesthetic material.	26 (87%) respondents agreed durable, low-maintenance, and visually appealing.
3.	Natural lighting and energy-efficient lighting	Reduces energy consumption and carbon footprint.	27 (90%) respondents agreed lower utility costs and enhanced lighting quality.
4.	Modular furniture (foldable/stackable)	Enables space customization for different functions.	28 (93%) respondents agreed cost-effective for SMEs and easy to reconfigure.
5.	Adaptable partitions	Supports spatial zoning and user privacy.	24 (80%) respondents agreed quick adjustments for layout changes.
6.	Ergonomic layouts	Improves movement flow and comfort.	29 (97%) respondents agreed boosts user accessibility and spatial efficiency.

Spatial Sensitivity to Religious and Social Needs

The results show the gender sensitivity and religious spatial planning were identified as essential elements influencing user satisfaction. Sex-segregated prayer spaces, separate ablution areas, and gender-zoned washrooms were users' favorite spaces and were also perceived as important aspects for doing respectability. These are built with discretion and availability in mind remain private, and yet, stay connected. The planning of the space is complemented with kid-travelling and child-seating facilities, and with seating that is universally designed for all types of users. This sensitivity toward all matters religious and social contributed to the feeling of dignity and ease experienced by men and women visitors. Table 3, shows the spatial sensitivity to religious and social needs, based on responses from participants.

Table 3

Summary of Spatial Sensitivity to Religious and Social Needs

No.	Spatial feature	Purpose/function	Respondent feedback
1.	Designated male and female prayer rooms	Provides appropriate and private spaces for religious obligations	26 (87%) respondents agreed essential for religious practice and spiritual comfort.
2.	Separate ablution facilities	Ensures hygienic and respectful preparation for prayer	27 (90%) respondents agreed appreciated for cleanliness and respectful design.
3.	Gender-zoned dining and waiting areas	Supports modesty, comfort, and Islamic social norms	25 (83%) respondents agreed increases personal comfort and reduces social awkwardness.
4.	Family-friendly zones	Accommodates diverse family structures and age groups	28 (93%) respondents agreed makes the space more welcoming for families and children.
5.	Inclusive seating arrangements	Promotes inclusivity for users with different needs	27 (90%) respondents agreed encourages diverse users to feel included and respected.

Enhancement of Environmental Comfort and Visual Appeal

The results show the environmental comfort has been a significant factor to the entire experience of the Halal Hub facility. The spaces benefited from good inherent light levels, with daylight entering from large windows and it was served by effective cross-ventilation, which minimized the requirement for mechanical air-conditioning. The open-plan spaces, which were free of eye clutter and too much separation from one another, were calm and beckoning. Soft materials of calm colors and acoustic absorbing properties were adopted for sound and visual fatigue reduction. Visitors perennially connected these themes to a positive emotional response relaxed, spiritually at ease and prepared to spend a long-time shopping or being in the community. Table 4, shows the enhancement of environmental comfort and visual appeal, based on responses from participants.

Table 4

Summary of Environmental Comfort and Visual Appeal

No.	Design element	Purpose/function	Respondent feedback
1.	Warm ambient lighting	Creates a welcoming and emotionally soothing atmosphere.	28 (93%) respondents agreed induces feelings of calm and spiritual ease.
2.	Natural daylight (clerestory windows)	Reduces need for artificial lighting and boosts mood.	27 (90%) respondents agreed encourages longer stays and more relaxed browsing.
3.	Efficient cross-ventilation	Improves air circulation and thermal comfort.	26 (87%) respondents agreed space felt fresh and breathable.
4.	Open-plan layout	Minimizes clutter and enhances spatial clarity.	29 (97%) respondents agreed easy to navigate and visually open.
5.	Soft textures and neutral tones	Promotes visual comfort and aesthetic harmony.	29 (97%) respondents agreed soft on the eyes and visually relaxing.
6.	Acoustic-absorbing materials	Reduces noise pollution and enhances focus.	27 (90%) respondents agreed quieter environment improved concentration and comfort.

Technological Integration in Innovative Design

The results of incorporation technology reinforced the functionality and user-friendly aspects of Halal Hub as a facility. They cited digital Qibla direction indicators; motion-sensor lighting in ablution areas; and interactive digital kiosks to browse products and provide direction as top innovations. These innovations simplified user experience, without compromising cultural sensitivity and religious propriety. Smart environmental controls, such as automated lighting and ventilation, also increased the comfort and efficiency of energy usage. These solutions resonated with the respondents as they felt that they were logical and respectful, adding that they made the retail environment more accessible, easier to operate and better connected to Islamic consumers, all without detracting from its religious credentials. Table 5, shows the technological integration in innovative design, based on responses from participants.

Table 5

Summary of Technological Integration in Innovative Design

No.	Technology feature	Purpose/function	Respondent feedback
1.	Digital qibla direction indicators	Helps users easily locate the prayer direction with accuracy	28 (93%) respondents agreed simple yet respectful enhancement for prayer preparation.
2.	Motion-Sensor Lighting in Ablution Areas	Improves hygiene and convenience by reducing physical contact	27 (90%) respondents agreed highly convenient and aligned with Islamic cleanliness values.
3.	Interactive digital kiosks	Assists in product search, navigation, and service inquiries	26 (87%) respondents agreed user-friendly and helpful for locating halal-certified products.
4.	Smart lighting systems	Enhances ambient control and energy savings	29 (97%) respondents agreed Improves comfort while saving energy responsibly.
5.	Automated ventilation systems	Maintains optimal air quality and thermal comfort	27 (90%) respondents agreed creates a fresh and breathable indoor experience.

Discussion and Conclusion*The Role of Cultural and Religious Identity in Design*

The findings reinforce the idea that the Islamic design elements of geometric patterns, Arabic calligraphic patterns, and Qibla orientation of spatial planning are not only decorative elements. These added features help create spiritual atmosphere and reinforce cultural identity, in particular something which is very important in Halal Hub establishments where trust and authenticity are key factors. The demand by users for these features is consistently evidence that they are successful in creating emotionally and culturally meaningful spaces. Hence, design in Halal contexts has to intentionally integrate cultural symbolism that contribute to religious adherence, social inclusiveness and user satisfaction.

Addressing the Absence of Standardized Design Guidelines

The findings underscores an important gap amongst Halal SMEs, the absence of formalized design guideline for Islamic retail and service settings. This distance has led to heterogeneous and not always consistent space quality within Halal Hubs. Within any such guidance SMEs often 'make do' adopting on an ad-hoc basis which then does not best support customer comfort, operational flow or cultural expectations for their customers. The findings provide evidence to the requirement for flexible and scalable design guidance that draws from both cultural tradition and modern retail practices, in order for small to medium retailers to confidently and effectively make design decisions.

Balancing Aesthetic Value with Operational Functionality

The findings show the balance of aesthetics and functionality was one of the most significant lessons learned during the case study. Through the manipulation of reusable materials and the arrangement of modular furniture, a flexible, clean and sustainable environment was realized that allowed for daily retail requirements and offered a harmonious visual nature. This equilibrium was highly regarded by users and SME owners, consolidating the notion that

functional design need not come at the expense of aesthetic integrity. Instead, designed well, it can improve the general spatial experience and brand awareness of Halal Hubs.

Spatial Sensitivity to User Diversity and Social Needs

Findings highlighted the influence of inclusive spatial planning in relation to gender sensitivity, family-friendliness and religious facilities to the success of the Halal Hub facility. The facility's design adheres to spiritual duty with clean spatial allocation to prayer, ablution, and public gathering space, respects, but does not overly imitate the religious community, and finally, maybe most of importance, the building, by design, feels welcoming to everyone who enters. These were discourses which defined social inclusion and respect for other religious cultures as core principles of Halal retail environment design, which proposed that design should be about more than just providing facilities for commerce but should also act to support and maintain communal values, social unity and social stability.

Technological Integration in Innovative Design

The findings show how, when thoughtfully utilized, technology design strategies can increase efficiency and inclusivity of Halal Hub spaces. Digital Qibla direction indicators, smart lighting, motion-activated ablution areas, and interactive kiosks offered intuitive and respectful assistance to its users. These technologies were convenient and highly popular, without infringing any Islamic values or affronting spatial dignity. Furthermore, light and ventilation automation advanced environmentally friendly solutions, which correspond to Islamic ethos of taking care of the environment. This indicates that technology should be recognized as a strategic element of contemporary Halal design, linking tradition with convenience. Figure 1, shows an illustration proposed lobby design for the SMEs Halal Hub facility. Figure 2, shows an illustration proposed main hall design for the SMEs Halal Hub facility.



Figure 1: Renderings Of a Lobby Design for Halal Hub Facility Designed for SMEs, Feature Blends Modern Functionality with Islamic-Inspired Aesthetics, Featuring Smart Kiosks, Modular Seating, And A Clean, Welcoming Layout.

Source: Author



Figure 2: Renderings Of a Main Hall Design for Halal Hub Facility Designed for SMEs, Feature Smart Kiosks, Touchscreen Displays, Computer Desks, And Pop-Up Store Setups All Within a Modular, Islamic-Inspired Architectural Layout.

Source: Author

Conclusion

In conclusion, this research confirms the importance of a design in Halal Hub that is not only culturally authentic, spatially efficient, inclusive to user and technology upgrade. The lack of standard cases studies consequently opens up a window of opportunity in terms of a context-sensitive framework developed specifically for the Malaysian Halal SME. Through the implementation of design strategies that reflect Islamic identity, ergonomic planning, sustainability, and smart technology, SMEs could provide not only business objectives but also trust, affiliation and spiritual comfort for users within the diversity. The findings of this study could provide with a basis for a more systematic, creative and culturally-embedded interior design guideline within the Halal economy.

Research Contribution

This research adds to the scholarly literature the field of innovative design strategies considering the utilization of Halal facility environment by connecting the cultural identity, spatial department, contemporary approach and technology. It presents a reference that applies Islamic design values, including the orientation of Qibla, religious symbolism and gender responsive planning, to functional interior design strategies which are also user friendly and economically viable. The study's qualitative case study methodology provides a contextualized perspective of how small and medium-sized enterprises can integrate religious mandating and consumer expectations into spatial design. Further the supplementary addendum of digital prayer aids and smart home systems certainly adds to the intellectual discourse around how tradition and digital transformation can converge through the conduit of Halal architecture within the present day.

Practical Contributions

From a practical standpoint, the current paper provides SME operators, designers and developers working in Halal Hub establishments with straightforward and flexible innovative strategies design references. The results, thus, offer insights for integrating durable,

adaptable furniture systems, equitable zoning and sustainable smart technology solutions that can improve aesthetic appearance and functional efficiency. These references may provide an outline for the establishment of design guidelines or certification standards for Halal commercial interiors. Additionally, such insights may help both government bodies and industry players to create an enabling environment to support SMEs through the creation of well-planned and culturally sensitive retail environments that can develop customer trust, comfort and place attitudes towards the Halal Hubs as more than just commercial spaces, but culturally embedded community spaces.

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References

- AbdulGhani, A., Hamid, M., Harun, S. N., & Mohd-Noor, N. (2011). Towards Usable Malaysian Shopping Centre. *Procedia Engineering*, 20, 496. <https://doi.org/10.1016/j.proeng.2011.11.193>
- Aghazadeh, S. (2005). Layout strategies for retail operations: A case study. *Management Research News*, 28(10), 31. <https://doi.org/10.1108/01409170510785002>
- ANA, A., Selamat, S., Jaini, N., & NI, H. (2019). The Evaluation of Interior Design Elements in Nature Interpretation Centre. 8(1). <https://doi.org/10.35248/2169-0286.19.8.191>
- Arof, K. Z. M., Ismail, S., Najib, N. H., Amat, R. C., & Ahmad, N. H. (2020). Exploring Opportunities of Adopting Biophilic Cities Concept into Mixed-Use Development Project in Malaysia. *IOP Conference Series Earth and Environmental Science*, 409(1), 12054. <https://doi.org/10.1088/1755-1315/409/1/012054>
- Asif, N., Utaberta, N., & Sarram, A. (2019). Architectural Styles of Malaysian Mosque: Suitability In Compact Urban Settings. *MATEC Web of Conferences*, 266, 6001. <https://doi.org/10.1051/mateconf/201926606001>
- Dariyadi, M. W., Baydoun, Z., Kamarudin, Z., & Murtadho, N. (2022). The Islamic art and design elements applied in the Islamic city. *City Territory and Architecture*, 9(1). <https://doi.org/10.1186/s40410-022-00155-4>
- Fischer, J. (2012). Branding halal: A photographic essay on global Muslim markets (Respond to this article at <http://www.therai.org.uk/at/debate>). *Anthropology Today*, 28(4), 18. <https://doi.org/10.1111/j.1467-8322.2012.00886.x>
- Halal Development Corporation. (2020). Halal Industry Master Plan 2030 (HIMP 2030). Retrieved from <https://hdcglobal.com>
- Halbusi, H. A., Estévez, P. J., Eleen, T., Ramayah, T., & Uzir, M. U. H. (2020). The Roles of The Physical Environment, Social Servicescape, Co-Created Value, and Customer Satisfaction in Determining Tourists' Citizenship Behavior: Malaysian Cultural and Creative Industries. *Sustainability*, 12(8), 3229. <https://doi.org/10.3390/su12083229>
- Hartung, H., & Rottenberg, S. (2021). Human-Centered Design: Understanding Customers' Needs Through Discovery and Interviewing. <https://doi.org/10.21428/b2e239dc.1d894adb>
- Incorporating Islamic Principles in Residential Architecture: Cultural Perspectives and Design Approaches. (2021).

- https://www.researchgate.net/publication/383919592_Incorporating_Islamic_Principles_in_Residential_Architecture_Cultural_Perspectives_and_Design_Approaches
Industrial Malaysia. (2023). Malaysia Halal Hub: Economic Development and Industrial Parks. Retrieved from <https://www.industrialmalaysia.com.my/article/halal-hub>
- Latif, M. A. (2020). Halal International Standards and Certification (p. 205). <https://doi.org/10.1002/9781118823026.ch14>
- Mao, T. B., Chen, H. X., & Zheng, H. (2012). Space Planning and Layout of the Home Store. *Advanced Materials Research*, 2849. <https://doi.org/10.4028/www.scientific.net/amr.524-527.2849>
- Maximising Customer Experience through Strategic Retail Space Design. (2023). <https://www.linkedin.com/pulse/maximising-customer-experience-through-strategic-retail-space>
- Muhammad, N. S., Musa, R., & Ali, N. S. (2014). Unleashing the Effect of Store Atmospherics on Hedonic Experience and Store Loyalty. *Procedia - Social and Behavioral Sciences*, 130, 469. <https://doi.org/10.1016/j.sbspro.2014.04.055>
- Musa, Y. H., Yusuf, A., Utaberta, N., Usman, I. M. S., & Wardhana, M. (2023). Islamic Perception of Shopping Mall Through the Dimension of Facility Management. *Journal of Islamic Architecture*, 7(3), 408. <https://doi.org/10.18860/jia.v7i3.19960>
- Said, I. (2012). Art of Woodcarving in Timber Mosques of Peninsular Malaysia and Southern Thailand. *Jurnal Teknologi*. <https://doi.org/10.11113/jt.v34.634>
- Suki, N. M., & Salleh, A. S. A. (2018). Mediating effect of Halal image on Muslim consumers' intention to patronize retail stores. *Journal of Islamic Marketing*, 9(2), 338. <https://doi.org/10.1108/jima-02-2017-0014>
- Suratkon, A., Chan, C., & Rahman, T. S. T. A. (2014). SmartWUDHU': Recycling Ablution Water for Sustainable Living in Malaysia. *Journal of Sustainable Development*, 7(6). <https://doi.org/10.5539/jsd.v7n6p150>