

Does Modernization Drive Change in the Family Institution? Urbanization's Impact on Evolving Social Structure: A Quantitative Study

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Abstract: In the context of modernization, especially with reference to urbanization, the family institution is transforming from traditional joint to nuclear structures through the reshaping of multifaceted aspects of the family institution. This quantitative study examines whether modernization, particularly through urbanization, drives changes in the family institution within Pakhtun social structures in District Swat. The data from 250 respondents were collected via a questionnaire. The data analysis was carried out via SPSS, including univariate frequency distributions, agreement indices (AI), descriptive statistics, bivariate chi-square tests, multivariate controls, and Cronbach's alpha ($\alpha = 0.715-0.86$) for reliability. Findings reveal that 67.2% of respondents reside rurally, yet modernization impacts are evident: 82.8% agree nuclear families outperform joint ones (AI = 1.148); family sizes are declining (72.4% agree, AI = 0.912); women's decision-making empowerment is rising (74.4% agree, AI = 0.86); and individualism/materialism is growing (85.2% agree, AI = 1.264). Bivariate analysis shows significant positive associations between urbanization indicators and high institutional shifts ($\chi^2 = 29.847-37.267$, $p < .001$; Gamma = 0.263–0.411). Multivariate controls for family type confirm stronger effects in nuclear families ($\chi^2 = 17.271$, $p < .001$) than in joint families ($\chi^2 = 28.635$, $p < .001$), with overall AI = 0.89, affirming modernization's influence. Results support modernization theory, highlighting urbanization's role in evolving family norms amid cultural resilience.

Keywords: Modernization, Urbanization, Family Institution, Pakhtun Social Structure, Quantitative Study

Introduction

Historically, as the prime element of social organization, the family institution has served many functions, including reproduction, rearing and caring, and the provision of financial and emotional support, as well as the transmission of cultural traits. Though sociological literature consistently shows that the dynamism of family structures evolves in parallel with wider structural changes within society (Goode, 1963; Parsons & Bales, 1955). Modernization and urbanization are key macro social factors that significantly influence the process of institutional change. Modernization, characterized by bureaucratization, industrialization, technological advancement, economic development, and educational expansion, fundamentally rearranges social relations and institutions (Inglehart & Baker, 2000; Ogburn, 1922). The notion of urbanization being both a constituent and consequence of modernization further strengthens these changes by changing economic, social, and spatial arrangements (United Nations, Department of Economic and Social Affairs, Population Division, 2019).

Family is a fundamental institution of human society. It guides us on the principles of common interest to be social, which is of utmost importance. It also cultivates tolerance, respect, dedication, care, sacrifice, and patience. In reality, the family is considered an informal institution, which helps us cultivate social values and behaviors. Social breakdown occurs due to the collapse of the family system. Various factors associated with modernization, such as urbanization, have led young people to stray away from the joint family system (Mishra et al. 2012).

According to modernization theory, societies pass from traditional, agrarian systems to rationalized, industrial, and urban systems (Durkheim, 1893/1984; Ogburn, 1922). Durkheim (1893/1984) highlighted

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that the change from mechanical solidarity to organic solidarity alters social relationships from kin-based responsibilities to contract-based interdependence. It also alters social cohesion. Similarly, Ogburn (1922) proposed the notion of cultural lag, which holds that economic and technological change frequently outpace institutional adaptation, thereby redesigning social structures, including the family institution.

Parsons and Bales (1955) elaborate on the modernization debates in family sociology, proclaiming that a structurally isolated nuclear family would be best suited to industrial society in terms of occupational specialization and geographic mobility. In modern society, Parsons (1955) further advocated the two important functions of the nuclear family, i.e., children's primary socialization and adult personality stabilization. These opinions hold that modernization intrinsically reorganizes family life. Due to modernization, the nuclear family system is now gaining space, displacing joint and extended family systems in traditional societies characterized by them (Shahzad et al., 2015). The family institution is the backbone of any society, as it performs various functions. It has been observed that, due to certain transformations, people are now moving from the joint family system to the nuclear family system (Imran et al., 2020). Mostly, urbanization is considered a main means through which the family institution has been affected by modernization. The employment patterns, social networks, demographic behaviors, and residential arrangements transform as cities develop (United Nations, Department of Economic and Social Affairs, Population Division, 2019).

The analysis of cross-national demographic data showed that urban residence and fertility decline are significantly correlated with small household structures (Bongaarts, 2001). Likewise, countries experiencing rapid urban growth show parallel declines in extended family co-residence (United Nations, Department of Economic and Social Affairs, Population Division, 2019). By examining European urbanization through a historical lens, Puschmann (2014) found that urban migration and industrialization led to greater residential independence and smaller household units, with fewer extended-family members. These results confirm that urbanization expedites household simplification and challenge the myth that extended kinship universally dominated pre-modern human societies.

The assumptions of inevitable nuclearization were critiqued by Thornton (2005), who hitherto recognized that development and urbanization change intergenerational co-residence, authority structures, and marriage patterns. Pragmatic considerations thus recommend that, while paths differ culturally, urban frameworks tend to reduce dependence on extended family. The process of individualization accelerates with modernization, in which family-based responsibilities are replaced by personal autonomy (Beck & Beck-Gernsheim, 2002). Gender roles, marriage choices, parent-child relations, and fertility decisions are being influenced through individualization. Urban individualism moves authority and power dynamics to spouses (Rasool et al., 2024).

By using the data across societies (World Values Survey), Inglehart and Baker (2000) reveal that alterations from traditional to secular-rational values, including changing attitudes toward gender equality, family authority, and marriage, are closely interlinked with economic development. These value changes are linked quantitatively to modernization indicators such as gross domestic product, education levels, and urban residence. Cherlin (2004) added that about marriage and family life, modernization lessens inflexible normative hopes. With the expansion of education and women entering the labor force, traditional gender hierarchies decline (Goldscheider et al., 2015). The decision-making authority, caregiving roles, and intra-family dynamics are reshaping these structural adjustments.

One of modernization's most substantial influences on family structure concerns gender roles. The household separates from the workplace due to industrialization, resulting in the alteration of domestic authority patterns and the increasing participation of the female labor force (Parsons & Bales, 1955; Goldscheider et al., 2015). Aniche (2017) pointed out that it was generally accepted in the extended family system to select a wife for his son. Similarly, with the advent of modernization, these sons are now allowed to select their own wives, prioritizing their own choices. Goldscheider et al. (2015) contend that the "gender revolution" primarily redefines family life. As women get economic and educational opportunities, traditional notions of patriarchal family systems deteriorate, resulting in more egalitarian domestic measures. Quantitative research displays correlations between delayed marriage and female employment, smaller households, and lower fertility (Bongaarts, 2001; Inglehart & Baker, 2000).

Sathar & Kazi (2000) described this in South Asian contexts and noted that, in urban settings, women's autonomy increases, influencing decision-making authority and reproductive behavior. Urban life patterns expose families to modern education, employment, and media, thus reforming gender expectations. Urbanization not only disorganizes familial relations but also brings together people of different cultural backgrounds. In this boiling pot, traditional values, under the strain of emerging technology and new modes of information transmission, tend to decline (Ojukwu & Esimone, 2014). Urbanization profoundly impacts families in their key working and parenting years. This demographic concentration highlights the critical role that socio-economic pressures play in determining family choices and structures. The high level of educational attainment, with a majority holding degrees, underscores the role of urbanization in enhancing educational prospects and fostering social and economic mobility (Rasool et al., 2024). Modernization theory is closely related to the theory of demographic transition. As societies urbanize and industrialize, fertility and mortality ratios decline, influencing generational composition and family size (Bongaarts, 2001). Lesthaeghe (2010) finds a "Second Demographic Transition" featured by late marriage, low fertility, cohabitation, and diverse family systems. These demographic changes are statistically linked with economic development, female education, and urban residence.

Research Objectives

- i. To know about the background information of the study respondents in the target area.
- ii. To examine the relationship between modernization through urbanization and changes in the family institution.
- iii. To put forward policy recommendations in light of the study findings.

Research Questions

- i. Does modernization, particularly through urbanization, drive significant changes in the family institution within Pakhtun society in the study locale?
- ii. Does the relationship between modernization (urbanization) and family change remain significant when controlling for family type?

Research Methodology

The present study, titled "Does Modernization Drive Change in the Family Institution? Urbanization's Impact on Evolving Social Structures: A Quantitative Study", was conducted in District Swat, Khyber Pakhtunkhwa, Pakistan. In light of the procedure laid down by Rosco (1975), a sample size of 250 was selected through quota sampling, providing equal opportunity for representation across all seven Tehsils of the district Swat. The sampled respondents were selected from various stakeholders in the study locale, including intellectuals, community leaders, lawyers, literary figures, and politicians. The data were collected using a well-designed questionnaire, following a stratified random sampling technique. The data were analyzed using SPSS (Statistical Package for Social Scientists) at different levels, i.e., univariate analysis (Canova et al., 2017), agreement indices (Miah, 2016), descriptive statistics, bivariate and multivariate analyses, and reliability analysis (Mugenda and Mugenda, 2003). The frequency distribution and the percentage of each data class have been calculated (Kothari & Garg, 2019). In addition, with the help of Cronbach's Alpha (α), internal consistency of the scale items was measured by calculating reliability coefficients (Cronbach, 1951). Additionally, ethical considerations were kept in mind throughout data collection.

Results and Discussion

The results section comprised univariate analysis of the background variables and questions about the impact of modernization on the family institution. The univariate analysis comprised frequency tables, which covered the respective explanation(s). The univariate analysis embraces the frequency distribution of the demographic information and the frequency tables regarding the dependent (i.e., Pakhtun Social Structure) and the independent variable (i.e., Modernization). It also covers the agreement indices on the family institution, descriptive statistics, bivariate, and multivariate analyses of the collected data from the study locale. The details of the results and discussion are provided below.

Univariate Analysis

Demographic Information of the Respondents

The importance of demographic characteristics in research cannot be denied. This study is also based on some necessary and relevant demographic information of the study respondents, i.e., residence, type of residence, profession, gender, years of education, marital status, family type, household structure, the total number of family members, family monthly income (in PKR), and monthly family expenditures (in PKR), respectively. Further, the detailed explanation, both in paragraphs and tables of the demographics, as mentioned earlier, is given below.

Table 1

Type of Residence of the Respondents

Type of Residence	n	%
Rural	168	67.2
Urban	82	32.2
Total	250	100

The nature of residence is fundamental to understanding the life pattern of an individual, group, or community. It is generally assumed that those living in urban areas have greater access to education, media, and other modern-day facilities. It is further believed that the pace of change is higher in cities, while people in villages are at a slower pace. Table No. 1 shows that most of the study respondents (67.2 percent) lived in rural areas, whereas 32.8 percent of respondents lived in urban areas. This is due to the geographic distribution of the population, and the majority of people depend on agriculture as their means of subsistence.

Table 2

Profession of the Respondents

Profession	n	%
Intellectuals (Teacher)	50	20
Lawyers	50	20
Community Leaders	50	20
Politicians	50	20
Literary Persons	50	20
Total	250	100

As a matter of fact, human society is getting complicated day by day, wherein people are inclined toward opting for specializations in their lives to make their jobs more manageable and successful. In this regard, the researchers focused on different groups of society, which are considered the main pillars of society. The primary reason for selecting different stakeholders was to get more comprehensive and reliable data on the issue at hand. Table No. 2 shows an equal number of respondents (20 percent in each category) across the sampled groups, i.e., Intellectuals (teachers), lawyers, community leaders, politicians, and literary persons. Although there are numerous categories of people living in society, the categories mentioned above may be the best segments to obtain more authentic and reliable information on the current research topic.

Table 3

Gender of the Respondents

Gender	n	%
Men	125	50
Women	125	50
Total	250	100

Gender is a social construct that categorizes human beings into different groups, such as men and women. Table No. 3 shows an equal number of respondents (20 percent) in each sampled group, i.e., men and

women. Men and women are both integral parts of society. The response of both genders was considered necessary. That is why both genders were given an equal chance to express their viewpoints on the impact of modernization on the Pashtun Social Structure in the study area.

Table 4

Qualification Level of the Respondents

Qualification	n	%
Intermediate	33	13.2
Bachelors	82	32.8
Masters	124	49.6
PhD	11	4.4
Total	250	100

Literacy is a vital aspect of human life, wherein an individual's qualifications determine the level of knowledge and understanding an individual has regarding different parameters. Table No. 4 shows the respondents' qualification levels. The majority of the respondents, 124 (49.6 percent), had a Master's degree, followed by 82 (32.8 percent) who had a bachelor's degree, 33 (13.2 percent) who had an intermediate-level qualification, and 11 (4.4 percent) who had a Ph.D. level qualification.

Table 5

Marital Status of the Respondents

Marital Status	n	%
Married	111	44.4
Unmarried	135	54.0
Widow	3	1.2
Divorced	1	0.4
Total	250	100

Marital status represents an individual's living arrangement, whether married, unmarried, living separately, widowed, or divorced. The nature of marital status also reflects and impacts the individual's mindset(s). Table No. 5 shows the marital status of the respondents. The majority of the respondents, 111(44.4%), were married, followed by 135(54.0 percent) were unmarried, 3(1.2 percent) were widows, and 1(0.4 percent) were divorced. As mentioned earlier, the data revealed the marital status trend in the study area, showing that most are unmarried.

Table 6

Family Type of the Respondents

Family Type	n	%
Joint Family	205	82.0
Nuclear Family	31	12.4
Extended	12	4.8
Other	2	0.8
Total	250	100

Family is the basic social unit of any society. However, the nature of the family has drastically changed in the developed countries, which is in transition in the developing countries. Table No. 6 shows the family status of the respondents. The majority of the respondents, 205(82.0 percent), live in a joint family system, whereas 31(12.4 percent) were living in a nuclear family system, 12(4.8 percent) were living in an extended family system, and 2(0.8 percent) were living in other than the abovementioned family systems. The above results revealed the inclination of people toward modernization. Although the above results portray that most respondents from the joint family system, a good change can be witnessed, where 12.4 percent of respondents in the study area live in the nuclear family system. This could be due to individualism, urbanization, migration, social mobility, etc.

Table 7*Household Structure of the Respondents*

Household Structure	n	%
Kacha (muddy, etc.)	23	9.2
Pakka (concrete)	201	80.4
Mixed	26	10.4
Total	250	100

Table No. 7 shows the household structure of the respondents. The majority of the respondents, 201(80.4 percent), were living in *Kacha* houses, whereas 26(10.4 percent) were living in mixed structured houses, and 23(9.2 percent) were living in *Kacha* houses. The above data unveil the study respondents' financial stability, as the majority of them were residing in *Pakka* houses, which depicts their inclination toward modernization and its impact on their lives.

Table 8*Family Members of the Respondents*

Number of Family Members	n	%
Less than 05	40	16.0
6-9	84	33.6
10-13	61	24.4
Above 13	65	26.0
Total	250	100

Table No. 8 shows the number of family members in the households of the respondents. Out of the total respondents, 250(100 percent), 40(16.0 percent) had less than 05 family members, whereas 84(33.6 percent) had 6-9 family members, followed by 61(24.4 percent) had 10-13 family members and 65(26.0 percent) had above 13 family members. In light of the above findings, it could be that people are now accepting a smaller family norm as compared to the past. Specific probable reasons may contribute to this change in the mindset of people for limiting the size of the family, like the role of media and education in bringing awareness, the role of lady health workers in propagating family planning, which ultimately results into small family size through the use of modern-day contraceptives.

Table 9*Family Monthly Income (in PKR) of the Respondents*

Family Monthly Income in PKR	n	%
Less than 20,000/-	14	5.6
Between 20,001/- and 40,000/-	56	22.4
Between 40,001 and 60,000/-	53	21.2
Between 60,001 and 80,000/-	26	10.4
More than PKR. 80,000/-	101	40.4
Total	250	100

It has a universally accepted belief that we all need some basic amenities to strive for his/her best to their attainment. The financial status of individuals varies due to several reasons. Around the globe, most of the masses live in a pathetic financial position, while some of them are living in the middle class, and very few are enjoying all the luxuries of life. It is commonly believed that an association exists between human thinking and the financial status of an individual. Table No. 9 shows the family monthly income of the respondents. Out of the total respondents, 250(100 percent), 14(5.6 percent) had less than 20,000PKR, whereas 56(22.4 percent) had a family monthly income between PKR. 20,001 and 40,000/- followed by 53(21.2 percent) had a monthly family income range from PKR. 40,001/- to PKR. 60,000, wherein 26(10.4 percent) had a monthly income ranging from PKR. 60,001 to PKR. 80,000/- and 101(40.4 percent) had monthly family income more than PKR. 80,000/- respectively. Given the above results, reflects a reasonable amount of monthly income. This could be due to the fact that the majority of the segments of the sampled respondents are considered middle-class people in our society. Further, the association of monthly income with other variables has been indicated in multivariate analysis in the succeeding pages.

Table 10

Family Monthly Expenditures (in PKR) of the Respondents

Family Monthly Expenditures	n	%
Less than 20,000/-	12	4.8
Between 20,001/- and 40,000/-	55	22.0
Between 40,001 and 60,000/-	57	22.8
Between 60,001 and 80,000/-	36	14.4
More than PKR. 80,000/-	90	36.0
Total	250	100

Apart from monthly income, monthly expenditures also count to a greater extent in determining one's perception regarding any phenomenon. Table No. 10 shows the monthly family expenditures of the respondents. Out of the total respondents, 250(100 percent), 12(4.8 percent) had less than 20,000PKR, whereas 55(22.0 percent) had monthly family expenditures between PKR. 20,001 and 40,000/- followed by 57(22.8 percent) had monthly family expenditures range from PKR. 40,001/- to PKR. 60,000, wherein 36(14.4 percent) had monthly expenditures range from PKR. 60,001 to PKR. 80,000/- and 90(36.0 percent) had monthly family expenditures more than PKR. 80,000/- respectively.

Table 11

Frequency Distribution of Impacts of Modernization on Family Institution

S.#	Statements / Attributes	n (%)					
		SA	A	N	D	SD	AI
1.	The nuclear family system is good as compared to the joint family.	97 (38.8)	110(44)	33 (13.2)	3(1.2)	7(2.8)	1.148
2.	Respect for elders in the family is still deeply rooted.	97(38.8)	83(33.2)	30(12)	22(8.8)	18(7.2)	0.876
3.	A woman is more empowered in decision making at family.	65(26)	121(48.4)	42(16.8)	8(3.2)	14(5.6)	0.86
4.	Strong relationships/bonds/ties exist among family members.	39(15.6)	93(37.2)	56(22.4)	43(17.2)	19(7.6)	0.36
5.	I prefer / like to use traditional dressing styles.	124(49.6)	98(39.2)	20(8)	5(2)	3(1.2)	1.34
6.	Children are sharper and more talented.	77(30.8)	115(46)	25(10)	25(10)	8(3.2)	0.912
7.	Children's social behavior/lifestyle are appropriate and well-cultured.	48(19.2)	85(34)	64(25.6)	26(10.4)	27(10.8)	0.404
8.	Lives become more materialistic/individualistic.	122(48.8)	91(36.4)	22(8.8)	11(4.4)	4(1.6)	1.264
9.	A change occurred in celebration of different festivals/rituals.	113(45.2)	96(38.4)	18(7.2)	20(8)	3(1.2)	1.184
10.	Women's shyness/goodness/modesty are on the decline.	64(25.6)	87(34.8)	57(22.8)	27(10.8)	15(6)	0.632
11.	Women are more liberal and outspoken.	63(25.2)	113(45.2)	36(14.4)	23(9.2)	15(6)	0.744
12.	Family size is in decline/decrease.	86(34.4)	95(38)	41(16.4)	17(6.8)	11(4.4)	0.912
13.	Traditional indoor games have been replaced/changed.	85(34)	106(42.4)	22(8.8)	26(10.4)	11(4.4)	0.912
14.	The means and nature of communication/interaction are in continuous change.	99(39.6)	95(38)	25(10)	14(5.6)	17(6.8)	0.98

Note: Values within the parentheses reflect the percentage.

Denotations: SA: Strongly Agree, A: Agree, N: Neutral, D: Disagree, SD: Strongly Disagree, AI: Agreement Indices

Family is one of the fundamental and oldest social institutions on this planet. There is a wide range of roles and responsibilities of family institutions that are related to human society, both at the micro and macro levels, in multifaceted ways. Further, as it is evident that every society around the globe cannot remain static, but rather dynamic, on this very analogy, the family institution is also confronted by the waves of modernization, which could be depicted from the results revealed by the respondents in this study.

Table No. 11 shows the frequency distributions of the impact of modernization on the family institution. The results of the frequency distribution of each statement/attribute of the variable, as mentioned earlier, are stated in the next lines. While discussing a statement about whether the nuclear family system is good as compared to joint family, 97 (38.8 percent) respondents strongly agreed with the statement that nuclear family system is good as compared to joint family, 110 (44 percent) respondents agreed with the statement, 33 (13.2 percent) respondents were neutral about the statement, 3 (1.2 percent) respondents have disagreed, and 7 (2.8 percent) respondents were strongly disagreed to the statement that nuclear family system is good as compared to a joint family. When respondents were asked regarding the question that respect for elders in family is still deeply rooted, the majority of the respondents (38.8 percent) strongly agreed with the statement, 83 (33.2 percent) respondents were agreed to the statement, 30 (12 percent) respondents were neutral to the above statement while 22 (8.8 percent) respondents refuted to the statement and 18 (7.2 percent) respondents strongly disagreed that respect for elders in family is still deeply rooted. Furthermore, answering the question about whether a woman is more empowered in decision making at family, the majority of the sampled respondents (48.4 percent) agreed with the statement, while 26 percent of respondents strongly agreed with the statement, 16.8 percent responded as neutral, 3.2 percent disagreed with the statement, and 5.6 percent strongly disagreed with the statement. Next, a reasonable number of study respondents (15.6 percent) reported as strongly agreeing with the question that strong relationships/bonds/ties exist among family members, while the majority (37.2 percent) of respondents agreed with the statement, and 22.4 percent responded as neutral. In comparison, 17.2 percent of respondents disagreed with the statement, and 7.6 percent of respondents strongly disagreed with the notion that strong relationships/bonds/ties exist among family members. Answering a statement, the majority of the respondents (49.6 percent) strongly agreed with the statement that they prefer/like to use traditional dressing styles. In comparison, 39.2 percent agreed with this statement, followed by 8 percent reported as neutral, whereas 2 percent of respondents disagreed with the statement, and 1.2 percent of respondents strongly disagreed with the query that they prefer traditional dressing style.

Furthermore, when the respondents were asked whether children are sharper and more talented, a large number of respondents (30.8 percent) strongly agreed with the statement; however, the majority of the respondents (46 percent) agreed with the statement. In comparison, 10 percent responded as neutral, whereas 10 percent of respondents disagreed, and 3.2 percent strongly disagreed with the statement that children are sharper and more talented. As for whether the children's social behavior/lifestyle is appropriate and well cultured, a sensible number of respondents (19.2 percent) reported strongly agreed with the statement, 34 percent of respondents agreed, while 25.6 marked neutral followed by 10.4 percent disagreed with the statement and 10.8 percent strongly disagreed to the question that the children's social behaviour/lifestyle is appropriate and well cultured. Moreover, asking about a statement concerning whether lives become more materialistic/individualistic, the majority of the respondents (48.8 percent) strongly agreed with the statement, 36.4 percent study respondents agreed to the statement, while 8.8 percent respondents opined as neutral, whereas 4.4 percent respondents disagreed with the statement and 1.6 percent respondents strongly disagreed to the statement that lives become more materialistic/individualistic. Besides, as to a statement concerning whether the change occurred in celebration of different festivals/rituals, the majority (45.2 percent) of respondents strongly approved the statement, 38.4 percent respondents agreed to the statement, while 7.2 percent marked as neutral, whereas 8 percent respondents agreed and 1.2 percent strongly disapproved the statement explaining that change occurred in celebration of different festivals/rituals.

Similarly, responding to a question that women shyness/goodness/modesty is on the decline, a large number of respondents (25.6 percent) strongly agreed with the statement, majority of the respondents (34.8 percent) agreed to the statement, while 22.8 percent responded as neutral, whereas 10.8 percent

disagreed with the statement and only 6 percent respondents strongly disagreed to the statement that women shyness/goodness/modesty is on the decline. In response to a question regarding a statement that women are more liberal and outspoken, a high number of respondents (25.2 percent) strongly agreed with the statement, the majority (45.2 percent) of respondents agreed to the statement, while 14.4 percent replied as neutral with the statement, 9.2 percent respondents disagreed with the statement, and only 6 percent respondents strongly disagreed to the statement that women are more liberal and outspoken. Next, an appropriate number of respondents (34.4 percent) strongly agreed with the statement that family size is on decline/decrease, while the majority of the respondents (38 percent) agreed with the statement, whereas 16.4 percent answered as neutral, 6.8 percent disagreed with the statement, and only 4.4 respondents strongly disagreed with the statement that family size is on decline/decrease.

Likewise, when the respondents were asked that whether traditional indoor games have been replaced/changed, a large number of respondents (34 percent) strongly agreed, while majority of the respondents (42.4 percent) agreed with the statement, while 8.8 percent responded as neutral, whereas 10.4 percent respondents disagreed and only 4.4 percent strongly disagreed with the statement that that family size is on decline/decrease.

Consequent upon the question asked from the respondents that whether means and nature of communication/interaction are on continuous change, the majority of the respondents (39.6 percent) strongly agreed, 38 percent disagreed, while 10 percent responded as neutral, whereas 5.6 percent respondents disagreed with the statement and only 6.8 percent respondents strongly disagreed with the statement that family size is on decline/decrease.

Descriptive Statistics and Reliability Analysis

In this study, the researchers extracted the standard deviation (mean, standard deviation) and Cronbach's Alpha from the study variables. The consolidated descriptive statistics results and values of Cronbach's Alpha of the changing institutional network are stated as follows.

Table 12
Descriptive Statistics and Reliability Analysis

Indicators / Domains of Pakhtun Social Structure (Dependent Variable)	Number of Items	Mean (S.D)	Cronbach's Alpha
Changing Institutional Network (Social Structure)			
Family Institution	14	3.93 (1.3899)	0.715
Modernization (Independent Variable) as an Indicator	15	4.1368 (1.0652)	0.86

The above table, No. 12, represents the mean, standard deviation, and Cronbach's Alpha values for four different indicators of changing institutional network. It is clear from the above table that means values of family institution are 3.93 with a standard deviation of 1.3899, which implies that most of the study respondents agreed with the notion that modernization has affected family institution. The extent of authenticity and trustworthiness of the tool of data collection concerning its results was measured through Cronbach's Alpha. The value of Cronbach's Alpha is 0.715, which indicates that there is internal consistency of the scale items. It is generally believed that the reliability of 0.70 stands at a minimum threshold, while an excellent rating is associated with the value 0.80.

Agreement Analysis

In certain circumstances, the researchers want to look into the respondents' perception of whether respondents have agreed to a particular proposition or not. The probable answers may be in the form of bivariate, such as "agree" or "do not agree". The level of agreement or disagreement cannot be unearthed/measured from such types of responses. The five-point scale permits both types of responses, i.e., positive and negative, which indicate agreement and disagreement, respectively.

Table 13*Respondents' Agreement on the Impact of Modernization on Family Institution.*

Agreement	Responses	Index Value
Strongly Disagree	172	0.89
Disagree	270	
Neutral	491	
Agree	1388	
Strongly Agree	1175	
Total	3496	

Source: Field survey, 2019

Table 13 shows the results of agreement responses of sample respondents to the notion of whether modernization has affected family institutions. In the study, the proposition that was put to the respondents was "Impact of modernization on the family institution". The respondents were asked to respond whether they agreed to it according to the five-point Likert scale.

After getting the responses of the sampled respondents, the index value is calculated as:

$$AI = \frac{(2*1175)+(1*1388)+(0*491)-(1*270)-(2*172)}{3496}$$

$$AI = .89$$

The value of the agreement index is .89 ($I > 0$), meaning modernization has affected family institution.

Bivariate Analysis

The results and discussion at the bivariate level concerning the association between the impacts of modernization through urbanization and changing institutional network (social structure) are stated below.

Table 14*Association between the Impacts of Modernization through Urbanization and Changing Institutional Network (Social Structure)*

S.#	Attributes / Statement	Response	Changing Institutional Network of Pakhtun Society			Total	Test Statistic (ChiSquare & Gamma)
			Low Change	Moderate Change	High Change		
1.	Rural to urban migration enhances the process of urbanization.	Strongly Disagree	2(40)	3(60)	0(0.00)	5(100)	$\chi^2=29.847$ $P=0.000$ $\gamma = 0.263$
		Disagree	2(25)	6(75)	0(0.0)	8(100)	
		Neutral	4(12.1)	18(54.5)	11(33.3)	33(100)	
		Agree	4(2.9)	67(48.2)	68(48.9)	139(100)	
		Strongly Agree	2(3.1)	35(53.8)	28(43.1)	65(100)	
2.	Urbanization is responsible for bringing structural changes in society.	Strongly Disagree	1(33.3)	2(66.7)	0(0.0)	3(100)	$\chi^2=37.267$ $P=0.000$ $\gamma = 0.384$
		Disagree	2(40)	3(60)	0(0.0)	5(100)	
		Neutral	3(8.1)	24(64.9)	10(27)	37(100)	
		Agree	1(0.8)	72(57.6)	52(41.6)	125(100)	
		Strongly Agree	7(8.8)	28(35)	45(56.2)	80(100)	
3.	Urbanization interlinked people from different areas.	Strongly Disagree	2(33.3)	3(50)	1(16.7)	6(100)	$\chi^2=33.151$ $P=0.000$ $\gamma = 0.411$
		Disagree	2(50)	1(25)	1(25)	4(100)	
		Neutral	3(10)	17(56.7)	10(33.3)	30(100)	
		Agree	7(4.4)	86(54.4)	65(41.1)	158(100)	
		Strongly Agree	0(0.0)	22(42.3)	30(57.7)	52(100)	

Table 14 illustrates the association between the impacts of urbanization and the changing institutional network of Pakhtun society in the study area. The response of the respondents regarding the statement that 'rural to urban migration enhances the process of urbanization' was observed as agree, i.e., 67(48.2 percent), to moderate change, and 68(48.9 percent) to high change occurred in the institutional network. Similarly, among those who strongly agree, among those the response of 35(53.8 percent) respondents was strongly agree toward moderate change, while 28(43.1 percent) respondents opined as strongly agree toward accepting the impacts of modernization as high change. The inferential statistics indicated a highly significant association ($P=0.000$) between the variables as mentioned above in a positive direction, as reflected by the Gamma value ($V = 0.263$).

Further, responding to another statement that 'urbanization is responsible for bringing structural changes in society' was treated as agreeing, i.e., 72(57.6 percent) to moderate change and 52(41.6 percent) to high change occurred in the institutional network. Similarly, those who strongly agree, among those, the response of 28(35 percent) respondents strongly agreed toward moderate change, while 45(56.2 percent) respondents opined as strongly agree toward accepting the impacts of modernization as high change. The inferential statistics indicated a highly significant association ($P=0.000$) between the variables above in a positive direction as divulged by the Gamma value ($V = 0.384$).

In addition, the opinion of the respondents toward another statement that 'urbanization interlinks people of different areas' was detected as agree, i.e., 86(54.4 percent), to moderate change, and 65(41.1 percent) to high change occurred in the institutional network. Subsequently, among those who strongly agree, among those 22(42.3 percent) respondents responded as strongly agree toward moderate change, while 30(57.7 percent) respondents opined as strongly agree toward accepting the impacts of modernization as high change. The inferential statistics unveiled a highly significant association ($P=0.000$) between the variables described above in a positive direction, as reflected by the Gamma value ($V = 0.411$).

Multivariate Analysis

The results and discussion at the multivariate level concerning the association between the impact of modernization through urbanization and changing institutional network (social structure) while controlling for the type of family are stated below.

Table 15
Association between the Impact of Modernization through Urbanization and Changing Institutional Network (Social Structure) while Controlling the Type of Family

Type of Family	Impact of Urbanization	Changing Institutional Network			Total	Test Statistics χ ² (P-Value), Kendall's tau-c (T ^c)	Level of Significance for the Entire Table
		Low Change	Moderate Change	High Change			
Joint Family	Less Urbanization	4(36.4)	6(54.5)	1(9.1)	11(100)	χ ² = 28.635 P= 0.000 T ^c = 0.100	χ ² = 58.350 P= 0.000 T ^c = .163
	More Urbanization	6(2.9)	111(53.4)	91(43.8)	208(100)		
	Total	10(4.6)	117(53.4)	92(42)	219(100)		
Nuclear Family	Less Urbanization	4(57.1)	3(42.9)	0(0.0)	7(100)	χ ² = 17.271 P= 0.000 T ^c = 0.549	
	More Urbanization	0(0.0)	12(50)	12(50)	24(100)		
	Total	4(12.9)	15(48.4)	12(38.7)	31(100)		

Table 15 reveals the multivariate results, which portray the association between the impact of urbanization and changing institutional network while controlling for the type of family. The nature of change has been measured at different levels, like low change in the institutional network, moderate

change in the institutional network, and high change in the institutional network, concerning less urbanization and more urbanization. Further, it is evident from the above table-5.36 that out of the total 250(100 percent) respondents, 219 were from joint family system whereas out of 125 respondents, 1(1.9 percent) viewed that less urbanization resulted in a high change in the institutional network, followed by 91(43.8 percent) thought that more urbanization resulted in a high change in the institutional network in Pakhtun society.

Subsequently, the Test Statistics, i.e., $\chi^2 = 28.635$ & $P = 0.100$, depicted a highly significant and positive relationship. On the other hand, out of the total 250(100 percent) respondents, 125 were from the nuclear family system. In contrast, out of 125 respondents, 0(0.0 percent) opined that less urbanization is associated with a high change in the institutional network. In comparison, 12(50 percent) expressed that more urbanization is interlinked with a high change in the institutional network in the Pakhtun society. Subsequently, the Test Statistics, i.e., $\chi^2 = 17.271$ & $P = 0.000$, unveiled a highly significant and positive relationship.

Similarly, the overall test statistics of the above table-5.36 identified a highly significant, positive, and spurious relationship. The values of Kendall Tau-C and Chi-Square depicted a spurious relationship between the impact of urbanization and changes in the institutional network while controlling for the type of family. The results highlighted that urbanization has a significant impact on the institutional network, whereas the trend of modernization is higher in nuclear families as compared to joint families, as indicated in the above table.

Conclusion and Recommendations

This study, titled “Does Modernization Drive Change in the Family Institution? Urbanization's Impact on Evolving Social Structures: A Quantitative Study,” was conducted in District Swat, Khyber Pakhtunkhwa, Pakistan. It has been concluded that modernization, propelled by urbanization, significantly drives transformations in the family institution in the study locale. Quantitative evidence underscores a clear shift: high agreement on nuclear family preferences, declining family sizes, empowered female roles, and rising individualism. Statistical rigor rejects null hypotheses, aligning with global modernization paradigms while revealing Pakistan-specific hybrids. Urbanization fosters moderate-to-high institutional changes, amplified in nuclear families, signaling broader social evolution. However, financial stability and *pakka* (concrete) housing among educated respondents suggest modernization benefits middle-class stakeholders disproportionately. These findings affirm urbanization as a catalyst for evolving structures, yet cultural inertia tempers full Western-style convergence, urging nuanced interpretations.

Based on the study findings, it has been recommended that policy interventions are needed. In this regard, the government agencies, including Khyber Pakhtunkhwa's Planning Department, should integrate family resilience into urbanization plans, e.g., subsidized housing and family planning via lady health workers to mitigate economic strains driving smaller families. Besides, it is vital to launch community workshops targeting rural-urban migrants on balancing modern individualism with Pakhtun values, emphasizing gender equity and elder care to preserve social cohesion. Moreover, the area is open for other researchers to work on it from different angles to explore the phenomena at hand from different perspectives. In addition, stakeholder engagement is also important. For this purpose, it is imperative to involve sampled groups in forums to advocate culturally sensitive modernization.

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