Kashmir Economic Review
ISSN(P): 1011-081X, ISSN(E): 2706-9516
http://www.ker.org.pk

An Analysis of Women Employment Status in Household Decision Making: Empirical Evidence from Pakistan

ABSTRACT

The study aims at empirically examining the role of women's employment status towards their capability in household decision-making. Generally, it is believed that employment status creates a sense of empowerment and allows women to be more proactive and influential in their household affairs. The study objectively explores this aspect through a survey of employed and unemployed women from Punjab province (Pakistan). A multidimensional index has been constructed to evaluate women's involvement in household decision-making. Utilizing a "Generalized Ordinal Logit Model", the study finds that employed women hold a dominant position in their household decision making as compared to their unemployed counterparts. The proportional odd of higher participation in household decisions is found significantly higher in employed women as compared to unemployed women. Additionally, the study proclaims the income level of employed women, their marital status, their education, and the educational level of their fathers as significant in the deterministic framework of women's household participation.

AUTHORS

Waqqas Qayyum*
Lecturer,
International Institute of Islamic Economics, IIUI, Islamabad
Author's Contributions: 1, 4, 5, 6
waqqas.qayyum@iiu.edu.pk
https://orcid.org/0000-0002-6187-898X

Miraj-ul-Haq
Assistant Professor
International Institute of Islamic Economics, IIUI, Islamabad
Author's Contributions: 2, 6
haqmirajeco@gmail.com
https://orcid.org/0000-0002-3556-0978

Seerat Arshad
MS Scholar
International Institute of Islamic Economics, IIUI, Islamabad
Author's Contributions: 3
seeratiiu.gemini92@gmail.com
https://orcid.org/0000-0002-3591-2697

Keywords
Women employment, Household decision making, Survey data, Generalized Ordinal Logit

JEL Classification
C82, C31, J21, R23

Please cite this article as:
Qayyum, W. Haq, M., & Arshad, S. (2021). An analysis of women employment status in household decision making: Empirical evidence from Pakistan, *Kashmir Economic Review*, 30(1), 53-67.

*** Correspondence author**

Author's contribution in the article: 1- Conceived and designed the analysis, 2- Reviewed and compiled the literature, 3- Collected the data, 4- Contributed data or analysis tools, 5- Performed the analysis, 6- Wrote the paper, 7- Financial support for the conduct of the study, 8-Other

1. INTRODUCTION

Generally received literature on women empowerment[1] appears to hold consensus that education and employment are the key factors for improving women's capability in shaping decisions (Stromquist, 2002; Dacosta, 2008; Roy, 2008; Murphy-Graham, 2008, 2010; Sadania, 2016; Bulte et al., 2016). These studies suggest women's education and employment as complementary factors towards their empowerment; whereby empowerment is judged by women's participation in household decisions. Education leads to build potential human capital needed by women to enhance their job getting capacity, which in turn allows them to take active decisions in their professional and private life. The education of women is argued as an important factor that makes women capable of taking a job and enhances their decision-making power in the entire sphere of their life (Sultana, 2011; Sundaram, 2014; Barman, 2018). Manifold studies focusing on women's empowerment rationalize the women's decision capability in terms of financial empowerment and autonomy (Soetan & Obeyan, 2019; Hung et al. 2012; Sultana et al., 2013; Sadania, 2016). Most of these studies come with an optimistic view and propagate that employed women enjoy autonomy in making financial, social, and political decisions in both their personal and collective capacity.

For example, in country-specific studies, Pitt et al. (2006) utilizing survey data examines the impact of participation in group-based microcredit programs on various decision-making of women. They come with the findings that women's autonomy in different decisions surges with their increase in participation in credit programs. More specifically, women participating actively in the labor market have higher women's empowerment in terms of household decision making, greater bargaining power, greater freedom of mobility, etc. Sultana (2011) investigate the relationship between women's financial autonomy and their decision-making power within their households. According to her findings, women with relatively higher education levels and financial autonomy are more likely to be involved in decision-making at the household level. Similarly, Sultana et al. (2013) measure and analyze empowerment between working and non-working women in terms of decision-making power within a household in the case of Malaysia. According to their findings, working women enjoyed greater power and freedom compared to non-working counterparts.

Besides the direct effect of employment status in household decision-making, empirics allows us to quote many indirect channels that can affect their decision-making power. For example, some studies channelize the effect of women's employment status on the decisions made by them through children's health and education (Phipps & Burton, 1998; Glick, 2002; Seebens, 2010). These studies argue that women's labor market participation exhibits positive effects on children's health and education that in turn places women in a better position within a household and therefore enhances their decision making-capacity.

Some received studies on the subject also probe employment status in terms of the nature of the job. For example, Sadania (2016) explores aspects of women's economic participation in household decision-making using the 2006 and 2012 rounds of the Egyptian Labor Market Panel Survey. The author finds that women working outside the home enjoy more autonomy and empowerment in taking personal decisions, whereas home-based work encourages women for joint decision-making.

Some others examined the role of location in women's employment status and empowerment relationship. For instance, Mahmood (2002) using survey data reports employed women in urban areas at par with their husbands in household decision making as compared to their rural counterparts. The study also reveals autonomy on the part of these urban employed women in terms of going outside alone in this relative

[1] Empowerment relate to measures model to rise in degree of autonomy and self-determination in people and communities in order to empower them to show their interests in a responsible and self-determined way, acting on their own guts (Kieffer, 1984).

framework. Similar results are reported in a study by Bradshaw (2013) in the case of Nicaragua. The study finds that urban employed women contribute more in income and ideology as compared to their rural counterparts, hence are placed at a stronger position in the household's decision making.

The brief appraisal of the studies on the subject in the opening part indicates that researchers have taken a keen interest to analyze the impact of women's employment on their involvement in household decisions regarding their occupational, geographical, and demographic credentials. Most of the studies come with an optimistic view and argue that employed women enjoy greater access to economic resources that enhance their involvement in household decisions. However, these studies mostly evaluate women's participation in household decisions in a unidimensional manner that cannot cover the subject with its full length. The current study takes the opportunity to contribute to the literature by capturing women's household participation in a multi-dimensional way. Our study tries to fill up the literature gap in two folds: Firstly, instead of taking the household decisions in common, we categorize the household decisions in four different dimensions. Secondly, by combining these dimensions into a composite index representing women's involvement in the household decision, we present an empirical model by offering a deterministic framework of attributes of this decision making.

The rest of the study is structured as follows. Section 2 presents the theoretical methodology. Section 3 illustrates a methodology that covers data collection, empirical model, and description of variables. Section 4 discusses estimated results and their interpretations. Finally, section 5 offers some concluding comments.

2. THEORETICAL AND CONCEPTUAL FRAMEWORK

Household decision-making is a very important theme to be addressed in corridors of research. The theme becomes more viable when it is evaluated for the role that women can play in such decisions. With the emerging role of women in various economic and social activities, researchers are keen to analyze women's involvement in household decisions regarding their occupational, geographical, and demographic credentials. The current study takes the opportunity to present some dimensions in which we can categorize household decisions. Additionally, it explores the role of women's employment status on their involvement in household decision-making.

2.1. Evaluating Women Involvement in Household Decisions

Household decisions can be analyzed in various dimensions (Kritz & Makinwa, 1999; Yusof, 2014; Kaur et al., 2018; Akram, 2018). Household decisions involve taking decisions regarding education, health, major purchases, consumption/saving plans, and marriage plans, etc. (Cornish et al., 2021). Some of these decisions are tied to the social norms while others rely heavily on financial or monetary indicators (Schubert et al., 1999; Pitt et al., 2006; Sultana et al., 2013; Majlesi, 2016; Sharma & Kota, 2019). Women's role and their involvement in household decisions can be judged based on the responsibilities (reliance) accorded to them in these decisions. It depends on whether their consultation is taken in making social or community decisions.[2] It also depends upon the financial autonomy they enjoy in making a certain type of family and personal expenditures. Based on the idea extracted from the discussion we can specify the following dimensions and indicators representing the degree of women's involvement and role in household decision making. These dimensions can further be aggregated into a composite index representing women's role in household decision-making. Table 1 summarizes these dimensions as followed:

[2] For example, if father is considered as a head of household and marriage decision of an elder or younger brother of a women must be taken. Women's role in this context is judged by the weightage given to her opinion or suggestion. Even his involvement is also judged by the decision of her own marriage, whether she has been given the option to accept or reject a proposal. Within a family or social setup this involvement can be extended to the decisions about whom to relate or unrelate, which family functions to attend or not, which social circle to retain or detain etc.

Table 1: Women's Involvement in Household Decisions (Dimensions)

Involvement in Family Level Major Decisions	
Indicators	• Family Marriage Decisions • Decisions regarding Family Expenditures • Exercising control on Family Resources
The margin of taking Independent Decision	
Indicators	• Purchasing Decisions • Traveling Decisions • Decisions regarding medical treatments
The margin of Managing Financial Resources	
Indicators	• Financial Independence • Authority to utilize and spend Family resources (For example: renting a family-owned house, selling a family-owned plot, etc.) • Authority to make marriage expenditures
Capacity to Define Social Circle	
Indicators	• Decisions regarding the expanse of social circle. • Decisions regarding visiting relatives and fellow friends.

2.2. Determinants of Women Involvement in Household Decision Making

2.2.1. Women Employment Status

Women's involvement in household decision-making and their autonomy relies on manifold factors. Objectively the employment status of women plays a pivotal role in this regard (Murphy-Graham, 2008, 2010; Sadania, 2016; Bulte et al., 2016). Employed women as compared to unemployed women can be more involved in household decision making based on two accounts: Firstly, their professional experience and external exposure generate a framing effect; as women are supposed to take many independent decisions at their workplaces, they potentially apply the same at their household level (Dacosta, 2008; Murphy-Graham, 2010). Secondly, their employment status allows them to have a reasonable stake in financial matters of their family, therefore their families provide them some margin to be involved in household decisions (Hung et al., 2012; Sultana et al., 2013; Sadania, 2016). One can hypothesize that women who are employed rather than unemployed are likely to be more involved in household decisions.

2.2.2. Age of Women

Age factor plays a key role in many theoretical models of economics. As a general principle, as humans grow in age, their responsibilities induce them to be more involved in decision-making regarding different affairs of their life. The case is not different for women, as women get mature with their age, they naturally are inclined to take more interest in household-level decisions. Hypothetically, women's involvement in household decisions should increase with their age (Thapa & Gurung, 2010; Brajesh & Shekhar, 2015).

2.2.3. Marital Status

Marriage itself implies a sense of responsibility and authority. Marital status can be thought of as a major determinant of women's involvement in household decisions (Amin & Pebley, 1994; Pitt et al., 2006; Fatima, 2013; Bertocchi et al., 2014).

Even if we compare the involvement of employed and unemployed women in household decisions, marital status can create a significant differential in this content analysis. This variable renders us a strong reason to place it among the potential determinants in our theoretical framework.

2.2.4. Education of Women

The education of women is nevertheless an important variable among the chain of determinants. Education broadens up our minds and always allows us to be more practical and substantive in our lives. This physical

feature of education cannot be ignored when it comes to analyzing women's participation in decision-making. Theoretically, higher education provides a solid reason to hypothesize a higher household participation (Sultana, 2011; Sundaram, 2014; Barman, 2018).

2.2.5. Household Size

Our family domain offers a potential reason for our participation and interest in practical matters of our life. A household accords a special role to each of its comprising units and this role can vary with the size of the household. We can physically become more influential and participative within a bigger household size because much more decisions are supposed to be taken in a bigger family domain as compared to a smaller family. Within the context of our discussion which primarily focuses on women's participation, we can hypothesize that women's participation/involvement in the household decision should increase with the increase in household size. Likelihood always exists for a hypothesis to be formulated oppositely, sometimes it happens that a bigger household size relieves us from being actively involved in decision making. Decisions are often taken by some prominent members or heads of the household which decreases our margin to be involved in decision making.

2.2.6. Education of Father

Sometimes our community norms serve as the biggest impediment in our way to practically apply ourselves. In custom-based societies like we have in many places in Pakistan, women's role in household decisions is subject to family norms and traditions. The so-called male domination at times supersedes every technical aspect which allows women a margin to take independent decisions. The education of the father plays a vital role in defining these customary traditions. It is believed that fathers who are more educated are potentially more capable of resisting these customary traditions are more likely to be supportive to women in making healthy decisions.

2.2.7. Income of Women

Income offers us an opportunity to take effective and independent decisions in our lives. Even within an agglomeration or a joint family set up income is impulsive in increasing our participation in decision making. As a general observation we have seen that when we contribute within a household, we are naturally inclined to be more interested in its decisions. Hypothetically, income provides a natural impetus for someone to be involved in household decision-making; the case must be considered as same for the income of women within a household (Hung et al., 2012; Sultana et al., 2013; Sadania, 2016).

3. OPERATIONAL METHODOLOGY AND EMPIRICAL MODEL

3.1. Data Collection

A survey method is employed to collect the data for the current study. Overall a sample of 300 women is selected for interview from district Jhelum in Punjab province (Pakistan).[3] The interviews are conducted based on a structured questionnaire which is designed under the guideline of some former studies (Mahmood, 2002; Pitt et al., 2006); Sultana et al., 2013; Akram, 2018) conducted in this context. The practical feasibility of our survey was constrained by the manifold factors: As our sampling unit was employed and unemployed females within a household, it was important to find respondents who were willing to participate in the survey. Within a customary and traditional environment that most females were subject to, the randomized framework was difficult to be employed. Therefore, we preferably utilize the snowball sampling technique to materialize our survey. Although the use of non-probability sampling is often discouraged but can be followed in cases where the expectations are that the sampling distribution from a non-probability sampling would not differ significantly from the sample drawn randomly (Richard

[3] The survey was conducted in initial half of year 2018. Although a sample size of 300 appears to be limited but is often justified in research which is part of M. Phil dissertation of students. Resource constraint on the part of students offers a big challenge in these types of works. Thus, small sample size can be considered as a limitation of this study.

and Verstraete, 2016). Besides this, the underlying objectives and nature of the study at times can be used as a justification of the sampling technique. If generalization of results is a complimentary requirement of the analysis, the use of non-probability sampling is limited and restrictive, but if the basic aim of the research is to propagate an explorative idea or framework upon which further research is provoked, generalization becomes secondary. As our research is aimed at construction and deterministic analysis of the multidimensional index of women's participation, the basic aim is to provoke further research in this dimension within the given context rather than generalizations of results. We can take a safe end by quoting a "Constraint on Generality COG" statement as proposed by Simons et al. (2017) which states that our results are representative of our targeted population rather than the universe of population.

3.2. Empirical Model and Variable Description

We have specified a few dimensions through which we can capture the women's involvement in household decision-making. The scores captured through various indicators within each dimension would help us to account for the level of their involvement as per the mentioned scheme. This approach is meaningful because it allows assessment within each dimension and can also be utilized as a variable in an aggregated manner.[4] The aggregated composite index is supposed to serve as a dependent variable in our empirical model. Based on the discussion we have made in our theoretical framework we would econometrically specify our empirical model in the following manner:

$$WIHD_i = \alpha_0 + \alpha_1 WES_i + \alpha_2 AGE_i + \alpha_3 MS_i + \alpha_4 IL_i + \alpha_5 HHS_i + \alpha_6 EW_i + \alpha_7 EF_i + \varepsilon_i$$

Where $WIHD_i$ represents the women involvement in household decision making, WES_i represents the representative respondent's employment status, AGE_i is indicative of the age of respective respondent in our sample, MS_i marks the respondent's marital status, IL_i is used for defining the income level of our representative respondent, HHS_i is abbreviated for household size to which our respondent belongs, EW_i specifically captures years of education, while EF_i represents the education level of the father of our representative respondent.

The nature and abbreviations of the involved variables are explained in following Table 2.

4. RESULTS AND DISCUSSION

4.1. Dimensions of Women Participation in Household Decisions

It is customary to focus on the results of the key variable first. As identifying female participation in household decision-making is the main objective of our study, we would attribute the first part of our result section to the discussion of our respondent's performance within each dimension specified for capturing this participation. Figures 1 to 4 graphically evaluates the performance of women in household decision-making within each dimension we have specified for evaluation.

[4] We have employed factor analysis to aggregate the individual scores of each dimension.

Table 2: Structure of Variables

Variable Name	Label	Scale (Level)	Criterion for Construction	Code/label
Women Involvement in Household Decision	WIHD	Ordinal (1-3)	If factor score > 66th Percentile	3 (High)
			> 33rd but < = 66th Percentile	2 (Moderate)
			If factor score < = 33rd percentile	1 (Low)
Income Level	IL	Continuous	Variable is constructed based on intervals; for example, anyone lying below 15000 monthly income is assigned a code of one, those who lie between 15000 to 30000 are assigned a code of 2 and successively higher codes for the higher fixed intervals	
Age	AGE	Continuous	With a minimum of 20 and a maximum of 56	
Years of Education of Women	EW	Continuous	With a minimum of zero and a maximum of 18.	
Marital Status	MS	Dichotomous	Married	1
			Unmarried	0
Women Employment Status	WES	Dichotomous	Employed	1
			Unemployed	0
Years of Education own by Father	EF	Continuous	With a minimum of zero and a maximum of 18	
Household Size	HHS	Continuous	Specified based on members in a household	

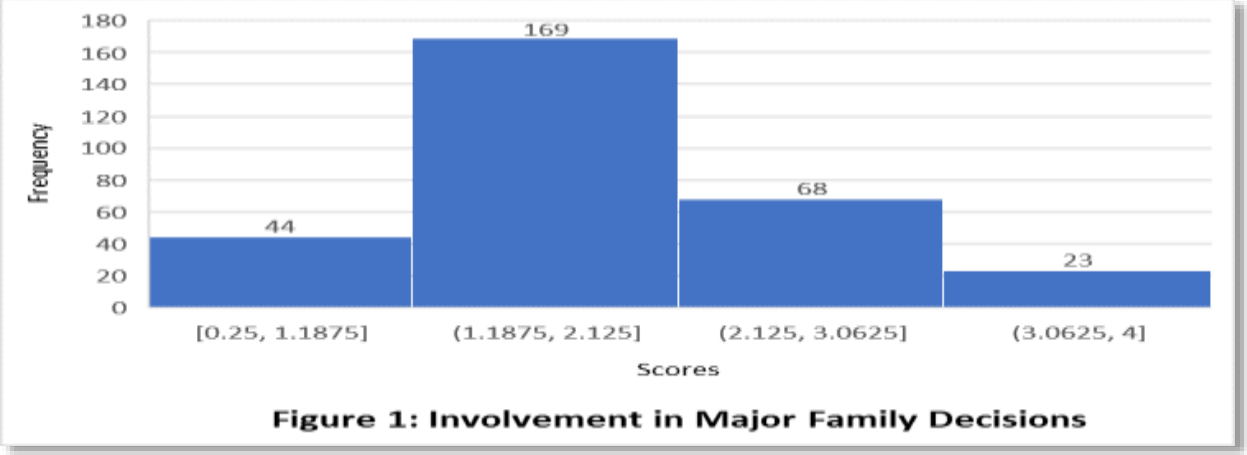

Figure 1: Involvement in Major Family Decisions

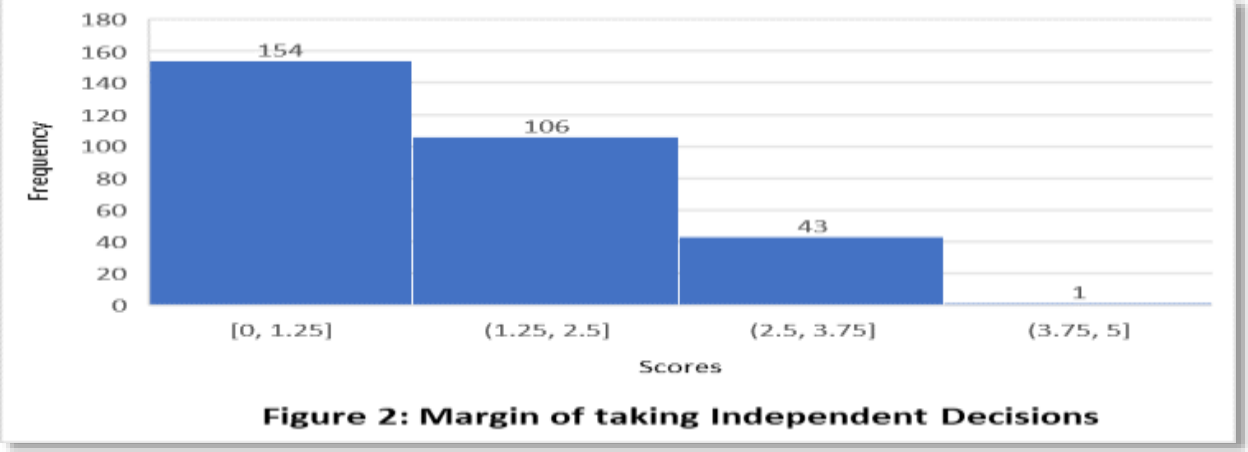

Figure 2: Margin of taking Independent Decisions

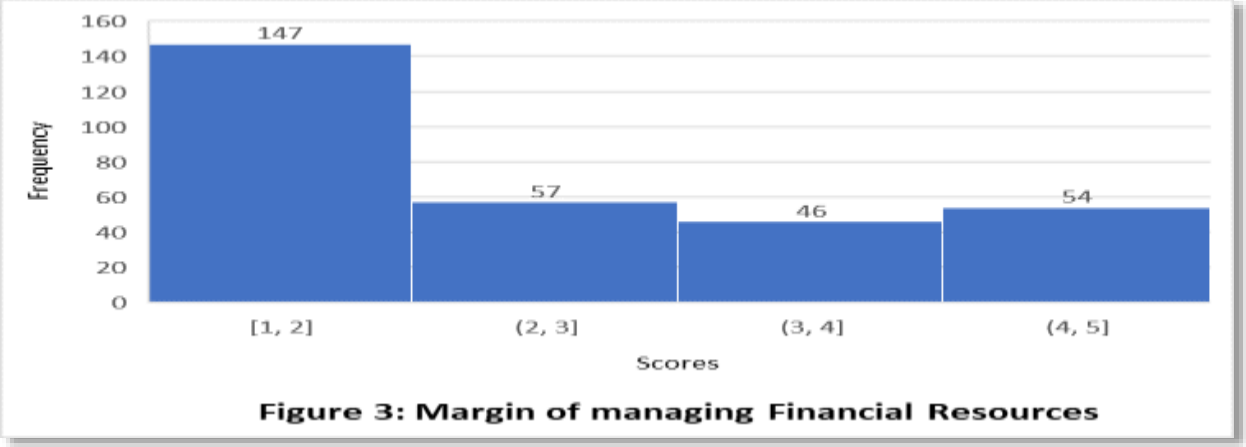

Figure 3: Margin of managing Financial Resources

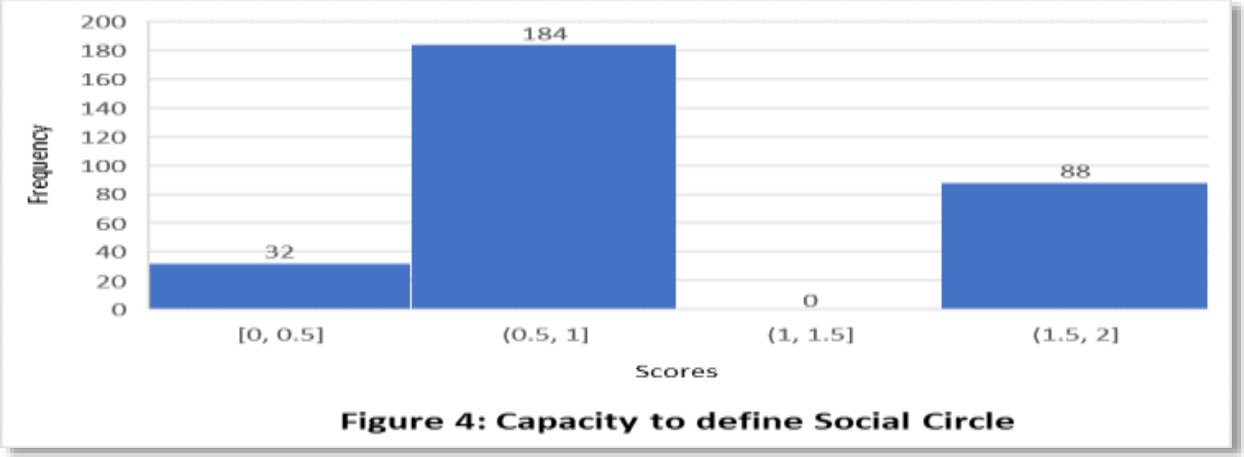

Figure 4: Capacity to define Social Circle

The visual inspection of acquired scores in each dimension reveals a relatively skewed distribution of scores towards the lower side. Almost all dimensions reflect that a higher number of respondents are concentrated more on the left side of the graphs which indicates relatively weaker participation of women in household decision making. If we compare the lower two spikes in all figures, we can see that almost 70% of respondents lie in this range for the first dimension, 85% lie in this region for the second dimension, and correspondingly 67% and 71% of respondents belong to this area for the third and fourth dimension. However, the weakest performance is observed in the second dimension which captures the margin of taking independent decisions. This result offers no surprise within a male-dominated society as we have in Pakistan. Best performance is observed in the third dimension which reflects women's authority or margin of managing financial resources. This result is also in line with the general patterns observed in our family structures; men within the household often put the responsibility of making and managing monthly budgets to their counterparts, especially matters pertinent to managing day-to-day expenditures.

4.2. Composite Index of Women Participation in Household Decisions

We have applied factor analysis on the aggregated scores of each dimension specified for capturing women's involvement in household decision-making. Factor analysis allows us to calculate the weights of each specified dimension in our theoretical framework and helps us to ascertain, how strongly each dimension represents the underlying construct of participation in household decision making. The preliminary requirements of factor analysis including sample adequacy test, interitem correlations,

explained percentage variation, and commonalities are reported in Appendix A. The factor loadings of each specified dimension are presented in the following table 3:

Table 3: Factor Analysis

Dimensions	Factor Loadings
Involvement in Major Family Decisions	0.854
The margin of Taking Independent Decisions	0.659
The margin of Managing Financial Resources	0.791
Capacity to Define Social Circle	0.716

For constructing a composite index from variable dimensions, it is important to identify that each dimension should represent the proposed construct. Factor loadings are used for the identification of this representation. Based on high values of factor loadings (above-recommended level of 0.5), we can regard our specified dimensions as truly representing a common construct. These factor loadings statistically depict the strength of intercorrelation between the specified dimensions. We have used these factor loadings to extract the factor scores which are further categorized on a percentile basis to construct an ordinal measure of our dependent variable. The said scheme has already been sketched in the first panel of Table 2.

4.3. Results of Empirical Model

Our finally composed dependent variable is ordinal with three categories representing a high, moderate, and low level of female participation in household decisions. This specification of dependent variable demands employing ordinal logit model for estimation of our empirical model. However, a preliminary requirement for employing the ordinal logit model is that the coefficients of independent variables should remain constant across ordinal categories or levels of dependent variables, this is often called parallel line assumption or proportional odd assumption (Brant, 1990; Bender & Grouven, 1998). We have tested this assumption for our model but have failed to reject the null hypothesis in our case, therefore we have employed an alternative technique proposed in the literature (McCullagh & Nelder, 1989; Peterson & Harrell, 1990; Fu, 1998; Williams, 2006) known as "Generalized Ordinal Logistic Regression". An advantage of this approach is that it enables us to calculate the separate coefficients of independent variables corresponding to variable categories of dependent variables, thus removes the possibility of any potential bias that could be created by enforcing parallel line assumption.

Table 4 comprises two panels; Panel 1 compares the lowest level of women's involvement with the higher two categories representing moderate and high levels of women participation. While Panel 2 compares the lowest two ordinal ranks (low and moderate) with the highest rank of our specified ordinal dependent variable. If we compare these two panels; the differential of coefficients and odds ratios is observed only for those variables which violate the proportional odds assumption, the coefficient of variables that meets this assumption remains the same across the two panels. If we take a formal inspection of table 4, most of the independent variables are found significant in terms of their likely impact on the dependent variable of our empirical model. The following part of the discussion focuses on interpreting each variable in terms of its sign and magnitude represented by the odds ratio.

Women employment status (WES_i) is the first significant regressor among the potential candidates specified in our model. Both panels suggest that females who are employed rather than unemployed are more likely to lie in higher ranks of participation in household decisions. The proportional odd of higher participation is 7.39 times higher for employed women as compared to unemployed women as per results of panel 1, while it is 2.75 times higher as per reported results of panel 2. The result is in line with the theoretical intuition we portrayed in our theoretical framework (Schubert et al. 1999; Pitt et al. 2006; Sultana et al. 2013; Majlesi 2016; Kaur et al., 2018). Employment status accords a potential margin and competitive advantage to the working females to have more stakes in their families, therefore are more likely to participate in household decisions. Hung et al. 2012; Sultana et al., 2013; Sadania, 2016 came with the same

findings. The second regressor titled 'Age' is found to be insignificant in terms of its likely impact when we compare the combined effect of the higher two ranks of female participation with the least rank (see panel 1). However, the likely impact is observed as significant when we compare the highest level of women's involvement with the combined effect of ordinally lower levels (see panel 2). The proportional odds of getting more involved in household decisions is 1.10 times higher for females belonging to higher age groups. Evidence is found on a positive relationship between the age of women and their level of involvement in household decisions. This result is also in line with our hypothesized proposition.

Table 4: Estimated Results of Generalized Ordinal Logistic Regression

Dependent: Women Involvement/Participation in Household Decisions	**Estimate** $(\hat{\beta})$	**Z- Statistics**	**Odds Ratios** $\exp(\hat{\beta})$
Panel 1: Low Vs Moderate and High level			
Women Employment Status (Base: Unemployed)	2.0009	5.01***	7.3957
AGE	0.0275	1.24	1.0279
Marital Status (Base Unmarried)	1.3293	4.13***	3.7786
Education	0.1908	2.58**	1.2102
Household Size	-0.4668	-2.3**	0.6269
Income Level	0.2819	3.3***	1.3257
Father's Education	0.1697	2.84***	1.1849
Panel 2: Low and Moderate Vs High level			
Women Employment Status (Base: Unemployed)	1.0115	2.52***	2.7499
AGE	0.1009	4.65***	1.1062
Marital Status (Base: Unmarried)	1.3293	4.13***	3.7786
Education	0.1908	2.58**	1.2102
Household Size	-0.4668	-2.3**	0.6269
Income Level	0.2819	3.3***	1.3257
Father's Education	-0.0113	-0.19	0.98876

Source: Author's own calculation. ***, **, * represents the significance at 1%, 5% and 10% respectively.

Marital status is nonetheless an important determinant of female household participation in our empirical model. Both panels suggest that married women are more likely to be involved in household decision-making as compared to unmarried women. The likelihood probability of falling in the highest ranks of participation is 3.78 times higher for married women as compared to unmarried women. The result offers no surprise especially when we compare the responsibilities accorded to the married life as compared to the unmarried life and are in line with earlier studies on the subject (Pitt et al. 2006; Fatima, 2013; Bertocchi et al. 2014).

Education is yet another significant determinant of women's household participation in our model as shown by results in table 4. More educated women are having a higher likelihood to belong to the pool having higher participation. Education provides a sense of maturity and confidence to assess manifold aspects of our lives. It makes us courageous and decisive and helps us take many decisions which we could not take in the absence of rationality offered by educational levels. As per reported results of both panels, the proportional odd of higher participation is 1.21 times higher for women having higher education as compared to lower levels. The results are in line with the findings of Mahmood (2002), and Pitt et al. (2006) that women having higher education are more capable to participate actively in household decision-making.

We have hypothesized household size as a factor that can affect women's participation either positively or negatively within a family context. Our results reveal that a bigger household size serves as a negative

determinant of female participation in household decisions. The negative coefficient of these variables suggests that women are less likely to be highly participative in household decisions within a bigger household size as compared to smaller household sizes. The proportional odd of higher participation is (1-0.63 = 0.37) times lower within a bigger household as compared to the smaller household. The result can be rationalized based on the conventional family structures we have in our country. Our family structures are often criticized for less decision-making margins offered to the females. When household size increases, it negatively affects the already existent scant probability for women to have their due share in decision-making.

The income level of a female is also hypothesized as a potential indicator that can affect their participation in household decisions. Our results verify that income level is a positive and significant determinant of female participation in household decisions. Women who earn relatively high-income level as compared to low or no income are 1.32 times more likely to highly participate in household decisions as compared to less participation. These results are reported in both panels of table 4. Monetary aspects prove to be consequential in almost every affair of our lives and income marks the defining margins of our stakes in these affairs. The more contribution one can make in a family setup via income, the more stakes he or she can possess within that setup. This allow margin not only to be involved in the major family decision but also allows the person a margin to take independent decisions as per his/her stakes. Our result regarding the income level of females is indicative of this factual and practical aspect of our life.

Father's education is proposed as another key determinant of women's participation in household decisions. The direction of the relationship shown by the sign of coefficient in table 4 is in line with the proposed scheme in our theoretical framework. However, the results are found significant when we compare the combined effect of higher two ranks of participation with the least rank while insignificance is observed when we compare the highest category of participation with the combined effect of preceding lower categories. Overall, from the significant results found in panel 1 of Table 4, we get an impression that high levels of father's education impart a subtle positive impact on women's participation in household decisions. Women whose fathers are highly educated hold a higher odd of falling in high ranks of participation rather than low ranks. The odd ratio is found 1.185 times higher for women having a highly qualified father as compared to those whose fathers are less qualified. Community setups and cultural barriers often serve as a big impediment to the empowerment of women. Education is the only means which can penetrate through these barriers and provides you the courage to resist the traditional setups. Within this context, our result provides us evidence that educated fathers hold more potential to breach the customary norms.

5. CONCLUSION

As discussed in the opening part that the study aims to examine the role of women's employment status on their involvement in household decision-making. Keeping in view the subject matter of study, we have developed a multidimensional composite index that can represent women's involvement in household decision-making. Based on the index, it is observed that women are heterogeneous in terms of their performance on variable dimensions. We have summarized the values of the composite index by ordinally categorizing it into three categories namely, high, moderate, and low levels of female participation in household decisions. The empirical estimation has been carried out with generalized ordinal logistic regression. A sample of 300 women has been drawn from rural and urban areas of district Jhelum in Punjab province (Pakistan). The findings of the study reveal that employed women hold a dominant position in their household decision-making as compared to their unemployed counterparts. This indication is derived from the fact that the results of both panels of our estimated Generalized ordered logit model suggest that females who are employed rather than unemployed are more likely to be in higher ranks of participation in household decisions. Touching the results thoroughly, the proportional odd of higher participation is 7.39 times higher for employed women as compared to unemployed women if we compare the lowest level of

women's involvement with a moderate and higher level of women's participation. Whereas, it is 2.75 times higher if we compare the lower and moderate levels of women's involvement with the highest rank of our specified ordinal dependent variable. Apart from employment status, other characteristics of women like income and education also affect women's involvement in household decision-making. Women holding higher levels of income and education are more likely to be involved in household decision-making as compared to women holding a relatively lower level of income and education. Additionally, we find that married women are more likely to be involved in household decision-making as compared to unmarried women.

Acknowledgment
We are thankful to anonymous reviewers of the paper for the valuable comments which helped us to improve its quality.

Funding Source:
The author(s) received no specific funding for this work.

Conflict of Interests:
The authors have declared that no competing interests exist.

REFERENCES

Amin, S., & Pebley, A. R. (1994). Gender inequality within households: the impact of a women's development program in 36 Bangladeshi villages. *The Bangladesh Development Studies*, *22*(2), 121-154.

Akram, N. (2018). Women's empowerment in Pakistan: its dimensions and determinants. *Social Indicators Research*, *140*(2), 755-775.

Barman, B. (2018). Educational impact on empowerment of scheduled caste women of Koch Bihar District, West Bengal, *Research Review International Journal of Multidisciplinary*, 3(8), 241-258.

Bender, R., & Grouven, U. (1998). Using binary logistic regression model for ordinal data with non-proportional odds. *J. Clin Epidemiol*, *51*(10), 809-816.

Bertocchi, G., Brunetti, M., & Torricelli, C. (2014). Who holds the purse strings within the household? The determinants of intra-family decision making. *Journal of Economic Behavior & Organization*, *101*, 65-86.

Bradshaw, S. (2013). Women's decision-making in rural and urban households in Nicaragua: the influence of income and ideology. *Environment and Urbanization*, *25*(1), 81-94.

Brajesh & Shekhar, C. (2015). Level of women empowerment and it's determinates in selected Asian countries. *Journal of Humanities and Social Science*, *20*(4), 94-105.

Brant, R. (1990). Assessing proportionally in proportional odd model for ordinal logistic regression. *Biometrics*, *46*(4), 1171-1178.

Bulte, E., Lensink, R., & Vu, N. (2016). Gender training and female empowerment: Experimental evidence from Vietnam. *Economics Letters*, 145, 117-119.

Cornish, H., Walls, H., Ndirangu, R., Ogbureke, N., Bah, O. M., Tom-Kargbo, J. F., ... & Ranganathan, M. (2021). Women's economic empowerment and health related decision-making in rural Sierra Leone. *Culture, health & sexuality*, *23*(1), 19-36.

DaCosta, D. (2008). Spoiled sons, and sincere daughters: schooling, security, and empowerment in rural West Bengal, India, Signs. *Journal of Women in Culture and Society*, 33(2), 283-307.

Fatima, D. (2013). *Education, Employment and Women 'Say in Household Decision Making in Pakistan*, Doctoral dissertation, Lahore School of Economics, Lahore, Pakistan.

Fu, V. (1998). Sg88: Estimating generalized ordered logit models. *Stata Technical Bulletin*, 44: 27–30. In *Stata Technical Bulletin Reprints*, 8, 160–164. College Station, TX: Stata Press.

Glick, P. (2002). Women's employment and its relation to children's health and schooling in developing countries: conceptual links, empirical evidence, and policies. *Cornell Food and Nutrition Policy Program Working Paper*, (131).

Hung, A. Yoong, J. and Brown, E. (2012). *Empowering Women Through Financial Awareness and Education*. OECD Working Papers on Finance, Insurance and Private Pension, No. 14.

Kaur, R., Singh, B., Sandhu, L. K., & Kaur, G. (2018). Dimensions of Women Autonomy in Household Decision Making in Rural Punjab. *OIDA International Journal of Sustainable Development*, *11* (1), 11-40.

Kieffer, C. H. (1984). Citizen empowerment: A developmental perspective. *Prevention in human services*, *3*(2-3), 9-36.

Kritz, M., & Makinwa-Adebusoye, P. (1999). Determinants of women's decision-making authority in Nigeria: The ethnic dimension. *Sociological Forum*, *14*(3), 399–424.

Mahmood, N. (2002). Women's role in domestic decision-making in Pakistan: implications for reproductive behaviour. *The Pakistan Development Review*, 41(2), 121-148.

Majlesi, K. (2016). Labour market opportunities and women's decision-making power within households. *Journal of Development Economics*, *119*, 34-47.

McCullagh, P., & Nelder, J. A. (1989). *Generalized Linear Models*, 2nd edition. London, UK: Chapman and Hall.

Murphy-Graham, E. (2008). Opening the black box: women's empowerment and innovative secondary education in Honduras. *Gender and Education*, *201*(1), 31-50.

Murphy-Graham, E. (2010). And when she come home? Education and women's empowerment in intimate relationships. *International Journal of Educational Development*, *30*(3), 320-331.

Peterson, B., & Harrell, F. E. Jr. (1990). Partial proportional odds models for ordinal response variables. *Applied Statistics*, *39*(2), 205–217.

Phipps, S. A., & Burton, P. S. (1998). What's mine is yours? The influence of male and female incomes on patterns of household expenditure. *Economica*, *65*(260), 599-613.

Pitt, M.M., Khandker, S.R., & Cartwright, J. (2006). Empowering women with microfinance: Evidence from Bangladesh. *Economic Development and Cultural Change*, *54*(4), 791-831.

Roy, S. (2008). *Female Empowerment Through Inheritance Rights*, Second Riccardo Faini Doctoral Conference on Development Economics, University of Milan, Italy, September 7-9.

Sadania, C. (2016). Working and women's empowerment in the Egyptian household: The type of work and location matter, Working Paper, 2017, No.22.

Schubert, R., Brown, M., Gysler, M., & Brachinger, H. (1999). Financial Decision-Making: Are Women Really More Risk-Averse? *The American Economic Review*, *89*(2), 381-385.

Seebens, H. (2010). *Intra-household Bargaining, Gender Roles in Agriculture and How to Promote Welfare Enhancing Changes*. Background paper prepared for The State of Food and Agriculture, 11.

Sharma, M., & Kota, H. B. (2019). The Role of Working Women in Investment Decision Making in the Family in India. *Australasian Accounting, Business and Finance Journal*, *13*(3), 91-110.

Simons, D. J., Shoda, Y. and Lindsay, D. S. (2017). "Constraints on generality (COG): A proposed addition to all empirical papers". *Perspectives on Psychological Science*,*12(6)*,1123–1128.

Soetan, R. O., & Obiyan, M. O. (2019). Socioeconomic Differentials in Employment Status and Involvement in Household Decision-Making Among Ever-Married Women in Nigeria. *Frontiers in Sociology*, *4*, 49.

Stromquist, N.P. (2002). *Education as a Means for Empowering Women*, In Papart, J., Rai, Staudt, K. (Eds.), Rethinking Empowerment: Global/Local World, Routledge, London.

Sultana, A. M. (2011). Factors effect on women autonomy and decision-making power within the household in rural communities. *Journal of Applied Sciences Research*, *7*(1), 18-22.

Sultana, A.M., Norhafiza, M.H., and Fauziah, C.L. (2013). Measuring empowerment between working and non-working women: Malaysian perspective. *Asian Journal of Humanities and Social Studies*, *1*(5), 415-421.

Sundaram, S., Sekar, S. & Subburaj, A. (2014). Women empowerment: role of education. *International Journal in Management and Social Science*, *2*(12), 76-85.

Thapa, A.K., Gurung, L. (2010). An assessment of factors influencing empowerment level of females: A case study of Pokhara. *Economic Journal of Development Issue*, *11*(1), 1-8.

Williams, R. (2006). Generalized ordered logit/partial proportional odds models for ordinal dependent variables. *Stata Journal*, *6*, 58–82.

Yusof, S.A. (2014). Household decision-making in Malaysia: The ethnic dimension. *Social Indicators Research*, *124*(1), 283-293.

Appendix A

Table A.1: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.302	57.548	57.548	2.302	57.548	57.548
2	0.707	17.671	75.219			
3	0.631	15.784	91.004			
4	0.360	8.996	100.000			

Extraction Method: Principal Component Analysis

Table A.2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**0.730**
Bartlett's Test of Sphericity	Approx. Chi-Square	299.360
	Degree of Freedom	6
	Sig.	0.000

Table A.3: Communalities

	Initial	Extraction
Dimension 1	1.000	0.729
Dimension 2	1.000	0.434
Dimension 3	1.000	0.625
Dimension 4	1.000	0.513

Table A.4: Anti-image Matrices

		Dimension 1	Dimension 2	Dimension 3	Dimension 4
Anti-image Correlation	Dimension 1	**0.672[a]**	-0.242	-0.505	-0.270
	Dimension 2	-0.242	**0.822[a]**	-0.070	-0.150
	Dimension 3	-0.505	-0.070	**0.702[a]**	-0.129
	Dimension 4	-0.270	-0.150	-0.129	**0.813[a]**

a. Measures of Sampling Adequacy (MSA)