

Informal Entrepreneurship in the Age of Smart Society 5.0: Digital Adaptation, Platform Dependency, and Social Relationality among Street Vendors in Makassar

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DOI: <https://10.33096/tamaddun.v24i2.1009>

Received: 9 September 2025

Accepted: 12 October 2025

Published: 5 December 2025

Abstract

This study examines how informal entrepreneurs specifically how street vendors (Pedagang Kaki Lima/PKL) navigate digital transformation in the era of Smart Society 5.0. Unlike narratives of digital optimism that portray technology as universally empowering, our findings reveal an uneven adoption landscape marked by structural constraints, algorithmic dependency, and cultural frictions. Drawing on a qualitative design involving 30 PKL in Makassar, Indonesia, the present study conducted semi-structured interviews, participant observation, and policy analysis to assess how digital tools reshape economic practices and social relations. Results show that digital literacy functions as a form of social capital: younger vendors leverage social media, digital payments, and messaging-based sales to extend market reach, while older vendors experience technological anxiety, mistrust, and a heightened risk of exclusion. Rather than fully digitizing, most PKL adopt hybrid practices that integrate online orders with face-to-face transactions to maintain community ties and autonomy. Engagement with delivery platforms generates new dependencies through commission fees, rating systems, and algorithmic visibility, eroding interpersonal interactions that historically defined PKL commerce. These findings challenge the premise that Smart Society 5.0 inherently promotes digital inclusion and highlight the need for context-specific interventions that protect informal entrepreneurs from extractive platform logics.

Keywords: smart society 5.0, informal economy, digital inequality, platform capitalism, street vendors

INTRODUCTION

The rapid advancement of digital technologies has ushered global societies into an era commonly referred to as Smart Society 5.0 a human-centered model initially proposed by Japan to address socio-economic challenges in the digital age. Unlike the paradigms of Industrial Revolution 4.0, which emphasized automation, optimization, and interconnected cyber-physical systems, Society 5.0 is predicated on leveraging digital technologies such as Artificial Intelligence (AI), the Internet of Things (IoT), robotics, and Big Data not solely for industrial efficiency but for human well-being and social inclusion (Cabinet Office of Japan, 2016; Fukuyama, 2018). In this context, technology is repositioned as an agent of social transformation, capable of reshaping institutional arrangements, social relations, economic practices, and cultural processes.

One of the sectors most profoundly influenced by this transformation is entrepreneurship. Digital infrastructures and platform-based ecosystems have altered the conditions of business formation, value creation, and market interaction (Nambisan, 2017). Entrepreneurs today are no longer dependent exclusively on physical capital or traditional forms of commerce; rather, they operate within digital networks, utilize online marketplaces, and deploy data-driven innovation to reach consumers. This transformation has produced new economic actors—start-ups, digital SMEs, and independent content-based entrepreneurs—but has also introduced new forms of inequality, particularly between digitally literate groups and those structurally marginalized (Castells, 2010; Van Dijk, 2020).

From a sociological perspective, the digitalization of entrepreneurship is not merely an economic phenomenon as it reconfigures social stratification, power relations, and cultural meanings associated with work and commerce. Digital platforms eliminate geographic barriers, enable micro-enterprises to scale rapidly, and expand access to diverse consumer markets. However, they also intensify algorithmic dependency, data asymmetries, and the concentration of economic power in large technology corporations (Zuboff, 2019). These dynamics disproportionately affect actors in the informal economy, such as street vendors (Pedagang Kaki Lima, PKL), who operate without substantial technological infrastructure or digital literacy. While they form an essential component of urban survival economies and local labor absorption, they frequently become the most vulnerable population in digital transitions. However, behind the opportunities offered, various sociological challenges arise, such as:

1. The digital divide, which exacerbates economic inequality (Ragnedda, 2017).
2. Changes in social relations due to reduced face-to-face interactions in business (Turkle, 2015).
3. Ethical dilemmas in the use of data and AI, which can erode social trust (Floridi, 2018).

In Indonesia, PKL represent a foundational element of urban economic resilience. They provide affordable goods, absorb surplus labor, and occupy strategic community spaces in everyday life (McGee, 1973; Kusno, 2020). Yet the discourse on Smart Society 5.0 frequently assumes that digital innovation is universally accessible, overlooking structural constraints that impede PKL participation. Several studies in developing countries suggest that micro-entrepreneurs are often the primary casualties of the digital divide, lacking financial resources, broadband access, or institutional support to transition into digital platforms (Ragnedda, 2017; Wahyudi et al., 2022). In Makassar, this disparity is increasingly visible: while younger vendors strategically use social media, digital payments, and delivery applications, older or traditional vendors remain dependent on face-to-face transactions and localized networks.

The consequences are multidimensional. Digital platforms such as GoFood, GrabFood, and other delivery services offer new business opportunities but impose complex commission structures, rating systems, and algorithmic visibility that limit vendor autonomy. Social interactions central to PKL commerce such as personalized negotiation, community trust, informal social exchange are being replaced by transactional, impersonal digital encounters. Ultimately, rather than providing equal opportunity, digitalization risks reproducing structural exclusion under the guise of innovation.

Given these tensions, this study examines the experience of PKL in Makassar to understand how Smart Society 5.0 is encountered not as an abstract technological vision, but as a lived social reality. Specifically, this research aims to:

1. Analyze the impact of Smart Society 5.0 on entrepreneurial practices among street vendors (PKL) in Makassar.
2. Investigate adaptation strategies employed by PKL in response to the rise of digital economic infrastructures.
3. Examine changes in social relations between PKL, customers, and digital platform intermediaries.

By engaging with these questions, this research contributes to ongoing debates surrounding digital inclusion, platform capitalism, urban informality, and the socio-technical dynamics of Smart Society 5.0. It advances understanding of how technological modernization intersects with

local culture, urban economies, and historical inequalities, offering insight into policy design, grassroots empowerment, and the construction of an inclusive digital future.

Smart Society 5.0 and Digital Transformation

Smart Society 5.0 is conceptualized as a socio-technological framework that integrates digital innovation into human-centered development (Cabinet Office of Japan, 2016). Unlike Industrial Revolution 4.0, which predominantly prioritized automation, cyber-physical systems, and production efficiency, Society 5.0 positions technology as an instrument to resolve complex social challenges—inequality, health gaps, workforce transitions, and demographic shifts (Fukuyama, 2018). Within this paradigm, AI, IoT, robotics, and Big Data are mobilized not merely for productivity, but to enhance quality of life, citizen agency, and sustainable social systems.

In the broader sociological context, this shift signals a transformation toward what Castells (2010) terms the “network society”—a social formation in which economic, political, and cultural processes are mediated by digital networks. In such societies, digital infrastructures do not simply facilitate communication; they reshape power distribution, define economic actors, and regulate access to opportunities. The digital divide therefore becomes not only a technological or infrastructural issue, but a mechanism of stratification that deepens social inequality (Van Dijk, 2020).

While Society 5.0 promises inclusivity, it also generates paradoxes. Research has shown that digital transformation often benefits those with pre-existing capacity—education, capital, and technological literacy—while marginalizing those without access. As Ragnedda (2017) argues, digital inequalities operate at three levels: access, literacy, and outcomes. This means individuals may (a) have no access to technology, (b) possess access but lack skills to use it effectively, or (c) use technology but fail to extract economic or social gains. For communities operating within informal economies, such disparities are systemic and cumulative.

Digital Entrepreneurship: Opportunities and Structural Barriers

Digital entrepreneurship extends beyond digitized business operations; it reframes how value is created, distributed, and governed in digital ecosystems. Nambisan (2017) defines it as a mode of entrepreneurial activity grounded in digital infrastructure, wherein innovation and market formation are influenced by online platforms, mobile technologies, and pervasive connectivity. Business models such as platform-based delivery services, social commerce, and direct-to-consumer marketing exemplify this shift (Srnicsek, 2017).

However, the promise of digital entrepreneurship is not evenly realized. Traditional micro-enterprises are frequently disadvantaged. Brynjolfsson & McAfee (2014) note that the digital economy is characterized by winner-takes-all dynamics, where firms capable of scaling rapidly dominate market share. Platform corporations such as Amazon, Alibaba, and regional delivery services possess capital, algorithmic infrastructures, and data monopolies that create asymmetrical competition (Zuboff, 2019). These structures generate systemic dependencies in which small-scale entrepreneurs are compelled to conform to platform governance, often at the expense of autonomy.

In the Indonesian context, similar patterns emerge. Many micro-entrepreneurs lack digital payment access, financial literacy, or e-commerce integration. These limitations stem not from individual failure, but from systemic barriers: unequal infrastructure access, high costs of digital onboarding, and regulatory frameworks that prioritize formal-sector actors. Consequently, digital

entrepreneurship can inadvertently deepen inequality by privileging actors embedded in techno-capitalist networks while marginalizing traditional economic forms.

Street Vendors (PKL) in the Lens of Economic Sociology

Street vendors (Pedagang Kaki Lima/PKL) represent a longstanding economic institution within urban Southeast Asia. McGee (1973) emphasizes that PKL are not peripheral or accidental actors; they are functional systems that sustain local economies and provide socially accessible goods. Their presence reflects adaptive strategies of urban populations in environments where formal employment is limited or exclusionary.

From a structural standpoint, PKL function as balancers of urban economies. They absorb surplus labor, serve low-income consumers, and provide flexible economic participation without stringent institutional requirements (Turner, 1976). Contemporary research highlights their resilience: despite legal ambiguities and spatial marginalization, PKL cultivate non-formal networks, community trust, and cultural legitimacy (Kusno, 2020; Sihombing, 2021). The sector thus exemplifies an “economy of survival”, wherein social networks and local relationality substitute for formal institutional support.

Yet, PKL occupy a precarious position in urban modernization. Their operations often intersect with contested urban zones, regulatory ambiguities, and inconsistent enforcement. These complexities are amplified when digital transformation becomes a normative expectation, generating pressures to integrate into technological systems that they neither fully understand nor control.

Digitalization and Its Implications for PKL

1. Technology Adoption and Generational Disparity

Existing empirical research indicates that PKL digital adoption occurs unevenly. Wahyudi et al. (2022) found that only a minority of vendors actively employ digital platforms, with the majority relying on traditional methods. Bank Indonesia (2021) identifies key barriers: limited digital literacy, high transaction costs, and infrastructural constraints such as unreliable internet access. These barriers are intertwined with generational patterns—younger PKL demonstrate greater adaptability, leveraging social media, online ordering, and digital payments, whereas senior vendors remain skeptical or overwhelmed by unfamiliar technologies.

Prasetyo (2023) further demonstrates that younger PKL utilize digital channels as instrumental tools rather than complete replacements. Short-form video platforms (TikTok, Instagram Reels) and messaging applications (WhatsApp) allow them to build micro-audiences, manage customer communication, and reduce dependence on physical mobility. This indicates hybridization, a pragmatic strategy that blends offline presence with selective digital integration.

2. Platformization and Algorithmic Governance

Ford and Honan (2022) highlight the systemic implications of platformization, arguing that digital platforms restructure vendor-consumer relations through metrics, rating systems, and commission models. These mechanisms commodify social relationships, reducing the rich interpersonal connections of street vendors to algorithmic reputations and transactional metrics. PKL are not simply participants—they are subjects governed by platform infrastructures that dictate visibility, pricing, and consumer access.

This platform-mediated dynamic results in asymmetric dependency: vendors bear operational costs while platforms extract value through fees and data. Such logic aligns with Zuboff's (2019) critique of surveillance capitalism, in which digital systems manipulate user behavior and extract informational revenue at the expense of autonomy.

PKL within the Smart Society 5.0 Framework

Although Smart Society 5.0 aspires toward inclusive technological engagement, empirical evidence from Indonesian cities suggests otherwise. Rakhmani (2022) shows that smart city initiatives often prioritize formalized commercial sectors and digitally robust enterprises, leaving informal workers unrepresented in planning. PKL face infrastructural exclusion, limited access to public Wi-Fi, and regulatory frameworks that fail to acknowledge digitally mediated street vending.

Rahman's (2023) ethnographic study in Makassar reveals adaptive strategies that emerge organically: cooperative purchasing of digital tools, pooling bandwidth, and maintaining hybrid distribution networks. Such practices demonstrate not technological resistance, but alternative forms of digital citizenship, wherein PKL assert agency within uneven digital terrains.

METHOD

1. Research Design

This study employs a qualitative research design to investigate how street vendors (Pedagang Kaki Lima/PKL) in Makassar experience and respond to digital transformation in the era of Smart Society 5.0. Qualitative inquiry is suitable for this research because the phenomenon under investigation—technological adaptation, entrepreneurial practices, and shifting social relations—is embedded in lived experience, situated contexts, and subjective meanings (Creswell & Poth, 2018). Rather than measuring adoption levels numerically, the aim is to understand how PKL interpret, negotiate, and embody digitalization within their daily economic and social environments.

The study adopts a sociological interpretivist orientation, emphasizing the role of symbolic meaning and social interaction as analytical lenses. This approach enables the researchers to explore how PKL construct digitalization not merely as a technical process, but as a social encounter involving identity, relationality, risk, and power.

2. Research Site and Context

Makassar was selected as the empirical context due to its dual character as both a rapidly modernizing metropolitan center and a city with a strong informal economy. The coexistence of digital entrepreneurship, government-led smart city initiatives, and traditional urban markets creates a unique socio-economic ecology in which PKL encounter digitalization unevenly. Areas such as Pantai Losari, Panakkukang, and central culinary hubs were identified as key environments where digital and offline markets intersect.

3. Participants and Sampling Strategy

Participants consisted of 30 street vendors representing diverse product types (food, beverages, snacks, clothing, and daily goods) and varying levels of technological adoption. The

selection used purposive sampling, allowing the inclusion of information-rich cases capable of providing insight into both successful and struggling digital transitions. Three criteria guided participant selection:

1. Entrepreneurial status: Individuals actively operating a PKL business in Makassar for at least one year.
2. Digital exposure: Vendors with varying experiences in digital tools (e.g., social media, QR-based payment, delivery platforms).
3. Generational variation: Inclusion of vendors aged 18–35 and above 40 to observe age-related adaptation patterns.

To capture contrasting experiences, the sample was balanced between:

- 20 PKL who had adopted digital tools (social media, delivery services, e-wallets).
- 10 PKL who remained fully traditional, relying exclusively on physical transactions and localized customer networks.

This comparative sampling structure provided a layered understanding of how digital affordances and constraints translate into everyday practice.

4. Data Collection Techniques

Data were collected using three complementary techniques, ensuring multi-dimensional insights:

4.1 In-depth Interviews

Semi-structured interviews were conducted to explore personal narratives, entrepreneurial trajectories, digital literacy, platform experiences, and perceptions of risk or trust. Interview guides were designed to elicit reflection rather than factual reporting, allowing participants to interpret digitalization in their own words. Conversations were recorded (with consent) and averaged 30–60 minutes per participant.

4.2 Participant Observation

Field observations were carried out at traditional vending locations and digitally enabled PKL areas. This included observing customer interaction patterns, payment processes, negotiation styles, and technology usage (e.g., QRIS displays, device management, or platform interactions). Observations allowed the researchers to analyze how digital systems manifest in practice, beyond self-reported narratives.

4.3 Policy and Document Analysis

Local government policies and digitalization initiatives targeting micro-enterprises and informal sectors were reviewed. This included municipal digital market programs, public Wi-Fi allocation, platform partnership schemes, and regulatory frameworks governing PKL spatial allocation. Such analysis illuminated structural constraints and institutional assumptions embedded in Makassar’s modernization agenda.

5. *Data Analysis*

Data were analyzed using thematic analysis, following the procedural guidelines of Braun and Clarke (2006). This method was selected due to its flexibility and capacity to generate theoretically informed insights from empirical narratives. The analysis involved six iterative steps:

- Familiarization: Transcription and repeated reading of interview and observational notes.
- Initial coding: Identifying segments related to technological adaptation, entrepreneurship, identity, resistance, and platform interactions.
- Theme generation: Grouping codes into conceptual clusters (e.g., digital aspiration, dependency, algorithmic precarity).
- Reviewing themes: Checking analytical coherence across cases and participant categories.
- Theme refinement: Connecting emergent ideas to sociological theories (network society, informality, platform capitalism).
- Interpretation: Synthesizing themes into an integrative narrative grounded in empirical evidence.

The analysis prioritized the interplay of structural constraints (platform economics, urban policy) and agency (adaptive strategies, community learning, hybrid models). Direct quotations from interviews were retained to preserve participant voice and authenticity.

6. *Ethical Considerations*

The research adhered to ethical principles of informed consent, anonymity, and voluntary participation. Participants were briefed on research aims, data usage, and their right to withdraw at any stage. Pseudonyms were used to protect identities, particularly given the precarious legal status of many PKL operations. Digital interactions and platform screenshots were not disclosed without explicit consent.

FINDINGS AND DISCUSSIONS

Findings

The empirical results reveal how street vendors (PKL) in Makassar navigate the digital transformation associated with Smart Society 5.0. While some actors demonstrate adaptive strategies, others encounter structural and cultural barriers. These findings are presented through three interrelated themes: (1) uneven digital adoption, (2) shifting social relations in the marketplace, and (3) platform dependency and its consequences.

1. **Uneven Digital Adoption: Digital Literacy as Social Capital**

A central pattern emerging from the interviews and observations is the stratified nature of technology adoption among PKL. Digital literacy operates as a form of social capital: vendors familiar with social media, smartphones, and platform interfaces are better positioned to explore new markets, while others interpret digitalization as “a world that does not belong to them.”

Among the 30 participants, approximately 35% had implemented digital tools in at least one stage of their business. Younger vendors—primarily aged 18–35—use Instagram, TikTok, and Facebook for advertisement, often posting videos, product prices, and location updates. One vendor explained:

“I just make a short video of the food and post it on TikTok. Sometimes one video can bring new customers the next day.” (Hasan, PKL Pisang Epe, 2023)

This approach produces noticeable economic gains. Several vendors reported increases in daily sales, in some cases up to 40%, after integrating social media and digital ordering. In contrast, older vendors frequently cite fear of error, lack of trust, or uncertainty about online interactions. A 52-year-old fried rice vendor described:

“People say use the app or QR code, but I don’t understand how to manage it. If something goes wrong, who will help me?” (Siti, PKL Nasi Goreng, 2023)

These narratives underscore that digital adoption is not simply about access to technology—it is a cultural process shaped by confidence, generational background, and perceived risk. Even when vendors possess smartphones, the absence of mentorship and support systems prevents meaningful digital engagement.

2. Market Hybridization: Technology as Complement, Not Replacement

Rather than a complete transition to digital markets, many PKL create hybrid economic models, blending face-to-face transactions with mediated communication. These practices reflect both adaptation and resistance.

Across the sample, 60% of “digitally active” vendors continue to rely heavily on offline purchasing dynamics—negotiation, habitual customers, or passer-by traffic—while using digital channels for order coordination and customer retention. WhatsApp stands out as a pragmatic solution. Vendors circulate menu lists, handle bulk orders, and maintain contact with local customers through informal networks.

“We don’t use those apps. Just WhatsApp. Regular customers order from there, and they pick it up at my cart.” (Rina, PKL snacks, 2023)

This hybridization demonstrates agency, not technological deficiency. PKL employ digital tools flexibly, “on their own terms,” prioritizing low-risk, low-maintenance platforms that preserve personal trust. As one vendor noted:

“On WhatsApp, I still know the customer. On the apps, everything is just numbers.” (Ardi, PKL coffee, 2023)

The pattern illustrates a core sociological insight: technology adoption is relational. PKL embed digital practices within existing community networks, rejecting corporate digital infrastructures when they destabilize cultural norms of reciprocity and familiarity.

3. Digital Payments and Monetary Pragmatics

Digital payments, particularly QRIS and e-wallets, have achieved higher penetration: 50% of vendors reported accepting at least one digital method. For many, this is a practical necessity rather than a strategic shift.

Younger vendors cited convenience and reduced risk of carrying cash. Older vendors valued transaction receipts as a defense against disputes. Yet even this seemingly neutral

innovation carries hidden frictions. Some participants were unaware of **transaction fees** or struggled with unstable internet access:

“Sometimes the QR doesn’t work. The customer waits, then gives up and pays cash.” (Fajar, PKL beverages, 2023)

Thus, digital payments reveal a material layer of digital divide: bandwidth availability, device quality, and transaction reliability all determine whether digital tools reduce or increase operational uncertainty.

4. Algorithmic Visibility and the Paradox of Platformization

Engagement with delivery platforms (GrabFood, GoFood) was markedly lower: only 15% of vendors actively used them. The reason is not lack of awareness, but economic and algorithmic constraints.

Vendors consistently identified commission fees of 15–30% as prohibitive. For small-margin enterprises, a 20% cut can determine whether a day ends in profit or loss. More importantly, vendors expressed the sense of being subordinated to algorithmic hierarchies:

“If you don’t have many ratings, the app hides you. Customers can’t even see us.” (Siti, PKL Nasi Goreng, 2023)

This statement reflects platform capitalism in practice. Vendors are not simply selling products; they are negotiating visibility, ranking metrics, and consumer trust mediated by opaque algorithms. The data suggest that the digitally “successful” PKL are not inherently superior—they are those who fit the logic of the platform, often possessing resources to subsidize prices, maintain digital packaging standards, or time consistency for delivery.

5. The Loss of Social Atmosphere

A subtle, yet powerful consequence of digitalization concerns the erosion of personal interaction. PKL traditionally serve as sites of informal social exchange—conversation, humor, bargaining, and community reinforcement. Platform ordering reduces these relations to standardized transactions.

“Customers just order and leave. No talking, no questions. It feels like working for a machine.” (Hasan, PKL Pisang Epe, 2023)

This sentiment echoes sociological concerns about the disembedding of social relations in digitally mediated commerce. Vendors no longer see the client; they see an order number, a pickup driver, and a rating score. The warmth of the local economy—once a defining characteristic of PKL culture—dilutes into interface-driven efficiency.

6. The Vendor’s Response: Collective Adaptation and Micro-Innovation

Despite challenges, PKL demonstrate resilience through peer-learning, shared technology resources, and community-based micro-innovations. Some groups jointly purchase Wi-Fi access, teach each other how to install applications, or collectively solve digital barriers. One vendor group in central Makassar explained:

“We taught each other how to use QR. Someone learns something, they show the others. No one wants to be left behind.” (Member of PKL Go Digital Makassar, 2023)

These practices illustrate a bottom-up digitalization—not imposed by policy or platform, but nurtured through collective cultural intelligence. They demonstrate that PKL do not merely absorb technology; they domesticate it, embedding it within systems of community solidarity.

Discussion

The findings of this study demonstrate that the digital transformation associated with Smart Society 5.0 is neither neutral nor evenly distributed. Instead, its effects are structured through *social stratification, cultural values, and platform capitalism*, producing new configurations of inclusion and exclusion in urban informal economies. Rather than functioning as a universal solution for micro-entrepreneurs, digital technology becomes a selective filter that privileges those with the ability to navigate it and marginalizes those who cannot. The experience of Makassar’s street vendors (PKL) reveals the limits of technological determinism and underscores the sociological nature of digital transition.

1. Digitalization as Social Stratification

The diverging levels of digital adoption among PKL align with Van Dijk’s (2020) framework of the three digital divides. Access alone is insufficient: the critical gap emerges in skills and outcomes. Younger vendors—accustomed to digital interfaces, online interaction, and smartphone-based sociality—treat digital tools as extensions of their identity and economic potential. For them, visibility on platforms such as TikTok or Instagram is not an abstract promotional activity; it is a symbolic performance of entrepreneurial identity, a means to craft legitimacy and consumer engagement.

Older vendors, by contrast, encounter digitalization primarily as an anxiety-producing requirement tied to risk, surveillance, or technical failure. Their hesitation is not simply a knowledge deficit; it reflects a clash between informal economic culture and digital rationality. The reluctance to adopt digital tools is grounded in lived experiences of uncertainty—fear of being cheated, losing autonomy, or making irreversible mistakes. These responses echo Ragnedda’s (2017) assertion that digital inequality is cumulative and compounded by existing socio-economic status.

Thus, Smart Society 5.0—though human-centered in principle—can reproduce inequality in practice when human diversity is not institutionally recognized. The technological vision assumes a uniform capacity for participation, yet PKL embody differentiated realities shaped by age, education, and embedded cultural economies.

2. Hybridization Challenges the Linear Model of Digital Transformation

A major empirical insight is that PKL do not approach digital transformation as a binary choice. Instead of “digital versus traditional,” they develop hybrid business ecologies. WhatsApp ordering, QRIS payments, and offline interactions coexist in pragmatic ways that resist platform homogenization. This hybridity is a form of adaptive agency, contradicting technological narratives that portray informal workers as passive laggards.

From a sociological perspective, hybridity demonstrates that market adaptation is relational, not merely technological. PKL integrate digital tools only when they complement existing trust networks, community relations, and reciprocal exchange. These adaptive practices resemble Turner’s (1976) concept of self-organized autonomy, wherein informal actors modify external structures to preserve local control over their livelihood. They also echo findings from informality research (Kusno, 2020; Sihombing, 2021), which show that vulnerable economic actors rely on social cohesion rather than institutional support.

Therefore, the hybrid models observed are not transitional phases toward “full digitization”; they are stable survival strategies. They allow PKL to benefit from technological advantages while maintaining cultural proximity and identity. This insight challenges the common policy assumption that informal economies will naturally “upgrade” to platform-based ecosystems once exposed to digital infrastructure.

3. Platform Capitalism and New Forms of Dependency

Engagement with delivery platforms reveals a deeper structural tension: digitalization does not democratize markets; it re-stratifies them. Platforms are not neutral intermediaries; they are gatekeepers whose algorithmic logics privilege scale, speed, and consumer convenience. Vendors reported that visibility is contingent on ratings, price competitiveness, and algorithmic ranking—mechanisms often inaccessible to micro-enterprises.

This aligns with Srnicek’s (2017) analysis of platform capitalism, wherein the extraction of data, customer access, and commission structures consolidate market power in large corporations. PKL do not merely “use” digital platforms; they are subjected to them. Commission rates of 15–30% reconfigure profit margins and transform vendors into service providers for platform ecosystems. Zuboff (2019) further argues that this dynamic constitutes surveillance capitalism, where user behavior is commodified, and algorithmic design directs labor routines.

The PKL accounts of feeling “hidden,” “unseen,” or “undervalued” by apps are not emotional reactions; they are experiences of algorithmic precarity. Visibility becomes a resource controlled externally, meaning business viability is no longer linked to product quality or social trust but to platform metrics. This shift de-centers human relation in commerce and places PKL into a digital labor regime that reproduces economic vulnerability.

4. The Erosion of Social Atmosphere as Cultural Loss

Beyond economic consequences, digitalization reconfigures the cultural meaning of the marketplace. PKL spaces historically facilitate interpersonal connection, community negotiation, and informal knowledge exchange. They are socially embedded environments with cultural norms—shared jokes, bargaining rituals, and long-term familiarity. Platform-mediated ordering dissolves this dynamic, reducing transactions to standardized digital actions.

From an interaksi simbolik perspective, this shift transforms the interactional basis of identity (Goffman). PKL move from being hosts of social micro-communities to mechanical

fulfillment nodes in a delivery supply chain. Customers become usernames; vendors become service points. What is lost is not merely social warmth, but the symbolic reciprocity that sustains informal economies. When PKL say, “it feels like working for a machine,” they articulate the alienation Marx warned about—workers losing ownership of social relations, time, and meaning.

5. Informal Digital Citizenship: Resistance Through Community

Despite structural pressures, PKL resist digital determinism through collective adaptation and peer-driven innovation. They share device knowledge, pool resources, and informally instruct one another in platform usage. These practices resemble what Rahman (2023) identifies as community digital coping strategies—a bottom-up mode of technological appropriation.

These forms of digital citizenship emphasize solidarity rather than competition. If platform capitalism individualizes success through ranking, PKL re-socialize technological learning by redistributing knowledge horizontally. This suggests that informal economies generate their own epistemic infrastructures, enabling survival despite institutional neglect. Their digital adoption is relational: technology must serve community, not replace it.

CONCLUSION

This study demonstrates that the digital transformation associated with Smart Society 5.0 is neither linear nor universally emancipatory. Rather than functioning as a neutral technological progression, digitalization operates as a socio-economic filter that reconfigures access to opportunity, reshapes informal work practices, and redistributes power in the urban marketplace. The experiences of street vendors (PKL) in Makassar show that the alleged benefits of digital innovation are conditional, mediated by digital literacy, generational identity, material constraints, platform governance, and local sociocultural norms.

Three key conclusions emerge. First, digital literacy acts as a form of social capital, producing uneven adoption outcomes. Younger PKL can leverage social media and messaging applications as accessible promotional ecosystems, while older vendors interpret digital interfaces as risky or foreign. This finding underscores a critical limitation of Smart Society 5.0: its discourse assumes digital readiness, yet lived realities reveal stratified capacities that deepen existing inequalities.

Second, PKL do not transition toward digitization as a binary replacement of traditional practices. Instead, they develop hybrid economic ecologies that blend online and offline systems in pragmatic ways. Digital tools such as WhatsApp, QR payments, or social platforms are incorporated only when they reinforce long-standing modes of community exchange and relational trust. This shows that adoption is guided not solely by efficiency, but by cultural coherence, social obligation, and autonomy. Policy frameworks that treat digitalization as a linear “upgrade” risk eroding the very social structures that enable informal economies to survive.

Third, platform-based digital markets do not democratize entrepreneurship; they reconfigure dependency and generate algorithmic vulnerability. Commission fees, ranking systems, and visibility algorithms position PKL as subordinate labor nodes within platform capitalism. Economic viability becomes contingent on metrics they cannot control, weakening their autonomy and diluting the interpersonal interactions integral to marketplace culture. What emerges is not empowerment, but a new form of economic extraction, where informal workers bear operational risk while platforms monetize access, data, and reputation.

These conclusions collectively reveal that Smart Society 5.0 is a sociological project, not merely a technological one. Without contextualized inclusion strategies, it risks amplifying the structural disadvantages of informal workers. Inclusive digital transformation therefore requires moving beyond infrastructure provision toward:

1. Targeted digital literacy programs that are practical, low-barrier, and culturally relevant to PKL.
2. Policy protections against exploitative platform mechanisms, including commission limits and vendor-centric algorithmic transparency.
3. Public digital infrastructure in informal commerce locations—stable internet, device accessibility, vendor assistance hubs.
4. Support for community-based knowledge ecosystems, recognizing peer learning as a central driver of informal digital adaptation.

Ultimately, the fate of PKL in the digital era should not be measured by their capacity to assimilate into external technological systems, but by society's willingness to design technologies and regulatory frameworks that respect their identities, sustain their autonomy, and preserve the relational economies that have long supported urban life.

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