

Adaptive Strategies and Family Resilience Following the Closure of the Dolly Red-light District in Surabaya, Indonesia

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Abstract

The closure of Dolly, formerly one of the largest red-light districts in Southeast Asia dismantled a long-standing socio-economic ecosystem and generated profound consequences for families whose livelihoods, identities and social relations had been shaped by the area. This study examines how family resilience emerged in the post-closure context by identifying the major challenges confronted by households and the adaptive strategies they developed to rebuild stability. Using a qualitative case study design, data were collected through in-depth interviews, participant observation and document analysis and were analyzed using Spradley's ethnographic procedures to identify underlying cultural patterns of adaptation. The findings reveal three primary challenges: a sudden economic collapse following the loss of daily income streams, psychological instability linked to identity disruption and social ambivalence within the surrounding neighborhood. In response, families employed four interconnected adaptation pathways, namely economic diversification through small-scale home enterprises, socio-moral reconstruction involving value realignment and adjusted parenting practices, psychological adjustment through identity renegotiation and collaborative adaptation supported by community networks and government programs. These results demonstrate that family resilience in post-red-light district environments emerges through a gradual, multidimensional process that integrates economic, moral, psychological and structural adjustments. The study contributes to a deeper understanding of how families rebuild their lives amid long-term structural transitions in vulnerable urban settings.

Keywords: Adaptation Strategies, Dolly, Family Resilience, Post-localization, Post-red-light District, Urban Community.

Introduction

Dolly, formerly known as one of the largest red-light districts in Southeast Asia, was officially closed by the Surabaya municipal government in 2014. The shutdown represented a major urban policy initiative aimed at restructuring socio-cultural order, eliminating prostitution-based economic activities and reorganizing the spatial dynamics of Putat Jaya, Sawahan. Intended to restructure sociocultural order, suppress prostitution-based economic activities and reorganize urban space, the policy generated far-reaching and multilayered consequences for local families whose livelihoods, identities and social networks had long been embedded within the Dolly ecosystem (1). A set of challenges emerging after the closure, including economic precarity, psychosocial stress, social exclusion and the weakening of informal support systems that historically functioned as crucial safety nets for residents (2). Yet despite growing scholarly

attention, comprehensive analyses that illuminate how families rebuild stability and adapt to long-term structural changes remain limited. For more than five decades, Dolly operated not merely as a prostitution district but as a dense socio-economic micro-system that shaped the daily lives of thousands of residents. Since the 1960s, the area had evolved into a complex informal economy encompassing micro-trading, culinary services, domestic labour, transport services and small-scale production providing intergenerational income continuity for numerous families. As one of Southeast Asia's largest prostitution hubs, Dolly also cultivated intricate social networks that offered emotional and material support. Thus, its abrupt shutdown in 2014 disrupted not only economic circulation but also the social fabric of a community accustomed to relying on these networks for survival (3). The aftermath of the closure reveals significant challenges for families.

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The loss of primary income sources forced many households (particularly women and micro-entrepreneurs) to undertake rapid livelihood transitions, frequently resulting in unstable or insufficient earnings (4). Alongside economic pressures, residents faced long-standing stigmatization as “ex-localization communities,” a label that hindered access to employment, education and broader social participation. This stigma also produced identity disorientation, psychological strain and shifts in household roles, particularly affecting vulnerable women and adolescents. Studies indicate the emergence of prolonged psychosocial problems such as economic anxiety, trauma and stress resulting from social exclusion underscoring the need for strengthened community-based support and mental-health services (5).

Despite these pressures, families in the former Dolly area demonstrate varied adaptive capacities. Many households engaged in economic diversification through micro-enterprises, creative crafts, culinary ventures and digital-based marketing, although barriers such as limited digital literacy and access to capital persist (6). Cultural regeneration initiatives such as Melukis Harapan served to reframe the identity of the area while fostering new economic pathways and strengthening social cohesion (7). At the same time, community solidarity expressed through grassroots organizations, religious groups and the Gerakan Menulis Harapan (GMH) continues to function as an important source of emotional, informational and material support. Microfinance access through institutions like Baitul Maal wat Tamwil (BMT) has also played a significant role in enabling small business development and supporting women’s economic empowerment. Complementing these economic initiatives, community health cadres actively support residents in addressing physical and psychosocial health concerns, enhancing health literacy and improving service access (8).

International scholarship on post-red-light district transitions and marginalized urban communities demonstrates that structural closure policies frequently generate complex forms of displacement, livelihood insecurity and identity disruption among affected residents. Studies from various post-industrial and stigmatized urban settings indicate that communities dependent on informal

economies often experience prolonged social vulnerability after state-led restructuring, particularly when economic rehabilitation programs remain limited. Research on urban resilience further emphasizes that recovery processes in marginalized communities are shaped not only by economic adaptation but also by the reconstruction of social identity, collective trust and community belonging. These perspectives position the post-Dolly transformation within broader global discussions concerning urban displacement, social reintegration and resilience formation in vulnerable communities undergoing structural transition.

Although these adaptive efforts offer an encouraging landscape of community transformation, scholarly literature still lacks deeper explanations of how former Dolly families rebuild their resilience across economic, social, cultural and psychosocial dimensions. Comprehensive understanding of these processes is crucial for informing reconstruction policies and community-based interventions in post-localization urban contexts. Therefore, the objective of this study is to examine how family resilience is formed, maintained and negotiated in the former Dolly localization, by identifying the challenges families experienced after closure and the adaptive strategies they used. This objective provides a clear foundation for addressing the central problem of how families in post-red-light-district environments reconstruct their lives amid structural vulnerability and changing urban realities.

Methodology

Research Design

This study adopts a qualitative case study design, which is appropriate for investigating complex, context-bound social phenomena such as family resilience in the former Dolly red-light district community in Surabaya. A case study enables an in-depth exploration of lived experiences, socio-cultural meanings and adaptation processes embedded within a specific bounded system (9). The approach allows the researcher to examine how individuals and families negotiate structural disruptions following the closure of Dolly and how local institutions and community networks contribute to resilience formation. This design provides a holistic interpretation by integrating

multiple sources of evidence with interviews, observations and documents into a coherent analytical narrative (10).

The study was conducted in the former Dolly localization area located in Putat Jaya, Sawahan District, Surabaya, Indonesia (approximate GPS coordinates 7.2897° S, 112.7265° E). The former Dolly localization was selected as a single-case study because it represents a unique and information-rich example of structural transition within a stigmatized urban community. As one of the largest red-light districts in Southeast Asia, the

closure of Dolly provides a critical context for examining how families adapt to economic disruption, social stigma and identity change in post-localization settings.

Participants

Participants were selected through purposive sampling with an emphasis on information-rich cases representing diverse positions within the former Dolly ecosystem. Informant data are presented in Table 1 below.

Table 1: Informant Profile

Informant Code	Pseudonym	Role Before the Closure of Dolly	Current Occupation	Informant Category
F1	MP	Former <i>mami</i> (female pimp)	Coffee seller	Former Dolly actor
F2	BJ	Former pimp	Tempe seller	Former Dolly actor
F3	EN	Former contraceptive seller	Home-based micro entrepreneur	Former Dolly actor
F4	PD	Former cashier in a brothel	Daily wage laborer	Former Dolly actor
C1	EK	Community leader	Local neighborhood leader	Community change agent
C2	PP	Owner of batik house	Batik entrepreneur	Community change agent
C3	VH	Local government leader	Village head	Community change agent
R1	BL	Local resident of Dolly area	Homemaker	Affected resident
R2	MR	Local resident; grocery store owner	Grocery store trader	Affected resident
R3	VR	Son of former brothel owner; café owner	Café entrepreneur	Affected resident
R4	YN	Shoe worker	Artisan at KUB Mampu Jaya	Affected resident

Note: F = Families formerly involved in the Dolly red-light district, C = Community leaders / Change agents, R = Residents living in the former Dolly red-light district area.

This diversity provides multi-perspective insights into the economic, social, cultural and psychological changes experienced after closure. A total of 11 interviews were conducted until data saturation was achieved, in accordance with qualitative research standards that emphasize “sufficiency of information” over numerical quotas (11). Saturation was assessed continuously during the analytic process by comparing emerging categories and recurring narratives across interviews. Data collection was concluded when no substantially new themes, meanings, or adaptive patterns were identified and thematic redundancy became evident across participant accounts.

All participants confirmed their identities were withheld for confidentiality. Participants included male and female adults representing different household backgrounds and varying degrees of

involvement within the former Dolly socio-economic ecosystem, including former actors, residents and community leaders.

In-depth Interviews

In-depth interviews constituted the primary method of data collection, enabling the researcher to access life histories, subjective meanings, adaptive strategies and stigma-related experiences. Interviews followed a semi-structured format to allow flexibility while maintaining thematic consistency. Each session lasted approximately 60 - 90 minutes and was audio-recorded when consent was granted; otherwise, detailed notes were taken. Before the interview, the researcher conducted a brief screening, explained informed consent and then proceeded with layered probing techniques that emphasized narrative depth, contextual details and reflexive clarification. All

recordings were transcribed verbatim and stored in encrypted digital folders. A pilot phase of two to three preliminary interviews was conducted to refine the interview guide, following best practices for qualitative instrument validation (12). Reflexive memos were written after each interview to enhance analytic rigor and reduce researcher bias.

Participant Observation

Participant observation was conducted to capture naturally occurring behaviors, social routines and interactional patterns that may not appear in verbal accounts. The researcher conducted repeated visits (two to four times per family) to participants' homes and observed communal settings such as markets, neighborhood meetings, social gatherings, batik-production activities and the KUB Mampu Jaya workspace. Observations combined participatory and non-participatory modes depending on ethical considerations and participant comfort. A structured observation checklist was used to guide attention toward indicators such as intra-household role distribution, use of livelihood support, evidence of community solidarity and interactions with external actors. Field notes were written immediately after each visit, forming observation memos that were later triangulated with interview data. This method follows the principle that "culture is primarily learned through observation in natural settings" (13). The researcher remained aware that participant behavior and responses might be influenced by researcher presence, particularly during early observations. To minimize this effect, repeated visits and prolonged engagement were conducted to encourage more natural interactions and build participant familiarity over time.

Document Analysis

Document analysis complemented primary data by providing institutional, historical and policy contexts. The researcher examined government decrees on the Dolly closure, NGO reports, local media archives, kelurahan statistical records and previous academic publications. Each document was catalogued with metadata (title, date, author, issuer and purpose) and summarized in a thematic memo. The documents were analyzed using qualitative content analysis to extract information regarding intervention programs, implementation timelines, narratives of public perception and discrepancies between policy intentions and

community experiences (14). Digital copies of documents were stored in encrypted folders with standardized naming conventions. Documentary findings were continuously compared with participant narratives to identify convergences and inconsistencies between official policy discourse and lived experiences. When discrepancies emerged, the researcher prioritized contextual interpretation by examining how participants perceived and negotiated the practical consequences of policy implementation in everyday life.

Data Analysis

Data analysis consisting of domain analysis, taxonomic analysis, componential analysis and thematic analysis (15). Domain analysis was used to identify broad cultural categories emerging from interviews and observations. These domains were then organized hierarchically through taxonomic analysis to illuminate internal structures and relationships. Componential analysis allowed for contrasting attributes across categories, such as variations in economic adaptation, types of social support and forms of stigma. Thematic analysis synthesized recurring cultural patterns into overarching themes that described the processes of resilience construction in the ex-Dolly community. Throughout the analytic process, memo-writing, iterative reading and constant comparison were employed to refine interpretations.

Trustworthiness

Credibility was enhanced through triangulation of interviews, observations and documents; prolonged field engagement; member checking with selected informants; and peer debriefing with academic supervisors (16). Transferability was supported by providing thick descriptive accounts of context, participants and socio-cultural settings, enabling readers to assess the applicability of findings to other post-localization communities. Dependability was maintained by documenting all procedural steps, maintaining an audit trail and keeping a reflexive journal to capture methodological decisions. Confirmability was ensured through systematic separation of raw data from interpretive analysis, preserving analytic memos and maintaining secure storage systems that allow external auditability.

Ethical Considerations

Ethical principles guided all stages of the research. Participants provided verbal informed consent after receiving clear explanations of the study's purpose, procedures, confidentiality protections and voluntary participation rights. Written consent was not requested to safeguard participant anonymity and reduce potential discomfort associated with discussing sensitive personal histories. When interviews triggered emotional discomfort, referrals to community-based psychosocial support were offered. Observations were conducted using a non-intervention stance, except when participant safety required otherwise. All procedures adhered to international qualitative ethics emphasizing respect, beneficence and confidentiality (17). Access to participants was facilitated through community leaders and local networks who had long-standing relationships with residents in the former Dolly area. Initial interactions focused on trust-building and voluntary participation due to the sensitivity surrounding prostitution histories and ongoing community stigma.

The authors declare that no generative AI tools were used to produce research content or empirical findings. AI was employed solely for readability improvement in accordance with journal guidelines. The entire manuscript is original and plagiarism screening was conducted to ensure academic integrity.

Limitations and Future Research

This study focused on a single-case context within the former Dolly area; therefore, the findings may not fully represent other post-localization communities. Future studies are encouraged to employ comparative or longitudinal approaches to better understand long-term adaptation and resilience processes across different urban settings.

Results

Family resilience within the former Dolly red-light district community has developed through a long and gradual process over the decade following its closure. The findings indicate that families navigated a series of complex transitions, which include economic disruptions, the redefinition of their social identities and the rebuilding of community relationships. These dynamics are presented in two main thematic sections.

Challenges Faced by Families After the Closure of Dolly

The shutdown of the Dolly red-light district in 2014 produced substantial consequences for residents whose livelihoods had long depended on the economic ecosystem surrounding prostitution. Many households sustained their daily needs through ancillary activities such as logistics, parking supervision, cleaning services, room rentals, food vending and other informal work that supported the broader operation of the area. For years, these activities generated steady daily income, allowing families to rely on a predictable economic rhythm. When the district was closed abruptly, this entire structure collapsed, leaving households without their primary source of income and triggering wide-ranging economic and social turmoil.

Economic Shock and the Loss of Livelihoods

Families who had relied on consistent earnings were confronted with a sudden and severe decline in income. Informant F1 described the initial months after the closure as one of the hardest periods in her life:

"Before it closed, my house was never quiet. Every night there were people coming and the money kept flowing. When the place was shut down, everything stopped at once. I had no idea where to start again, because the income we depended on simply vanished and it frightened me to think about how to feed my family." (F1)

A similar account was shared by F2, who for years had worked within the business network operated in the district. He recalled the sense of rupture he experienced when the closure took effect:

"When Dolly closed, it felt as if my life was reset to zero. All the skills I had were tied to the old system and none of them applied anymore. My work relations disappeared overnight. I honestly did not know what job to pursue and the situation was extremely stressful because I had no income at all." (F2)

These accounts point to the magnitude of the economic shock experienced by families reliant on Dolly's informal economy. The abrupt loss of daily earnings forced households to improvise survival strategies even though their previous skills did not match the demands of formal employment. What they lost was not only their economic base but also the social structure that had supported their routines for years.

Psychological Instability and the Difficulty of Negotiating New Social Identities

The decline in income produced psychological strain, including anxiety, shame and uncertainty about the future. The transition that followed the closure extended beyond economic disruption and affected the reconstruction of social identity, particularly for those directly involved in activities connected to the district.

Informants F3 and F4 explained that the shift in the social environment after the closure required them to adjust to a different daily rhythm. They described feeling uneasy during their early attempts to engage with social settings that now demanded greater openness, punctuality and participation in community activities. F3 recounted feeling embarrassed when interacting with neighbors who knew her background, while F4 noted that it took considerable time to rebuild confidence due to the new social expectations emerging in a calmer and more structured environment.

These findings reveal that adaptation among families encompasses more than economic change. It also involves renegotiating social identities in an environment with norms and expectations distinctly different from those in which they previously lived. This shift produced psychological ambivalence that slowed their adjustment, particularly during the first one to three years after the shutdown.

Social Dynamics Among Surrounding Residents

Residents who were not directly involved in prostitution were also affected, albeit in different ways. Before the closure, they benefited indirectly from the high circulation of money in the area, but they simultaneously lived amid noise, crowds and heightened social risks. Informant R2 offered a comparison between the pre-closure and post-closure conditions: "The economy used to be very active and money circulated easily. But the environment was uncomfortable. Loud music, drunk people walking around and children were afraid to play outside. Now it is much calmer, but income is definitely lower. There is peace, yet there is also worry about meeting daily needs." (R2)

Informants R3 and R4 added that the economic burden was heavier for families with school-age children due to rising educational costs. In contrast, families whose children were already employed did not feel the impact as strongly and appreciated the calmer environment, which they believed contributed positively to their well-being. Residents living around the former district experienced a dual reality: although the environment became safer and more conducive to family life, their economic prospects weakened. This indicates that family resilience in the area took shape through two layers, where social stability improved while economic vulnerability continued to persist. This study found that the challenges faced by families after the closure of the Dolly localization are depicted in Figure 1 below.

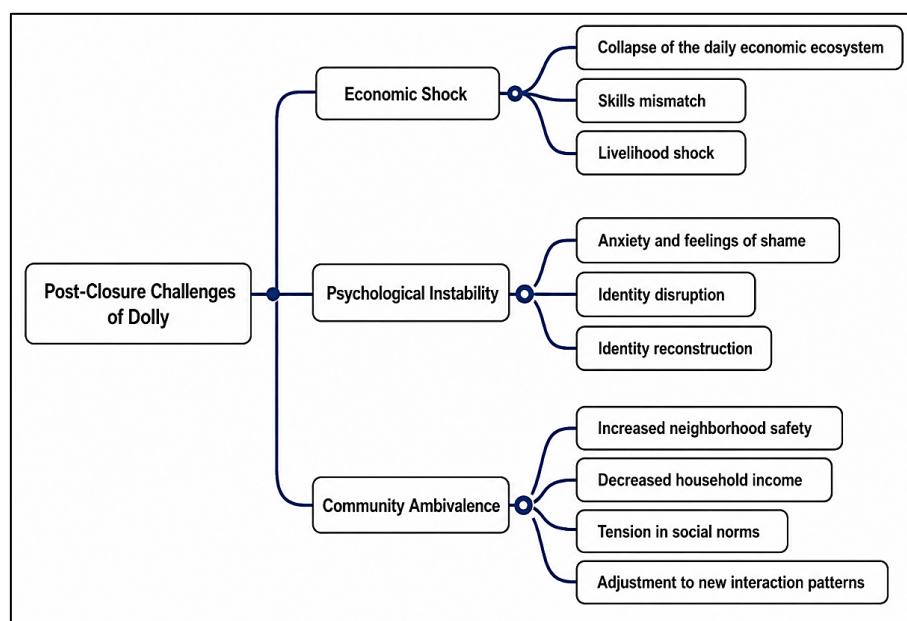


Figure 1: Post-closure Challenges of Dolly

The mind map visually organizes the key post-closure challenges faced by families in the former Dolly red-light district into three interconnected domains. The first domain, Economic Shock, highlights the collapse of the daily economic ecosystem, the mismatch between existing skills and available jobs and the resulting livelihood shock. The second domain, Psychological Instability, captures emotional and identity-related consequences such as anxiety, shame, disruptions to social identity and the need to reconstruct a new sense of self. The third domain, Community Ambivalence, illustrates the mixed experiences of surrounding residents, who benefited from increased neighborhood safety yet faced decreased income, shifting social norms and the need to adjust to new patterns of interaction. Together, these elements depict a multilayered picture of how structural change triggered cascading economic, psychological and social effects within the community.

Family Adaptation Strategies After the Closure of Dolly

Economic Adaptation Through Diversified Livelihoods.

The closure of the Dolly red-light district compelled families to shift away from their long-standing dependence on rapid, daily income and to rebuild their livelihoods through new, legal and more stable forms of work. Economic diversification gradually emerged as the primary strategy, ranging from small home-based enterprises to the conversion of former brothel facilities into productive spaces. Before presenting the testimonies, it is important to note that these transitions were neither linear nor uniform; each family underwent a unique trajectory marked by trial, uncertainty and incremental progress.

"Before the shutdown, I never had to think about starting another kind of business because money always came in every day. After everything stopped, I had to learn from the beginning again. I tried selling coffee, small snacks and joined several training programs. The income is modest, but it allows my family to survive." (F1)

A further illustration of this economic shift was described by F2, whose experience highlights the profound rupture families faced during the transition:

"In the past, I handled large amounts of money every night. After the closure, I had to start from

zero and learned to make tempe just to keep my family going. The earnings are small, yet the work feels clear, calmer and something I can depend on to run the household." (F2)

These accounts reveal that families encountered a major economic dislocation. The disappearance of fast and predictable income forced them to reconstruct skills, rebuild networks and adapt to slower but more secure forms of livelihood. Economic diversification thus became a central pathway for maintaining basic household stability, even though the resulting income is significantly lower than what they had received prior to the closure.

Social-moral Adaptation Through the Reconstruction of Values and Parenting Practices

As the surrounding environment gradually became more orderly and secure, families began restructuring their social values, daily routines and parenting practices. This reconstruction helped them distance themselves from past stigmas and form a new, more positive family identity. Prior to presenting the testimonies, it is essential to underline that these adjustments were deeply intertwined with efforts to create continuity, discipline and a sense of moral safety for their children. F3 expressed this shift as follows:

"Since the neighborhood has become calmer, I started encouraging my children to join Qur'an recitation and learning activities at the mosque. I want them to grow up in a better atmosphere, unlike before when they had to adapt to crowds and situations that were not healthy for them." (F3)

Adding to this perspective, F4 described how adjustments at home were used to reinforce a new family direction:

"After the closure, I restricted my children from going out late at night and began talking with them more often. I want them to understand that life has changed it's safer now and we need to rebuild our family's reputation slowly so that people no longer view us negatively." (F4)

These narratives show how families endeavored to detach themselves from old identities and cultivate new value systems aligned with the transformed environment. The reconstruction of norms and parenting roles helped strengthen household stability and gradually reduce the internal stigma carried by many former residents.

Psychological Adaptation Through the Renegotiation of identity

Families also had to renegotiate their social roles and identities after withdrawing from the economic ecosystem of the former red-light district. This transition generated emotional pressures such as anxiety, shame and uncertainty; however, over time, many were able to regain confidence and establish a renewed sense of self. Before presenting the testimonies, it should be emphasized that identity reconstruction was not merely psychological but closely linked to community acceptance and meaningful participation in everyday life. F3 described this emotional transition:

"In the beginning, I felt awkward meeting the neighbors. They knew what I used to do and it was very difficult to start new interactions. But after getting a new job, I became more confident and slowly I could rebuild my life without constantly feeling blamed." (F3)

F4 offered a similar account, emphasizing the gradual nature of this adjustment:

"After the closure, I often felt lost and unsure where to start. I was embarrassed and worried people would talk about my past. But over time, after joining community activities and having new routines, I felt more accepted and slowly started to rediscover myself." (F4)

The process of renegotiating identity formed a core component of psychological resilience for these families. The new social environment and expanding community involvement helped ease emotional strain. As residents developed a more positive sense of self, their psychological functioning and overall family well-being strengthened.

Collaborative Adaptation Through Community Support and Policy-based Assistance

Families did not navigate this transition alone. Community leaders, local government officials and social organizations offered instrumental and emotional support that accelerated both economic recovery and social reintegration. Before presenting the testimonies, it is important to highlight that these actors played a pivotal role by providing structure, legitimacy and consistent guidance for families undergoing profound change. According to C1:

"We created many activities at the mosque and the community hall so residents would have a safe

space to gather. This is important because it helps them build new, healthy routines and gives them opportunities to interact without feeling isolated. Slowly, the environment has improved." (C1)

This support was echoed by C2, who emphasized the importance of skill-building opportunities:

"Through the batik training, we want residents to have alternative forms of employment. Not everyone becomes a batik artisan, but at least they can try without financial burden and gain new possibilities. We provide the space and the tools so they don't feel overwhelmed." (C2)

Community-based social support functioned as a major protective factor in the adaptation process. The creation of safe communal spaces, access to skills training and the transformation of public facilities reduced economic stress while strengthening positive social interactions. This collaborative adaptation has become a crucial foundation for sustaining long-term family resilience in the post-Dolly environment.

Discussion

The abrupt closure of Dolly generated an immediate economic rupture because the area's localized sex-work economy functioned as an integrated system in which households relied on continuous daily cash flow. This pattern aligns with analyses showing that prostitution economies are embedded within broader nightlife and community structures, so institutional shutdowns inherently dismantle the supporting economic chain (18). External disruptions to prostitution have also been shown to force rapid behavioral and livelihood adjustments due to the transactional and day-to-day nature of earnings, meaning any sudden change creates heightened economic vulnerability. Taken together, these findings indicate that the livelihood shock experienced by post-closure Dolly households reflects broader international evidence regarding the fragility of communities economically dependent on localized sex-work systems (19).

The collapse of the local economic structure produced more than the loss of income; it also triggered role shifts that destabilized the social identities of affected families. Evidence from work-transition studies shows that occupational changes commonly generate emotional strain, psychosocial pressure and a heightened need for adaptive support, indicating that work transitions represent not only functional economic adjustments but also

fundamental shifts in self-meaning (20). This perspective is reinforced by scholarship on the social construction of identity, which emphasizes that identity emerges through interactional processes and cultural exposure; therefore, abrupt changes in work environments or social roles often require individuals to reconstruct their identities to align with new contextual expectations. Emotional experiences accompanying these transitions, including shame or social discomfort as reflected in the field data, can be understood as interactionally managed displays of affect, consistent with research on the organization of emotion in everyday communication (21). Taken together, the psychological instability and identity disruption observed among post-closure Dolly families show theoretical coherence with literature on role transition, identity formation and affective negotiation within changing social environments (22).

Residents who were not directly involved in prostitution experienced a form of structural ambivalence after the closure, as improvements in social order occurred alongside a decline in daily income. This pattern aligns conceptually with research indicating that external disruptions to sex-work economies affect not only sex workers but also the surrounding community, particularly when local livelihoods depend on ancillary informal activities that support the broader economic ecosystem (23). The transformation of the social environment further required adjustments in values, interaction norms and community identity, which can be interpreted through theories of socially constructed identity and the affective processes that shape interpersonal engagement during periods of abrupt change (24). Taken together, these theoretical perspectives help clarify why residents experienced a dual reality in which a safer environment coexisted with diminished economic opportunities, demonstrating a community-level response consistent with broader discussions of rapid structural transitions (25).

Economic adaptation among families in the post-closure environment reflects global evidence that diversification often serves as a survival mechanism when core income streams collapse. Studies across tourism, small enterprise management and community livelihoods consistently show that diversification is rapidly adopted when

operating conditions deteriorate, particularly in sectors dependent on daily or seasonal transactions (26). Evidence from coastal communities illustrates how individuals shifted to secondary livelihoods during the pandemic to stabilize household income (27). These cases parallel the strategic adjustments made by families in Dolly, as they similarly opened food stalls, small shops, or household-based production activities in response to the abrupt loss of their former income ecosystem.

Research on disaster-affected enterprises reinforces this pattern by demonstrating that post-shock adaptation rarely involves a return to pre-disaster routines. Instead, businesses undergo structural reconfiguration, including relocation, product redesign and operational restructuring (28). At the same time, literature on diversified firms shows that diversification has structural limits. Coordination costs, capability constraints and the degree of relatedness between new and old activities shape long-term outcomes (29). These insights clarify why many Dolly families adopted diversification as a short- and medium-term coping mechanism but continued to face significant constraints stemming from limited capital, skills and network resources. From a theoretical standpoint, their economic adaptation is consistent with global patterns in which diversification operates less as a growth strategy and more as a form of crisis-led restructuring aimed at restoring minimal livelihood stability.

The restructuring of social and moral life observed among Dolly families is aligned with international evidence that legitimacy, moral norms and trust-building are foundational to community recovery. Studies on corporate responsibility in emerging economies reveal that moral positioning, expressed through CSR strategies, strengthens reputational capital, which subsequently influences economic performance (30). Likewise, historical accounts of Chinese business ethics highlight those ethical frameworks evolve alongside economic transitions, often mediated by relational norms such as *guanxi* that form the basis of social cohesion (31). These findings resonate with the post-closure adjustments observed in Dolly, where families reoriented daily routines, reinforced social discipline within the household and engaged children in community and religious activities to distance themselves from past stigmas.

Post-disaster studies further emphasize that rebuilding trust and overcoming reputational damage are critical components of recovery. In the Fukushima context, public distrust and damaged legitimacy emerged as major barriers to rehabilitation, demonstrating that socio-moral conditions directly influence the pace of economic regeneration (32). Similar dynamics appear in governance research, which highlights those participatory platforms strengthen community accountability and value systems, thereby enhancing collective adaptive capacity (33). While the available literature does not directly examine parenting reconstruction, the Dolly findings illustrate how families rely on moral repositioning and value reinvention to support long-term reintegration. These processes align with global scholarship recognizing ethics, trust and legitimacy as essential components of adaptive social infrastructure.

The psychological dimension of family adaptation, with a specific focus on the renegotiation of social identity, aligns with broader scholarly discussions on micro-level resilience and the reconfiguration of social roles. Although the provided references do not directly conceptualize identity renegotiation as an outcome variable, they offer useful frameworks for interpreting the lived experiences of former Dolly residents. Resilience literature indicates that individuals play an active role in shaping adaptive pathways, especially when navigating uncertainty and structural change (34). Similarly, strategic management studies show that rapid shifts in technology, global markets and resource constraints compel both individuals and organizations to redefine roles and realign expectations (35).

Qualitative research further demonstrates that livelihood continuity often hinges on psychological recalibration. Chinese migrants in Timor-Leste, for example, sustained livelihoods through entrepreneurial practices that demanded flexibility, self-definition and responsiveness to changing. Studies on ethnic enclave businesses in Spain highlight that crisis periods require actors to activate social networks and embedded resources to maintain professional identity and community belonging (36). In European fisheries, adaptive arrangements help generate social capital that stabilizes occupational identity, especially during prolonged uncertainty (37). These insights offer a coherent

theoretical foundation for interpreting the emotional struggles and identity tensions experienced by Dolly families. While the specific notion of identity renegotiation is an analytical extension rather than a directly measured construct, the broader literature supports the idea that role transitions under structural shock inevitably require psychological reframing.

The findings demonstrate that collaborative adaptation was pivotal for families seeking stability after Dolly's closure. This pattern aligns with extensive research showing that community embeddedness, social capital and participatory governance form essential infrastructure for resilience. Rural studies in Scotland demonstrate that local enterprises, although limited in scale, operate as social anchors that strengthen economic stability and enhance community resilience (38). Similar evidence from rural enterprises across different regions shows that cooperation between businesses and communities strengthens the ability to navigate social, economic and environmental pressures (39). In fisheries, adaptive business arrangements produce social capital that enhances resilience at multiple levels (40).

On the policy side, vulnerability research on Indonesian micro-enterprises establishes diagnostic frameworks for identifying exposure, sensitivity and adaptive capacity, illustrating how targeted interventions can support enterprise resilience (41). Studies from Nepal underscore those regulatory environments influence entrepreneurial survival, demonstrating that adaptation is shaped not only by internal strategy but also by institutional contexts (42). Post-Fukushima research shows that recovery depends on credible institutions capable of rebuilding trust, coordinating responses and restoring public confidence. Governance research on biodiversity protection further illustrates how collaborative platforms and active communities enhance climate adaptation and policy effectiveness. Taken together, these insights reinforce the conclusion that the adaptive capacity of Dolly families was shaped not only by individual or household actions but also by the strength of community networks and the responsiveness of local governance structures.

At the same time, the findings also indicate that family resilience developed under unequal structural conditions. Although the closure policy

succeeded in transforming the social environment, many families continued to experience economic precarity, limited employment access and lingering social stigma long after the transition period. This suggests that post-localization recovery requires not only behavioral adaptation at the household level but also sustained structural support, inclusive economic policies and long-term community reintegration programs.

The four family adaptation strategies identified economic adaptation, socio-moral adaptation, psychological adaptation and community adaptation, demonstrate that resilience in the former Dolly area was built through a multidimensional transformation process. This finding aligns with the theory of family and community resilience, which emphasizes that post-disruption recovery is not solely concerned with economic aspects but also encompasses rebuilding identity, social values and support networks. Successful adaptation depends on the family's ability to simultaneously combine economic innovation, moral restructuring, psychological strengthening and the utilization of community support. Thus, the resilience of former Dolly families reflects a dynamic process influenced by the structural context, the availability of social capital and the family's capacity for continuous adjustment.

Conclusion

Families living in the former Dolly red-light district faced three major challenges: a sudden economic collapse, psychological instability driven by shifting identities and social ambivalence within the surrounding community. These challenges resulted in multidirectional pressures on livelihood security, emotional well-being and a sense of social belonging. In response, families implemented four interconnected adaptation pathways: economic diversification to stabilize income, socio-moral reconstruction to realign communal values, psychological adjustment through identity renegotiation and collaborative adaptation enabled by community and policy support. Together, these strategies demonstrate that resilience in the post-red-light district context is not linear, but emerges through iterative adjustments across economic, moral and psychosocial domains. The interplay between severe constraints and adaptive actions illustrates that long-term recovery depends on the capacity of

families and the broader social environment to enable sustained adaptation. These findings imply that post-localization recovery policies should extend beyond short-term economic assistance and include sustained psychosocial support, community reintegration programs, livelihood training and inclusive social protection mechanisms for vulnerable families.

Abbreviations

BMT: Baitul Maal wat Tamwil, Dolly: Former Dolly red-light district in Surabaya), GMH: Gerakan Menulis Harapan, KUB: Kelompok Usaha Bersama (Joint Business Group).

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Author Contributions

Rezka Arina Rahma: Conceptualization, Methodology, Data Collection, Data Analysis, Writing-Original Draft, Ach Rasyad: Methodological Refinement, Supervision and Validation, Supriyono: Data Interpretation, Theoretical Integration, Review/Editing, Sri Wahyuni: Participant Recruitment, Field Coordination, Data Triangulation, Umi Dayati: Literature Review, Document Analysis, Editorial Support, Muslim Haidar: Writing-Review and editing, Ethical Compliance, Manuscript Formatting. All authors have read and approved the final version of the manuscript.

Conflict of Interest

All authors declare no conflicts of interest related to the publication of this manuscript.

Data Availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request. Participant identities and sensitive information have been anonymized to protect confidentiality and privacy.

Declaration of Artificial Intelligence

(AI) Assistance

The authors declare that no generative AI tools were used to produce the empirical data, analysis, or theoretical interpretations presented in this manuscript. Generative AI was used only for language refinement and readability improvement during the manuscript preparation process and all content has been carefully reviewed and validated by the authors to ensure accuracy and academic integrity. The authors take full responsibility for the content's originality, interpretation and accuracy.

Ethics Approval

This study was conducted in accordance with ethical principles for qualitative research involving human participants. Verbal informed consent was obtained from all participants prior to data collection after they received a clear explanation of the study objectives, interview procedures, voluntary participation, confidentiality measures and their right to withdraw from the study at any time without any consequences. No written consent forms were used, as the study involved sensitive issues related to prostitution histories and community stigma and verbal consent was considered more appropriate to ensure participant comfort, privacy and anonymity. Participant confidentiality was strictly maintained throughout the research process and all identifying information was anonymized. Discussions involving sensitive personal experiences were conducted with care to safeguard participants' psychological well-being and safety.

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References

1. Lee WH. Reclaiming the "good women" identity: A case study of Surabaya's Muslim sex workers negotiating Islam and sex work. *Asian Journal of Social Science*. 2024 Jun 1;52(2):92-99. doi:10.1016/j.ajss.2024.04.002
2. Yunus JO, Sawitri AAS, Wirawan DN. Web-Based Multifaceted Approach for Community-Based HIV Self-Testing Among Female Sex Workers in Indonesia: Protocol for a Randomized Community Trial. *JMIR Research Protocols*. 2021 Jul 1;10(7):e27168. doi:10.2196/27168
3. Wiyanto CC, Krisdinanto N. Manipulating Image and Communication Issues in the Dolly Ex-Prostitution District Community Development Program. *Mediator: Jurnal Komunikasi*. 2022;15(2):219-35. doi:10.29313/mediator.v15i2.10355
4. Chavda K, Nisarga V. Single parenting: impact on child's development. *J Indian Assoc Child Adolesc Ment Health*. 2023;19(1):14-20. doi:10.1177/09731342231179017
5. Hung J. Sociological and policy examination of poverty-led crime in Indonesia: case study of (child) prostitution. *J Poverty*. 2024;28(5):1-19. doi:10.1080/10875549.2024.2379766
6. Yilmaz Y, Raetze S, de Groote J, Kammerlander N. Resilience in family businesses: a systematic literature review. *Fam Bus Rev*. 2024;37(1):60-88. doi:10.1177/08944865231223372
7. Azhar H. Culture-Led Urban Regeneration: How Does Melukis Harapan Catalyst The Transformation of Dolly Prostitution District? *Journal of Governance and Social Policy*. 2021 Jun;2(1):56-66. doi: 10.24815/gaspol.v2i1.20930
8. Riswanda. Re-framing prostitution in Indonesia: a critical systemic approach. *Syst Pract Action Res*. 2016;29(6):517-539. doi:10.1007/s11213-016-9379-2
9. Butler-Kisber L. Qualitative inquiry: thematic, narrative and arts-informed perspectives. Thousand Oaks (CA): SAGE Publications; 2010. <https://doi.org/10.4135/9781526435408>
10. Creswell JW, Creswell JD. Research design: qualitative, quantitative and mixed methods approaches. 6th ed. Thousand Oaks (CA): SAGE Publications; 2022. <https://www.scirp.org/reference/referencespapers?referenceid=3784840>
11. Guest G, Bunce A, Johnson L. How Many Interviews Are Enough?: An Experiment with Data Saturation and Variability. *Field Methods*. 2006 Feb 1;18(1):59-82. doi:10.1177/1525822X05279903
12. Kallio H, Pietilä AM, Johnson M, Kangasniemi M. Systematic methodological review: developing a framework for a qualitative semi-structured interview guide. *Journal of Advanced Nursing*. 2016; 72(12):2954-65. doi:10.1111/jan.13031
13. Ballew SH, Mok Y, Matsushita K. A Practical Guide to Interpret Individual Participant Data Meta-analysis of Observational Studies. *American Journal of Kidney Diseases*. 2021 Sep 1;78(3):464-7. doi:10.1053/j.ajkd.2021.02.333
14. Bazeley P. Qualitative Data Analysis: Practical Strategies. SAGE; 2013. 476. ISBN: 978-1-84920-303-6
15. Onwuegbuzie AJ, Leech N, Collins KMT. Qualitative Analysis Techniques for the Review of the Literature. *The Qualitative Report*. 2012 Jul 9;17(28):1-28. doi:10.46743/2160-3715/2012.1754
16. Enworo OC. Application of Guba and Lincoln's parallel criteria to assess trustworthiness of qualitative research on indigenous social protection

- systems. *Qualitative Research Journal*. 2023 Apr 24;23(4):372–384.
doi:10.1108/QRJ-08-2022-0116
17. Orb A, Eisenhauer L, Wynaden D. Ethics in Qualitative Research. *Journal of Nursing Scholarship*. 2001;33(1):93–6.
doi:10.1111/j.1547-5069.2001.00093.x
 18. Pooyan Z, Hokugo A. Community resilience and social capital: hindering vs fostering factors. *Int J Disaster Risk Reduct*. 2025;118:105213.
doi:10.1016/j.ijdrr.2025.105213
 19. Atkins K, Kennedy CE, Stangl AL, *et al.* Intersectional stigma and resilience among female sex workers in Namibia: Drivers, manifestations and implications for PrEP use. *SSM - Qualitative Research in Health*. 2024 Dec;6:100496.
doi:10.1016/j.ssmqr.2024.100496
 20. Thomsen DK, Cowan HR, McAdams DP. Mental illness and personal recovery: a narrative identity framework. *Clin Psychol Rev*. 2025;116:102546.
doi:10.1016/j.cpr.2025.102546
 21. Arimbi DA. Sacred sex or purely prostitution? Women's health during the COVID-19 pandemic in Roro Kembang Sore Tomb, Tulungagung, East Java, Indonesia. *J Int Womens Stud*. 2022;24(8):1-15.
<https://scholar.unair.ac.id/en/publications/sacred-sex-or-purely-prostitution-womens-health-during-the-covid-/>
 22. Haslam SA, Jetten J, Postmes T, Haslam C. Social identity, health and well-being: an emerging agenda for applied psychology. *Appl Psychol*. 2009;58(1):1-23.
doi:10.1111/j.1464-0597.2008.00379.x
 23. Finklestein M, Pagorek-Eshel S, Laufer A. Adolescents' individual resilience and its association with security threats, anxiety and family resilience. *Journal of Family Studies*. 2022;28(3):1023–39.
doi:10.1080/13229400.2020.1778504
 24. Steiner A, Atterton J. The Contribution of Rural Businesses to Community Resilience. *Local Economy the Journal of the Local Economy Policy Unit*. 2014; 29(3):228–44.
doi:10.1177/0269094214528853
 25. Cleofas JV. Family, Friends, School and Nation: Socio-ecological Determinants of Mental Health Among Filipino College Students Post-lockdown. *International Social Science Journal*. 2023;74(252): 319–38.
doi:10.1111/issj.12459
 26. Alonso AD. Resilience in the Context of Two Traditional Spanish Rural Sectors: An Exploratory Study. *Journal of Enterprising Communities People and Places in the Global Economy*. 2015;9(2):182–203.
doi:10.1108/jec-11-2014-0026
 27. Wu TC, Chen CP, Hsu AY, Wall G. Farm Diversification Through Agritourism: Innovation Synergies. *International Food and Agribusiness Management Review*. 2024;27(3):509–25.
doi:10.22434/ifamr2022.0167
 28. Song X, Huang H, Zhang L, Guan J. From shock to maturation: Tracing dam-impacted Jingjiang River morphodynamic adaptation using a four-stage neural SDE framework. *Geomorphology*. 2026 Feb 15;495:110138.
doi:10.1016/j.geomorph.2025.110138
 29. Fernández-Giménez ME, Batkhishig B, Batbuyan B, Ulambayar T. Lessons from the Dzud: Community-Based Rangeland Management Increases the Adaptive Capacity of Mongolian Herders to Winter Disasters. *World Development*. 2015 Apr;68:48–65.
doi:10.1016/j.worlddev.2014.11.015
 30. Fernandes A, Prabawa TS, Therik WM. The Livelihood of Chinese Migrants in Timor-Leste. *Social Sciences*. 2022;11(4):157.
doi:10.3390/socsci11040157
 31. Hernita H, Surya B, Perwira I, Abubakar H, Idris M. Economic Business Sustainability and Strengthening Human Resource Capacity Based on Increasing the Productivity of Small and Medium Enterprises (SMEs) in Makassar City, Indonesia. *Sustainability*. 2021;13(6):3177.
doi:10.3390/su13063177
 32. Miller DJ, Yang H. The Dynamics of Diversification: Market Entry and Exit by Public and Private Firms. *Strategic Management Journal*. 2016;37(11):2323–45.
doi:10.1002/smj.2568
 33. Kirwan J, Maye D, Tsakalou E, Vlahos G, Bartolini F, Vergamini D, Brunori G. Adaptive Business Arrangements and the Creation of Social Capital: Towards Small-scale Fisheries Resilience in Different European Geographical Areas. *Sociologia Ruralis*. 2022;62(1):44–67.
doi:10.1111/soru.12362
 34. Menne F, Surya B, Yusuf M, Suriani S, Ruslan M, Iskandar I. Optimizing the Financial Performance of SMEs Based on Sharia Economy: Perspective of Economic Business Sustainability and Open Innovation. *Journal of Open Innovation Technology Market and Complexity*. 2022;8(1):18.
doi:10.3390/joitmc8010018
 35. Shino Y, Utami F, Sukmaningsih S. Economic Preneur's Innovative Strategy in Facing the Economic Crisis. *Iaic Transactions on Sustainable Digital Innovation (Itsdi)*. 2024;5(2):117–26.
doi:10.34306/itsdi.v5i2.660
 36. Guerra Fernandes JA, Marques C, Silva R, Sánchez-Escobedo MC. Understanding Roma entrepreneurship: community influence on informal business and opportunity creation. *Journal of Enterprising Communities: People and Places in the Global Economy*. 2025 Aug 25;19(6):1549–1576.
doi:10.1108/JEC-03-2025-0075
 37. Goryushkina NE, Petrova L, Khudyakova T, Tchuykova NM, Klimovskikh N, Voinova N. Diversification and Its Role in Improving Hotel Industry Businesses Competitiveness. *International Journal of Recent Technology and Engineering*. 2019;8(4):605–9.
doi:10.35940/ijrte.d7795.118419
 38. Isada F. Changes in the International Network of Japanese Electronics Manufacturers. *International Journal of Business and Management*. 2021;IX(1).
doi:10.20472/bm.2021.9.1.003
 39. Hoang ND, Toppinen A, Lähtinen K. Foreign Subsidiary Development in the Context of a Global Recession: A Case of the Furniture Industry in Vietnam. *The International Forestry Review*. 2015; 17(4):427–37.
doi:10.1505/146554815817476495

40. Hardika H, Aisyah E, Listyaningrum R. Utilization of Various Disruptive Community Learning Resources for the Covid-19 Period in the Perspective of Life Based Learning. *International Journal of Interactive Mobile Technologies (ijIM)*. 2021;15:123. doi:10.3991/ijim.v15i07.21551
41. Voingpuhakdy K. Strategic Resilience in ASEAN: Adapting Strategies for Changing Markets and Environments. *Journal of Asian Multicultural Research for Economy and Management Study*. 2023;4(1):52–8. doi:10.47616/jamrems.v4i1.419
42. Abad-Segura E, González-Zamar MD, Squillante M. Examining the Research on Business Information-Entropy Correlation in the Accounting Process of Organizations. *Entropy*. 2021;23(11):1493. doi:10.3390/e23111493

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