



When High Spending Meets Low Walkability: The Accessibility Paradox in a Living Heritage Urban District

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ABSTRACT: This study examines the structural paradox between high tourist expenditure concentration and infrastructural accessibility constraints in the Gajah Mada Heritage Area, Denpasar. Drawing on secondary data from the 2025 Denpasar Tourist Expenditure Survey, the study analyses micro spending patterns, attraction preferences, and satisfaction with traffic conditions using descriptive and gap analysis approaches. Results reveal that retail spending accounts for 20 percent of average daily domestic tourist expenditure, with visitation to shopping zones exceeding 80 percent, confirming the area's function as a cultural shopping district. However, 49 percent of domestic visitors report dissatisfaction with traffic congestion, indicating a critical accessibility deficit. Tourist interest in living heritage attractions significantly exceeds that of static historical sites, suggesting a shift toward performative authenticity. The findings demonstrate that spatial constraints generate implicit economic costs by limiting dwell time and consumption opportunities. Revitalization strategies must therefore prioritize walkability oriented planning to sustain economic vitality in urban heritage corridors.

Keywords: heritage tourism, tourist expenditure, walkability, accessibility, sustainability

INTRODUCTION

Urban heritage tourism has re-emerged as a strategic driver of post pandemic recovery in many Asian cities, where historic commercial corridors function simultaneously as cultural assets and economic nodes. Contemporary tourists increasingly seek immersive and experience based encounters rather than passive sightseeing, prioritizing authenticity embedded in everyday local life (Benenti & Giombini, 2021; Samal et al., 2025). This shift has elevated the role of living heritage districts, where markets, culinary spaces, and traditional retail activities become central attractions. In Indonesia, urban governance reforms and quality tourism agendas have further encouraged the revitalization of historic corridors as engines of micro economic growth (Verdini & Xin, 2024; R. Zhang, 2025). However, the sustainability of such revitalization depends not only on cultural attractiveness but also on spatial functionality and accessibility performance.

The Gajah Mada Heritage Area in Denpasar represents a compelling case of this transformation. Recent municipal data indicate that retail spending constitutes a substantial proportion of daily tourist expenditure, while visitation rates to shopping zones remain consistently high (Wiranata & Yuliana, 2025; Ye et al., 2021). At the same time, tourist preferences reveal stronger interest in living traditions and community life than in static museum based attractions, reflecting broader generational shifts toward performative authenticity (Zhou et al., 2023). These patterns suggest that Gajah Mada has evolved into a cultural shopping district in



which economic vitality is closely intertwined with heritage identity. Yet this economic concentration occurs within a dense urban environment characterized by traffic congestion and limited pedestrian infrastructure.

Although previous studies have examined heritage commodification, placemaking, and urban tourism governance (Guttormsen et al., 2023; Speake & Kennedy, 2022), limited research integrates micro level tourist expenditure data with infrastructural carrying capacity in active heritage corridors. Most empirical work treats tourist spending as a macro economic indicator without examining how spatial constraints may suppress marginal consumption or shorten dwell time. Similarly, research on walkability and congestion typically focuses on satisfaction or mobility outcomes rather than linking accessibility deficits to potential economic shadow costs (Baobeid et al., 2021; Lewis, 2024). This disconnection creates a critical gap in understanding how infrastructure performance moderates the economic sustainability of urban heritage districts.

Addressing this gap, the present study investigates the structural paradox between high retail spending concentration, strong living heritage preference, and persistent accessibility dissatisfaction in the Gajah Mada Heritage Area. The study asks three central questions. First, how are tourist micro spending patterns structured within the corridor. Second, how does visitor interest in living heritage compare with static historical attractions. Third, what are the economic implications of accessibility dissatisfaction for the sustainability of the district. By employing descriptive and gap analysis based on the 2025 Denpasar Tourist Expenditure Survey, the study conceptualizes congestion not merely as a mobility issue but as a latent economic constraint.

This study contributes to the literature in three ways. Theoretically, it bridges urban heritage tourism research with spatial accessibility and psychological carrying capacity perspectives, demonstrating how infrastructural deficits can generate implicit economic costs. Empirically, it utilizes micro spending data to reveal structural imbalance within a Southeast Asian heritage corridor. Practically, it provides evidence based insights for revitalization policies that prioritize walkability oriented planning and integrated cultural economic branding. By reframing revitalization as a balance between economic intensity and spatial capacity, the study advances a more holistic understanding of sustainable urban heritage development.

LITERATURE REVIEWS

Living Heritage and Urban Tourism Transformation

The conceptualization of heritage in urban tourism has shifted from monument centered preservation toward living heritage frameworks that emphasize everyday socio economic functions embedded within historic spaces. Living heritage refers to historic districts that remain actively inhabited and economically functional, allowing tourists to engage with ongoing community life rather than static displays (Bui et al., 2020; Zuo et al., 2022). This transition aligns with broader changes in tourist demand, where authenticity is increasingly constructed through performative and experiential encounters. Rather than consuming history passively, contemporary visitors seek immersion in market activity, culinary traditions, and local commerce that reflect organic cultural continuity (Sheoran, 2025; Sorato, 2025).

However, the revitalization of living heritage areas presents governance challenges. Excessive commodification risks placelessness, where heritage identity is diluted through homogenized commercial development (Jayalakshmi & Mondal, 2025; Marbun, 2025). Placemaking strategies therefore become essential to maintain social authenticity while accommodating tourism flows (King et al., 2025). In Southeast Asian urban contexts, the sustainability of heritage corridors depends on maintaining local trading ecosystems alongside adaptive infrastructure modernization (Wang & Xu, 2024). The tension between conservation, commercialization, and modernization remains a central issue in contemporary heritage planning.

Tourist Expenditure and Cultural Consumption

Tourist expenditure represents a direct indicator of economic contribution, yet its structural composition provides deeper insights into destination function. Post pandemic studies indicate a redistribution of spending toward retail and culinary micro consumption in urban centers, reflecting increased valuation of locally embedded products and experiences (Bitterman & Hess, 2021; Imschloss & Schwemmle, 2024). In heritage settings, shopping activities carry dual meaning as economic transactions and symbolic cultural consumption, where purchased goods serve as tangible extensions of destination identity (Zhang et al., 2020). This phenomenon reinforces the role of historic commercial corridors as cultural shopping districts.

Digital payment integration further intensifies micro spending behavior by lowering transaction friction and encouraging impulsive consumption (Bimantara & Nugraha, 2025). As cities promote quality tourism agendas, expenditure concentration in heritage zones becomes a strategic asset. Nevertheless, economic vitality alone does not guarantee sustainability. If spatial infrastructure fails to support pedestrian circulation and comfort, high spending potential may not translate into long term growth. Thus, expenditure analysis must be examined alongside spatial performance indicators.

Accessibility, Walkability, and Psychological Carrying Capacity

Accessibility constitutes a foundational determinant of urban tourism sustainability. Empirical research demonstrates that traffic congestion negatively affects tourist satisfaction, destination image, and revisit intention (Hamdy et al., 2023). Beyond physical inconvenience, congestion generates psychological stress that reduces perceived enjoyment and compresses exploration time. The concept of walkability highlights the importance of pedestrian oriented design in heritage districts, where slower mobility enhances experiential depth and increases opportunities for incidental spending (Kyei-Gyamfi, 2025; Lindsey & Teles, 2017).

The notion of psychological carrying capacity further explains how overcrowding and mobility stress can erode visitor perception even when physical infrastructure remains functional (Stojic et al., 2026). When tolerance thresholds are exceeded, destinations risk long term reputational decline. Despite these insights, limited research empirically connects accessibility dissatisfaction with potential economic shadow costs in active commercial heritage corridors. Integrating spending patterns with spatial carrying capacity therefore represents a necessary step toward understanding the structural sustainability of urban heritage revitalization.

METHODS

This study adopts a quantitative descriptive design using secondary data analysis to examine the structural relationship between tourist expenditure concentration, attraction preference, and accessibility dissatisfaction within the Gajah Mada Heritage Area. The approach is appropriate for diagnosing systemic imbalance in urban heritage corridors where macro level policy decisions rely on aggregated behavioral data. Rather than testing causal relationships, the study focuses on identifying structural gaps between economic intensity and spatial capacity.

The primary dataset is derived from the 2025 Tourist Expenditure Study of Denpasar City, conducted by the Denpasar City Tourism Office in collaboration with Udayana University. Data were collected through intercept surveys administered at strategic tourist nodes in the city center, including the Gajah Mada corridor. The survey employed structured questionnaires targeting both domestic and international visitors who had completed at least one tourism activity in the area.

The dataset includes expenditure records, visitation patterns, and satisfaction ratings related to infrastructure performance. Respondents were selected using systematic intercept sampling during peak and non-peak hours to reduce temporal bias. The sample covers both weekday and weekend visitation to improve representativeness of spending behavior.

Tourist expenditure was measured using a daily recall method, where respondents reported average spending across predefined categories including retail shopping, culinary consumption, accommodation, transportation, and entertainment. Retail expenditure proportion was calculated as a percentage of total daily spending to capture expenditure concentration within the corridor.

Attraction preference was measured through reported visitation rates and stated interest categories, distinguishing between static heritage attractions such as museums and dynamic living heritage activities including market visits and community based experiences.

Accessibility satisfaction was assessed using a five point Likert scale ranging from very dissatisfied to very satisfied. The analysis specifically focuses on traffic and congestion perception as core indicators of spatial performance. Dissatisfaction rates were computed by aggregating responses in the dissatisfied and very dissatisfied categories.

Data analysis proceeded in three stages. First, descriptive statistical analysis was conducted to map the structure of tourist expenditure, visitation distribution, and satisfaction levels. Second, comparative analysis was applied to identify differences between domestic and international tourists in spending intensity and accessibility perception. Third, a gap analysis framework was employed as the principal diagnostic tool.

Gap analysis was operationalized by contrasting economic intensity indicators, such as retail spending proportion and visitation rate, with accessibility dissatisfaction levels. The structural imbalance was interpreted as an indicator of latent economic vulnerability. The analytical premise assumes that high expenditure concentration combined with high dissatisfaction signals potential suppression of marginal consumption and reduced dwell time.

Although inferential statistical modeling such as regression or structural equation modeling was not conducted due to the secondary nature of the dataset and absence of longitudinal indicators, the analytical framework provides a robust exploratory foundation for identifying systemic paradoxes within the heritage corridor.

This study does not establish causal relationships between accessibility dissatisfaction and expenditure outcomes. Potential confounding variables, including seasonal variation, weather conditions, or individual psychological states at the time of survey administration, could not be fully controlled. Furthermore, reliance on self-reported daily recall data may introduce minor reporting bias. Nevertheless, the dataset remains suitable for structural gap identification and policy diagnostic purposes.

RESULTS AND DISCUSSION

Profile of Respondents and Descriptive Overview

The 2025 Denpasar Tourist Expenditure dataset records responses from 420 visitors intercepted within the Gajah Mada corridor, consisting of 310 domestic tourists (73.8 percent) and 110 international tourists (26.2 percent). The age structure indicates a relatively young visitor profile, with 58 percent of respondents aged between 18 and 35 years, followed by 29 percent aged 36 to 50 years, and 13 percent above 50 years. This composition reflects the increasing dominance of experience oriented and digitally connected travelers in urban heritage districts.

Regarding travel purpose, domestic visitors primarily reported leisure and short urban exploration as their main motive (64 percent), followed by shopping oriented visits (21 percent) and business related purposes (15 percent). International tourists exhibited a more diversified pattern, with leisure accounting for 52 percent, cultural exploration 28 percent, and shopping 14 percent. Notably, 82 percent of domestic visitors and 91 percent of international visitors reported entering at least one retail outlet within the corridor during their visit, indicating the centrality of commercial engagement in the visitor journey.

Table 1. Summarizes The Core Respondent Characteristics.

Indicator	Domestic (%)	International (%)	Total (%)
Sample Share	73.8	26.2	100
Age 18–35	60	53	58
Leisure Purpose	64	52	61
Cultural Exploration	19	28	22
Shopping Motive	21	14	19
Visited Retail Outlet	82	91	85

The high retail visitation rate across both segments suggests that commercial interaction is not peripheral but structurally embedded within the tourism experience of the Gajah Mada corridor. This pattern supports the argument that the area operates as an integrated cultural commerce space rather than a purely symbolic heritage site.

Analysis of daily expenditure reveals a pronounced concentration in retail spending, particularly among domestic visitors. On average, domestic tourists allocate 20 percent of total daily expenditure to retail purchases, equivalent to IDR 280,809 per day. Culinary consumption accounts for 26 percent, transportation for 18 percent, accommodation for 22 percent, and other activities for 14 percent.

International tourists demonstrate a slightly different composition, with accommodation forming the largest share at 34 percent, followed by culinary spending at 24 percent, retail at 18 percent, transportation at 15 percent, and other categories at 9 percent. Although retail represents a smaller proportion among international visitors relative to accommodation, its share remains substantial within the corridor context.

Table 2. Average Daily Expenditure Composition by Category

Category	Domestic (%)	International (%)
Retail Shopping	20	18
Culinary	26	24
Accommodation	22	34
Transportation	18	15
Other Activities	14	9

The dominance of retail and culinary components illustrates the micro consumption orientation of urban heritage tourism in Denpasar. Unlike resort based tourism where accommodation dominates expenditure, spending in the Gajah Mada corridor is concentrated in small scale transactions embedded in local supply chains. This pattern reflects broader post pandemic shifts toward experience driven urban consumption, where markets, traditional products, and culinary spaces function as both economic nodes and cultural touchpoints.

The combination of high visitation rates to retail outlets and a significant proportion of daily expenditure allocated to shopping confirms the structural position of Gajah Mada as a high retail intensity heritage corridor. Economic vitality in this district is therefore strongly dependent on the continuity of pedestrian circulation and spatial accessibility, a dynamic that becomes critical when interpreted alongside accessibility dissatisfaction levels discussed in subsequent sections.

Retail Concentration and the Emergence of a Cultural Shopping District

The expenditure profile presented in the previous section demonstrates that retail shopping constitutes one of the largest spending components within the Gajah Mada corridor. Among domestic visitors, retail accounts for 20 percent of total daily expenditure, while for international visitors it represents 18 percent. When combined with culinary consumption, more than 45 percent of daily spending is absorbed within small scale commercial activities located inside the heritage area.

The intensity of retail engagement is further reinforced by visitation rates. A total of 82 percent of domestic tourists and 91 percent of international tourists reported entering at least one retail outlet during their visit. This proportion exceeds visitation to formal heritage attractions and confirms that commercial interaction is a primary rather than secondary tourism activity within the corridor.

To illustrate the concentration effect, Table 3 estimates the relative contribution of retail transactions within the corridor economy based on reported spending shares.

Table 3. Retail Intensity Indicators in the Gajah Mada Corridor

Indicator	Domestic	International
Retail share of daily expenditure	20%	18%
Retail visitation rate	82%	91%
Combined retail and culinary share	46%	42%

These data indicate that the corridor functions structurally as a retail driven heritage space. Unlike conventional sightseeing destinations where monuments anchor the visitor journey, Gajah Mada's economic core is embedded in distributed micro retail flows. Such concentration establishes the area as a Cultural Shopping District, where commercial vitality sustains urban heritage visibility.

From a shopping tourism perspective, retail activities in heritage areas possess dual value as economic exchange and symbolic cultural consumption. [Timothy et al. \(2023\)](#) argues that goods purchased in historic districts function as portable representations of place identity. In this context, products such as traditional textiles, culinary specialties, and long standing family businesses operate not merely as commodities but as narrative carriers.

The high retail visitation rate observed in Gajah Mada therefore reflects more than transactional motivation. It signals engagement with living heritage practices embedded within daily market activity. This aligns with contemporary authenticity discourse, which suggests that tourists increasingly construct meaning through interaction with active socio economic environments rather than curated static displays ([Manlee & Kasemsarn, 2025](#); [Samaniego-Chávez et al., 2025](#)).

The integration of commerce and heritage in the corridor demonstrates that economic activity does not necessarily dilute cultural value. Instead, when traditional trading ecosystems remain intact, retail intensity can reinforce identity continuity. The observed preference for living heritage experiences over museum based attractions further supports this interpretation, positioning Gajah Mada as an experiential commerce landscape rather than a preserved artifact zone.

The concentration of micro retail spending is further facilitated by digital transaction systems, particularly the widespread adoption of QRIS and other cashless payment platforms. Digital payment reduces transaction friction by eliminating cash constraints and simplifying small value purchases. Previous studies in Indonesian traditional markets indicate that contactless payment integration increases average spending and encourages impulsive buying behavior (Fitriyani & Afrizal, 2025).

Field observations within the Gajah Mada corridor reveal high QRIS visibility among micro and small enterprises, suggesting integration between tourism flows and digital financial infrastructure. For younger visitors, especially those aged 18 to 35 years, the availability of seamless digital payment aligns with habitual consumption patterns and lowers psychological barriers to discretionary purchases.

The combined effect of high retail visitation, cultural identity embedded in products, and reduced transaction friction establishes a structurally retail intensive tourism ecosystem. Economic vitality in Gajah Mada is therefore strongly dependent on the continuity of micro retail flows supported by both cultural authenticity and financial digitalization.

The findings confirm that Gajah Mada operates as a high retail intensity heritage corridor in which economic performance is anchored in distributed small scale transactions rather than singular flagship attractions. Retail concentration is not incidental but structural. However, such dependence also implies vulnerability. Because micro retail flows require pedestrian circulation and comfortable spatial exploration, the sustainability of this economic model is directly conditioned by accessibility performance. The next section therefore examines whether infrastructural constraints undermine this retail driven vitality.

Living Heritage Preference versus Static Heritage Attraction

Analysis of attraction preference reveals a pronounced divergence between interest in static heritage sites and engagement with community based cultural activities. Only 6.3 percent of respondents reported visiting museums or formal historical exhibits within the broader city center during their trip, whereas 26.7 percent explicitly identified traditions, market life, and everyday community interactions as primary attractions.

This disparity indicates that tourists are nearly four times more likely to be drawn to living cultural environments than to institutionalized heritage spaces. The distribution pattern is summarized in Table 4.

Table 4. Attraction Preference Distribution

Attraction Type	Percentage of Interest (%)
Museum and Static Historical Sites	6.3
Traditions and Community Life	26.7
Culinary Experiences	24.5
Retail and Market Activity	28.1
Other Urban Attractions	14.4

The relatively low proportion of museum oriented visitation does not imply rejection of history itself. Rather, it suggests a preference for experiential modes of historical engagement embedded within active social and economic environments. In the Gajah Mada corridor, heritage is encountered through ongoing trade, culinary production, and daily interaction rather than through curated exhibition.

The observed distribution aligns with the living heritage framework, which emphasizes continuity of social function as a defining feature of heritage value (Rossitti et al., 2025; Styliadis et al., 2022). Rather than treating historic buildings as isolated monuments, living heritage perspectives recognize the interplay between architecture, commerce, and community life.

The generational profile of visitors, with a majority under 35 years of age, reinforces this interpretive shift. Younger travelers tend to seek what may be described as performative authenticity, where authenticity is experienced through participation in dynamic environments rather than observation of preserved artifacts. Market negotiations, food preparation, and spontaneous street interaction become experiential narratives that construct meaning.

This shift carries important implications for revitalization strategy. Efforts that prioritize façade renovation without preserving trading ecosystems risk undermining the experiential qualities that visitors value. Maintaining long standing merchants, traditional product lines, and spatial permeability therefore becomes central to sustaining attractiveness. Revitalization must focus not only on physical restoration but also on socio economic continuity.

The empirical evidence supports a broader theoretical reframing of heritage governance. Conventional conservation models often emphasize material preservation, regulatory protection, and architectural integrity. While these dimensions remain important, they are insufficient to explain visitor engagement in active commercial corridors.

In Gajah Mada, heritage value emerges from functional integration between built form and economic life. Shops operating in historic structures, intergenerational family businesses, and culinary practices embedded in traditional spaces collectively produce what may be termed a functional heritage ecosystem. This perspective resonates with recent critiques of museumification, where excessive formalization can disconnect heritage from everyday relevance (Iampolski, 2025).

Positioning Gajah Mada as a living heritage ecosystem rather than a preserved artifact reframes governance priorities. Policy must balance conservation standards with economic flexibility, ensuring that modernization efforts do not sterilize the organic social rhythms that define the corridor’s identity.

The marked preference for community based experiences over static heritage attractions confirms that the Gajah Mada corridor operates as a dynamic cultural landscape. Heritage is performed, consumed, and reproduced through daily economic interaction. This functional integration differentiates the corridor from conventional heritage precincts that rely primarily on monument based visitation. Consequently, sustainability in this context depends on protecting the social and commercial vitality that animates the historic environment, rather than solely safeguarding architectural form.

Accessibility Deficit and Walkability Constraint

Despite strong retail intensity and living heritage engagement, accessibility evaluation reveals a critical weakness in corridor performance. A total of 49 percent of domestic tourists reported dissatisfaction with traffic conditions in the Gajah Mada area, while 29 percent of international tourists expressed similar dissatisfaction. When combined with neutral responses that reflect ambivalent perception, more than half of domestic visitors did not positively evaluate traffic performance.

Table 5. Traffic Satisfaction Levels

Satisfaction Category	Domestic (%)	International (%)
Satisfied or Very Satisfied	24	38
Neutral	27	33
Dissatisfied or Very Dissatisfied	49	29

The magnitude of dissatisfaction among domestic visitors is particularly significant. Given that domestic tourists constitute the majority of the visitor base, this level of negative perception signals systemic infrastructural stress rather than isolated inconvenience. While international tourists demonstrate relatively higher tolerance, nearly one third still perceive congestion as problematic. These findings indicate that traffic conditions represent the weakest dimension of destination performance within the corridor.

From a walkability perspective, heritage corridors generate economic value through pedestrian exploration. Walkability theory emphasizes that compact, safe, and continuous pedestrian networks encourage incidental discovery and increase opportunities for spontaneous spending. When vehicle dominance interrupts spatial continuity, visitor movement becomes fragmented and transactional rather than exploratory.

Field observations and respondent comments indicate that narrow sidewalks, on street motorcycle parking, and high traffic density constrain pedestrian comfort. As a result, visitors often adopt single destination movement patterns characterized by arrival, purchase, and immediate departure rather than extended circulation. Such fragmentation reduces dwell time and limits cross shop engagement within the corridor.

The implications for economic sustainability are substantial. Retail intensive heritage zones depend on cumulative micro transactions distributed across multiple outlets. When spatial barriers discourage slow

mobility, the probability of marginal consumption declines. Although visitor numbers remain high, the quality of circulation becomes compressed, restricting the full economic potential of the area.

Beyond physical inconvenience, congestion exerts psychological effects that influence overall destination evaluation. The concept of psychological carrying capacity suggests that visitors possess tolerance thresholds for crowding and mobility stress. When perceived congestion exceeds this threshold, emotional discomfort reduces satisfaction and may negatively affect revisit intention.

In the Gajah Mada corridor, the high dissatisfaction rate among domestic tourists indicates that tolerance limits may already be approaching critical levels. Congestion generates implicit stress in the form of noise, delayed movement, and perceived safety risk. Over time, repeated negative mobility experiences may erode the corridor's reputation, particularly among higher yield tourists who prioritize comfort and experiential depth.

If left unaddressed, sustained congestion could produce long term image deterioration and competitive disadvantage relative to other urban heritage districts that have implemented pedestrian prioritization strategies. Accessibility weakness therefore represents not only a transportation issue but a strategic vulnerability in destination sustainability.

The findings identify congestion as a structural vulnerability within an otherwise economically vibrant heritage corridor. High retail intensity and living heritage engagement require fluid pedestrian circulation to function optimally. However, traffic dissatisfaction and spatial fragmentation indicate misalignment between economic activity concentration and infrastructural capacity. The coexistence of strong commercial performance and weak accessibility performance forms the core paradox examined in this study and sets the stage for the structural gap analysis presented in the subsequent section.

Structural Gap Analysis: Economic Intensity versus Spatial Capacity

The empirical evidence confirms that the Gajah Mada corridor demonstrates strong economic intensity. Retail spending accounts for 20 percent of total daily domestic expenditure and 18 percent of international expenditure. Retail visitation rates exceed 80 percent across both segments, while combined retail and culinary consumption absorbs more than 40 percent of daily spending within the corridor.

These indicators signal concentrated micro economic activity embedded within heritage space. High visitation frequency, coupled with significant spending allocation, positions the area as a commercially resilient node within Denpasar's urban tourism system. The corridor does not rely on singular landmark attractions; rather, its vitality is distributed across interconnected small scale enterprises.

From an economic perspective, such concentration suggests strong demand elasticity for experiential commerce. Visitors actively seek embedded cultural products, reinforcing the identity of Gajah Mada as a living heritage marketplace. In isolation, these indicators would imply a stable and expanding economic ecosystem.

Contrasting the economic strength indicators, spatial performance reveals systemic weakness. Traffic dissatisfaction reaches 49 percent among domestic visitors and remains substantial among international visitors. Field observation indicates discontinuous sidewalks, encroachment by parked vehicles, and high motorized density that constrains pedestrian mobility.

These spatial limitations undermine the corridor's functional coherence. While commercial outlets remain attractive, the circulation environment discourages extended exploration. The imbalance between retail density and pedestrian infrastructure capacity suggests structural misalignment between economic intensity and spatial support systems.

Table 6. Economic and Spatial Performance Contrast

Dimension	Indicator	Condition
Economic Intensity	Retail share of expenditure	High
Economic Intensity	Retail visitation rate	High
Spatial Capacity	Traffic dissatisfaction	High
Spatial Capacity	Pedestrian infrastructure continuity	Limited

The gap between economic intensity and spatial capacity generates what may be conceptualized as economic shadow cost. Although visitor numbers and retail transactions remain robust, congestion and limited walkability constrain marginal consumption opportunities.

Marginal consumption refers to additional spontaneous purchases that occur during extended exploration. In pedestrian friendly environments, visitors are more likely to encounter unplanned retail stimuli, increasing cumulative spending. When movement is compressed due to traffic stress, visitors tend to complete planned purchases and exit the area without deeper circulation.

If dissatisfaction discourages repeat visitation or shortens average dwell time by even a modest proportion, cumulative revenue risk may become significant over time. Under continued congestion, economic growth may plateau despite stable visitor counts. The corridor therefore faces risk of stagnation not because of declining demand, but because of suppressed spatial efficiency.

Integrating the findings, the Gajah Mada corridor can be understood through a structural paradox framework. On one side, high retail intensity and strong preference for living heritage generate economic vitality. On the other side, accessibility deficit and limited walkability constrain experiential depth and spending expansion.

Conceptually, the relationship can be summarized as follows: retail intensity plus living heritage appeal equals economic vitality and economic vitality minus spatial capacity equals sustainability risk

This model highlights that economic success alone does not guarantee long term sustainability in heritage corridors. When commercial concentration exceeds infrastructural capacity, the system becomes vulnerable to psychological carrying capacity thresholds and incremental revenue suppression.

The structural gap analysis demonstrates that the paradox in Gajah Mada is not merely descriptive but systemic. The corridor exhibits characteristics of a high performing cultural commerce ecosystem, yet its spatial foundation remains fragile. Sustainable revitalization therefore requires alignment between economic intensity and walkability oriented infrastructure. Without such integration, the heritage corridor risks gradual erosion of experiential quality and long term competitiveness.

Theoretical Contribution

This study advances urban heritage tourism scholarship by integrating tourist micro expenditure analysis with spatial carrying capacity perspectives within a single analytical framework. While prior research has examined living heritage, placemaking, retail tourism, and accessibility as separate domains, limited empirical attention has been given to how expenditure concentration interacts with infrastructural constraints in active commercial heritage corridors. By juxtaposing high retail intensity indicators with substantial accessibility dissatisfaction levels, this study conceptualizes congestion as a latent economic constraint rather than merely a transportation inconvenience. In this formulation, infrastructure performance becomes structurally embedded within the economic sustainability of the destination.

The introduction of economic shadow cost extends conventional carrying capacity discourse beyond environmental or perceptual limits. Psychological carrying capacity is reframed as an economic mediator that influences marginal consumption, dwell time, and the probability of repeat visitation. When congestion reduces exploration comfort, it suppresses incremental spending that would otherwise accumulate through distributed micro transactions. This integrative perspective bridges behavioral consumption theory with urban spatial planning, offering a more comprehensive framework for evaluating sustainability in living heritage districts. The findings further reinforce the living heritage approach by demonstrating that economic vitality in historic corridors depends on socio economic continuity and pedestrian functionality rather than monument preservation alone. Heritage value is operationalized as the functional integration of commerce, culture, and accessible public space.

From a governance standpoint, the results underscore the necessity of aligning economic intensity with spatial restructuring. Given the high visitation rates to retail outlets and the significant share of expenditure absorbed within the corridor, pedestrian prioritization is a structural requirement rather than an optional design improvement. The implementation of a semi pedestrian zone during peak visitation hours represents a feasible intervention to restore circulation balance. Limiting private vehicle access within defined time frames can enhance mobility fluidity while preserving commercial accessibility. Complementary development of a peripheral park and ride system would reduce internal congestion by redirecting vehicle inflow, particularly if supported by low emission shuttle connectivity.

In parallel, revitalization strategies should consolidate the corridor's identity through integrated branding that positions Gajah Mada explicitly as a cultural shopping district. Coordinated signage, narrative storytelling, and digital promotion can strengthen the experiential coherence of retail, culinary, and heritage elements. Policy safeguards must also protect traditional traders and long standing enterprises to prevent

displacement driven by speculative redevelopment, thereby preserving the living heritage ecosystem that underpins economic performance.

Although centered on the Gajah Mada corridor, the structural paradox identified in this study holds broader relevance for Indonesian urban heritage districts such as Kota Lama Semarang, Braga Street in Bandung, and Malioboro in Yogyakarta. These corridors similarly exhibit intersections between commercial vibrancy and mobility stress. The analytical model developed here, particularly the gap analysis between expenditure intensity and accessibility performance, offers a transferable diagnostic tool for identifying latent sustainability risks. While spatial and cultural characteristics differ across cities, the tension between economic vitality and walkability reflects a systemic challenge in rapidly urbanizing contexts.

Overall, the findings demonstrate that sustainable urban heritage development requires structural alignment between commercial dynamism and spatial functionality. Economic strength alone cannot secure long term competitiveness. Without coordinated governance and walkability oriented infrastructure, heritage corridors risk gradual erosion of experiential quality despite maintaining high visitor numbers and short term revenue performance.

CONCLUSION

This study examined the structural paradox between economic intensity and spatial capacity in the Gajah Mada Heritage Corridor. The findings demonstrate that the area functions as a high retail intensity living heritage ecosystem, where more than forty percent of daily expenditure is concentrated in retail and culinary micro transactions and visitation to commercial outlets exceeds eighty percent. At the same time, substantial dissatisfaction with traffic conditions indicates that accessibility performance remains misaligned with commercial vitality. The coexistence of strong expenditure concentration and weak walkability reveals a structural imbalance that may suppress marginal consumption and reduce long term competitiveness. By integrating expenditure analysis with spatial carrying capacity perspectives, the study reframes congestion as an economic constraint rather than solely a mobility issue.

Several limitations should be acknowledged. First, the analysis relies on secondary cross sectional survey data and therefore does not establish causal relationships between accessibility dissatisfaction and spending outcomes. Second, self-reported daily expenditure may contain minor recall bias. Third, the study does not incorporate longitudinal indicators to assess dynamic changes in revisit intention or revenue growth.

Future research should employ inferential modeling approaches such as regression analysis or structural equation modeling to test the mediating role of psychological carrying capacity between accessibility and spending behavior. Longitudinal and spatial network analyses would further clarify how pedestrian restructuring influences dwell time and cumulative micro consumption. Comparative studies across multiple Indonesian heritage corridors would also strengthen the generalizability of the structural paradox framework.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest associated with the conduct of this research, the analysis of the data or the preparation of this manuscript.

DATA AVAILABILITY

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

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