

Comparison of Women's Satisfaction and Empowerment through an Asset-Based Approach in Formal and Informal Settlements (Case Study: Zafaraniyeh and Rezvanshahr Neighborhoods in Tabriz)

Raheleh Abdollahi^{1}, Solmaz Babazadeh Oskouei²*

^{1*}Assistant Professor, Department of Architecture, Mamaghan Branch, Islamic Azad University, Mamaghan, Iran.

² Assistant Professor, Department of Architecture, Oskou Branch, Islamic Azad University, Oskou, Iran

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ABSTRACT: The uneven capital distribution among settlements seems to have contributed to disparities in social classes, empowerment, and satisfaction. Empowerment refers to the expansion of assets and abilities; despite the key role of women in Iranian families, their empowerment has been neglected in studies. This study uses an asset-based approach based on the settlement types to measure and compare the level of women's satisfaction. This descriptive-correlational study used a questionnaire and observation to collect data from 376 women living in Tabriz's Zafaraniyeh and Rezvanshahr neighborhoods with formal and informal settlement patterns, respectively. The collected data were compared using a t-test between settlements regarding research variables, and the effect size was investigated using correlation and regression tests. The findings indicate that women in formal settlements have more capital, empowerment, and satisfaction than those in informal settlements. There is a significant difference between the women of both settlements regarding the research variables. The capital dimensions play a crucial role in predicting women's satisfaction directly and indirectly through empowerment. In formal settlement, physical capital ($\beta=1.370$) and social capital ($\beta=0.120$) have the highest and lowest effects, respectively. In contrast, in informal settlements, social capital ($\beta=0.560$) and economic capital ($\beta=0.136$) show the highest and lowest effects, respectively. In conclusion, this study highlights that women with greater access to capital experience more empowerment, which leads to greater satisfaction. Therefore, benefiting more from the capital dimension result in higher levels of empowerment and satisfaction for women.

Keywords: *Women, Capital, Satisfaction, Empowerment, Formal/Informal Settlement, Tabriz.*

INTRODUCTION

From sociologists' point of view, the formation of social classes is influenced by the distribution of capital in a society (Grabb, 1984; quoted by Mohammad Hosseini et al., 2019). Bourdieu believes that people's position in the social structure indicates how much cultural, social, and economic capital they have. On the other hand, possessing different types of capital leads to citizens' assets and ability expansion and empowerment (Narayan Parker, 2002). Empowerment has been investigated with different approaches that focus on the men group. Therefore, empowerment in postmodern planning thinking (Eberlei, 2007) for achieving development (Sell & Minot, 2018) and satisfaction (Hossain et al., 2019) is a necessity.

In other words, improving life quality is possible only with the participation of all sex groups, especially women. At the same time, empowering women is essential to create a more just and equitable world (Reshi & Sudha, 2022). Satisfaction studies, on the other hand, have demonstrated that regardless of gender, the level of satisfaction is a crucial factor in improving the quality of urban life (Türkoğlu et al., 2019; Hataminezhad et al., 2017; Karami et al., 2022). Few studies that have dealt with women's empowerment and life satisfaction have addressed the issue from an economic and social point of view, focusing on family well-being and not women's well-being. Iranian women often ignore their impact on society despite their important roles in families.

*Corresponding Author Email: Abdollahi2013@iaumamaghan.ac.ir.

Thus, the traditional Iranian society must recognize women's abilities and capabilities that affect their satisfaction and empowerment, emphasizing local resources and capital. Accordingly, this study aims to address this issue using an asset-based approach to examine the dimensions that influence women's empowerment. This approach mobilizes a group's total assets and capital to create capacity and determines development based on capabilities. As far as we know, no previous study has seriously investigated the relationship between women's empowerment and satisfaction with a comparative approach between residential environments. However, [Hossein et al. \(2019\)](#) study focused on gender in Bangladesh and proved a positive relationship between empowerment and life satisfaction without considering the type of residential environment. The study confirmed the existence of a gender gap in life satisfaction and the difference between men and women since they draw satisfaction from different areas of empowerment. Also, [Lu & Wu's \(2022\)](#) research findings indicate that social capital was a mediator in the relationship between neighborhood environment and life satisfaction.

Furthermore, the study revealed that the relationship between neighborhood environment and cognitive, social capital was significant only for older women. In Iran, the only case is related to the [Behzadfar et al. \(2018\)](#) study, which found a

correlation between satisfaction and empowerment with the asset-based approach, but only among residents of the informal settlement of the Islam Shahr neighborhood in Tehran. Therefore, examining the relationship between empowerment and satisfaction, focusing on women in both developed and developing countries, is essential. This study specifically compares the number of women's resources and capital in Tabriz's formal and informal settlements and its relationship with empowerment through a comparative approach. Additionally, the study aims to explore the relationship between empowerment and satisfaction among women from different social classes, which is an innovative aspect of this research. Differences in residence patterns indicate varying resource utilization and asset ownership levels, leading to differences in empowerment and life satisfaction. Thus, this study seeks to identify the factors contributing to residential satisfaction in different residential environments.

Based on the preceding, reviewing the related literature and recognizing the knowledge gap, this study extracted the relevant components regarding the subject of study and developed a conceptual model of the research. Then, comparable conditions were provided for the research by designing a questionnaire and choosing two residential environments of two formal and informal types. In the final stage, the research hypotheses and relationships between variables were tested ([Figure 1](#)).

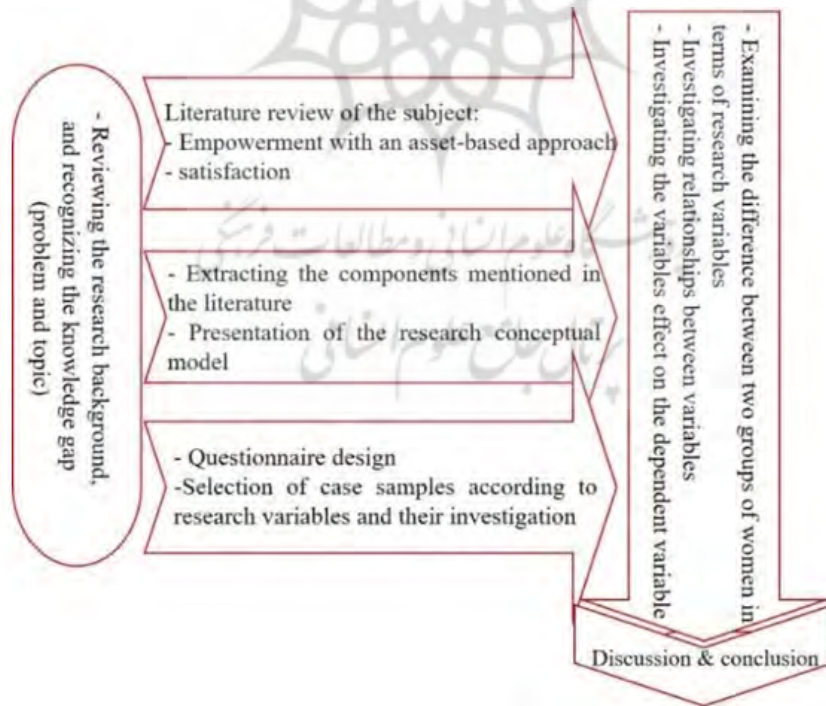


Fig. 1: Research outline

Literature Review

Empowerment with an asset-based approach

Empowerment strengthens one's sense of self-efficacy, defined in the Oxford Dictionary as "giving authority and power to someone to do something." It involves expanding people's assets and abilities to participate, negotiate, influence, control, and protect accountable institutions, which can affect their lives (Narayan-Parker, 2002). With the emergence of the asset-based approach in the late 1980s, in contrast to the need-based perspective (Grant, 1991; Kubisch et al., 1995; Porter & Habiby, 1999), the empowerment policy based the development of the local community on its assets. By mobilizing the total available resources of a local community, not necessarily what it needs, this approach has helped build capacity and mobilize social and financial (Glickman & Servon, 1998) or physical assets of the local community, leading to the integration of people and place well-being (Arafi, 2008). Recognizing the significance of local assets in enhancing community health, experts have categorized them into three main types of capital: physical, natural, and human. In the meantime, cultural capital has also been identified as the fourth type of capital, distinct and separate from the other three (Throsby, 1999). According to Kabeer (1999), resources or capital that enhance the ability to choose can be categorized as material, social, or human. Li et al. (2021) examine the effects of psychological, social, and human capital. On the other hand, Bourdieu believes that four types of capital are exchanged between social groups, which include economic capital (the wealth and money that each social actor has), Cultural capital (special skills, taste, language proficiency, educational qualifications, and ability to recognize and utilize cultural goods); Social capital (social obligations and responsibilities, connections, group relations,

social networks, or organizations) and Symbolic capital (a part of cultural capital) (Turner & Turner, 1978).

Based on the preceding, as shown in Table 1, it can be stated that empowerment studies have referred to the importance of capital as the social, cultural, economic, and physical ability of individuals or local communities that are interconnected to meet the needs of residents in settlement areas. This study is focused on these four dimensions of capital as the fundamental criteria of empowerment, as mentioned below. So by considering and harnessing these types of capital, individuals and communities can enhance their ability to achieve their sustainable goals and improve their quality of life.

1. Physical capital refers to material resources such as housing, roads, parks, and public spaces (Ostrom, 1997). These resources are subject to wear and tear over time due to consumption and use, which can result in their erosion and decline.

2. Social capital plays a significant role in people's daily life. It is an intangible form of capital that encompasses demands, commitments, and expectations within relationships, networks, and communications in various fields of life (Kabeer, 1999, 11). This capital also includes the characteristics of social organizations, such as norms, social networks, and trust, which facilitate cooperation to achieve mutual benefit (Putnam, 1992). In other words, according to Putnam (1992), social capital plays an accelerating role in mobilizing financial, physical, and human resources toward achieving larger social goals (Wallis et al., 1998). Vafaei et al. (2022) identify communications and interactions, participation, collective norms and values, social network, and trust as the most influential criteria of social capital. So, strengthening community organizations would help improve the residents' quality of life necessary for achieving sustainable societies (Kshetrimayum et al., 2020).

Table 1: Capital dimensions from the researchers' perspective

Researchers	Year	Physical capital	Social capital	Cultural(human) capital	Economic capital	Natural capital
Bourdieu	1986		*	*	*	
Putnam	1992	*	*		*	
Glickman & Servon	1998	*	*	*	*	
Kabeer	1999		*	*	*	
Throsby	1999	*		*		*
Arafi	2008	*	*		*	
Mohammad Hosseini et al.	2019		*	*	*	
Li et al.	2021		*	*		

3. Cultural capital is embodied in a person. It includes various forms of knowledge, skills, creativity, and imagination (Kabeer, 1999, 11), as well as specialized skills, taste, language proficiency, educational qualifications, cognitive ability, and the usability of cultural goods, which individuals use to differentiate themselves from others (Ganji & Heydarian, 2014).

4. Economic capital is the most obvious and tangible type of capital, which includes a variety of assets such as bank assets, savings, cash, and the income earned by individuals, groups, and companies on a monthly or yearly basis (Piri & Rezaeiyan, 2014). Other assets, such as land, equipment, and working capital, are also considered part of an individual's financial capital (Kabeer, 1999). These assets are institutionalized as property rights and financial and material assets (Ganji & Heydarian, 2014).

Components of Women's Empowerment

Women's empowerment is a process during which women become aware of their needs and desires, strengthen the courage to achieve their goals through self-belief and self-confidence, and have the necessary ability to implement those (Mousavi & Ravankhah, 2016). On the other hand, women's empowerment has been announced at the center of the development discourse as one of the Eight-Millennium Development Goals (O'Hara & Clement, 2018). To achieve women's empowerment and sustainable development, there is a need to enhance women's skills, economic opportunities, education, and self-confidence (Reza & Yasmin, 2019).

In this regard, the United Nations has identified five key components of empowerment for women: a sense of self-worth, the right to access resources and opportunities, the right to make choices, the right to have the power to control their own lives, and the ability to influence the direction of social change to create more just social and economic order, nationally and internationally (Al Khayyal et al.2021;

UN.Habitat, 2013). Bushra and Wajiha (2015) also have shown that women's empowerment in Pakistan is positively influenced by educational content, economic participation, and available economic opportunities. UNICEF (1994), On the other hand, considers the framework of women's empowerment to encompass welfare, access to resources, awareness-raising, participation, and control. As a dynamic process, it includes women's ability to change the structures and ideologies that have kept them in a subordinate position (Ugbomeh, 2001). Regarding women's empowerment, Kabeer (1999) refers to three dimensions and factors that expand their ability to make macro and strategic life decisions in fields where they were previously denied this ability. The ability to choose can be viewed through three interrelated dimensions that enable decision-making. These dimensions include resources that create favorable conditions for selection, the agency at the center of the decision-making process, and achievements that result from the choices made. Overall, the research on women empowerment suggests that when women are given equal opportunities and access to resources, they can achieve their full potential and positively contribute to their families and communities (Reshi & Sudha, 2022).

Table 2 collected the components of women's empowerment from previous research. These studies have pointed to the significance of the power of choice-making, control, creating economic opportunities, self-belief, trust, awareness, and participation, which are also deemed as the most crucial aspects of women's empowerment in this study. These components are necessary for achieving gender equality and empowering women to improve their quality of life. Therefore, it can be said that women's empowerment involves creating conditions that enable women to make choices, build their agency, and achieve positive outcomes that result from their choices.

Satisfaction

Life satisfaction is evaluating one's quality of life based on

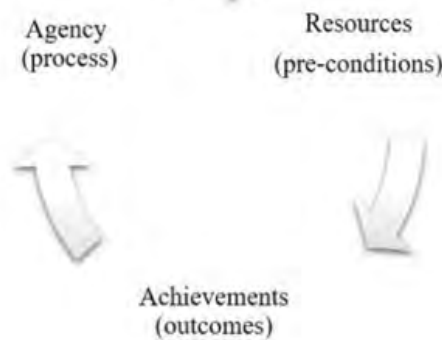


Fig. 2: Dimensions of empowering women (Source: Kabeer, 1999)

Table 2: The components of women's empowerment from the researchers' perspective

Researchers	Year	Components
Reshi & Sudha	2022	equal opportunities, access to resources
,Al Khayyal et al.; UN.Habitat	2013;2021	a sense of self-worth, the right to access resources and opportunities, the right to make choices, the right to have the power to control their own lives, the ability to influence the direction of social change
Reza & Yasmin	2019	improving women's skills, economic opportunities, education, self-confidence
Mousavi & Ravankhah	2016	self-belief, self-confidence
Bushra & Wajiha	2015	educational content, economic participation, available economic opportunities
Kabeer	1999	the right to choose and decide
UNICEF	1994	welfare, access to resources, awareness-raising, participation, control

criteria (Pavot & Diener, 1993). McConnell (1997) defines residential satisfaction as an individual's attitude towards their life, which can reflect their feelings about their past, present, or future, and is closely linked to well-being and comfort. Jiboye (2012) imagine it as a measure of people's attitudes toward certain aspects of their residential environment (Cited by Kshetrimayum et al., 2020). Numerous studies have demonstrated the impact of satisfaction on mental health (Siu & Philips, 2002; Fernandez-Portero, 2017). Satisfaction is related to people's mental health, such as reducing depression (Lee et al., 2020). In other words, life satisfaction predicts mental health, which can lead to a better quality of life and improved physical and mental health (Karimi et al., 2013).

According to Lansing & Marans (1969), a high-quality environment conveys a sense of well-being and satisfaction to its inhabitants through physical, social, or symbolic characteristics. On the other hand, residential satisfaction, a crucial part of life satisfaction (Campbell et al., 1976), is achieved when the individuals feel compatible with their surroundings (Fernández-Portero et al., 2017) and their needs are met (Coulombe et al., 2016; Hadavi, 2017). It is often defined by comparing residents' actual and aspired needs. Therefore, subjective evaluation of the residential environment is crucial since it primarily depends on residents' observation, perception, and impression of the environment (Mridha, 2020, Quoted from Jansen, 2014). It can be said that satisfaction is thus formed based on the ideals, needs, and abilities of families, and any inequality between these three factors and the existing situation can lead to dissatisfaction and displacement (Mohit et al., 2010). This means that the level of residential satisfaction can affect the residents' decision to leave or stay in a place (Bonaiuto et al., 1999; Kamlipour et al., 2012), as it affects concepts such as place belonging, participation, and permanence of residents (Arvin et al., 2020). Therefore, residential satisfaction can be defined as the experience of pleasure, satisfaction, and happiness resulting from living in a specific place (Bonaiuto et al., 2003). Moreover, factors such as material standards of living, housing quality, access to basic

services, social connections, physical and mental health, sense of belonging, access to public facilities, social problems, and effective governance have been identified as crucial factors affecting life satisfaction in informal settlements in South Africa (Richards et al., 2007).

This study evaluated the most important components related to life quality, including comfort and mental health, pleasure and enjoyment, adaptability, permanence, place belonging, and participation, to measure residents' satisfaction levels in both formal and informal settlements.

MATERIALS AND METHOD

In terms of nature, the present study is descriptive-analytical research in the field of correlational research. In the first step, information and components needed to formulate the research conceptual model (Figure 3) were extracted using the library method based on previous research and researchers' opinions on empowerment, asset-based approach, and satisfaction. Then, based on the indicators obtained from the study of the theoretical foundations, the operational model of the research was obtained according to Figure 4. In the second step, the study was conducted by field survey method and using the tools of direct observation, questionnaire, and supplementary interview to collect data in the study area. The questionnaire is the main research tool, and other data were collected to ensure accurate measurement of variables and increase the validity of the measurement tools. The observation was directly collected and recorded the variables conditions, indicators, environmental events, and the behavior of the users. For comparative assessment, the researcher-made questionnaire was used to evaluate the variables of women living in both types of settlements. An interview was conducted with the respondents to understand why they chose the options and to clear their doubts.

The questionnaire comprised 62 questions using a five-point Likert scale (very much to very little). The questions' accuracy was confirmed by determining Cronbach's alpha coefficient (0.810). The current study focused on women residing in

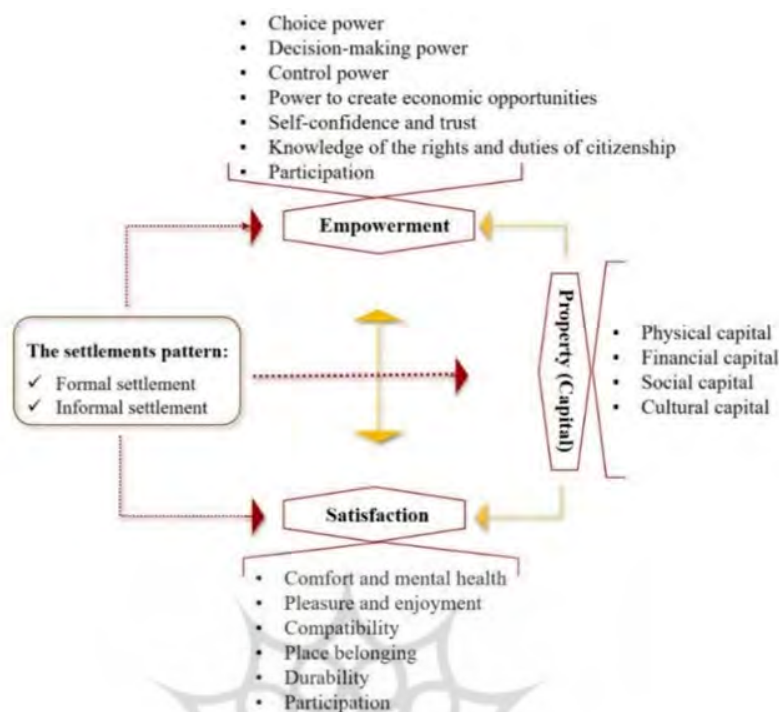


Fig. 3: The research conceptual model

the Zafaraniyeh and Rezvanshahr (Figure 5) neighborhoods, representing formal and informal settlement types. Zafaraniyeh (A) is located in the southeast region of Tabriz and is considered part of the 2-city region, while Rezvanshahr (B) is situated in the northwest of Tabriz and is part of the 4-city region. The study's statistical population included women over 18 residing in these neighborhoods. The sample consisted of 190 residents from Zafaraniyeh and 186 from Rezvanshahr, selected using Cochran's formula and a simple random sampling method. The sample was restricted to women who had resided in their respective neighborhoods for at least five years. In the final step, the questionnaire data was first analyzed using SPSS software and statistical tests such as t-tests, correlation, and regression to test the research hypotheses. The findings were then compared between the two settlements if confirmed with other tools' information. Based on this analysis, the final results of the study were determined. It is important to note that the accuracy of these results depends on the adaptation of data and the appropriateness of the statistical methods used.

RESULTS AND DISCUSSION

Investigating the Difference between Two Groups of Women
Tables 3 and 4 present the independent t-test results, indicating a significant difference between women in formal and informal

settlements of Zafaraniyeh and Rezvanshahr. The amount of capital, empowerment, and satisfaction of women in formal settlement scored higher in terms of capital and empowerment, with scores of 3.4, 3.7, and 4, respectively, compared to women in informal settlement, with scores of 2.7, 2.9, and 3. This indicates that women in formal settlements benefit more from the research variables. In formal settlement, physical capital has the highest score of 3.9, followed by cultural capital with a score of 3.5, economic capital with a score of 3.3, and social capital with a score of 2.8. In contrast, informal settlements scored highest in social capital with a score of 3.6 and lowest in cultural, physical, and economic capital with scores of 2.8, 2.7, and 1.8, respectively.

The mean of the variables indicates that women in formal settlements have higher capital, empowerment, and satisfaction levels than women in informal settlements. However, the study also finds that women in formal settlements have lower social capital than women in informal settlements. Overall, the study shows a significant difference between women in the two types of settlements regarding their capital, empowerment, and satisfaction levels.

Regarding the findings, a field survey of the settlements' existing situation and additional statements from the respondents are presented in Tables 5 & 6. According to the

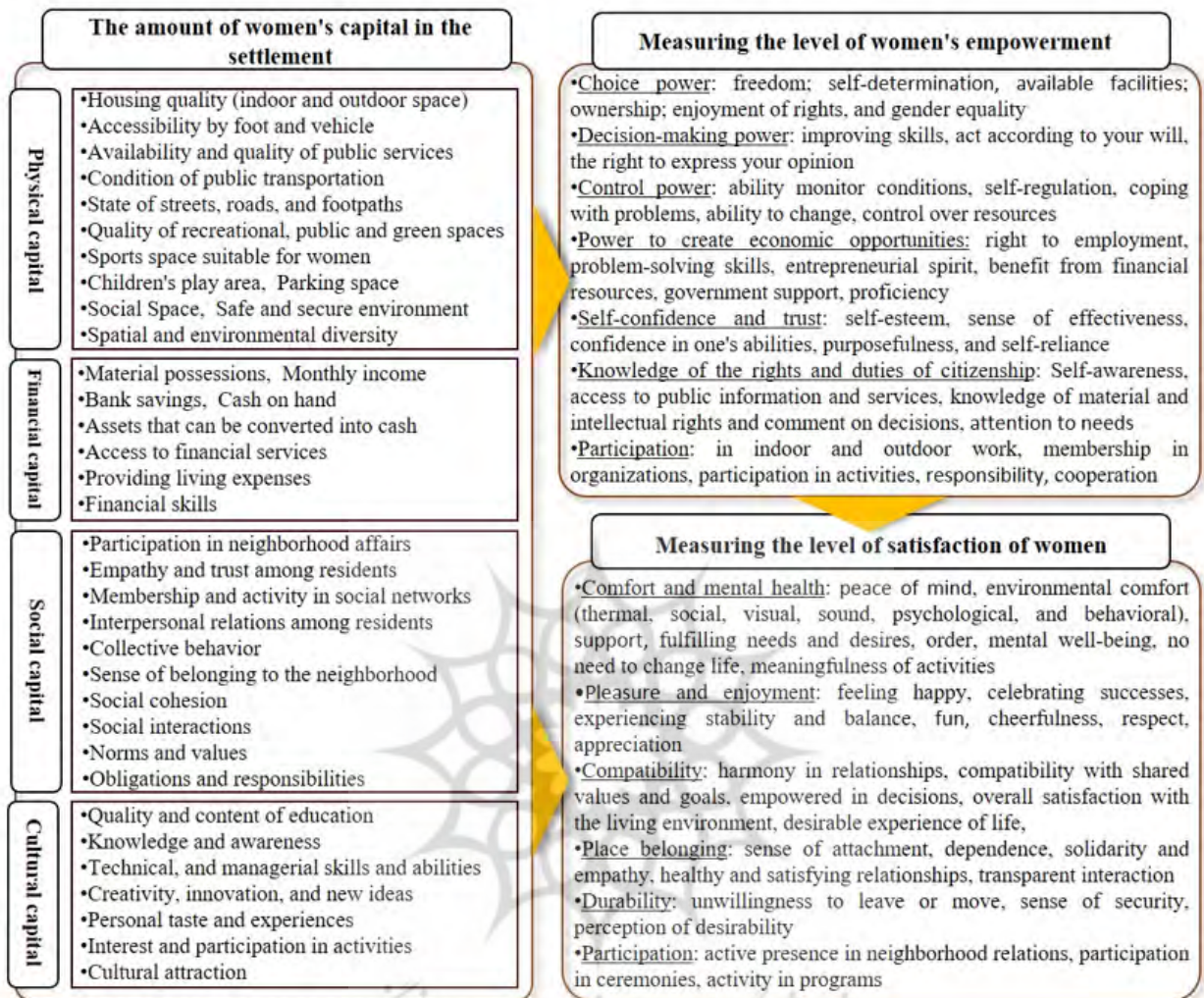


Fig. 4: The operational research model for measuring women's satisfaction level

confirmation of the results of the questionnaire, it can be said that social capital is desirable in informal communities due to a sense of dependence and belonging to neighbors, familiarity and social interactions, coherence and meaningful activity of social networks, empathy, and trust between residents. Physical capital is desirable in formal communities due to the favorable access by car and pedestrian, suitable quality of housing, proximity to important centers, coherent activity structure, the existence of suitable service and recreational spaces and children's play spaces, an attractiveness and legible environment, security, and accessibility to local shopping centers.

Variables Relationship

The study's theoretical model was examined using Pearson's correlation test to assess the relationship between variables.

The findings reveal that in the formal settlement under investigation (Fig 6), the relationship between capital and satisfaction ($r=0.662$) is significant at a probability level of less than 1%. In comparison, the correlation between empowerment and satisfaction ($r=0.406$) is significant at a probability level of less than 5%. Additionally, this settlement strongly correlates capital and empowerment ($r=0.859$) at a probability level of less than 1%. These results suggest that the distribution of capital in local communities and women's access to various forms of capital are crucial for their empowerment and satisfaction. In other words, enhancing women's abilities and capabilities by providing access to all capital dimensions is vital for determining their satisfaction and plays a critical role.

The results of the correlation test in the informal settlement (Fig 7) reveal a significant relationship between capital and satisfaction, with a coefficient of ($r=0.435$), and between



Fig. 5: A. Zafaraniyeh neighborhood, B. Rezvanshahr neighborhood (Source: Google Earth, 2022)

Table 3: Mean and standard deviation between the two groups of women

	Group	Mean	Std. Deviation	Std. Error Mean
Capital	Physical capital			
	Formal	3.9435	.37478	.06731
	Informal	2.7218	.28770	.05167
	Social capital			
	Formal	2.8806	.37896	.06806
	Informal	3.6065	.24757	.04446
	Economic capital			
	Formal	3.3333	.59784	.10737
	Informal	1.8280	.46445	.08342
	Cultural capital			
	Formal	3.5444	.36019	.06469
	Informal	2.8790	.45470	.08167
Total capital	Formal	3.4255	.27227	.04890
	Informal	2.7588	.24860	.04465
Empowerment	Formal	3.7043	.45635	.08196
	Informal	2.9554	.65685	.11797
Satisfaction	Formal	4.0387	.460	.08278
	Informal	3.0548	.415	.0746

empowerment and satisfaction, with a coefficient of ($r=0.387$), at a 5% probability level. Also, there is a significant correlation between capital and empowerment, with a correlation coefficient of 0.617 at a probability level of less than 1%. Therefore, in both types of settlements, the amount of capital plays an

important role in predicting women's satisfaction directly and indirectly through women's empowerment. In addition, based on the correlation coefficient values, it can be concluded that women in the formal settlement experience higher levels of satisfaction than those in the informal settlement, mainly due

Table 4: The independent t-test results

	t	df	Sig. (2-tailed)	Mean Dif- ference	Std. Error Difference	Confidence Interval of the Differ- 95% ence	
						Lower	Upper
Physical capital	14.398	375	.000	1.22177	.08486	1.05203	1.39152
Social capital	-8.927	375	.000	-.72581	.08130	-.88843	-.56318
Economic capital	11.071	369	.000	1.50538	.13597	1.23305	1.77770
Cultural capital	6.386	375	.000	.66532	.10419	.45692	.87372
Total capital	10.068	375	.000	.66667	.06622	.53421	.79913
Empowerment	3.125	364	.003	.44892	.14365	.16086	.73699
Satisfaction	8.828	375	.000	.98387	.11144	.76095	1.20679

Table 5: Analysis of the environmental variables in the formal settlement of Zafaranieh using data matching




capital	Images and concepts			
Physical capital				
	Social control and supervision of neighborhood space Women's sense of security and comfortable presence in the neighborhood and feeling of peace	The existence of public service and recreational spaces, parks, and children's play space Easy and safe access for women	Providing family comfort with suitable and high-quality housing	Satisfaction with the condition of streets and sidewalks Proper flooring and inducing a sense of movement
				
	Adjacent to important centers and other neighborhoods and quick and easy access to them	The presence of local shopping centers and consistent business performance	The visual richness and beauty of the environment and the effect of space clarity and readability	Compatibility of activities with the needs of women and coherent activity structure Focusing complementary activities together
Social capital	Non-participation in neighborhood activities and ceremonies	Poor relations between families and residents of the neighborhood	Lack of feeling of responsibility in facing the issues and problems of neighbors' lives	Lack of recognition and awareness of neighbors

Table 6: Analysis of the environmental variables in the informal settlement of Razvanshahr using data matching

capital		Images and concepts	
Physical capital		   	<p>-Lack of recreational and public services spaces, parks, and children's playgrounds</p> <p>Absence of shopping and commercial centers suitable for the needs of women in the neighborhood</p> <p>Inadequate quality of housing- and lack of family comfort</p> <p>The heterogeneous growth of the neighborhood and the lack of separation of pedestrian and car paths and their unfavorable quality</p>
		    	<p>Disturbance and visual inconsistency in the streets and alleys- Unattractive environment</p> <p>Adjacent residential environment with incompatible uses and-creating a sense of insecurity for the presence of women (lack of control and supervision in the neighborhood)</p> <p>-Dissatisfaction with the unfavorable situation of public transportation and lack of attention from the officials</p> <p>Physical separation from the important centers and neighborhoods due to the peripheral location of the neighborhood</p>
Social capital	<p>Empathy and trust between-residents and help in solving problems to achieve common goals</p> <p>Coherence between residents and cooperation and participation in collective work and creating meaningful activities</p>	<p>-recognition and awareness of each other</p> <p>and understanding the necessity of cooperation and transparent social interaction</p>	<p>-Family relations between residents</p> <p>A feeling of connection with-the neighborhood, dependence between the residents, and belonging to the neighbors</p>

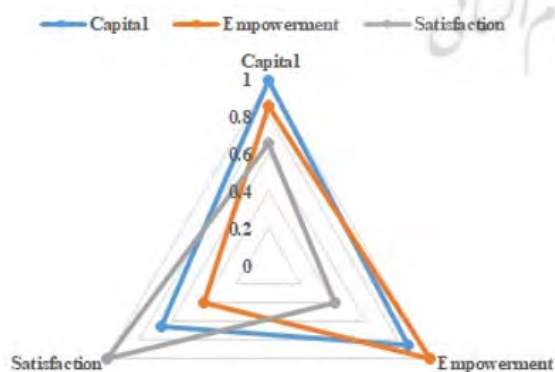


Fig 6: The correlation between research components in the formal settlement

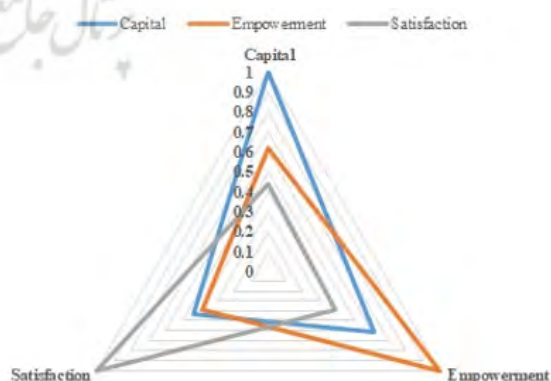


Fig 7: The correlation between research components in the informal settlement

to the greater and more favorable benefits of capital and the resulting improvement in their capabilities.

Table 7 indicates a significant relationship between the four capital dimensions and empowerment in both types of settlements. In Zafaraniyeh, the formal settlement, the cultural dimension correlates with empowerment ($r=0.843$), while the social dimension has the lowest correlation ($r=0.397$). In contrast, in the informal settlement of Rezvanshahr, the social dimension has the highest correlation with empowerment ($r=0.850$), and the economic dimension has the lowest correlation ($r=0.281$). Thus, social capital plays a more critical role in promoting empowerment in informal settlements than in formal settlements, where it has a weaker relationship with empowerment.

Table 8 results demonstrate a significant relationship between the four dimensions of capital and women's satisfaction in both types of settlements. In the formal settlement of Zafaraniyeh, the physical dimension has the highest correlation with satisfaction ($r=0.767$), while the social dimension has the lowest correlation ($r=0.104$). In contrast, in the informal settlement of Rezvanshahr, the social dimension has the highest correlation with satisfaction ($r=0.560$), and the cultural dimension has the lowest correlation ($r=0.106$). Therefore, social capital strongly correlates with satisfaction in the informal settlement. In contrast, physical capital plays a crucial role in predicting

women's satisfaction in formal settlement, and social capital has a weak relationship with improving the quality of life.

Overall, based on the results of the independent t-test and correlation test, as well as the direct and indirect relationship between the capital dimensions and satisfaction, it can be concluded that women with greater access to capital and experience more empowerment have higher satisfaction levels. Therefore, promoting women's empowerment through access to various capital dimensions can improve women's satisfaction and quality of life in formal and informal settlements.

Investigating the Components' Effect on Women's Satisfaction

A multivariable linear regression test was used for both types of settlements to assess the impact of relevant components and indicators on women's satisfaction. The results (Tables 9 & 10) show that women exhibit a high level of satisfaction with the components under investigation, and women's capital is more important than empowerment, with the greatest effect in both settlements. Therefore, all the study's independent variables have strong explanatory power and can show the changes and variance of the dependent variable well. According to the findings, the following regression equations exist between the components:

Formal settlement: Satisfaction = $-0.570 + 2.024$ (capital)

Table 7: The correlation test between capital and empowerment

	Empowerment	
	Formal	Informal
Physical capital	.789**	.448*
Social capital	.397*	.850**
Economic capital	.626**	.281*
Cultural capital	.843**	.607**

* And ** is significant at the 0.05 and 0.01 probability level (2-tailed), respectively.

Table 8: The correlation test between capital and satisfaction

	Satisfaction	
	Formal	Informal
Physical capital	.767**	.397*
Social capital	-.104*	.560**
Economic capital	.631**	.227*
Cultural capital	.265*	.106*

* And ** is significant at the 0.05 and 0.01 probability level (2-tailed), respectively.

- 0.627 (empowerment)

Informal settlement: Satisfaction = 1.047 + 0.728 (capital) + 0.402 (empowerment)

The test results regarding the dimensions of capital affecting women's satisfaction show that in the formal settlement (Table 11), physical capital has the greatest impact on women's satisfaction with a coefficient of 1.370. In contrast, social capital has the lowest impact, with a coefficient of 0.120. In contrast, in the informal settlement (Table 12), social capital has the greatest impact on women's satisfaction, with a coefficient of 0.560, while economic capital has the lowest impact, with a coefficient of 0.136. Therefore, in formal settlements, suitable housing, access, and suitable recreational and public spaces are considered the most important factors in women's satisfaction. Conversely, in informal settlements, women gain higher satisfaction levels from interpersonal relationships, membership in social networks, trust, and empathy between residents. The social dimension of capital is of greater

importance than other capital dimensions in these settings. In summary, social capital is crucial for building and maintaining relationships, fostering cooperation, and mobilizing resources toward achieving shared goals.

Discussion

The study's findings indicate that women in formal settlements have higher capital, empowerment, and satisfaction levels than women in informal settlements. Women in formal settlements benefit more from physical and economic capital but have less social capital, while women in informal settlements benefit more from social capital and a sense of belonging. This finding is consistent with previous research by Türkoğlu et al. (2019), who reported higher satisfaction levels among residents of planned neighborhoods in Istanbul than those in unplanned neighborhoods. In this regard, Ahmadi et al.'s (2022) study showed that informal settlements suffer from a shortage of municipal services in the absence of standardized design.

Table 9: The regression test results in the formal settlement

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.570	.809		-.705	.487
Capital	2.024	.425	1.195	4.764	.000
Empowerment	-.627	.253	-.621	-2.475	.020

Table 10: The regression test results in the informal settlement

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.047	.774		1.354	.186
Capital	.728	.279	.435	2.605	.014
Empowerment	.402	.054	.223	-1.087	.040

Table 11: The regression test results between capital and satisfaction in the formal settlement

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.257	.558		-.462	.648
Physical capital	1.685	.155	1.370	10.857	.000
Cultural capital	.332	.106	.273	3.137	.004
Economic capital	-.932	.155	-.728	-6.003	.000
Social capital	.143	.008	.120	1.239	.012

Table 12: The regression test results between capital and satisfaction in the informal settlement

Model	Unstandardized Coefficients		Standardized Coefficients	t	.Sig
	B	Std. Error	Beta		
(Constant)	2.139	.259		8.251	.000
Social capital	.501	.138	.560	7.636	.000
Physical capital	.320	.099	.371	3.642	.001
Economic capital	.098	.117	.136	2.439	.015

The study also proved a positive and significant relationship between capital and empowerment variables with satisfaction in both formal and informal settlements, which is consistent with previous research by Hossein et al. (2019), Türkoğlu et al. (2019), and Behzadfar et al. (2018). Hussain et al. (2019) confirmed that empowerment is strongly linked to life satisfaction in rural Bangladesh. They also found that women who are empowered similarly to their male counterparts (as measured by empowerment levels) report higher levels of life satisfaction. Empowerment in the form of participation in family decision-making is an important capability and factor for satisfaction (Sen, 2008; Veenhoven, 2010) because it both reduces women's limitations in resource allocation and decision-making and increases women's responsibilities both inside and outside the home (Ibrahim & Alkire, 2007). Behzadfar et al. (2018) confirmed a correlation between empowerment indicators and residents' satisfaction in informal settlements in Tehran, as measured by the asset-based approach (physical, social, and financial capital). Türkoğlu et al. (2019) found that only a neighborhood's perceived physical and social capital quality significantly impacted satisfaction. This was observed in both formal and informal neighborhoods in the Istanbul metropolitan area. Therefore, the current research

contradicts previous studies by demonstrating a relationship between cultural capital and satisfaction, and to some extent, between financial capital, empowerment, and satisfaction. On the other hand, this study found a significant relationship between capital and empowerment was proved in both types of settlements, which was confirmed and reported in previous research (Piri & Rezaeiyan, 2014, Behzadfar et al., 2018, Arefi, 2008) only on informal settlements. So, the current study generalizes this relationship to formal settlements as well.

In the last stage, the analysis of the findings (Fig 8) revealed that the capital dimensions are of higher importance than empowerment in improving women's life quality and satisfaction in both formal and informal settlements. In the formal settlement, physical capital showed the greatest effect on women's satisfaction, while social capital had the least effect. Conversely, in informal settlements, social capital had the highest effect on satisfaction, while economic capital had the lowest effect. This finding follows a study by Türkoğlu et al. (2019), which found that residents of planned neighborhoods were more satisfied with the physical capital (attractiveness and accessibility), while those in unplanned neighborhoods were more satisfied with the existing social capital (place attachment). Additionally, Ahmadi et al. (2022)

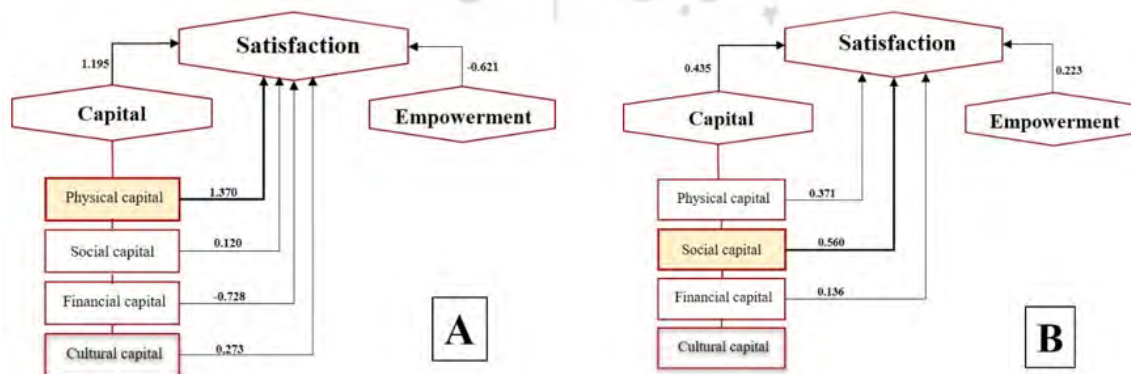


Fig 8: Path analysis results (A: Formal settlement, B: Informal settlement)

revealed that a sense of belonging, security, conformity with neighbors, and social interactions all have distinct impacts on residential satisfaction in unplanned settlements in Tehran. This finding is in contrast to a study by Rafiyan et al. (2015), which concluded that social dimensions had a greater impact on residential satisfaction in the planned area of Mehr Shahr Karaj and Behzadfar et al. (2018), who confirmed that in informal settlements, physical capital had the highest impact on satisfaction.

CONCLUSION

This study aimed to measure and compare the level of women's satisfaction in Tabriz based on the type of residential environment using the asset-based approach. The findings revealed that women in formal settlements have more capital dimensions, empowerment, and satisfaction than women in informal settlements. Therefore, a significant difference between women living in both types of settlements was proved in terms of these components. The results also indicated a significant relationship between benefiting from the capital dimensions and empowerment with women's satisfaction in both types of settlements. And empowerment in the form of benefiting from capital dimensions is considered an important capability for life satisfaction. This is, having greater access to various forms of capital, such as physical, cultural, social, and economic resources, increases women's empowerment and satisfaction levels. In other words, the more women benefit from these capital dimensions, the more likely they feel empowered and satisfied with their lives. Thus, the amount of benefit from capital dimensions plays a crucial role in predicting women's life satisfaction directly and indirectly through women's empowerment.

On the other hand, among the factors affecting women's satisfaction, the capital dimensions have the greatest impact compared to empowerment in terms of importance. Physical capital has the greatest effect on women's satisfaction in formal settlements, while social capital has the least effect. Conversely, social capital has the greatest impact in informal settlements, while economic capital has the least impact on women's satisfaction. According to the findings, it can be concluded that women residing in formal settlements experience higher satisfaction levels than those living in informal settlements due to the greater benefit of capital dimensions, which subsequently promote empowerment. The investigated capital dimensions are considered sources of power and strength for women, interconnected to improve the quality of life and satisfaction in both settlements. Also, this study highlights the need for policies and interventions that promote capital distribution and enhance women's empowerment, particularly in informal settlements.

AUTHOR CONTRIBUTIONS

R. Abdollahi Prepared the theoretical research model, analyzed and

interpreted the data, and performed the manuscript text and edition. S. Babazade Performed the literature review and collected the data.

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CONFLICT OF INTEREST

The authors declare no potential conflict of interest regarding the publication of this work. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication or falsification, double publication and, or submission, and redundancy, have been completely witnessed by the authors.

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