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Store layout dimensions and customer satisfaction: empirical evidence from an Indonesian retail minimarket

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ABSTRACT

Purpose: to analyze the effects of product arrangement, customer movement pathways, and lighting and store atmosphere on customer satisfaction in a local Indonesian minimarket.
Method: using a quantitative approach to examine the effect of store layout dimensions on customer satisfaction. Data were collected via a 5-point Likert questionnaire from 75 randomly selected customers at Alfamart Cempaka Raya, Banjarmasin, and analyzed using multiple linear regression in SPSS.
Findings: All three store layout dimensions, product arrangement, customer flow, and lighting/atmosphere have a positive and significant impact on customer satisfaction, with lighting and atmosphere being the most influential. These findings highlight the critical role of store environment in enhancing customers' overall shopping experience.
Implications: the findings suggest that retail managers should strategically manage store layout, including product arrangement, customer flow, and lighting/atmosphere, to enhance customer satisfaction. Prioritizing a well-designed and comfortable shopping environment can strengthen customer loyalty and improve overall shopping experience.
Originality: lies in its multidimensional approach to store layout, simultaneously examining product arrangement, customer movement flow, and lighting/ambience, within the context of local Indonesian minimarkets.

Introduction

The retail industry in Indonesia has experienced rapid growth over the past decade, marked by the expansion of modern minimarket chains such as Alfamart, which reach urban as well as semi-urban areas. The presence of these minimarkets not only offers convenient access, strategic locations, and flexible operating hours but also

provides increasingly competitive standards of service and shopping comfort (Aulia et al., 2025; Ibad & Nugroho, 2025). In the context of intensifying modern retail competition, consumers no longer consider only price and product availability, but also seek a shopping experience that is comfortable, efficient, and enjoyable (Pappas et al., 2023; Ylilehto et al., 2021). Therefore, the management of a store's physical elements has become a strategic factor in creating customer satisfaction.

One of the key elements in shaping the shopping experience is the store layout, which encompasses product arrangement, customer movement pathways, lighting, as well as the overall atmosphere and comfort of the space. A well-designed layout can facilitate customers in locating products, reduce movement obstacles, and create a conducive shopping environment (Florea et al., 2025; Hagtvedt & Chandukala, 2023). Conversely, narrow aisles, overly dense product placement, or unclear pathways may cause discomfort and confusion (Munshi & Podder, 2025; Waites et al., 2023). This phenomenon can be observed at Alfamart Cempaka Raya in Banjarmasin, where, despite relatively adequate lighting, some aisles are narrow and product displays are quite crowded, potentially affecting both customer comfort and satisfaction levels.

Operations management literature states that an appropriate facility layout can enhance operational efficiency and service quality. From a marketing perspective, the physical elements of a store also play a crucial role in shaping consumers' perceptions and evaluations of service quality (Faria et al., 2022). Empirical studies have shown that product arrangement, the comfort of customer movement pathways, as well as the quality of lighting and store atmosphere, can enhance positive customer experiences and even encourage impulse purchases (Anggraeni, 2023; M. S. Azhari & Parhusip, 2024; Hutagaol & Prayogo, 2025; Iqbal et al., 2025; Salbiah et al., 2024; Susilo et al., 2025; Syadzwina et al., 2025). However, most previous studies tend to examine store layout as a single, general construct or focus solely on the atmospheric aspects of the store. Furthermore, research in the context of local minimarkets in Indonesia remains limited, particularly studies that comprehensively analyze the influence of product arrangement, customer movement pathways, and lighting and spatial atmosphere on customer satisfaction within an integrated empirical model.

Based on this gap, the present study offers novelty by examining both partially and simultaneously three dimensions of store layout, product arrangement, customer movement pathways, and lighting and spatial atmosphere on customer satisfaction in local minimarkets. This multidimensional approach provides a more comprehensive understanding of which layout components contribute most significantly to shaping customer satisfaction. The objective of this study is to analyze the influence of product arrangement, customer movement pathways, and lighting and spatial atmosphere on customer satisfaction. The study holds practical significance as it provides empirical evidence for minimarket managers in designing store layouts that are not only operationally efficient but also enhance the shopping experience and customer satisfaction. Furthermore, this research is expected to enrich the literature on retail management and consumer behavior by offering empirical evidence from the context of modern retail in Indonesia. It is also intended to serve as a strategic reference for minimarket management in optimizing store layout design to improve customer satisfaction, foster loyalty, and strengthen competitiveness in the increasingly dynamic retail environment.

Literature review

Stimulus–organism–response (S-O-R)

The S-O-R theory, developed by Mehrabian & Russell (1974), serves as the primary framework for this study. This theory explains that any stimulus from the external environment influences an individual's internal state, both cognitively and emotionally, which subsequently generates a specific response. In the retail context, physical store elements such as product arrangement, customer movement pathways, lighting, and spatial atmosphere act as stimuli (S) that can trigger psychological reactions in customers (O) including perceptions of comfort, convenience, and satisfaction. The responses (R) to these stimuli are reflected in customer behaviors, such as increased satisfaction, repurchase intentions, or even impulsive buying. Therefore, the S-O-R theory provides a conceptual basis for understanding how the quality of a store's physical environment directly affects customer experience and satisfaction.

Atmospherics theory

The atmospherics theory, proposed by Kotler (1973), emphasizes the importance of designing a store's physical environment to shape customers' emotional experiences. Store atmospherics include elements such as layout, lighting, color, temperature, cleanliness, and interior aesthetics, all designed to create positive psychological effects (Florea et al., 2025; Khan et al., 2022). An attractive and comfortable physical environment can enhance customer engagement, extend the duration of store visits, encourage interaction with products, and foster positive perceptions of store quality. This theory supports the assumption that product arrangement, movement pathways, and spatial atmosphere are not merely aesthetic aspects but also managerial strategies to enhance customer satisfaction and loyalty.

Customer satisfaction

Customer satisfaction is a key concept serving as the dependent variable in this study. It is defined as customers' overall evaluation of their shopping experience based on the comparison between expectations and the actual experience received (Herlina et al., 2024; Supra & Hendarsyah, 2022). When the shopping experience meets or exceeds expectations, satisfaction arises, influencing purchasing decisions, loyalty, and the intention to return. Customer satisfaction is not only affected by product quality and price but also by physical store environment factors that can create a comfortable, enjoyable, and efficient shopping experience (Fauzan et al., 2022).

Product arrangement

Product arrangement is the first element of the physical store environment that influences customer satisfaction (A. Azhari et al., 2023). A neat arrangement, clear categorization, and the placement of premium products in strategic locations help customers easily find the items they want, reduce confusion, and enhance shopping efficiency (König, 2025). Well-organized product placement also conveys professionalism and effective store organization, directly impacting customers' perception of quality and comfort, thereby increasing their overall satisfaction.

Customer movement pathways

Customer movement pathways relate to the design of circulation flow, aisle width, and ease of access to all areas of the store (Urban, 2022). Clear, unobstructed, and

comfortable pathways allow customers to move freely without feeling pressured, making the shopping experience more enjoyable. This concept aligns with layout management principles, which emphasize the optimal use of space to enhance customer comfort. Well-designed movement pathways also enable customers to explore the entire store, increase exposure to various products, and potentially encourage additional or impulsive purchases.

Lighting and store atmosphere

Lighting and store atmosphere are crucial elements of store atmospherics that influence customers' emotional experiences (Khan et al., 2022). Appropriate light intensity and color enhance product visibility, create a comfortable environment, and foster a professional and clean perception (Kar et al., 2025). The overall atmosphere, including cleanliness, temperature, and interior aesthetics, also determines how long customers feel comfortable staying in the store. According to atmospherics theory and the S-O-R model, lighting and store atmosphere act as stimuli that affect customers' emotional states, ultimately enhancing comfort, positive experiences, and shopping satisfaction.

Hypothesis development

This study is based on the stimulus–organism–response (S-O-R) theory, which posits that stimuli from the physical environment influence an individual's psychological state and elicit specific responses. In a retail context, product layout functions as a stimulus that shapes customers' perceptions of shopping ease, comfort, and efficiency. A neat, structured, and strategically organized product arrangement facilitates customers in finding desired items, thereby creating a positive shopping experience. This aligns with atmospherics theory, which emphasizes that store design can evoke emotional responses, and with the customer satisfaction concept, which asserts that satisfaction arises when experiences meet or exceed expectations. Previous studies by Supariyani & Marpaung (2013); Anggraeni (2023); Iqbal et al. (2025) also found that product arrangement positively affects customer satisfaction. Accordingly, a well-designed product layout has the potential to enhance customer satisfaction, leading to the formulation of hypothesis H_1: product arrangement positively influences customer satisfaction.

In the retail context, customer movement pathways serve as a stimulus through store circulation and spatial design, determining ease of access, smooth shopping flow, and comfort while navigating the store. Clear, unobstructed, and adequately wide pathways create perceptions of convenience and comfort for customers as organisms, making the shopping experience more enjoyable. Consistent with atmospherics theory, well-designed store layouts can evoke positive emotional responses, ultimately enhancing customers' evaluation of their shopping experience. Since customer satisfaction arises when actual experiences meet or exceed expectations, well-planned movement pathways have the potential to increase customer satisfaction. Previous research by Syadzwina et al. (2025) also found that customer movement pathways positively affect satisfaction. Therefore, hypothesis H_2 is proposed: customer movement pathways positively influence customer satisfaction.

Lighting and store atmosphere act as stimuli that influence customers' comfort, aesthetic perception, and emotional experience during shopping. Adequate lighting, comfortable light color, ideal room temperature, and a clean, well-designed interior create a pleasant and professional environment, making customers feel at ease and

more satisfied. Atmospherics theory supports this by emphasizing that physical store design can shape positive emotional experiences. According to the concept of customer satisfaction, shopping experiences that meet or exceed expectations enhance satisfaction levels. Therefore, optimal lighting and store ambience are expected to have a positive effect on customer satisfaction. Previous studies by Azhari & Parhusip (2024); Salbiah et al. (2024); Hutagaol & Prayogo (2025); Susilo et al. (2025) have found that lighting and atmosphere positively influence customer satisfaction. Accordingly, hypothesis H_3 is proposed: lighting and store atmosphere positively affect customer satisfaction.

Method

This study employs a quantitative approach with an explanatory research design aimed at testing the causal relationships between store layout variables and customer satisfaction. This approach was chosen because the research focuses on examining the influence of independent variables on the dependent variable both partially and simultaneously. The research variables consist of independent variables: product arrangement (X_1), customer movement pathways (X_2), and lighting and store atmosphere (X_3), while the dependent variable is customer satisfaction (Y). The population of this study is unknown; therefore, the sample size was determined using Hair et al.'s (2019) rule, which recommends multiplying the number of indicators (questionnaire items) by 5 to 10 to obtain a representative sample. With 15 indicators in this study and using a multiplier of 5, a sample size of 75 respondents was obtained. To enhance methodological rigor, probability sampling was applied using a random sampling technique. Every nth customer who completed a transaction was given the opportunity to participate as a respondent. This method was selected to minimize sample selection bias.

Table 1 research variable indicators

Variables	Indicators	References
Product arrangement (X_1)	Neat product arrangement; Product placement according to category; Ease of finding products; Placement of superior products in strategic areas.	Artana et al. (2019)
Customer movement pathways (X_2)	Clear path directions; Easy access to all areas; Sufficient space for movement; Minimal obstacles on the main path.	Artana et al. (2019)
Lighting and store atmosphere (X_3)	Lighting level; Lighting color and temperature; Room temperature; Cleanliness and aesthetics of the environment.	Annisa & Lestari (2021); Handoko (2023)
Customer satisfaction (Y)	Matching expectations and reality; Comfortable shopping experience; Desire to shop again.	Nainggolan & Tanjung (2023); Handoko (2023)

All variable indicators were measured using a 5-point Likert scale, ranging from 1 to 5, where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. Data analysis was conducted using a quantitative approach with the assistance of IBM SPSS version 23. The initial stage of analysis involved testing for validity and reliability to ensure the appropriateness of the instruments. Validity was tested using the Pearson Product Moment technique, where an item is considered valid if the calculated r-value exceeds the r-table value at a 5% significance level. Reliability was

assessed using Cronbach's Alpha, with the instrument deemed reliable if the alpha value is ≥ 0.70.

Before conducting multiple linear regression analysis, classical assumption tests were performed, including tests for normality, multicollinearity, and heteroscedasticity. The normality test aims to determine whether the residuals are normally distributed, which in this study was analyzed using the Kolmogorov-Smirnov test and a PP Plot. The multicollinearity test ensures that there is no high correlation between independent variables, with criteria of VIF values < 10 and tolerance > 0.10. Heteroscedasticity was tested using the Glejser test to identify the presence or absence of unequal variance in the residuals of the regression model.

Multiple linear regression analysis was used to examine the effects of product arrangement, customer movement pathways, and lighting and store atmosphere on customer satisfaction, both simultaneously and partially. The regression equation employed is $Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$, where Y represents customer satisfaction, X_1 is product layout, X_2 is customer circulation path, X_3 is lighting and store atmosphere, a is the constant, b is the regression coefficient, and e is the error term. Partial (t) tests were conducted to measure the effect of each independent variable separately, while the simultaneous (F) test was used to assess the combined effect of all independent variables on customer satisfaction. The coefficient of determination (R^2) was calculated to determine the contribution of the independent variables in explaining the variation in the dependent variable.

Results and discussion

The study began with an instrument validity test to ensure that each questionnaire item could accurately measure the intended indicators. The validity test, conducted using the Pearson Product Moment method, showed that all items for the variables of product layout, customer circulation paths, lighting and store atmosphere, as well as customer satisfaction, had correlation values greater than the critical r value at a 5% significance level, indicating that they were valid. Subsequently, a reliability test was conducted using Cronbach's Alpha method. The results indicated that all variables had α values above 0.70, demonstrating that the research instruments possessed good internal consistency and were reliable for repeated measurements.

Classical assumption tests were also conducted to ensure the suitability of the regression model used. The normality test, using the Kolmogorov–Smirnov method, showed a significance value greater than 0.05, indicating that the residuals were normally distributed. The multicollinearity test produced Tolerance values greater than 0.10 and Variance Inflation Factor (VIF) values less than 10 for all independent variables, suggesting no signs of multicollinearity. The heteroscedasticity test, using the Glejser method, showed that all variables had significance values above 0.05, indicating that there were no signs of heteroscedasticity in the model.

Table 2 multiple linear regression results

Hypothesis	Coefficient	T-stat	Sig.
H_1: product arrangement → customer satisfaction	0.141	1.874	0.003
H_2: customer movement pathways → customer satisfaction	0.258	1.957	0.001
H_3: lighting and store atmosphere → customer satisfaction	0.575	4.541	0.000
F-stat		7.672	0.000
R-square		0.625	
Adjusted R-square		0.609	

Source: primary data, processed

Based on Table 1, the results of the multiple linear regression analysis indicate that all independent variables in this study, product arrangement, customer movement pathways, and lighting and store atmosphere have a positive and significant effect on customer satisfaction. The effect of product arrangement on customer satisfaction (H_1) shows a positive regression coefficient, indicating that improvements in product arrangement lead to an increase in customer satisfaction, assuming other variables remain constant. The t-statistic and significance value confirm that this effect is statistically significant. Therefore, H_1 is accepted, meaning that product arrangement has a positive and significant influence on customer satisfaction.

The effect of customer movement pathways on customer satisfaction (H_2) shows a positive regression coefficient, indicating that better-designed pathways clear, accessible, and unobstructed lead to higher levels of customer satisfaction. The t-statistic and significance value confirm that this effect is statistically significant. Therefore, H_2 is accepted, meaning that customer movement pathways have a positive and significant influence on customer satisfaction. Furthermore, the effect of lighting and store atmosphere on customer satisfaction (H_3) has the largest regression coefficient among the variables, indicating that lighting and atmosphere provide the most dominant contribution to enhancing customer satisfaction. The statistical test results demonstrate that this effect is highly significant. Thus, H_3 is accepted, meaning that lighting and store atmosphere have a positive and significant impact on customer satisfaction.

The F-test results indicate that, simultaneously, the three independent variables have a significant effect on customer satisfaction. This means that the regression model developed in this study is appropriate for explaining the relationship between store layout dimensions and customer satisfaction. The coefficient of determination shows that a substantial proportion of the variation in customer satisfaction can be explained by product arrangement, customer movement pathways, and lighting and store atmosphere. After adjusting for the number of variables in the model, the explanatory power remains strong. However, a remaining portion of the variation in customer satisfaction is influenced by other factors not included in this study, such as price, promotions, cashier service quality, and other related variables.

The influence of product arrangement on customer satisfaction

The findings of this study indicate that product arrangement has a positive and significant effect on customer satisfaction at Alfamart Cempaka Raya, Banjarmasin. This implies that improvements in product arrangement lead to a meaningful increase in customer satisfaction. In other words, the neater, more organized, and strategically placed the products are, the higher the level of satisfaction perceived by customers. These findings are supported by previous studies conducted by Supariyani & Marpaung (2013); Anggraeni (2023); Iqbal et al. (2025) , which also found that product arrangement positively influences customer satisfaction. The results suggest that customers prefer stores with clear and easily accessible product arrangements, enabling them to locate the items they need quickly and efficiently.

A neat, structured, and strategically organized product arrangement creates ease and comfort in the shopping process (Florea et al., 2025). When customers can quickly find the products they need without confusion, the time and effort they expend become more efficient, making the shopping experience more enjoyable (Pusceddu et al., 2025). Moreover, a well-organized arrangement conveys professionalism, orderliness, and quality, which psychologically enhances positive perceptions of the store. From a

consumer behavior perspective, such convenience and comfort reduce the gap between expectations and actual experience, thereby fostering customer satisfaction (Fauzan et al., 2022).

A well-designed product arrangement also conveys professionalism and orderliness, allowing customers to feel comfortable while shopping. This indicates that the physical aspects of a store are not merely aesthetic elements but play a crucial role in shaping the overall customer experience. Within the S-O-R framework, product arrangement functions as a stimulus (S) that influences the customer's internal state or organism (O), such as perceptions of comfort, convenience, and shopping efficiency. These positive perceptions subsequently generate a response (R) in the form of satisfaction and a favorable evaluation of the shopping experience. Furthermore, Atmospherics theory supports this finding, as product layout is a key component of store atmosphere that can create positive emotional experiences and enhance perceptions of store quality.

At Alfamart Cempaka Raya, the product arrangement is neatly arranged, and the placement of featured products in strategic locations makes it easier for customers to access the items they need. Conversely, narrow aisles or unsystematic arrangements tend to create confusion and discomfort among customers. This indicates that the effective implementation of product arrangement can significantly enhance customer comfort and satisfaction in daily shopping activities. To further improve customer satisfaction, minimarket management should continuously evaluate and refine product layout arrangements on a regular basis. Several practical steps can be undertaken, such as reorganizing shelves to make products easier to locate, utilizing strategic areas for featured or high-demand products, and ensuring that customer flow remains smooth and unobstructed. In addition, customer satisfaction surveys and observations of shopping behavior can serve as valuable references for identifying areas that require improvement. Through these measures, the minimarket can maintain and enhance customer satisfaction while simultaneously fostering customer loyalty and repeat purchases.

The influence of customer movement pathways on customer satisfaction

The research findings indicate that customer movement pathways have a positive and significant effect on customer satisfaction at Alfamart Cempaka Raya, Banjarmasin. This confirms that improvements in the design of customer movement pathways lead to a tangible increase in satisfaction levels. In other words, the clearer, more comfortable, and obstruction-free the in-store movement pathways are, the higher the level of customer satisfaction perceived. These results are consistent with the study by Syadzwina et al. (2025), which found that customer movement pathways positively influences customer satisfaction. This finding suggests that customers tend to feel more comfortable and satisfied when they can move easily throughout the store without encountering obstacles or narrow aisles. Well-designed movement paths enable customers to explore various products more freely, increase opportunities for product interaction, and reduce feelings of frustration or confusion during the shopping process. Therefore, efficient circulation planning plays a crucial role in enhancing the overall comfort and quality of the shopping experience.

Clear, spacious, and unobstructed customer movement pathways create both physical and psychological comfort during the shopping process (Florea et al., 2025). When customers are able to move easily without feeling crowded or disturbed, they experience a smoother and more enjoyable shopping journey (Krishna et al., 2024). This

condition reduces stress, confusion, and fatigue, thereby fostering positive perceptions of the store. Moreover, a well-designed circulation flow allows customers to explore more areas and products naturally, enhancing the overall quality of the shopping experience and ultimately leading to greater customer satisfaction (Douglas et al., 2025). These findings are consistent with the S-O-R theory, in which customer movement paths function as a stimulus (S) that influences the customer's internal state (organism/O), such as perceptions of comfort, convenience, and safety while shopping. These positive internal perceptions subsequently generate a response (R) in the form of customer satisfaction. Furthermore, Atmospherics theory supports this result by emphasizing that store layout and physical design, including movement pathways, are key atmospheric elements that shape customers' emotional experiences and enhance their positive evaluation of the store.

At Alfamart Cempaka Raya, the customer movement pathways generally feature sufficiently wide aisles and a clear circulation flow, allowing customers to move smoothly, access all shelves, and locate desired products without feeling crowded. Conversely, areas with narrower aisles or closely arranged shelves often cause customers to pause longer, experience difficulty moving, and feel less comfortable. This indicates that the quality of customer circulation has a direct impact on shopping satisfaction. To sustain customer satisfaction, store management should routinely review and improve customer movement pathways to ensure that shopping comfort remains optimal. Practical steps may include rearranging shelves to maintain wide and unobstructed aisles, installing clear signage or directional indicators to facilitate store navigation, and optimizing traffic flow around strategic or high-demand products to maximize exposure. Regular evaluations through customer surveys and observations of shopping behavior can further assist management in identifying areas that require improvement. By implementing these measures, the store can enhance the overall shopping experience and strengthen customer satisfaction.

The influence of lighting and store atmosphere on customer satisfaction

The research findings indicate that lighting and store atmosphere have a positive and significant effect on customer satisfaction at Alfamart Cempaka Raya, Banjarmasin. This result confirms that the more optimal the lighting and store atmosphere, the higher the level of customer satisfaction. Among the three variables tested, lighting and ambience have the strongest influence on satisfaction, highlighting the critical role of atmospheric factors in creating a pleasant shopping experience. These findings are supported by prior studies conducted by Azhari & Parhusip (2024); Salbiah et al. (2024); Hutagaol & Prayogo (2025); Susilo et al. (2025), which also found that lighting and store atmosphere positively affect customer satisfaction. The results suggest that customers respond positively when the store environment provides visual comfort, appropriate room temperature, cleanliness, and appealing interior aesthetics.

Adequate lighting and comfortable light colors help customers see products clearly, while a tidy, clean, and pleasant store ambience creates a positive emotional experience (Khan et al., 2022). This enhances customers' comfort and encourages a favorable evaluation of their shopping experience. Lighting and store atmosphere directly influence customers' emotional comfort and perceived quality during shopping. Proper lighting allows customers to view products clearly, feel secure, and make decisions more easily (Florea et al., 2025). Meanwhile, a clean, cool, and aesthetically pleasing environment fosters a sense of comfort and encourages customers to linger in the store (Junhien & Maisirata, 2026). These factors collectively create a positive

shopping experience, leading customers to perceive their visit as meeting or even exceeding expectations, ultimately increasing customer satisfaction. These results align with the S-O-R theory, where lighting and store atmosphere act as stimuli (S) that affect customers' internal states (organism/O), including perceptions of comfort, satisfaction, and emotional experience. Positive perceptions then generate responses (R) in the form of high shopping satisfaction. In addition, Atmospherics theory emphasizes that physical store elements such as lighting, temperature, cleanliness, and interior aesthetics are crucial in shaping customers' emotional experiences, thereby influencing their perception of store quality and overall satisfaction.

The lighting and store atmosphere at Alfamart Cempaka Raya feature bright and balanced illumination, along with clean, organized, and comfortable spaces, reflecting a high level of customer comfort. Conversely, areas with insufficient lighting, narrow aisles, or poorly maintained conditions tend to make customers feel uncomfortable or rushed, potentially reducing shopping satisfaction. This demonstrates that store ambience and lighting are not merely aesthetic elements but essential factors in creating a satisfying shopping experience. To maintain customer satisfaction, store management must consistently preserve and enhance the quality of lighting and store atmosphere. Key measures include ensuring adequate light intensity throughout the store, using comfortable light colors and temperatures, maintaining interior cleanliness and organization, and regulating room temperature for optimal comfort. Regular evaluation through customer surveys and observation of shopping behavior can help identify areas that need improvement. By implementing these steps, Alfamart can sustain a comfortable store environment, increase customer satisfaction, and promote loyalty and repeat purchases.

Conclusions

Based on the results and discussion of this study, it can be concluded that product arrangement, customer movement pathways, and lighting and store atmosphere have a positive and significant effect on customer satisfaction at Alfamart Cempaka Raya, Banjarmasin. These three aspects of the store's physical environment play a crucial role in creating a shopping experience that is comfortable, convenient, and enjoyable, thereby fostering positive customer evaluations of the store. Among these factors, lighting and store atmosphere are the most dominant in enhancing satisfaction, highlighting the strategic role of store atmospherics in shaping positive emotional experiences. Overall, this study emphasizes that the quality of store layout and physical environment is not merely an aesthetic consideration but a managerial factor that determines customer satisfaction, loyalty, and the sustainability of the customer–minimarket relationship.

The implications of this study suggest that minimarket management should give strategic attention to the management of the store's physical environment as part of efforts to enhance customer satisfaction. A well-organized and systematic product arrangement, comfortable and easily accessible circulation pathways, and clean, bright, and aesthetically pleasing lighting and store ambience should be planned in an integrated manner as a customer experience strategy. Store managers should focus not only on pricing and promotions but also on store layout design that creates emotional comfort and shopping efficiency. By regularly evaluating and improving these aspects, minimarkets can enhance overall service quality, strengthen customer loyalty, and encourage sustainable repeat purchases.

This study has several limitations. It was conducted at a single minimarket location, so the findings cannot yet be widely generalized. The research focused only on three physical store environment variables, without considering other factors such as price, promotions, or service quality. Additionally, it employed a cross-sectional approach, capturing data at a single point in time based on respondents' subjective perceptions. Therefore, future research is recommended to expand the study across multiple outlets or different regions to enhance representativeness, include additional relevant variables, or examine mediating and moderating effects to enrich the model. Researchers may also consider using mixed methods or longitudinal approaches to gain a more comprehensive understanding of customer satisfaction dynamics over time.

References

Anggraeni, S. N. (2023). Pengaruh layout Toko Retail terhadap Kepuasan Pelanggan pada Homedecor Bandung, Indonesia. *International Journal Administration Business and Organization*, *4*(1), 12–21. https://doi.org/10.61242/ijabo.23.230

Annisa, D. A. N., & Lestari, K. K. (2021). Pengaruh Pemilihan Jenis dan Warna Pencahayaan pada Suasana Ruang Serta Kesan Pengunjung Kafe. *Sinektika: Jurnal Arsitektur*, *18*(1), 78–84. https://doi.org/10.23917/sinektika.v18i1.13325

Artana, I., Yasa, N., & Giantari, I. (2019). The influence of store atmosphere, product display, and price discount on impulse buying. *E-Journal of Economics and Business*, *8*(7), 697–722.

Aulia, F., Nazaruddin, M., & Alwi, A. (2025). Contestations Between Minimarket Retail And Local Grocery Stores In Aceh, Indonesia. *Jurnal Ilmu Sosial*, *23*(2), 45–63. https://doi.org/10.14710/jis.23.2.2024.45-63

Azhari, A., Firman, A., Khalik, A., & Oktaviani, A. R. (2023). The Effect of Location, Product Diversity, and Store Atmosphere on Increasing Customer Satisfaction. *Advances in Business & Industrial Marketing Research*, *1*(3), 108–116. https://doi.org/10.60079/abim.v1i3.136

Azhari, M. S., & Parhusip, A. A. (2024). Pengaruh Kualitas Pelayanan, Store Atmosphere Dan Lokasi Terhadap Kepuasan Konsumen. *Jurnal Widya*, *5*(1), 695–707. https://doi.org/10.54593/awl.v5i1.272

Douglas, K., Ogunnaike, A. O., & Fasintei, P. (2025). Perceptions of Circulation and Spatial Layout Efficiency in Ikeja City Mall: A Survey of User Experience and Satisfaction. *Journal of Built Environment and Geological Research*, *8*(4), 186–198. https://doi.org/10.70382/ajbegr.v8i4.036

Faria, S., Carvalho, J. M. S., & Vale, V. T. (2022). Service quality and store design in retail competitiveness. *International Journal of Retail & Distribution Management*, *50*(13), 184–199. https://doi.org/10.1108/IJRDM-01-2022-0005

Fauzan, R., A'yun, K., Hendarsyah, D., Nugroho, A. P., Nugroho, L., Nuraeni, E., Zulfikar, M., Ernayani, R., Sudirjo, F., Rofiq, N., & Santika, A. (2022). *Islamic Marketing*. Global Eksekutif Teknologi.

Florea, N.-V., Croitoru, G., Coman, D.-M., & Coman, M.-D. (2025). The Influence of Fashion Retailers on Customer Psychology Using Visual Merchandising and Store Layout to Improve Shopping Decision. *Journal of Theoretical and Applied Electronic Commerce Research*, *20*(1), 40. https://doi.org/10.3390/jtaer20010040

Hagtvedt, H., & Chandukala, S. R. (2023). Immersive retailing: The in-store experience. *Journal of Retailing*, *99*(4), 505–517. https://doi.org/10.1016/j.jretai.2023.10.003

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis*

(8th ed.). Cengage Learning.

Handoko, J. (2023). The influence of store atmosphere, service quality, and price perception on customer satisfaction. *Scientific Journal of Management*, *5*(2), 123–135.

Herlina, A., Rahmany, S., & Hendarsyah, D. (2024). Islamic And Technological Factors In Islamic Bank Customers' Satisfaction. *Al-Infaq: Jurnal Ekonomi Islam*, *15*(2), 327–348. https://ejournal2.uika-bogor.ac.id/index.php/alinfaq/article/view/2272

Hutagaol, M. E., & Prayogo, R. R. (2025). Analisis Pengaruh Daya Tanggap, Suasana Toko, dan Promosi terhadap Kepuasan Pelanggan pada Noerani Coffee Medan Timur. *JUMBIWIRA: Jurnal Manajemen Bisnis Kewirausahaan*, *4*(3), 201–222. https://jurnal.stiepari.ac.id/jumbiwira/article/view/3185

Ibad, M. W., & Nugroho, A. D. (2025). Strategies of Traditional Retail Store in Dealing with Mini Market Competition in Sidoarjo Regency. *RIGGS: Journal of Artificial Intelligence and Digital Business*, *4*(2), 4049–4054. https://doi.org/10.31004/riggs.v4i2.1163

Iqbal, M., Putdyaningsih, R., & Fibriyani, V. (2025). Pengaruh Tata Letak Produk Dan Kualitas Pelayanan Terhadap Kepuasan Pelanggan Di Toko Bloods Industries Kota Pasuruan. *Jurnal Ekonomi Manajemen Dan Bisnis*, *3*(1), 416–423. https://jurnalistiqomah.org/index.php/jemb/article/view/5803

Junhien, H., & Maisirata, P. (2026). The Effect of Store Atmosphere on the Decision to Stay with Purchase Interest as a Mediation Variable. *Golden Ratio of Marketing and Applied Psychology of Business*, *6*(2), 379–392. https://www.goldenratio.id/index.php/grmapb/article/view/1921

Kar, S. K., Mathew, D. J., & Prasad, V. V. S. (2025). Study and Evaluation of User Perception of Light, and Shadow on the Shape and Form of Physical Products, in the Context of Industrial Product Design. In *Responsible and Resilient Design for Society, Volume 2 (ICoRD 2025)* (pp. 547–555). https://doi.org/10.1007/978-981-96-6511-2_43

Khan, M. A., Vivek, Minhaj, S. M., Saifi, M. A., Alam, S., & Hasan, A. (2022). Impact of Store Design and Atmosphere on Shoppers' Purchase Decisions: An Empirical Study with Special Reference to Delhi-NCR. *Sustainability*, *15*(1), 95. https://doi.org/10.3390/su15010095

König, L. S. (2025). Optimising Retail Environments for Older Adults: Insights into Customer Behaviour and Organisational Performance. *Administrative Sciences*, *15*(4), 120. https://doi.org/10.3390/admsci15040120

Kotler, P. (1973). Atmospherics as a Marketing Tool. *Journal of Retailing*, *49*, 48–64.

Krishna, A., Luangrath, A. W., & Peck, J. (2024). A review of touch research in consumer psychology. *Journal of Consumer Psychology*, *34*(2), 359–381. https://doi.org/10.1002/jcpy.1413

Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. MIT Press. https://psycnet.apa.org/record/1974-22049-000

Munshi, J. D., & Podder, D. (2025). Leveraging Design Thinking for Optimised Retail Store Layouts: Addressing Marketing Challenges Through Consumer-Centric Solutions. *International Journal of Engineering and Information Management*, *1*(3), 21–33. https://doi.org/10.52756/ijeim.2025.v01.i03.002

Nainggolan, T., & Tanjung, Y. (2023). Pengaruh Suasana Toko Dan Kualitas Layanan Terhadap Kepuasan Pelanggan Padea Produk Kecantikan SilkyGirl Di Matahari Departement Store Thamrin Medan. *Journal of Creative Student Research*, *1*(1), 372–391. https://doi.org/10.55606/jcsrpolitama.v1i1.1149

Pappas, A., Fumagalli, E., Rouziou, M., & Bolander, W. (2023). More than Machines: The Role of the Future Retail Salesperson in Enhancing the Customer Experience. *Journal of Retailing*, *99*(4), 518–531. https://doi.org/10.1016/j.jretai.2023.10.004

Pusceddu, G., Moi, L., & Cabiddu, F. (2025). Do they see eye to eye? Managing customer experience in phygital high-tech retail. *Management Decision*, *63*(6), 2008–2037. https://doi.org/10.1108/MD-05-2022-0673

Salbiah, R. S., Rahmatunnisa, I., Mahmudah, M., Rangkuti, M. R., & Ramadhan, G. A. (2024). Peningkatan Kepuasan Pelanggan Melalui Strategi Store Atmosphere (Studi Kasus Indomart RS Ciawi Bogor). *Karimah Tauhid*, *3*(7), 7578–7593. https://doi.org/10.30997/karimahtauhid.v3i7.14128

Supariyani, E., & Marpaung, B. S. (2013). Pengaruh Tata Letak Terhadap Kepuasan Pelanggan Ritel. *Jurnal Ilmiah Manajemen Kesatuan*, *1*(1), 13–22. https://doi.org/10.37641/jimkes.v1i1.251

Supra, E., & Hendarsyah, D. (2022). Determinan Kepuasan Nasabah Pada Bank Syariah Indonesia. *El-Jizya: Jurnal Ekonomi Islam*, *10*(1), 33–50. https://doi.org/10.24090/ej.v10i1.6235

Susilo, E. A., Rasyid, A., & Pamungkas, D. S. T. B. (2025). The Influence of Store Atmosphere on Customer Satisfaction and Revisit Intention: A Study on Customers of Café Nakoa Malang. *Jurnal Penelitian*, *22*(2). https://jurnal.unmer.ac.id/index.php/jp/article/view/16513

Syadzwina, D., Naibaho, N. A., Sihaloho, Y. B., Waruwu, P. D. J., & Agusti, I. S. (2025). The effect of the impact of customer satisfaction on retail layout: Perspective of PT Trans Retail Medan Carrefour. *International Journal of Economics, Commerce, and Management*, *2*(3), 119–134. https://doi.org/10.62951/ijecm.v2i3.749

Urban, T. L. (2022). The effect of one-way aisles on retail layout. *Computers & Industrial Engineering*, *168*, 108064. https://doi.org/10.1016/j.cie.2022.108064

Waites, S. F., Stevens, J. L., & Hancock, T. (2023). Trauma's effects on shopper choice confusion: The role of psychological hardiness and retailer strategies as mitigating factors. *Journal of Retailing and Consumer Services*, *72*, 103277. https://doi.org/10.1016/j.jretconser.2023.103277

Ylilehto, M., Komulainen, H., & Ulkuniemi, P. (2021). The critical factors shaping customer shopping experiences with innovative technologies. *Baltic Journal of Management*, *16*(5), 661–680. https://doi.org/10.1108/BJM-02-2021-0049