IDENTIFICATION OF FACTORS INFLUENCING GENTRIFICATION: A CASE STUDY IN SOLO, INDONESIA

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Abstract

Indonesia is a country with the highest social gap in Asia. This significant social gap drives the phenomenon of gentrification in several cities in Indonesia. Despite the rise in gentrification occurrences, there is very little research concerning the factors contributing to gentrification behaviors in Indonesia. This study investigates the factors contributing to gentrification in the Kerten Area, Solo, Indonesia, and its social effects. Solo area was selected because many regions in Solo are rapidly developing and attracting residential newcomers from various regions in Indonesia. This study delves into the factors influencing residents' intentions and behavior related to gentrification. The study incorporates variables from the extended Theory of Planned Behavior (TPB) associated with human behavior and perception, such as subjective norms, perceived behavioral control, economic factors, social factors, and social awareness. The survey method was employed with 320 respondents, and the analysis utilized Structural Equation Modeling (SEM). The findings indicate that five variables—subjective norms, social awareness, and economic factors—have a substantial effect on gentrification. This research also discovered that attitude and individual concern factors had no significant effect. These results highlight the importance of managing gentrification to minimize social and community impacts.

Keywords: *extended theory of planned behaviour, gentrification, structural equation modelling*

Introduction

With over 275 million citizens, Indonesia is a sizable nation that struggles with socioeconomic disparity among its citizens. Gentrification is a factor that contributed to the acceleration of this phenomenon (Jambeck et al, 2015). Gentrified communities, which are characterized by social, physical, and environmental economic changes, can have both favorable and unfavorable effects on health and well-being. Increased walkways, amenities, and jobs for employees with college degrees are examples of positive effects (Ren et al, 2023). A decrease in cohesion of social and cultural loss of institutions and small enterprises, living cost are increasing, and in-housing costs are skyrocketing are some of the negative aspects of gentrification (Danardono et al, 2022). People who experience housing instability, individuals from racialized communities, as well as those people whose have been marginalized in urban planning development are particularly affected negatively by gentrification (Domenech et al, 2019).

Different residents may experience gentrification's effects in different ways. For instance, in a neighborhood undergoing a

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transition from being primarily low-income to being primarily middle-income, greater availability to amenities like restaurants and groceries may assist middle-class people more, but such advantages may be outweighed by rising resident economic strain for those of lower income as the price of increased living costs. The present body of gentrification research, which has found conflicting consequences of gentrification on mental health, is clear evidence of these different gentrification experiences (Surya et al, 2020).

The complicated interplay between vulnerability and experience of gentrification at the intersocial, individual, political, and environmental levels makes an assessment to evaluate the effects of gentrification on population health challenging (Christopher, 2000). People who are evicted, have to relocate because of increased living costs, or decide to move because they no longer feel like they belong may also be displaced as a result of gentrification (Szalavetz, 2019). Due to the use of cross-sectional study designs and the difficulty of monitoring displaced individuals as they move, the health consequences of displaced persons are frequently not reflected in gentrification studies. Additionally, quantitative studies often restrict indicators of gentrification to local socio-demographic and housing transformations at the area level, such as increased property values, higher household incomes, and higher levels of education (Hettich et al, 2021).

Gentrification research, especially in Indonesia, has often been conducted by examining its effects from psychosocial or economic aspects. However, very few studies have considered gentrification from a human behavioral perspective, particularly in the Southeast Asia. Solo was chosen as the research location because it is a rapidly developing city attracting residential newcomers from various parts of Indonesia. This makes it an ideal case to study the factors influencing gentrification and its social impacts.

The objective of this study is to investigate the factors contributing to gentrification in the Kerten Area, Solo, Indonesia, and to understand its social effects. Kerten Area of chosen due to significant developments in new housing areas. These areas attracted a diverse group of new settlers from various cities. By incorporating variables from the extended Theory of Planned Behavior (TPB), such as subjective norms, perceived behavioral control, economic factors, social factors, and social awareness, this research aims to provide a comprehensive understanding of gentrification behaviors in this context. This research focuses on understanding the impact of gentrification on residential households, identifying the influencing factors, and exploring how policymakers can leverage this information to prepare for potential social crises in the future. The significance of this study lies in addressing the scarcity of research dedicated to examining the motivations behind gentrification in residential areas.

The findings are anticipated to serve as a valuable resource for policymakers when formulating rules, particularly in the context of implementing gentrification and managing social crises. The study delves into the attitudes, perceptions, and levels of participation in the implementation and management of gentrification.

Research Methodology

Figure 1 is a extended behavioral model used in this research based from Theory of Planned Behavior (TPB). TPB is widely used on a global scale to examine perceptions and behaviors in various studies. In the context of gentrification, Zhang et al (2010) research extended the TPB by introducing variables such as Perceived Behavioral Control, Descriptive Norms, Attitude, and Comfort. These TPB variables also

can be incorporated with various theories related to human behavioural and thought like in the Protection Motivation Theory (PMT). An example of this combination is found in Janice et al (2022) study, which explored the perceived effectiveness of gentrification in the Philippines, incorporating variables from PMT like Perceived Vulnerability and Perceived Effectiveness. Beyond TPB and PMT, several studies in the realm of human behavior and psychology reveal an interesting aspect: individual concern within human psychology.

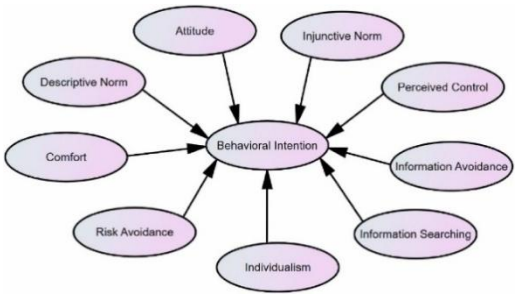

Figure 1. Extended TPB Initial Model

All of these variables can be examined for correlations using Structural Equation Modeling (SEM), SEM is an state-of-the-art analysis in statistic aspect that investigates relationships between multiple variables within a tested model.

In this study, a modified questionnaire based on the Theory of Planned Behavior (TPB) was employed and administered to 320 respondents. The demographic composition included 66% men and 34% women. Following validity and reliability testing, 37 sets of data were deemed invalid or unreliable, resulting in a total of 283 valid respondents for the research. The hypothesis variables used in this research and supporting research will be explained in the next section.

Erdiaw-Kwasie's (2022) study, which establishes a correlation between knowledge about gentrification, organizational factors, and the adoption of gentrification, serves as a foundation for the proposed framework in this study:

1. Hypothesis 1 (H1): Perceived Gentrification Knowledge (PGK) is significantly correlated with intention to use.

   Nittono's paper (2016) underscores the significance of cultivating a perception among individuals that every action, regardless of its scale, carries an impact and contributes to the broader societal context. This emphasis is crucial because individuals may tend to perceive that the effectiveness of their behavior diminishes as the scale of the task increases. Consequently, this study puts forward the proposition that:
2. Hypothesis 2 (H2): Perceived Effectiveness (PE) is significantly correlated with intention to use.

   Singh's paper (2018) asserts that individuals, when confronted with something economically significant or lacking economic incentives, are motivated to engage in behaviors that safeguard these interests. This motivation prompts them to take preventive actions aimed at minimizing the risks associated with such threats. Therefore, based on this insight, the present study suggests:
3. Hypothesis 3 (H3): Perceived Economic Use (PEU) is significantly correlated with intention to use.

   Chakraborty's paper (2018) reveals that over 40% of respondents expressed that environmental considerations would motivate them to use a particular product. In light of this finding, the current research proposes:
4. H4: Perceived Environment Knowledge (PEK) is significantly correlated with intention to use.

   Satriyono’s research (2023) underscores that self-efficacy plays a crucial role in influencing an individual's capability to perform a task. Self-efficacy refers to a person's belief and confidence in their own

ability to successfully execute a task. In consideration of this insight, the present study puts forth the proposition that:

5. H5: Perceived Behavioral Control (PBC) is significantly correlated with intention to use.
   Urakami et al.'s (2021) research affirms that individual behavior is shaped by the prevailing norms within their community. Additional studies further corroborate a robust connection between norms and compliance behavior in both organizational and societal contexts in light of these findings, the present study puts forward the proposal that:
6. H6: Descriptive Norms (DN) is significantly correlated with intention to use
   Numerous research affirm that individuals are more likely to adhere to provided conditions, rules, and guidelines when they are holding a positive attitude. Conversely, those who disregard specific habits are less inclined to comply with the given guidelines (Satriyono et al, 2024). Consequently, this research proposes:
7. H7: Attitude (AT) is significantly correlated with intention to use.
   Perceived Usefulness is characterized as "the extent to which an individual believes that a specific system can enhance one's performance" (Hadibasyir, 2020). This variable serves as the decisive factor influencing an individual's behavior toward a given entity. In essence, if residents perceive satisfaction and benefits from the implementation of gentrification, they are likely to continue adopting it based on their own preferences. Therefore, this study proposes:
8. H8: Perceived Usefullness (PU) is significantly correlated with intention to use.

Result and Discussion

Figure 2 is the research's model constructed in AMOS software based on the extended TPB framework from Figure 1. The results from this research is presented in Table 1.

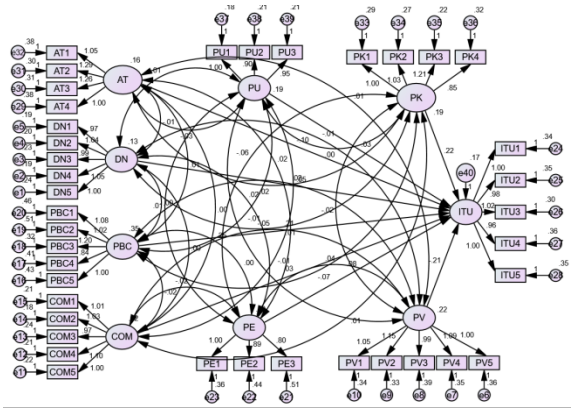

Figure 2. Structural equation model

The data output shows the presence of five substantial hypotheses. Specifically, H1 proposes that Perceived Gentrification Knowledge (PGK) positively influences the intention of use (ITU), while H3 suggests that Perceived Economic Use (PEU) has a positive impact on the intention of use (ITU). Moreover, H4 indicates the involvement of Perceived Environment Knowledge (PEK). Interestingly, hypotheses H6 and H7 are rejected, indicating that Attitude and Descriptive Norms (DN) have a negative effect on the intention of use (ITU).

Table 1. AMOS Results

			C.R.	P	Description
ITU	<---	PGK	1.890	.045	Significant
ITU	<---	PE	.253	.800	Not Significant
ITU	<---	PEU	1.897	.054	Significant
ITU	<---	PEK	1.770	.070	Significant
ITU	<---	PBC	.203	.839	Not Significant
ITU	<---	DN	-1.740	.075	Significant
ITU	<---	AT	-1.262	.089	Significant
ITU	<---	PU	.860	.390	Not Significant

The research indicates a noteworthy and positive impact of the Perceived Gentrification Knowledge (PCK) variable on the response of residential households to gentrification. This

conclusion is drawn from model testing using AMOS, where the The P-value is 0.045, just above the standard 0.05 and the Critical Ratio (CR) value is 1.890, slightly below the standard 1.96.

The findings of this study suggest a noteworthy negative impact of the Attitude (AT) variable on the willingness of residential households to implement gentrification. The results of the model testing in AMOS reveal a Critical Ratio (CR) value of -1.262. The P-value is 0.89, and the estimate is -0.53.

This paper also concludes that the variable of Descriptive Norms has a negative and significant impact on the implementation of gentrification. The findings, derived from model testing in AMOS, reveal a Critical Ratio (CR) value of -1.740,. The P-value is 0.75, and the estimate is -0.102. This outcome may be attributed to the fact that social norms within the respondents' environment are not structured enough to respond the effect of gentrification. The observation that individuals may not perceive the need to implement gentrification, especially in maintaining overall health and hygiene, aligns with the findings of Chan et al.'s research in 2005. Their research affirms that individual behavior is significantly motivated by the prevailing norms within their community. The implications of this research support the idea of fostering a mindset within the community that promotes discipline in social management, this research align with Satriyono et al.

This research also concludes that the variable of Perceived Economical Use has a positive and substantial effect on citizen's inclination to implement gentrification. The findings from the model testing in AMOS yield a Critical Ratio (CR) value of 1.897, exceeding the standard threshold of 1.96, and an estimate of 0.208. This aligns with Singh's (2020) research, which emphasizes the significance of the economic aspect and incentives in implementing gentrification. The results from Perceived Economic Knowledge also mirror this, with a CR value of 1.770, The P-value is 0.070, just above the standard 0.05. This suggests that society is more likely to be motivated to implement gentrification if there are economic benefits associated with it This study also indicates that the Perceived Usefulness variable does not have a significant effect on residents' inclination to implement gentrification. The results, obtained from model testing in AMOS, show a Critical Ratio (CR) value of 0.860 and The P-value is 0.39, surpassing the standard 0.05, and the estimate is 0.083. This implies that respondents do not currently perceive gentrification as being useful. The study suggests a focus on enhancing the perception of the usefulness of gentrification during implementation.

Table 2. Parameter model.

Goodness of Fit Index	***Criteria***	**AMOS Result**	**Conclusion**	**Reference**
Chi Square	*Small Chi Square*	578.750	*Adequate fit*	Ferdinand
RMSEA	≤ 0.08	0.006	*Excellent fit*	Bagozzi & Yi
CMIN/df	≤ 3.00	1.008	*Excellent fit*	Ferdinand
SRMR	<0.08	0.060	*Excellent fit*	Bentler & Bonett
CFI	≥ 0.90 - 1	0.996	*Excellent fit*	Bagozzi & Yi
IFI	≥ 0.90 - 1	0.996	*Excellent fit*	Bentler & Bonett
TLI	≥ 0.90 - 1	0.996	*Excellent fit*	Bagozzi & Yi
NFI	≥ 0.90 - 1	0.693	*Marginal fit*	Bentler & Bonett
PClose	>0.05	1.00	*Excellent fit*	Bentler & Bonett

Furthermore, the study reveals that the variable of Perceived Effectiveness has no significant effect on citizen's willingness to implement gentrification. The results from model testing in AMOS generate a Critical Ratio (CR) value of 0.253, The P-value is 0.800, and the estimate is 0.028. Consequently, individuals still maintain the belief that gentrification will not result in a significant impact.

Conclusions

This research finds that knowledge about gentrification and the environment significantly influences residential decisions to implement gentrification. This is attributed to the sense of satisfaction and immediate reward individuals experience when they realize they have implemented something beneficial. Moreover, the perception of the ease of implementing gentrification enhances the implementation process, making it easier for individuals to study more about gentrification and sustainability.

This research has made a noteworthy discovery, revealing that both descriptive and attitude norms have a negative impact. This may be attributed to individuals perceiving a lack of necessity to implement gentrification, especially when the prevailing social norms in their surroundings do not encourage it. This finding holds significance, suggesting that the government can play a crucial role in increasing awareness about the importance of social management. Moreover, efforts can be made to shift societal habits towards a greater concern for the environment and society.

This study has uncovered another intriguing observation that perceptions related to effectiveness (Perceived Effectiveness) and perceived usefulness do not yield substantial results indicates that residents perceive gentrification as somewhat ineffective and useless for them. This phenomenon may be linked to descriptive norms and attitudes, as individuals may not truly perceive the tangible differences brought about by gentrification in their lives.

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