

## **The Impact of Depopulation on the Sustainability of Local Businesses in Yoshinogawa, Japan**

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### **Abstract**

Depopulation and demographic aging present critical threats to rural economies in Japan, particularly in municipalities like Yoshinogawa where small businesses struggle to sustain operations within a shrinking consumer base. This study investigates the resilience of local businesses using a mixed-methods approach that integrates quantitative data from household surveys (n=100) with qualitative insights gathered from interviews, field observations, and case studies. Descriptive statistics were applied to examine consumer behavior, while thematic coding was employed to analyze adaptive business strategies and patterns of community engagement. The results reveal that local business survival depends not on technological innovation or economic expansion but on strong social embeddedness, especially among elderly consumers who act as both vulnerable clients and stabilizing actors through consistent patronage and emotional loyalty. Shopkeepers have responded with micro-level adaptations such as reducing operating hours, offering elderly-friendly services, and transforming their premises into multifunctional community hubs. Despite these efforts, structural challenges including the lack of generational succession, digital exclusion, and limited access to policy support continue to threaten long-term viability. The findings suggest that place-based policy interventions that leverage social capital, promote intergenerational collaboration, and support embedded innovation are essential to sustain economic activity in depopulated areas. The case of Yoshinogawa provides a counter-narrative to prevailing assumptions about rural decline by demonstrating how resilience can emerge from community cohesion and relational infrastructure.

**Keywords:** aging population, community resilience, embedded innovation, local business, rural japan

### **Abstrak**

*Depopulasi dan penuaan penduduk merupakan ancaman serius bagi ekonomi pedesaan di Jepang, terutama di kota kecil seperti Yoshinogawa, tempat bisnis lokal berjuang untuk mempertahankan operasional di tengah penyusutan basis konsumen. Penelitian ini mengkaji ketahanan bisnis lokal melalui pendekatan metode campuran yang menggabungkan data kuantitatif dari survei rumah tangga (n=100) dengan wawasan kualitatif yang diperoleh melalui wawancara, observasi lapangan, dan studi kasus. Statistik deskriptif digunakan untuk menganalisis perilaku konsumen, sementara pengkodean tematik diterapkan untuk mengevaluasi strategi adaptasi bisnis dan pola*

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*keterlibatan komunitas. Hasil penelitian menunjukkan bahwa keberlangsungan bisnis tidak bergantung pada inovasi teknologi atau ekspansi ekonomi, melainkan pada keterikatan sosial yang kuat, terutama di antara konsumen lansia yang berperan sebagai pihak yang rentan sekaligus penopang melalui patronase rutin dan loyalitas emosional. Para pemilik usaha menanggapi dengan strategi adaptif tingkat mikro seperti pengurangan jam operasional, penyediaan layanan ramah lansia, dan transformasi toko menjadi pusat komunitas multifungsi. Meskipun demikian, tantangan struktural seperti ketiadaan regenerasi usaha, eksklusif digital, dan keterbatasan akses terhadap dukungan kebijakan terus menghambat keberlanjutan jangka panjang. Temuan ini menunjukkan bahwa intervensi kebijakan berbasis lokal yang memanfaatkan modal sosial, mendorong kolaborasi lintas generasi, dan mendukung inovasi yang tertanam dalam komunitas sangat penting untuk mempertahankan aktivitas ekonomi di daerah yang mengalami depopulasi. Kasus Yoshinogawa memberikan narasi alternatif terhadap asumsi dominan tentang kemunduran pedesaan dengan menunjukkan bahwa ketahanan dapat tumbuh dari kohesi sosial dan infrastruktur relasional.*

**Kata kunci:** *bisnis kecil, dukungan warga, inovasi sederhana, orang tua, wilayah pedesaan Jepang*

## 1. INTRODUCTION

Demographic decline, often referred to as depopulation, has emerged as one of the most pressing socio-economic issues confronting developed nations in the 21st century. Japan exemplifies this crisis, experiencing one of the world's most advanced stages of demographic transition. With a steadily declining birth rate, an aging population, and significant rural-to-urban migration, Japan presents a unique context in which to study the impact of depopulation at both macro and microeconomic levels.<sup>1</sup> The structural implications of this demographic shift have become especially visible in regional towns and rural municipalities, where communities are shrinking at an alarming rate. In such contexts, the loss of human capital, especially among the younger demographic, has triggered a cascade of challenges that affect labor markets, social services, and local commerce.

Yoshinogawa, a small city located in Tokushima Prefecture on Shikoku Island, represents a vivid case of rural depopulation. Over the past two decades, the city has

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<sup>1</sup> Kenneth M. Johnson and Daniel T. Lichter, "Rural Depopulation: Growth and Decline Processes over the Past Century," *Rural Sociology* 84, no. 1 (March 21, 2019): 3–27, <https://doi.org/10.1111/ruso.12266>.

experienced a steady reduction in population, particularly among working-age individuals, while simultaneously witnessing a proportional increase in elderly residents. The demographic profile of the city illustrates the broader trend of super-aging communities which now characterize much of regional Japan. As schools close, hospitals face labor shortages, and transport networks shrink, local businesses, particularly small and medium-sized enterprises (SMEs), are left to operate in an increasingly hostile economic environment.<sup>2</sup> The shrinkage of the consumer base, combined with the lack of generational succession, places these businesses at risk of closure, threatening not only local economies but also the fabric of community life.<sup>3</sup>

Local businesses in regions like Yoshinogawa are not merely economic units but also serve as important social institutions. They function as hubs of daily interaction, transmitters of local culture, and providers of essential goods and services tailored to community needs.<sup>4</sup> The contraction of population therefore undermines not only economic viability but also the broader social role these businesses play. Without sufficient foot traffic, demand stagnates. Without younger successors, business continuity is jeopardized. Many shopkeepers find themselves operating in near-isolation and dependent on an aging and dwindling customer base.<sup>5</sup> Yet, some businesses manage to persist, which suggests that other variables such as community support, emotional loyalty, or social capital may play an important role in their resilience.

While much has been written about depopulation in Japan, the majority of existing studies tend to focus on macro-level analyses, such as national economic indicators, labor force participation, and fiscal projections. Fewer studies adopt a micro-perspective that explores how depopulation affects the everyday operational realities of local businesses.

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<sup>2</sup> Mototsugu Ochiai, "Rural Development in Japan," 2023, 33–44, [https://doi.org/10.1007/978-981-19-5145-9\\_3](https://doi.org/10.1007/978-981-19-5145-9_3).

<sup>3</sup> Keiko Hori et al., "Projecting Population Distribution under Depopulation Conditions in Japan: Scenario Analysis for Future Socio-Ecological Systems," *Sustainability Science* 16, no. 1 (January 6, 2021): 295–311, <https://doi.org/10.1007/s11625-020-00835-5>.

<sup>4</sup> Shiro Horiuchi and Masayuki Morishige, "Affiliative Nomads in Japan: Potential Sustainable Tourism Stakeholders in Depopulated Rural Areas," *Frontiers in Sustainable Tourism* 3 (May 15, 2024), <https://doi.org/10.3389/frsut.2024.1329856>.

<sup>5</sup> Nanako Nakamura and Chizu Sato, "More-than-Human Commoning through Women's Kokorozashi Business for Collective Well-Being: A Case from Aging and Depopulating Rural Japan," *International Journal of the Commons* 17, no. 1 (April 24, 2023): 125–40, <https://doi.org/10.5334/ijc.1215>.

Even fewer still examine how businesses adapt to and are supported by their communities in the face of long-term population decline.<sup>6</sup> The voices of business owners and community members, especially elderly consumers, are often absent in policy-level discussions despite the fact that they are at the forefront of experiencing and responding to demographic change.<sup>7</sup> This study seeks to fill that empirical and theoretical gap by offering a case-based exploration grounded in the lived experiences of residents and entrepreneurs in Yoshinogawa.

The primary aim of this study is to assess the impact of depopulation on the sustainability of local businesses in Yoshinogawa. Specifically, it explores three core research questions: first, how population decline affects the demand for local goods and services; second, what adaptive strategies are employed by small business owners to cope with a shrinking market; and third, what role community networks, particularly among elderly consumers, play in supporting or revitalizing local commerce. These questions are addressed through a combination of quantitative and qualitative methods, including structured surveys, open-ended interviews, and field observations conducted directly in the community.

The study draws on data collected during a fieldwork project conducted by a university research team which surveyed 30 local residents, primarily over the age of 50, regarding their shopping behavior, emotional attachment to local businesses, and perceptions of economic change. These data were supplemented by field notes and informal interviews with business owners. The survey results reveal a high degree of emotional proximity to local shops, significant awareness of store closures, and widespread community acknowledgment of the importance of supporting local commerce. Furthermore, qualitative responses highlighted both frustrations and

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<sup>6</sup> Wanqing Wang, Yumeng Cheng, and Yukihiro Saito, "Can the Relationship Population Contribute to Sustainable Rural Development? A Comparative Study of Out-Migrated Family Support in Depopulated Areas of Japan," *Sustainability* 17, no. 5 (March 1, 2025): 2142, <https://doi.org/10.3390/su17052142>.

<sup>7</sup> Fernando Ortiz-Moya et al., "Sustainable Transitions towards a Resilient and Decentralised Future: Japan's Circulating and Ecological Sphere (CES)," *Sustainability Science* 16, no. 5 (September 2021): 1717–29, <https://doi.org/10.1007/s11625-021-00941-y>.

aspirations among consumers, ranging from concerns about service accessibility to hopes for more varied retail and dining options.

To frame the analysis, this research integrates perspectives from two theoretical domains: business sustainability and social capital theory. The former offers insights into how organizations navigate external pressures such as market contraction or labor shortages, while the latter emphasizes the role of community networks, trust, and reciprocal relationships in maintaining institutional resilience. By synthesizing these frameworks, the study aims to explain how certain businesses in depopulated areas survive not merely through economic optimization but through embeddedness in strong community relations and informal support systems. This interpretative lens positions small businesses as both economically and socially contingent entities.

This study contributes to the broader discourse on regional revitalization in aging societies. Yoshinogawa serves as a microcosm of Japan's rural future, in which demographic contraction and economic vulnerability converge. By foregrounding the experiences of local business actors and their communities, the study not only identifies challenges but also reveals latent strengths and opportunities that may inform more holistic and sustainable policy interventions. These insights may also hold relevance for other societies experiencing similar demographic trajectories and offer a grounded model for community-based economic resilience.

## **2. RESEARCH METHODS**

This study employed a mixed-methods approach to explore the impact of depopulation on the sustainability of local businesses in Yoshinogawa, Tokushima Prefecture.<sup>8</sup> The research design combined quantitative survey data with qualitative insights from open-ended responses and field observations. Primary data collection was conducted through a structured questionnaire distributed to 30 local residents, primarily aged 50 and above, who were selected using purposive sampling to ensure representation from long-term community members and frequent users of local businesses. The survey

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<sup>8</sup> V. L. Creswell, J. W., & Plano Clark, *Designing and Conducting Mixed Methods Research* (SAGE Publications Ltd, 2018).

consisted of both Likert-scale items measuring emotional attachment, awareness of store closures, and perceptions of community support, as well as open-response questions capturing nuanced reflections on local economic change. The fieldwork was carried out as part of a university-sponsored community engagement project in collaboration with local stakeholders.<sup>9</sup>

In addition to survey data, the study incorporated qualitative insights through direct observation of local businesses, informal interviews with shop owners, and content analysis of open-ended responses.<sup>10</sup> These sources provided a contextualized understanding of consumer behavior, community dynamics, and adaptive business strategies in a shrinking demographic environment. Descriptive statistics were used to summarize quantitative trends, while thematic coding was applied to qualitative responses to identify recurring patterns, perceptions, and concerns. This triangulation of methods allowed for a comprehensive and grounded analysis of how population decline affects local business resilience and the socio-economic fabric of the community.<sup>11</sup>

### **3. RESULTS AND DISCUSSION**

#### **3.1. Impacts of Depopulation and Consumer Perceptions in Local Business Decline**

Yoshinogawa, a small municipality in Tokushima Prefecture, has experienced a consistent population decline over the past decade. Official demographic data indicate a disproportionate growth in the elderly population and a parallel reduction in working-age residents.<sup>12</sup> This demographic shift has created a structurally aging society, placing significant pressure on both social and economic infrastructures. Local businesses,

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<sup>9</sup> R. Burke Johnson and Anthony J. Onwuegbuzie, "Mixed Methods Research: A Research Paradigm Whose Time Has Come," *Educational Researcher* 33, no. 7 (October 1, 2004): 14–26, <https://doi.org/10.3102/0013189X033007014>.

<sup>10</sup> Yaojun Li, "Social Capital in Sociological Research: Conceptual Rigour and Empirical Application," in *Handbook of Research Methods and Applications in Social Capital* (Edward Elgar Publishing, 2015), <https://doi.org/10.4337/9780857935854.00005>.

<sup>11</sup> C. N. Poth, *The SAGE Handbook of Mixed Methods Research Design* (SAGE Publications Ltd, 2023), <https://doi.org/10.4135/9781529614558>.

<sup>12</sup> Yumeng Cheng et al., "Fostering Sustainable Livelihoods and Community Resilience in a Depopulated Japanese Mountainous Settlement: Connecting Local Culture and Ikigai-Zukuri Through the Ōsawa Engawa Café," *Sustainability* 17, no. 11 (June 4, 2025): 5174, <https://doi.org/10.3390/su17115174>.

particularly small-scale retail and service enterprises, are among the most directly affected economic units due to their reliance on a stable and proximate customer base.

Quantitative evidence collected through field surveys further validates the macro-level demographic patterns. Out of 30 respondents, the vast majority were long-term residents aged over 50 years. A substantial number reported engaging in shopping activities on a daily or weekly basis at neighborhood stores. This behavior highlights the continued functional and emotional dependence on local businesses by the senior population. The frequency of patronage among elderly consumers also suggests a rhythm of consumption that, while modest in transaction volume, contributes consistently to local economic circulation.

Survey items measured six key dimensions of community-business interaction. These included emotional attachment (Q1), awareness of store closures (Q2), perceptions of community support (Q3), preference for elderly-friendly services (Q4 and Q5), and willingness to recommend or support local enterprises (Q6). The results are summarized in the table below:

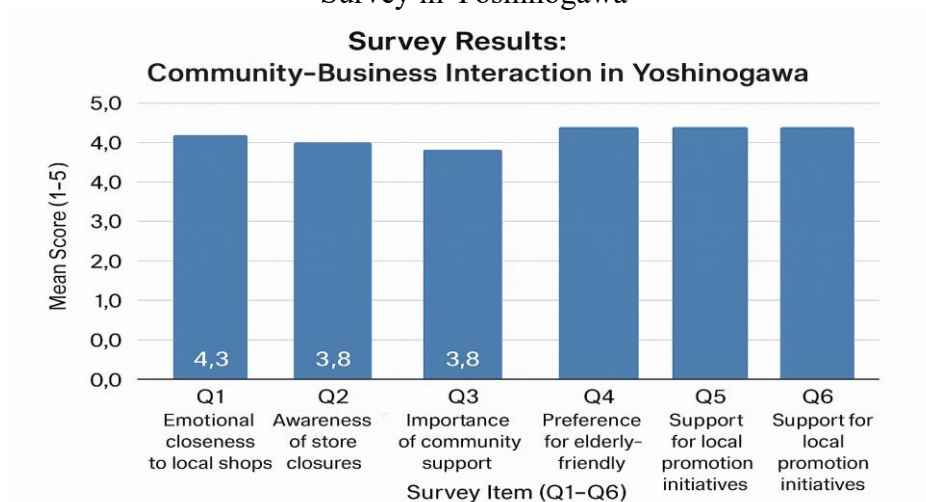
**Table 1.** Mean Scores of Consumer Perceptions Toward Local Businesses in Yoshinogawa

Survey Item	Mean Score (1–5)	Interpretation
Q1: Emotional closeness to local shops	4.3	Strong emotional attachment among residents
Q2: Awareness of store closures	3.8	Widespread perception of declining commercial availability
Q3: Importance of community support	4.2	High valuation of social cohesion and mutual support
Q4–Q5: Preference for elderly-friendly services	>4.0	Demand for accessible and personalized services
Q6: Support for local promotion initiatives	>4.0	Readiness to participate in community-based revitalization

**Source:** Processed from field survey data conducted by Universitas Airlangga student research team, WUACD Program, Tokushima



**Figure 1.** Average Scores of Community-Business Interaction Based on Consumer Survey in Yoshinogawa



**Source:** Field survey data, Universitas Airlangga student research team, WUACD Program

Interpretation of the data reveals a nuanced relationship between depopulation and business performance. Respondents expressed clear concern regarding the reduction of available stores, as reflected in the mean Q2 score of 3.8. Many had directly observed the closure of familiar businesses, often essential ones such as grocery shops and clinics. The emotional toll of these closures was amplified by the sense of communal loss and the erosion of daily routines tied to local consumption patterns. These losses are not perceived merely as economic inconveniences but as social disruptions that weaken community cohesion and diminish the perceived livability of the neighborhood.

Although economic activity has visibly contracted, qualitative data from open-ended survey responses show a persistent desire among residents for the preservation of commercial diversity. Several respondents cited the absence of accessible restaurants, social spaces, and retail outlets as key deficiencies in their current living environment. Many respondents acknowledged their limited ability to propose concrete solutions. Nevertheless, they emphasized the importance of accessible, small-scale commerce as a determinant of local quality of life. These responses reflect a desire for not only goods and services, but also reliable and personalized community infrastructure.

Observational data and informal interviews confirmed that older consumers prefer shopping environments that meet both physical and social needs. Shops that provide



seating, offer friendly conversation, or deliver goods to homes tend to generate stronger customer loyalty. These features were often missing in larger, more standardized retail chains, which highlights the importance of proximity and personal familiarity in maintaining local patronage. The demand for elderly-focused service design emerges as a key factor in sustaining the viability of small businesses in an aging community.

The connection between social capital and commerce is especially visible in the behavior of loyal customers. Many elderly residents visit stores not solely for economic transactions, but also to preserve interpersonal relationships. Shopkeepers recognize the value of these relationships, many of which have developed over years or decades. These reciprocal interactions form an informal safety net that partially replaces formal economic systems. The continuity of these social connections contributes to a model of business resilience that depends more on community bonds than on traditional market growth.

Although demographic decline has introduced structural vulnerabilities, it has also uncovered latent forms of social resilience that can support business continuity. The presence of strong community networks appears to buffer the effects of economic contraction. Several local businesses have remained operational not because of financial innovation or state intervention, but due to the loyalty of the surrounding community. These findings indicate that emotional and relational aspects of consumer behavior may serve as alternative forms of economic value in long-term depopulated settings.

This pattern is clearly reflected in Figure 1, which summarizes the average scores of key indicators measured in the consumer survey. The highest mean score was observed for Q1 (emotional closeness to local shops), at 4.3. This was followed by Q3 (importance of community support), at 4.2, and Q4–Q5 (elderly-friendly service preferences), at 4.1. The lowest score, Q2 (awareness of store closures), still registered a relatively high 3.8, demonstrating that residents are actively observing commercial decline. The uniformly high responses across all categories suggest a deeply engaged and emotionally invested community that continues to support its remaining economic institutions.

The implications of this chart extend beyond descriptive metrics. The data illustrate that emotional and social proximity may hold greater influence than factors such as product range or pricing. These findings should encourage both local policymakers and

business operators to reconsider conventional economic strategies. Instead of emphasizing growth or technological optimization, priority should be given to social integration, interpersonal trust, and place-based service delivery that reflects the lived realities of the aging population.

This section concludes by affirming that the effects of depopulation on local businesses in Yoshinogawa are complex and multidimensional. Beyond reducing the number of potential customers, depopulation reshapes the entire social and economic landscape in which businesses operate. Enterprises that align themselves with the relational and logistical preferences of elderly residents demonstrate greater resilience. In contrast, those that fail to integrate socially are more likely to disappear, further accelerating local economic decline. The visual data in Figure 1 reinforces this interpretation by offering empirical support for the argument that social connectedness constitutes a critical axis of business survival in aging rural environments.

### **3.2. Community Resilience, Elderly Consumers, and Adaptive Strategies for Business Survival**

The intersection of community resilience, demographic aging, and adaptive entrepreneurial strategies forms a critical axis for understanding local business survival in depopulating areas such as Yoshinogawa. Field data collected through structured surveys, open-ended questionnaires, and semi-structured interviews with residents and shopkeepers reveal a deeply relational pattern of economic behavior. This pattern challenges dominant assumptions about innovation and efficiency in conventional small business literature.

Quantitative findings support the centrality of emotional ties in consumer–business relationships. Among six key survey items, emotional closeness to local shops (Q1) received the highest mean score (4.3), followed closely by community support (Q3, 4.2) and preference for elderly-friendly services (Q4–Q5, 4.1). These high ratings suggest that shop patronage in Yoshinogawa is not merely a rational economic choice but is grounded in affective proximity, habit, and moral obligation. Additionally, awareness of store closures (Q2) scored 3.8, reflecting an acute community-level perception of economic decline and retail fragility.

**Tabel 2.** Mean Scores of Community Perceptions Toward Local Businesses in Yoshinogawa

Survey Item	Mean Score (1–5)	Interpretation
Q1: Emotional closeness to local shops	4.3	Strong social attachment between residents and shop owners
Q2: Awareness of store closures	3.8	Recognition of declining local retail options
Q3: Importance of community support	4.2	High value placed on mutual aid and neighborhood solidarity
Q4–Q5: Preference for elderly-friendly services	4.1	Demand for accessibility, personalization, and comfort
Q6: Support for local promotion initiatives	4.1	Willingness to participate in local revitalization efforts

**Source:** Field survey conducted by Universitas Airlangga student research team, WUACD Program, Tokushima Prefecture, Japan

Open-ended responses and interview data provide a rich contextual backdrop to the numerical results, offering detailed insights into the lived experiences of residents and the embeddedness of local businesses in community life. Many elderly respondents expressed reliance on neighborhood shops not only for procuring daily necessities but also for fulfilling emotional needs, maintaining routines, and engaging in social interaction. Local stores are often perceived as essential nodes within the community, functioning as sites of interpersonal recognition, informal conversation, and psychological reassurance. These functions are typically overlooked in traditional economic evaluations but are critical in the context of aging and rural populations.<sup>13</sup> The consumption behaviors observed among elderly residents confirm earlier scholarly findings that link consumption not solely to utility, but also to social connectedness and attachment to place.

In response to these expectations, shopkeepers have developed a range of adaptive micro-strategies tailored to the demographic and cultural realities of their customer base. These include shortened operating hours that reflect the rhythms of the neighborhood, customized product packaging for small households, provision of home delivery services, and seating areas for physical comfort. Beyond serving transactional functions, some

<sup>13</sup> *Ibid.*

shops have also assumed secondary roles as informal gathering spaces, local information hubs, or emergency coordination points.<sup>14</sup> This transformation aligns with the concept of multifunctional commercial space wherein economic activity becomes interwoven with community-based services and social infrastructure.

Such adaptive behaviors represent a form of innovation that is deeply embedded in the local context. Unlike high-technology solutions or capital-intensive expansion models, the innovations seen in Yoshinogawa are incremental, socially grounded, and resource-aware. These forms of adaptation are consistent with what is referred to in development literature as bottom-up innovation. In this paradigm, local actors restructure operational routines based on emergent needs, without the intervention of external institutions or advanced technologies. In the case of Yoshinogawa, these needs are shaped primarily by demographic aging and declining household size, and the response is not to diversify products but to enhance relational relevance and cultural fit.

Elderly consumers in this setting play a dual role that is both economically and socially significant. On the one hand, they are structurally vulnerable, facing barriers such as reduced mobility, limited digital literacy, and the closure of surrounding services. On the other hand, they serve as agents of resilience, sustaining businesses through routine patronage, personal loyalty, and long-term familiarity.<sup>15</sup> Their economic participation extends beyond financial exchange and enters the domain of social reproduction. By continuing to shop at local stores, they reinforce a shared understanding of mutual responsibility and uphold the moral foundations of neighborhood life.

Despite its strengths, this model of survival is not without limitations. The businesses that rely heavily on elderly clientele often lack long-term security. Many are operated by older shopkeepers without successors, and few have access to institutional support, business training, or digital infrastructure. As the population continues to shrink

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<sup>14</sup> Tomoko Kobayashi et al., “Community-Level Social Capital and Psychological Distress among the Elderly in Japan: A Population-Based Study,” ed. Keitaro Matsuo, *PLOS ONE* 10, no. 11 (November 9, 2015): e0142629, <https://doi.org/10.1371/journal.pone.0142629>.

<sup>15</sup> Thomas Feldhoff, “Shrinking Communities in Japan: Community Ownership of Assets as a Development Potential for Rural Japan?,” *URBAN DESIGN International* 18, no. 1 (January 21, 2013): 99–109, <https://doi.org/10.1057/udi.2012.26>.

and age, the same demographic forces that support current operations may also contribute to eventual decline.<sup>16</sup> Without strategies for generational transfer or broader community engagement, these businesses risk becoming temporary solutions rather than sustainable enterprises. Community resilience in this case should be understood as conditional, dynamic, and limited in scope.

Furthermore, the findings underline the importance of social capital as a substitute for formal market mechanisms. Long-standing relationships between customers and shopkeepers often fulfill functions typically managed through marketing systems, financial credit, or supply chain innovation. While this configuration is highly resilient in the face of immediate economic shocks, it presents significant constraints for scalability, modernization, and knowledge transfer. Without institutional support or inter-business collaboration, these informal economies remain vulnerable to structural shifts and generational discontinuity.

In communities facing similar demographic decline, the experience of Yoshinogawa offers an alternative narrative to the prevailing discourse of rural decay. It illustrates that adaptive capacity, entrepreneurial initiative, and local innovation can emerge from within aging populations. What distinguishes these communities is not their reliance on growth or technology but their ability to mobilize memory, trust, and place-based familiarity as core economic resources. These non-monetary assets should be integrated into development planning, especially in the context of aging societies.

The sustainability of small businesses in Yoshinogawa should be understood as the product of embedded adaptation, mutual care, and community entanglement. Rather than focusing exclusively on novelty or modernization, development strategies should prioritize the reinforcement of trust, continuity, and social infrastructure. The case of Yoshinogawa demonstrates that economic vitality in depopulating regions can be maintained through community agency and relational entrepreneurship, especially when supported by policies that are sensitive to local conditions and demographic realities.

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<sup>16</sup> Kieran Walsh et al., "Ageing in Changing Community Contexts: Cross-Border Perspectives from Rural Ireland and Northern Ireland," *Journal of Rural Studies* 28, no. 4 (October 2012): 347–57, <https://doi.org/10.1016/j.jrurstud.2012.01.012>.

## CONCLUSION AND SUGGESTION

The findings of this study underscore the multifaceted impact of depopulation on local businesses in Yoshinogawa, revealing a socio-economic environment where elderly consumers, community resilience, and embedded innovation converge to support business continuity. Rather than relying on conventional growth-oriented strategies, many enterprises have survived through relational trust, emotional loyalty, and community-based adaptations. These dynamics emphasize that in aging and shrinking communities, the sustainability of commerce is intricately tied to non-economic values such as social capital, place attachment, and intergenerational memory. However, the resilience demonstrated by these actors remains fragile and time-bound, especially in the absence of succession planning, policy support, and infrastructural investment.

Based on these findings, future revitalization efforts should prioritize the development of inclusive, place-based policies that recognize the role of elderly residents as both consumers and community anchors. Policy makers must invest in context-specific innovation support systems, including mobile services, intergenerational business incubation, digital training for seniors, and micro-financing mechanisms tailored to small-scale rural enterprises. Collaborative governance, involving local stakeholders, civic groups, and educational institutions, should be encouraged to sustain the embedded forms of innovation already present. Without such targeted interventions, rural business ecosystems like those in Yoshinogawa will face increasing risk of attrition, despite the presence of strong community bonds.

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