Eduvest – Journal of Universal Studies
Volume 5 Number 12, December, 2025
p- ISSN 2775-3735- e-ISSN 2775-3727

Criteria Review of Multifunctional Sidewalks in the Synergy Between Street Vendors and Pedestrian Paths (Case Study: Simpang Lima Area, Semarang)

Novian Rizqi Pramudita*, Agung Budi Sardjono
Universitas Diponegoro Semarang, Indonesia
Email: novian.rizqi@gmail.com, agungbs@arsitektur.undip.ac.id

ABSTRACT

Sidewalks in Indonesia are often used for various purposes, one of which is by street vendors (PKL). Street vendors are often viewed negatively because they are considered to reduce pedestrian comfort. However, in some situations, street vendors can synergize with sidewalks and increase the vitality of public spaces. The purpose of this study is to evaluate the standards needed for multifunctional sidewalks that can serve as a forum for synergy between pedestrian paths and street vendor activities. The research employs a qualitative approach through a comprehensive literature review and systematic field observations, incorporating thematic analysis to evaluate sidewalk conditions against established urban design criteria. This study identifies eight critical factors affecting multifunctional sidewalks: effective width, street vendor layout, accessibility, pedestrian comfort, supporting activities, cleanliness, lighting, and legalization with management structures. The results show that the sidewalks in Simpang Lima can be categorized as multifunctional sidewalks. The layout of street vendors, supporting activities, lighting, and legalization are aspects that are already appropriate, while the aspects that are less optimal are effective width, accessibility, comfort, cleanliness, and facilities. Based on this study, it was found that the existence of street vendors can contribute to the vitality of public spaces in the Simpang Lima area, especially if it is well organized and the street vendor community participates in protecting the environment. It is hoped that this research can provide input for the city government in managing street vendors and enrich the study of urban design related to multifunctional sidewalks.

KEYWORDS *Sidewalks, Street Vendors, Multifunctional Sidewalks, Synergy, Simpang Lima Semarang*

INTRODUCTION

This study examines the synergistic relationship between pedestrian pathways and street vendor activities on multifunctional sidewalks in the Simpang Lima area, Semarang City, addressing a critical gap in Indonesian urban design literature (Rahman et al., 2020; Saad, 2022; Widjajanti et al., 2020; Wungo et al., 2022). The novelty of this research lies in its positive framing of street vendor integration within public space management strategies, contrasting with prevalent deficit-oriented approaches that characterize vendors primarily as obstacles. As part of the city, sidewalks play an important role not only as a means of transportation but also as a public space that shows the quality of life of an urban area. National regulations, such as Permen PUPR No. 03/PRT/M/2014, stipulate that sidewalks must have adequate width and barrier-free conditions to ensure comfort and accessibility, including for people with disabilities. Therefore, the existence of sidewalks in urban areas correlates with the level of walkability of the city. This is an important indicator of sustainable city design.

The urgency of this research stems from the persistent tension between formal planning regulations and informal economic realities in Indonesian cities. As urban populations grow and public space becomes increasingly contested, understanding how to balance pedestrian needs with livelihood opportunities becomes critical for equitable and sustainable urban development. In practice, sidewalks in Indonesia are often used twice. One common phenomenon is the existence of an informal economy commonly called street vendors. Often, street vendors are considered an obstacle because they reduce the effective width of pedestrian lanes, cause deviations from pedestrian flow, and reduce comfort quality. Therefore, the solutions offered more often lead to the control and relocation of street vendors. However, urban design literature and placemaking theory provide different points of view. Informal economic activities such as street vendors are considered to increase the vitality of sidewalks as a public space that can create social interaction and provide added value to an area if properly laid out and managed (Fanggidae, 2021; Hanser, 2016; Prakasam, 2022; Yatmo, 2008; Zaman & Ahmed, 2023).

Despite extensive international literature on street vending and public space, limited research in Indonesia examines street vendors as potential positive contributors to public space management. Most Indonesian studies emphasize vendors' negative impacts on pedestrian mobility, creating a significant research gap. This study addresses this gap by investigating street vendors not solely as obstacles but as components capable of synergizing with sidewalks to fulfill public space functions when appropriately regulated and managed.

The Simpang Lima Semarang area is an interesting example of a multifunctional sidewalk that synergizes with street vendor activities. As one of the icons of Semarang city, the Simpang Lima area is a center for tourism, recreation, and trade activities. The Semarang City Government is not only tolerant, but also able to see the potential and officially organize the existence of street vendors in this area. This makes the Simpang Lima sidewalk have a dual function, namely serving pedestrian mobility while making it a space for socio-economic interaction. This phenomenon is different from several other areas, such as the Undip Pleburan area, where street vendors are present without clear regulations, which can cause conflicts.

In this situation, an opportunity arises to conduct research on how multifunctional sidewalks can meet the needs of both pedestrians and street vendors as part of the economic sector simultaneously. There has not been much research conducted in Indonesia that looks at street vendors as part of the public space management strategy from a positive perspective. Most studies focus more on the negative effects of street vendors on pedestrians. Therefore, there is a research gap in this study that sees street vendors not only as an obstacle but also as a component that can work together with sidewalks and help carry out the function of public spaces as long as they are properly regulated and managed.

This study will examine the criteria for multifunctional sidewalks that allow synergy between street vendors and pedestrian paths. These criteria were gathered from previous research and include factors such as sidewalk layout, effective width, accessibility, comfort, supporting activities, cleanliness, legalization, and management elements. Furthermore, the criteria are used as an instrument to evaluate the existing condition of sidewalks in the Simpang Lima area of Semarang. With this approach, it is hoped that the research can provide a

comprehensive picture of the extent to which sidewalks in the area reflect the synergy between street vendors and pedestrian/sidewalk paths.

This research is expected to provide two benefits. (1) It will contribute to urban design research on multifunctional sidewalks and inclusive public spaces with a focus on conflicts and potential synergies. (2) Practically, it can serve as input for the Semarang City government and other cities in formulating street vendor management policies that not only enforce discipline but also organize public spaces and pedestrian activities with good quality, creating a good middle ground for various parties.

RESEARCH METHOD

This study employed a qualitative approach with in-depth descriptive analysis, integrating comprehensive literature review with systematic field observations to evaluate multifunctional sidewalk criteria supporting informal economic sector activities, specifically street vendors (PKL). The research site selection of Simpang Lima, Semarang City, is purposive, based on this location's status as a primary public activity center and officially regulated street vendor congregation area under Semarang City Government management.

Field observations systematically monitored multiple sidewalk segments throughout the site, documenting effective width, street vendor placement, accessibility features, pedestrian comfort indicators, supporting facilities, and nighttime lighting conditions. Data collection occurred during both daytime and evening hours to capture temporal variations in sidewalk usage patterns and vendor-pedestrian dynamics.

For analytical framework development, we synthesized multifunctional sidewalk criteria through systematic literature review, drawing from regulatory standards (Ministry of Public Works and Housing Regulation No. 03/PRT/M/2014), theoretical frameworks including walkability concepts (Speck, 2012), placemaking theory (Project for Public Spaces, 2008), and informal urbanization scholarship (Bromley, 2000). This multi-source approach ensures comprehensive criteria addressing both regulatory compliance and theoretical best practices in urban design.

Field observation data underwent thematic analysis, comparing documented conditions against literature-derived criteria. Results were classified into three evaluative categories: (1) Appropriate—field conditions fully meet established criteria; (2) Not Optimal—field conditions approximate criteria but demonstrate deficiencies; and (3) Not Suitable—field conditions contradict established criteria. This classification system enables nuanced assessment of sidewalk performance across multiple dimensions.

Figure 1. Simpang Lima Year 2010 (Before renovation)
Source: Google Earth

Figure 2. Simpang Lima Year 2012 (After renovation)
Source: Google Earth

Figure 3. Simpang Lima Semarang 2025
Source: Google Earth

RESULT AND DISCUSSION

A sidewalk is a part of a highway that is specifically reserved for pedestrians, usually located on the side of the road and has an elevation or height higher than the road surface of the vehicle. These sidewalks are generally parallel to vehicular traffic lanes and are separated by physical structures as a form of protection and safety for pedestrians (Director General of Highways No.76/KPTS/Db/1999). The main function of sidewalks is to provide services to pedestrians so that they can improve the smoothness, safety, and comfort of walking. In addition, sidewalks also function as public spaces that can trigger social interaction between communities if managed as an interaction space (Iswanto, 2006). Meanwhile, traders involved in the informal economic sector are known as street vendors. The term "street vendor" itself comes from the width of the sidewalk of 1.5 meters which is converted into units of feet. Usually they occupy roads, parks, sidewalks, public spaces and other public places that are considered strategic both in terms of atmosphere and environment and have a high level of activity so that they are suitable for trading (*Setyawan, 2004*).

In the urban context, street vendors are one of the phenomena that are often debated because they are often considered to hinder and interfere with the comfort of public spaces. However, its existence is also considered to be able to improve the dynamics of urban spaces by making their spaces livelier. Therefore, urban planning needs to be managed properly so that urban socio-economic life can be properly supported without disturbing people's comfort. Such as the application of multifunctional sidewalks applied in the Manahan Solo area, where

sidewalks also function as jogging tracks and street vendor stalls so that informal economic activities can be well organized without disturbing the comfort of pedestrians.

Figure 4. Application of multifunctional sidewalks in Manahan Solo
Source: https://www.tribunnews.com

Similar things can also be seen in the Simpang Lima area of Semarang City which is the focus of this research object. Simpang Lima is known as the center of Semarang City because it is a transportation hub and activities for both trade and tourism. Around this area are also found various government agencies. The pedestrian path in the Simpang Lima area and its surroundings also has a relatively large width, which is around ±5 meters. The wide size of the sidewalk and the dense activity that occurs make street vendors make this area their choice to peddle their wares. Before 2010, street vendors in the Simpang Lima area of Semarang were irregular because there had been no arrangement from the city government. However, in 2011, the Mayor of Semarang Soemarmo together with the city government renovated and arranged the Simpang Lima area, one of which widened the sidewalk to 8 meters, so that it could be used by street vendors.

Figure 5. Simpang Lima sidewalk before renovation
Source: N. Sari, et al., 2010

After the renovation, there was a widening of the sidewalk to reach ±8 meters. This creates a wider space so that the space is more spacious for pedestrians to use, this at the same time has the function of accommodating street vendor stalls that have been officially laid out by the city government on some sidewalk areas, so that the informal economy continues to run without eliminating the virtue of sidewalks as pedestrian paths.

Figure 6. Sidewalk areas where there are street vendors
Source: Google Earth

To determine whether the sidewalk in the Simpang Lima area can be said to be a multifunctional sidewalk that synergizes with street vendors, a clear and measurable standard is needed. This criterion was made on the basis of a literature study and regulations related to activities on sidewalks and public spaces. National regulations, such as Permen PUPR No. 03/PRT/M/2014, emphasize the importance of effective and easily accessible sidewalks. However, the literature on urban design shows that the comfort, vitality, and function of informal activities such as street vendors in improving life on the street are major concerns (*Whyte, 1980*). According to the concept of placemaking, a good public space can encourage social and economic interaction (*Project fot Public Spaces, 2008*).

This study identifies eight main elements that will be used to analyze the layout of street vendors, effective width, accessibility, comfort, supporting activities, facilities and cleanliness, lighting and security, legalization and management. The following table shows a summary of these criteria.

Table 1. Assessment Criteria

Aspects	Assessment Criteria	Source
Effective width	At least 2 meters of clean pedestrian paths after reducing street vendor areas	PUPR Ministerial Regulation (2014), ITDP (2018)
Street Vendor Layout	Linear at the edge, does not close pedestrian lanes	Bromley (2000)
Accessibility	Ram & guiding block unobstructed	PUPR Ministerial Regulation (2014), WHO (2011)
Comfort	Safe lane, low pedestrian deviation	Speck (2012)
Support activities	The presence of street vendors increases social interaction & *stop rate*	Whyte (1980)
Cleanliness & facilities	Adequate garbage cans and drainage available	ITDP (2018)
Lighting & safety	Bright lighting and feels safe especially at night	WHO (2016)
Legalization & management	Street vendors are officially organized by the City Government (there are zoning & operating hours)	Semarang City Regulation

The criteria in the table above are the basis for assessing the existing condition of sidewalks in the Simpang Lima area of Semarang. Each aspect listed is used as an observation instrument to see the extent to which multifunctional sidewalks in this area can synergize with the existence of street vendors (PKL). Furthermore, field observations were evaluated based on these criteria and classified into three categories, namely: appropriate if field conditions meet the criteria, not optimal if field conditions are close to the criteria but have deficiencies, and inappropriate if field conditions contradict the criteria.

This method focuses on the physical condition of the sidewalk as well as the dynamics of the activities that take place, such as pedestrian interaction with street vendors, the comfort of pedestrian paths, and legalization and management issues. The following table outlines the results of the conformity assessment.

Table 2. The results of the conformity assessment

Aspects	Assessment Criteria	Existing Conditions	Conformity
Effective width	At least 2 meters of clean pedestrian paths after reducing street vendor areas	Total width ±8 meters Street vendors: ±6-7 meters Pedestrian: ±1 meter	NOT SUITABLE
Street Vendor Layout	Linear at the edge, does not close pedestrian lanes	Neatly arranged linear is on the edge of the pavement	APPROPRIATE
Accessibility	Ram & guiding block unobstructed	Ram: There are but some points are too steep Guiding block: There are, but some points are blocked by something	NOT OPTIMAL
Comfort	Safe lane, low pedestrian deviation	The day is smooth, but at night it becomes dense and the deviation also increases	NOT OPTIMAL
Support activities	The presence of street vendors increases social interaction & *stop rate*	Many people stopped to stop by street vendors and the area became livelier	APPROPRIATE
Cleanliness & facilities	Adequate garbage cans and drainage available	Trash can available; When it rains, sometimes puddles and mud arise	NOT OPTIMAL
Lighting & safety	Bright lighting and feels safe especially at night	The street lights are quite bright and the dense activity creates a sense of social security	APPROPRIATE
Legalization & management	Street vendors are officially organized by the City Government (there are zoning & operating hours)	The existing street vendors have been inaugurated and regulated by the Semarang City government	APPROPRIATE

Based on the observation results, the table above states that the sidewalks in the Simpang Lima Semarang area meet most of the criteria for multifunctional sidewalks, especially those related to street vendor layout, supporting activities, lighting, and legalization. These four elements show that street vendors in this area are not only present at certain times, but have become part of the official management of urban space and contribute positively to life in the Simpang Lima area of Semarang. The Simpang Lima area becomes more and more crowded

as it enters the night, where culinary vendors start to open their stalls, and visitors start arriving. Due to the large number of visitors or pedestrians who stopped, sat and interacted, the atmosphere became livelier. This condition shows how the sidewalk has become "multifunctional", namely as a pedestrian path and a public space that accommodates social and economic activities in Semarang City.

Figure 7. Culinary street vendor activities make the atmosphere more lively
Source: Personal documents

During the day, the condition of the sidewalks, especially at the sidewalk points where street vendors are located, will look quieter than at night, and the sidewalk functions more as a pedestrian route even though there are still some street vendors that are open since the morning. Even though it has been widened and the pedestrian space has become more spacious, in reality at some points that are street vendor areas are still filled with street vendor furniture such as tables and chairs which make the effective space for pedestrians reduced. Overall, the sidewalk has been facilitated with guiding blocks, but unfortunately some points are blocked by street vendor furniture and other objects. This makes the quality of the accessibility aspect not optimal.

Figure 8. Guiding blocks are blocked and lanes are narrowed
Source: Personal documents

In addition to the blocking guiding block, there are ramps that are too steep and of course will interfere with accessibility for people with disabilities. Then, in some parts, there are pedestrian paths that have been narrowed so that they do not meet the ideal width caused by various things such as street vendor stall tables and chairs that take up too much space, plant pots that are not placed correctly. Due to the increasing density and deviation of the path, pedestrian comfort decreases especially at night. Meanwhile, cleanliness and other supporting facilities also need to be a concern because with limited garbage can capacity and suboptimal drainage in the rainy season, it still causes waterlogging or mud at some points.

Figure 9. Narrowing of pedestrian paths by PKL
Source furniture: Personal documents

Figure 10. Ram that is too steep
Source: Personal documents

Figure 11. The atmosphere of the multifunctional sidewalk in the Simpang Lima area of Semarang
Source: Personal documents

CONCLUSION

The sidewalks in the Simpang Lima area of Semarang exemplify a successful multifunctional public space by integrating pedestrian mobility with organized informal

economic activity, supported by formal legalization, a well-planned vendor layout, adequate lighting, and vibrant social interaction. Nonetheless, challenges with pedestrian width, accessibility, and comfort during peak times highlight the need for improved management to fully realize this synergy. Future research should adopt a mixed-methods, longitudinal approach combining quantitative pedestrian flow analysis with qualitative insights from users and vendors. Expanding such studies to various Indonesian cities would provide comparative data to inform effective multifunctional sidewalk policies tailored to different socio-economic environments.

REFERENCES

Bromley, R. (2000). Street vending and public policy: A global review. *International Journal of Sociology and Social Policy*, *20*(1–2), 1–28.

Fanggidae, L. W. (2021). *The existence of street vendors as an element of urban space: A dilemma*. *Gerbang Wacana Arsitektur (GEWANG)*, *3*(2).

Hanser, A. (2016). Street politics: Street vendors and urban governance in China. *The China Quarterly*, *226*. https://doi.org/10.1017/S0305741016000278

Iswanto, D. (2006). The influence of complementary elements of pedestrian paths on pedestrian comfort: A case study of the Pandanaran Road segment starting from Jalan Randusari to the Tugu Muda area. *Enclosure*, *5*(1), 21–29.

ITDP. (2018). *Pedestrian first: Tools for a walkable city*. Institute for Transportation and Development Policy.

Prakasam, S. (2022). *Urban street vendors in India*. Academic Foundation.

Rahman, B., Noviani, A., & Rosyadea, R. (2020). The effect of street vendors' activities in city park on the functions of park as a public space. *Journal of Physics: Conference Series*, *1655*(1). https://doi.org/10.1088/1742-6596/1655/1/012114

Saad, S. (2022). Women and places: Female street vendors, territorial identity and placemaking. *Journal of Art and Design*, *2*(1). https://doi.org/10.31586/jad.2022.297

Setyawan, R. (2004). *The influence of street vendors on the image of the Jalan Kartini area of Semarang*. Soegijapranata University Press.

Speck, J. (2012). *Walkable city: How downtown can save America, one step at a time*. Urban Planning.

Widjajanti, R., Sunarti, & Ardiati, H. H. (2020). Street vendors' activity space in the residential, public space (Case study: Tirto Agung Park, Semarang). *IOP Conference Series: Earth and Environmental Science*, *409*(1). https://doi.org/10.1088/1755-1315/409/1/012029

Whyte, W. H. (1980). *The social life of small urban spaces* (Vol. 116). Conservation Foundation.

Wungo, G. L., Mussadun, Nathasya, A., & Manurung, M. A. (2022). Assessing the quality of pedestrian paths related to street vendor activities at Johar Market, Semarang. *IOP Conference Series: Earth and Environmental Science*, *1015*(1). https://doi.org/10.1088/1755-1315/1015/1/012003

Yatmo, Y. A. (2008). Street vendors as "out of place" urban elements. *Journal of Urban Design*, *13*(3). https://doi.org/10.1080/13574800802320889

Zaman, S., & Ahmed, N. N. (2023). The impact of street vendors on social sustainability of public places: The case of Khulna City in Bangladesh. *ISVS E-Journal*, *10*(3).