Revolutionizing Retail: The Exquisite Architectural Marvel of Outdoor Shopping Malls

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ABSTRACT

Outdoor shopping malls have become an integral part of the modern urban landscape, offering a unique shopping experience under the open sky. This research aims to identify factors that influence the attractiveness of outdoor shopping malls. This literature review delves into the intricate design elements and strategic considerations that underpin the allure of outdoor shopping malls. Through a meticulous analysis of 400 papers published between 2014 and 2024, encompassing a total of 112,560 citations, key insights emerge regarding the impact of architectural design on consumer behavior. The research highlights the significance of factors such as exterior aesthetics, interior layout, and urban planning in shaping the appeal of shopping centers. By integrating perspectives from architecture, economics, and sociology, this study offers a holistic understanding of how outdoor malls create immersive retail experiences. Furthermore, by examining trends in research themes and collaborations among authors, this review sets the stage for future investigations into optimizing the design and functionality of outdoor shopping destinations.

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Keywords: architecture, attraction, outdoor, shopping mall

1. Introduction

The shopping experience has evolved from simply fulfilling a need to becoming a

from simply fulfilling a need to becoming a social and recreational activity[1]. One form of shopping that is becoming increasingly popular is outdoor shopping malls, which offer a unique combination of shopping, entertainment, and social interaction in a comfortable, open-air setting[2]. One of the key factors in attracting visitors to outdoor shopping centers is their location and accessibility[3]. Strategic locations, especially in busy areas and easily accessible by public transportation or private vehicles, can increase the number of visitors and the attractiveness of shopping centers[4].

and the attractiveness of shopping centers[4]. Architectural design and layout also play an important role in creating an attractive shopping experience in outdoor shopping malls[5]. Factors such as building design, open space, green areas, recreational facilities, and

space, green areas, recreational facilities, and rest areas can increase visual appeal and visitor comfort[6]. The presence of diverse and quality tenants is another significant factor in attracting visitors to outdoor shopping centers[7]. A good tenant mix can create a complete shopping experience and meet various consumer needs, from fashion, food, and drink, to entertainment[8]. Successful outdoor shopping centers offer more than just outdoor shopping centers offer more than just a place to shop. They also provide a variety of supporting facilities and interesting visitor experiences, such as art performances, music concerts, children's play areas, and concerts, children's play areas, and comfortable hangout places[9]. In an era that is increasingly concerned about the environment, sustainability is also a factor that influences attractiveness of outdoor shopping the Efforts centers[10]. to reduce carbon footprints, use of renewable energy, recycling,

and environmentally friendly policies can attract environmentally conscious consumers[11].

The study by [12] shows that online pping experiences can influence shopping consumers' impulsive behavior. Meanwhile, research by Bakirtaş et al. (2015) highlighted the importance of hedonic and utilitarian satisfaction values and consumer in influencing consumer intentions. In addition, factors such as the preferences of certain generations, such as Generation Z [13] and Generation Y[14], also play a role in influencing consumer behavior regarding

shopping. In addition, the environmental factors of shopping centers also play an important role. For example, [15] found that shopping centers that offer a variety of services tend to attract more visitors. Likewise, research by Zineb and Fatiha (2022) highlights the characteristics of shopping centers that influence purchasing decisions, such as product quality, price, entertainment, location, and security.



Source:https://pixabay.com/id/illustrations/pasarbazaarbelanja-di-luar-rumah-8721939/ Figure 1: Outdoor shopping Center

In the context of the COVID-19 pandemic, Basu & Swaminathan (2021) show that the pandemic has changed consumer perceptions regarding outdoor consumption categories, including retail shopping. categories, shopping. Additionally, a study by [16] highlights the impact of the pandemic on consumer shopping habits.

After the COVID-19 pandemic, there has been a significant change in the importance and use of outdoor space in architecture and urban planning. Research has highlighted the importance of outdoor living spaces in addressing home design issues and providing additional space, which can help reduce the spread of airborne viruses such as COVID-19[17]. Additionally, research has emphasized the henefit of energy in physical activity the benefits of engaging in physical activity outdoors, as it has been shown to reduce stress levels during the pandemic (Zayatz, 2023). The pandemic has emphasized the importance

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of access to open spaces and parks and emphasized the importance of outdoor recreation design[18].

In this article, we will explore the main factors influencing the attractiveness of outdoor shopping centers, as well as examine the findings of previous studies that have been conducted in this domain.

The problem statement in this article revolves around the need to identify the factors that influence the attractiveness of outdoor shopping malls. This stems from evolving consumer preferences and the growing importance of creating unique and engaging shopping experiences in modern urban landscapes.

The research objectives in the article include:

- 1) Analyzing the key factors that influence consumer preferences and behavior in choosing to visit and shop at outdoor
- choosing to visit and shop at outdoor shopping malls. Utilizing an interdisciplinary approach that combines the fields of architecture, economics, and sociology to understand the impact of design elements on the allure of outdoor shopping centers. Identifying trends and patterns in the literature to shed light on the factors most frequently highlighted or most influential in shaping the attractiveness of outdoor 2)
- 3)
- in shaping the attractiveness of outdoor shopping malls. Setting the stage for future research endeavors aimed at optimizing the design and functionality of outdoor shopping destinations to must the auditor 4) destinations to meet the evolving needs of consumers.

Material and Methods 2.

- 1) Identify the Research Topic and Objectives
- Determine the research topic: Factors that Influence the Attractiveness of Outdoor Shopping Malls.
- Establish research objectives: Analyze significant factors influencing the attractiveness of outdoor shopping centers based on literature published in accredited journals.

2) Article Search

- Search 400 for articles using accredited journal databases such as Scopus, DOAJ,
- WoS, and Google Scholar[19]. Use relevant keywords: design, architecture, outdoor, shopping malls, exterior design, interior design, outdoor shopping mall", "factors influencing attractiveness", and the like.

- Filter articles published in the last 10 years (2014-2024).
 3) Article Selection
- - Select articles that are relevant to the research topic based on title, abstract, and keywords: design, architecture, outdoor, shopping malls, exterior design, and interior design.
 - Ensure selected articles have been published in accredited journals and are
- 4. Data Processing with VOS Viewer
 Import selected articles into VOS Viewer
 - Using the VOS Viewer feature to analyze the relationships between concepts and relationship patterns between factors that influence the attractiveness of outdoor shopping malls^[20].
- Conduct cluster analysis to identify groups of concepts that are related to each other[21].
 5. Data Analysis
- - Analyze results generated from VOS Viewer to identify emerging trends and patterns in the literature[22]. Identify the factors most frequently
 - highlighted or most influential in the attractiveness influencing of

- 6. Preparation of Literature Review Articles
 Organize the results of data analysis into a clear and systematic literature review article structure.
 - Presents findings from the literature using a structured and informative approach.
 - Includes visualization of analysis results from VOS Viewer to provide a clearer picture^[23].

Research Data Metrics

Table 1. Research Data Metrics

Data Metrics	Information
Publication years	2014-2024
Citation years	10
Papers	400
Citations	112560
Cites/year	11256.00
Cites/paper	281.40
Cites/author	88512.94
Papers/author	238.73
Authors/paper	2.28
h-index	143
g-index	332
hI, norm	107
hI, annual	10.70
hA, index	54

Source: Output Publish or Perish, 2024

Table 1 presents several relevant metrics for research data conducted in the period 2014 for research data conducted in the period 2014 to 2024. A total of 400 papers were published during this period, with a total of 112560 citations. On average, each paper had 281.40 citations, and the annual citation rate was 11256.00. Individually, a researcher has an average of 238.73 papers per study and 2.28 authors per paper. In addition, the h-index, which reflects the number of articles that have at least h number of citations, reached a value of 143, indicating a significant level of impact in this field of research. g-index, which measures the productivity of researchers, reached 332.

H-I, norm of 107 indicates that this research has a higher impact than the average in its field. H-I, annual of 10.70 indicates that there is a growth in impact each year. Finally, the hA index of 54 indicates that several researchers have had a significant impact on their contributions to this research. Overall, this data reflects the substantial history and impact of the research conducted in the period.

3. Results

Bibliometric analysis aims to analyze existing literature patterns and also explore potential research in the future [24]. To answer this objective, a more specific analysis was carried out and resulted in questions such as "How is the existing literature classified and grouped based on similar themes and topics?", "What are the research trends on this topic from your the voor and which articles have the from year to year and which articles have the greatest impact on the period 2014 to 2024?", "What collaborations did the authors undertake?", and finally "What are the potential topics for future research?". With the help of the VOS Viewer tool, all these questions can be answered precisely and comprehensively[25].

The first question regarding the classification of existing literature can be by Network answered utilizing the Visualization feature. The results of this feature analysis are attached in Figure 1 below. There is a complex visualization that shows that the topic related to supermarket attractiveness is a topic that has high complexity. This indicates that the topic is a topic that is of interest to researchers.

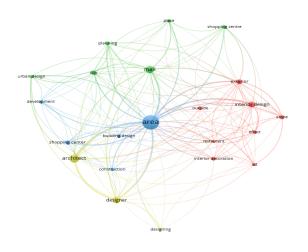


Figure 1. Network Visualization

Figure 1 above shows that there are three different contrasting colors: red, blue, and green. These colors indicate different groups. Meanwhile, terms that have the same color indicate that these terms are in the same group and have a similar theme or relationship to each other. Thus the literature on this topic is divided into three groups. The first group is represented in red with a total of 9 tribes, the second group is represented in green with a composition of 7 tribes, the third group is represented in blue with a total of 5 tribes, and the fourth group is represented in yellow with a total of 3 tribes. These groups are hereinafter called clusters. Specifically, Table 2 below explains the composition of each cluster with the most relevant terms.

Table 2: Clusters and Items

Clusters	Cluster Composition		
1	Art, effect, exterior, interior decoration, interior design, outside, restaurant, store		
2	City, mall, place, planning, shopping center, urban design		
3	Area, building design, construction, development, shopping center,		
4	Architect, designer, designing		

Source: Database Analysis with VOSViewer, 2024

After successfully identifying existing literature classifications, further analysis was continued using the Overlay Visualization feature in the VOSViewer application. This feature can identify research trends from 2014 to 2024 by referring to the timeline bar in Figure 2 below.

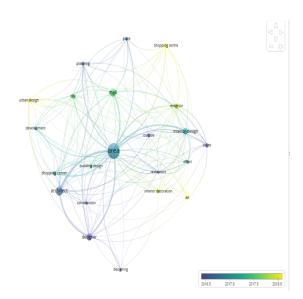


Figure 2. Overlay Visualization

From Figure 2 above we can conclude that terms such as designer, construction, store, and outside have a dark color (purple) which indicates that these terms became a research trend around 2016. Meanwhile, terms such as area, interior design, effect, and development became trends in 2017. Terms such as city, mall, exterior, shopping center, and urban design are terms that have become research trends in 2018.

These research trends can also be examined by identifying the primary or most influential literature in this field. The indicator of the impact of existing literature is to identify the number of citations so that it can be said that the articles with the highest number of citations are the articles that have had the most impact on scientific developments in the field of architecture and supermarkets. Table 3 below describes the 6 studies with the highest number of citations spread across various journals and scientific article databases.

Table 3. Most Cited Article

Citations	Author and Year	Title
33 + 66 + 26	Al- Kodman y, K (2018)	Sustainability and the 21st-century vertical city: A review of design approaches of tall buildings. <i>Buildings</i> , mdpi.com, <u>https://www.mdpi.com/2075- 5309/8/8/102</u> Al-Kodmany, K (2017). <i>Understanding tall buildings: a theory of placemaking.</i> , taylorfrancis.com, <u>https://doi.org/10.4324/9781315749297</u> Al-Kodmany, K (2014). Green towers and iconic design: Cases from three continents. <i>ArchNet-IJAR: International</i> <i>Journal of Architectural</i> ,

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		academia.edu,
		https://www.academia.edu/download/880
		<u>52430/325.pdf</u>
31 + 33	Allen, E	Iano, J, & Allen, E (2022). The
	(2022)	architect's studio companion: rules of
		thumb for preliminary design.,
		books.google.com,
		Allen, E, & Rand, P (2016). Architectural
		detailing: function, constructibility,
		aesthetics., books.google.com, Allen, E,
		& Iano, J (2019). Fundamentals of
		building construction: materials and
		methods., books.google.com,
9	Ching,	Interior design illustrated.,
	FDK	books.google.com,
	(2018),	https://books.google.com/books?
	(2021)	Ching, FDK, & Winkel, SR (2021).
	()	Building codes illustrated: a guide to
		understanding the 2021 international
		building code., books.google.com,
	р.:	
66 + 66	Preiser,	Preiser, WFE, Vischer, J, & White, E
	WFE	(2015). Design Intervention (Routledge
	(2015)	Revivals): Toward a More Humane
		Architecture., taylorfrancis.com,
		https://doi.org/10.4324/9781315714301
		Preiser, WFE (2016). Facility
		Programming (Routledge Revivals):
		Methods and Applications.,
		books.google.com,
		duy&sig= erfDIUAFR5mf NJ97krzAu0
		n7o
99	Wene V	Si, B, Wang, J, Yao, X, Shi, X, Jin, X, &
99	Wang, Y	
		Zhou, X (2019). Multi-objective
		optimization design of a complex
		building based on an artificial neural
		network and performance evaluation of
		algorithms. Advanced Engineering,
		Elsevier,
		https://www.sciencedirect.com/science/ar
		ticle/pii/S1474034618306128
45 + 45	Yildirim,	The effect of age, gender, and education
	K (2015)	level on customer evaluations of retail
	11 (2013)	furniture store atmospheric attributes.
		1
		International Journal of Retail,
		emerald.com,
		https://doi.org/10.1108/IJRDM-01-2013-
		0034
		Yildirim, K, Cagatay, K, & Ayalp, N
		(2015). Effect of wall color on the
		perception of classrooms. Indoor and
		Built, journals.sagepub.com,
		https://doi.org/10.1177/1420326X145262
		14
I	1	

Source: Output Publish or Perish, 2024

The table above presents a summary of several important scientific works in the field of supermarket architecture and its impact on the business world. A study entitled "Multi-objective optimization design of a complex building based on an artificial neural network and performance evaluation of algorithms" by Wang et al (2019) stands out with 99 citations[26], while other studies, such as "Design Intervention (Routledge Revivals): Toward a More Humane Architecture" by (Preiser et al., 2022) and "The effect of age, gender and education level on customer

evaluations of retail furniture store atmospheric attributes" by [28], also make important contributions with 45 citations.

Furthermore, to answer questions related to topics that have not been researched enough to create research gaps and have the potential to become interesting topics in the future, we can use the Density Visualization feature[29]. Figure 3 below shows the results of the analysis with some conditions having a dim color intensity and some having a brighter color intensity. This level of light intensity shows how often the term is used by researchers. The higher the intensity, the more articles use the term and vice versa.

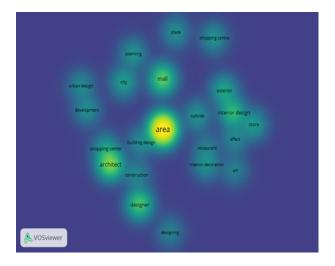


Figure 3. Density Visualization

Based on Figure 3 above, it is known that terms such as area, mall, and architect have quite high light intensity compared to other terms. This shows that these terms are used very often in previous studies and have the potential to have high saturation so they are not recommended for use in future studies[30]. not recommended for use in future studies[50]. While terms such as construction, art, designing, and outside, exterior, and art have a low intensity indicating that these terms are still rarely used, they have the potential to be interesting topics for research in the future. Finally, to find out how collaboration occurs between authors, we used network construction based on bibliographic data for each article in the database that we collected. Some authors work together and collaborate

Some authors work together and collaborate while other authors still carry out their research individually. Figure 4 below shows the groups of individual authors and those who have collaborated.

Table 4. A	Author Col	laboration
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Author	Document
Al-Kodmany, K	3
Allen, Edward	3
Ching, F.D.K	4

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Preiser, W.F.E	3
Wang, Y	3
Yildirim, K	3

Network Visualization Qverlay Visualization Rensity Visualization weight y Weights Documents V Ele Items Analysis alie), i Size variatio Circles O Frames Ouster 1 (1 item) al-kodmany, k Cluster 2 (1 item) Max. length: 30 Ô Font: Open Sans V allen, e Cluster 3 (1 item) ching fd ching, fdk Cluster 4 (1 item) preiser, wfe Cluster 5 (1 item) wang, y Cluster 6 (1 item) yildrim, k Max. lines 1000 🗘 preise, whe Colored lin Curved lines Cluster Colors... v al-kodmany, i 📓 Group items by cluster Items 6 | Clusters 6 | Links 0 V0Sviewer version 1.6.20

Source: Database Analysis with VOSViewer, 2024

Source: Database Analysis with VOSViewer, 2024 Figure 4. Visualization of the Authors' network

Figure 4 above shows that two groups of writers have conducted collaborative research while the other two groups are still individual. This identification is important for finding key authors as well as for collaborating with each author[31]. This is done to enrich the discussion and perspectives of research that will later be carried out or published.

Comparison with other Bibliometric Research

The topic of bibliometric analysis of supermarket architecture has been carried out by several researchers in the past. These studies address the use of bibliometric analysis to understand research trends, the interdisciplinary nature of research, and the growing importance of supermarket architecture. The study covers various topics, including architecture, city, mall, screen, and window display in supermarket architecture. This research includes those conducted by (Mehta DN, 2019; Chugan PK, 2015; Woods et al., 2015; Memon, 2022). Meanwhile, this article specifically highlights architectural renewal and shopping malls which have not previously been achieved by the research above, so that this research can complement and enrich the literature on this topic.

4. Discussion

Factors influence consumer preferences and behavior in choosing to visit and shop at outdoor shopping centers according to 2014-2024 research

Consumer preferences and behavior in choosing to visit and shop at outdoor shopping centers are influenced by several factors that have been studied in several studies. Influencing factors include online shopping experience, hedonic and utilitarian values, consumer satisfaction, preferences of specific generations, and environmental factors of shopping centers.

The study by [12] shows that online shopping experiences can influence consumers' impulsive behavior. Meanwhile, research by Bakirtaş et al. (2015) highlighted the importance of hedonic and utilitarian values and consumer satisfaction influencing consumer intentions. In addition, factors such as the preferences of certain generations, such as Generation Z [13] and Generation Y[14], also play a role in influencing consumer behavior regarding shopping.

In addition, the environmental factors of shopping centers also play an important role. For example, [15] found that shopping centers that offer a variety of services tend to attract more visitors. Likewise, research by Zineb and Fatiha (2022) highlights the characteristics of shopping centers that influence purchasing decisions, such as product quality, price, entertainment, location, and security.

In the context of the COVID-19 pandemic, Basu & Swaminathan (2021) show that the pandemic has changed consumer perceptions regarding outdoor consumption categories, including retail shopping. Additionally, a study by [16] highlights the impact of the pandemic on consumer shopping habits.

Thus, consumer preferences and behavior in choosing to visit and shop at outdoor shopping centers are influenced by several factors including shopping experience, hedonic and utilitarian values, consumer satisfaction, generational preferences, shopping center environmental factors, as well as the impact of events such as the COVID-19 pandemic.

Utilizing an interdisciplinary approach that combines the fields of architecture, economics, and sociology provides a comprehensive understanding of the impact

of design elements on the allure of outdoor shopping centers.

Here's how each discipline contributes to this holistic understanding:

1) Architecture: Architecture focuses on the physical design and layout of outdoor shopping centers. It considers factors such as building design, open spaces, green areas, recreational facilities, and rest areas. Architectural design plays a crucial role in creating visually appealing and comfortable environments that attract visitors.

2) Economics: Economics examines the financial aspects of outdoor shopping centers, including the economic viability of different design elements. It looks at how factors like tenant mix, pricing strategies, and consumer behavior influence the success of these centers. Understanding the economic implications of design choices is essential for creating sustainable and profitable shopping destinations.

3) Sociology: Sociology delves into the social aspects of outdoor shopping centers, focusing on consumer preferences, behavior, and societal trends. It explores how design elements impact visitor experiences, social interactions, and community engagement. By considering sociological factors, such as cultural influences and social dynamics, designers can create spaces that resonate with diverse consumer groups.

To identify trends and patterns in the literature

We can pay attention to Figure 2 where terms such as designer, construction, shop, and outside have a dark color (purple) which indicates that these terms became a research trend around 2016. Meanwhile, the terms such as area, interior design, effects, and development became trends in 2017. Terms such as city, mall, exterior, shopping center, and urban design are terms that became research trends in 2018.

These research trends can also be examined by identifying the main or most influential literature in the field. The indicator of the impact of existing literature is to identify the number of citations so that it can be said that the articles with the highest number of citations are the articles that have the greatest impact on the development of science in the field of architecture and supermarkets. Table 3 below describes the 6 studies with the highest number of citations spread across various journals and scientific article databases.

Establish a foundation for future research efforts

Setting the stage for future research endeavors aimed at optimizing the design and functionality of outdoor shopping destinations to meet the evolving needs of consumers is crucial for the continuous improvement of retail environments. Here's how this process can pave the way for future research:

- Current Understanding: Building on the existing knowledge and insights gained from the analysis of trends and patterns in the literature, researchers can establish a solid foundation for future research endeavors. Understanding the key factors that influence the attractiveness of outdoor shopping malls provides a starting point for further exploration.
- 2) Identifying Gaps: By identifying gaps in the current research and understanding the limitations of existing studies, researchers can pinpoint areas that require further investigation. These gaps may relate to emerging consumer trends, technological advancements, sustainability considerations, or changing market dynamics.
- 3) Research Objectives: Setting clear research objectives that focus on optimizing the design and functionality of outdoor shopping destinations is essential. Researchers can define specific goals related enhancing consumer to experiences, improving sustainability practices, incorporating innovative technologies, or addressing evolving consumer preferences.
- 4) Methodological Approach: Researchers can determine the most appropriate methodological for approach future research endeavors, considering factors such as data collection methods, analysis techniques, interdisciplinary and collaboration. By adopting a rigorous and systematic approach, researchers can ensure the validity and reliability of their findings
- 5) Collaboration and Interdisciplinary Research: Encouraging collaboration between experts from various fields, such as architecture, economics, sociology, and consumer behavior, can enrich future research endeavors. By integrating diverse perspectives and expertise, researchers can develop holistic solutions that cater to the multifaceted needs of consumers.

6) Innovation and Adaptation: Embracing innovation and staying abreast of industry trends is essential for optimizing the design and functionality of outdoor shopping destinations. Researchers should remain flexible and adaptable to changes in consumer behavior, technological advancements, and market dynamics to ensure that their research remains relevant and impactful

5. Conclusion

One of the important contributions of this research is the use of an interdisciplinary approach that combines insights from architecture, economics, and sociology. By integrating perspectives from diverse fields, this research offers a holistic understanding of how outdoor malls create immersive retail experiences. This interdisciplinary lens enriches the analysis of design elements and their impact on consumer behavior, paving the way for a more comprehensive exploration of outdoor shopping destinations.

Identification of Key Factors: This research successfully identified and analyzed the key factors that influence the attractiveness of outdoor shopping centers, including location, architectural design, tenant mix, visitor experience, and sustainability. By highlighting these important factors, this study provides a roadmap for developers and urban planners to increase the attractiveness and success of outdoor shopping centers. Understanding these factors is critical to meeting the evolving needs of modern consumers and creating an engaging retail environment.

Trend and Pattern Analysis: Through the identification of trends and patterns in the literature, this research offers valuable insight into the most frequently highlighted or influential factors in shaping the attractiveness of outdoor shopping centers. By conducting a thorough analysis of the existing literature, this study sets the stage for future research efforts aimed at optimizing the design and functionality of outdoor shopping destinations. This analysis not only enriches the current understanding of the outdoor retail environment but also provides a foundation for further investigation in this domain.

further investigation in this domain. Future Research Directions: This study outlines future research directions, emphasizing the importance of overcoming limitations such as generalizability, emerging trends in supermarket architecture, ethical considerations, and the integration of technology in predictive modeling for external factor analysis. By highlighting these areas for further exploration, this study guides future research efforts to address emerging challenges and opportunities in the field of outdoor shopping center design. A proactive approach to identifying future research directions contributes to the advancement of knowledge and innovation in retail architecture.

Limitations and Suggestions for Further Research

Although the results of this study provide valuable insights, several limitations need to be noted. First, a focus on a specific context may generalize the findings to a limited extent[32]. To further enhance the research on the factors influencing the attractiveness of outdoor shopping malls and maximize its impact, the following suggestions and recommendations can be considered: Diversification of Research Samples:

Diversification of Research Samples: Expand the geographic scope of the study to include a more diverse range of locations and cultural contexts. By incorporating a broader sample of outdoor shopping malls from different regions, researchers can capture a more comprehensive understanding of the factors that influence attractiveness across various settings.

Longitudinal Studies: Conduct longitudinal studies to track changes and trends in consumer behavior and preferences over time. By analyzing data longitudinally, researchers can gain insights into the evolving dynamics of outdoor shopping environments and adapt their strategies to meet changing consumer needs.

Stakeholder Engagement: Collaborate with stakeholders such as developers, urban planners, retailers, and consumers to gather diverse perspectives on outdoor shopping mall design. Engaging stakeholders in the research process can provide valuable insights and ensure that the study addresses real-world challenges and opportunities.

ensure that the study addresses real-world challenges and opportunities. Incorporation of Technology: Explore the integration of technology in outdoor shopping mall design to enhance the overall consumer experience. Consider incorporating digital innovations, interactive features, and datadriven solutions to create engaging and personalized shopping environments.

personalized shopping environments. Sustainability Initiatives: Emphasize sustainability initiatives in outdoor shopping mall design by incorporating green practices, renewable energy sources, and environmentally friendly policies. By prioritizing sustainability, developers can attract environmentally conscious consumers and contribute to a more eco-friendly urban landscape.

Community Engagement: Involve the local community in the planning and design process of outdoor shopping malls to ensure that the spaces reflect the needs and preferences of the residents. By fostering community engagement, developers can create inclusive and vibrant retail destinations that resonate with the local population.

inclusive and vibrant retail destinations that resonate with the local population. Continuous Monitoring and Evaluation: Implement a system for continuous monitoring and evaluation of outdoor shopping mall performance to assess the effectiveness of design elements and strategies. By regularly collecting feedback from visitors and stakeholders, researchers can identify areas for improvement and make data-driven decisions to enhance the attractiveness of these retail environments

References

[1] S. Park, "What do recreational shoppers want to achieve from shopping? The importance of excitement in leisure shopping," *Glob. Bus. Financ. Rev.*, vol. 23, no. 1, pp. 15–23, 2018, doi: 10.17549/gbfr.2018.23.1.15.

[2] A. Iqbal, H. Nazir, and R. M. Memon, "Shopping centers versus traditional open street bazaars: A comparative study of user's preference in the city of Karachi, Pakistan," *Front. Built Environ.*, vol. 8, no. November, pp. 1–12, 2022, doi: 10.3389/fbuil.2022.1066093.

[3] L. Ortegón-Cortázar and M. Royo-Vela, "Attraction factors of shopping centers: Effects of design and econatural environment on intention to visit," *Eur. J. Manag. Bus. Econ.*, vol. 26, no. 2, pp. 199–219, 2017, doi: 10.1108/EJMBE-07-2017-012.

[4] K. H. Sasmita, B. Soemardiono, and V. T. Noerwasito, "Design Criteria of Modern Shopping Centre Building Based on Public Pedestrian Space," *J. Archit.*, vol. 19, no. 1, p. 11, 2020, doi: 10.12962/j2355262x.v19i1.a6511.

[5] Y. Yuan, G. Liu, R. Dang, S. S. Y. Lau, and G. Qu, "Architectural design and consumer experience: an investigation of shopping malls throughout the design process," *Asia Pacific J. Mark. Logist.*, vol. 33, no. 9, pp. 1934–1951, 2021, doi: 10.1108/APJML-06-2020-0408.

[6] A. A. Ahirwal, "Recreational Aspects of Open Green Spaces in Neighbourhood," *Int. J. Res. Sci. Innov.* |, vol. VII, no. Vi, pp. 60–67, 2020.

[7] A. Kusumowidagdo, A. Sachari, and P. Widodo, "Visitors' Perception towards Public Space in Shopping Center in the Creation Sense of Place," *Procedia - Soc. Behav. Sci.*, vol. 184, no. May, pp. 266–272, 2015, doi: 10.1016/j.sbspro.2015.05.090.

[8] D. R. Wilkinson and E. Tennessee, "A Study To Determine The Optimal Tenant Mix in Shopping Centre," vol. 2, no. February, pp. 3–10, 2020.

[9] C. Spence, "Senses of place : architectural design for the multisensory mind," vol. 4, 2020.

[10] P. Gazzola, E. Pavione, R. Pezzetti, and D. Grechi, "Trends in the Fashion Industry . The Perception of Sustainability and Circular Economy: A Gender / Generation Quantitative Approach," 2020. [11] E. KOÇ, "Green Marketing Strategies and Climate Change Awareness in Sustainable Transportation: The Case of Airline Companies," *Mar. Sci. Technol. Bull.*, vol. 12, no. 4, pp. 459–472, 2023, doi: 10.33714/masteb.1375842.

[12] Y. Liu, Y. Zhang, C. Qiu, and Y. Ma, "Research on the Relationship between Online Shopping Experience and Consumer Impulse Buying," *2019 Annu. Conf. Soc. Manag. Econ. (SME 2019)*, vol. 4, pp. 43–50, 2019, doi: 10.35532/jsss.v4.008.

[13] R. Andriyanty and D. Wahab, "Preferensi Konsumen Generasi Z terhadap Konsumsi Produk Dalam Negeri," *ETHOS (Jurnal Penelit. dan Pengabdian)*, vol. 7, no. 2, pp. 280–296, 2019, doi: 10.29313/ethos.v7i2.4694.

[14] P. Violetta, H. Hartoyo, and N. Zulbainarni, "Pendidikan Konsumen Generasi Y: Pengaruh Ethnosentrisme, Hedonisme, dan Kelompok Acuan terhadap Preferensi dan Perilaku Pembelian Buah Lokal," *J. Ilmu Kel. dan Konsum.*, vol. 11, no. 2, pp. 120–132, 2018, doi: 10.24156/jikk.2018.11.2.120.

[15] P. Chantarayukol, "Mixed use shopping mall as an attractiveness on customer behaviors in Bangkok, Thailand," *J. Bus. Retail Manag. Res.*, vol. 14, no. 01, pp. 32–39, 2019, doi: 10.24052/jbrmr/v14is01/art-04.

[16] N. Chandola and N. Shendurnikar, "COVID-19 and Shopping Trends: A Study of How the Pandemic Affected Consumer Behaviour in Vadodara," *J. Commun. Manag.*, vol. 2, no. 01, pp. 44–52, 2023, doi: 10.58966/jcm2023218.

[17] A. Pramono, C. Yuninda, and B. Munir, "Excavated Earth Area Maximization as a Basement and Outdoor Living Space on a Sloped Terrain Housing," *IOP Conf. Ser. Earth Environ. Sci.*, vol. 1169, no. 1, 2023, doi: 10.1088/1755-1315/1169/1/012068.

[18] W. L. Rice, T. J. Mateer, N. Reigner, P. Newman, B. Lawhon, and B. D. Taff, "Changes in recreational behaviors of outdoor enthusiasts during the COVID-19 pandemic: analysis across urban and rural communities," *J. Urban Ecol.*, vol. 6, no. 1, pp. 1–7, 2020, doi: 10.1093/jue/juaa020.

[19] A. S. Ahmar *et al.*, "Lecturers' understanding on indexing databases of SINTA, DOAJ, Google Scholar, SCOPUS, and Web of Science: A study of Indonesians," *J. Phys. Conf. Ser.*, vol. 954, no. January, 2018, doi: 10.1088/1742-6596/954/1/012026.

[20] X. Ding, "Knowledge Mapping of Platform Research: A Visual Analysis Using VOSviewer*," 2020, pp. 454–463. doi: 10.2991/aebmr.k.191225.081.

[21] N. J. van Eck and L. Waltman, *Visualizing Bibliometric Networks*. 2014. doi: 10.1007/978-3-319-10377-8 13.

[22] S. López and V. Yepes, "Visualizing the Future of Knowledge Sharing in SMEs in the Construction Industry: A VOSviewer Analysis of Emerging Trends and Best Practices," *Adv. Civ. Eng.*, vol. 2024, 2024, doi: 10.1155/2024/6657677.

[23] X. Ding and Z. Yang, "Knowledge mapping of platform research: a visual analysis using VOSviewer

International Journal of Built Environment and Scientific Research e-issn: 2580-2607 | p-issn: 2581-1347 | Pg. 35 - 44

and CiteSpace," *Electron. Commer. Res.*, vol. 22, no. 3, pp. 787–809, 2022, doi: 10.1007/s10660-020-09410-7.

[24] N. Donthu, S. Kumar, D. Mukherjee, N. Pandey, and W. M. Lim, "How to conduct a bibliometric analysis: An overview and guidelines," *J. Bus. Res.*, vol. 133, no. April, pp. 285–296, 2021, doi: 10.1016/j.jbusres.2021.04.070.

[25] D. Kalibatiene and J. Miliauskaitė, "A systematic mapping with bibliometric analysis on information systems using ontology and fuzzy logic," *Appl. Sci.*, vol. 11, no. 7, 2021, doi: 10.3390/app11073003.

[26] N. Mehta and P. Chugan, "Visual Merchandising as Tool for Creating Differentiation for Furniture Outlets: Perceptual Mapping," *Inter-disciplinary Issues Empower. Trade, Ind. Soc.*, no. Jan, pp. 289–300, 2016.

[27] R. M. Memon, Y. N. Pasha, N. Iftakhar, B. D. Talpur, and S. A. Marri, "Recreational Facilities for Leisure and Pleasure in Shopping Mall in Pakistan," *Sir Syed Univ. Res. J. Eng. Technol.*, vol. 12, no. 2, pp. 56–69, 2022, doi: 10.33317/ssurj.482.

[28] K. Y. Kubulay and C. L. M. Hidayetoglu, "International Journal of Retail & Distribution Management The effect of age, gender and education level on customer evaluations of retail furniture store atmospheric attributes," *Int. J. Retail Distrib. Manag.*, vol. 43, no. 1–31, pp. 1–5, 2016.

[29] L. Alzubaidi et al., Review of deep learning: concepts, CNN architectures, challenges, applications, future directions, vol. 8, no. 1. Springer International Publishing, 2021. doi: 10.1186/s40537-021-00444-8.

[30] Y. Y. and L. W. P. Richard P. Bagozzi, "Bogazzi_Assesing Construct Validity in Organiational Research," *Adm. Sci. Q.*, vol. 36, no. 3, pp. 421–458, 2017.

[31] A. Ramdhani, M. A. Ramdhani, and A. S. Amin, "Writing a Literature Review Research Paper: A stepby-step approach," *Int. J. Basic Appl. Sci.*, vol. 03, no. 01, pp. 47–56, 2014.

[32] J. Sutton and Z. Austin, "Qualitative reserch: data collection, analysis, and managment," *Can. J. Hosp. Pharm.*, vol. 68, no. 3, pp. 226–231, 2015.