Nadia Saeed[*] Sajjad Ali Gill[**] Rehan Ahmad Khan Sherwani[***]

A confirmatory Factor Analysis about the System of Dowry in Pakistan

Abstract

Dowry is an ancient custom since in our society marriage plays an importance role for creating a family culture. The research is based on the student's perception about dowry as custom or curse. The primary data based on 250 young students are collected and the questionnaire based on six factors is used as a tool for data collection. The Structural Equations Model (SEM) is used to confirm the exploratory factors. The conclusions confirmed that most of questions significantly contributed within the preformed factors.

Key words: Dowry, Path diagram, Structural Equations Model (SEM), causal relations.

1. Introduction

Marriage plays an important role in most societies. Hence dowry at the time of marriage is always being important in most of Asian societies. Dowry is an amount of money, goods or possessions given to the bride by the bride's family at the time of her marriage in order to attract a good husband for her but this custom is not part of Islam although it seems to on the increasing among several Muslim cultures but it is a practice which has never been sanctioned by Islam. It seems to be in imitation of ancient non-muslim culture in which daughters were not given any share in the family property. Islam granted daughters a rightful share in their family property and inheritance. In Islam the concept of "Mahr" is defined instead of dowry which is the amount or anything paid by the man to his wife. It is paid to the wife as an honor and a respect given to her and to show that he has a serious desire with a sense of responsibility and obligation or effect on his part. Indeed the prophet stated: "*The most blessed marriage is one in which the marriage partners place the least burden on each other. (al-Haythami, Kitab ab-Nikah, 4:255)"*

There is not too much bet sufficient literature available on the concept of dowry and the social factors affecting on it. Gaulin *et al.* (1990) claimed that it led to female-female competition for the best mates, thus gaining reproductive success for the winners. While Dickemann (1979a,b) pointed out that it is the families of girls, not girls themselves, who make the marriage decisions. Furthermore Gaulin *et al.* (1991) replied that it makes no difference who makes the marriage decisions, whether girls themselves or their parents. They pointed out that wealth transfer at marriage signals a sex bias in the intensity of reproductive competition. Males are the competitors when bridge-wealth is given, and females are the competitors when they bring dowry into the marriage. However it is undeniable that girls with dowry are more reproductively successful than girls of their social class. So Dickemann (1981) reminded that only property owners are able to give dowry at all while the poorer classes are practicing other forms of marriage transactions. Dowry has the effect of delaying marriage also. So delayed marriage, in turn, reduced fertility (Netting 1981 and Schlegel and Barry 1991) but many other factors can be studied which proves that dowry plays an important role in wife's welfare. Zang and Chan (1999) gave the empirical specification of theoretical model of wife's welfare as

$$Y = \beta_1(Dowry) + \beta_2(Bride\ Price - wealth) + x_1\beta_3 + \varepsilon$$

[*] **Nadia Saeed,** College of Statistical and Actuarial Sciences, University of the Punjab Lahore, Pakistan.
[**] Dr Sajjad Ali Gill, Department of Sports Sciences and Physical Education, The University of the Punjab, Lahore, Pakistan.
[***] **Rehan Ahmad Khan Sherwani,** College of Statistical and Actuarial Sciences, University of the Punjab Lahore, Pakistan.

where Y as an index of the wife's welfare, x_1 is a vector of explanatory variables including the couple's income, education, age and regional dummies. The major hypothesis tested was β_1>0 and β_2=0

The theoretical model implies that a dowry may not be exogenous. While the decision on a dowry was made by the bride's parents before the couple's intra-family decision on Y, there may be factors that affect both dowry and Y. One such factor is the unobserved (physical) alternativeness of the bride. Within this framework, it is found that a dowry will affect the welfare of a bride in two ways: first it increases the resources available to the bride's new family; and second, it increases the bride's threat point or bargaining position within her family.

There are some religious and social customs of giving dowry to their daughters especially in eastern countries but there is another factor which significantly contributes that there may be a generation gap. So a questionnaire is designed on social, behavioral, religious, psychological, economic and educational aspects and it was filled by young university students to know their views about dowry and to know the significant reasons contributing a happy married life and to accept a girl without dowry.

2. Methodology

The research design for this study is a survey, based on young university students. There are several ways to conduct a survey. A pre-coded questionnaire with two categories in each questions (yes-1, No-2), was used as data collection tool for conducting survey. The questionnaires were personally administered to the respondents for getting maximum response rate. A convenience sample of 250 university students was selected and data were collected. The details of pre-constructed survey instrument consisted of six different sections provided in Table-1.

Table 1: Factors and items of questionnaire

Sr. No	Factors	Items
1.	Social Section (F_1)	Cause of delay in marriages (X_1) Duty of government to eliminate dowry (X_2) Society awareness (X_3) Role of materialistic society (X_4) Tradition or custom (X_5) Ladies Role for its spreadness (X_6) Hurdle for independent love marriages (X_7) Poverty as a factor (X_8) Effects on relationships due to absence of dowry (X_9) Dowry as a self-called curse (X_{10}) Necessity for happy marriages (X_{11}) Necessity for comfortable life (X_{12}) Perception to eliminate dowry (X_{13}) Perception about acceptance without dowry (X_{14})
2.	Behavioral Section (F_2)	Cause of parents lament for baby girl (X_{15}) Cause of frustration (X_{16}) Cause of happiness of a married girl (X_{17}) Cause of feeling proud (X_{18}) Indication of greedy behavior (X_{19})
3.	Religious Section (F_3)	Perception about applicability of Islamic concept of dowry (X_{20}) Perception about following our religion (X_{21}) Perception about dowry concept and Islam (X_{22}) Perception about concept of dowry according to "Sunnah" (X_{23})
4.	Psychological Section (F_4)	Create a complex (X_{24}) Role of dowry for understanding, love and sincerity (X_{25})

		Causes producing psychological tension for parents (X_{26})
5.	Economical Section (F_5)	Dowry as a financial burden (X_{27}) Dowry as a status symbol (X_{28}) Curse of dowry emerge from aristocracy (X_{29}) Dowry as a financial support for boy (X_{30}) Dowry as a cause of increase in the status of other family (X_{31}) Dowry as a settled start for a girl (X_{32})
6.	Educational Section (F_6)	Ignorance a cause of this curse (X_{33}) Demolishing the curse through growing literacy (X_{34}) Role of proper careful education (X_{35}) Role of moral values (X_{36})

The data were analyzed using SPSS 13.0. The normality of data was tested by using non parametric test (One Sample Kolmogorov Smirnov Test). For analytical portion Structural Equations Model was used to analyze the significant variables among above mentioned factors. Structural Equations are used as the representation of true causal properties of real world phenomena, as contrasted with equations that are merely used for prediction or estimation purposes. It is an extension of several multivariate techniques. The SEM examines the series of dependent relationships among exogenous and endogenous variables even when an endogenous variable becomes an exogenous variable in other relationship. In other words, we can say that SEM estimates a series of separate and interdependent multiple regression equation simultaneously by specifying the path model (structural model).

On the basis of path diagram, six structural equations model (SEM) can be formed as:

$$F_1 = \ell_{12}F_2 + \ell_{14}F_4 + \varepsilon_1 \quad (1)$$

$$F_2 = \ell_{21}F_1 + \ell_{23}F_3 + \varepsilon_2 \quad (2)$$

$$F_3 = \ell_{34}F_4 + \ell_{32}F_2 + \ell_{36}F_6 + \varepsilon_3 \quad (3)$$

$$F_4 = \ell_{41}F_1 + \ell_{43}F_3 + \varepsilon_4 \quad (4)$$

$$F_5 = \ell_{56}F_6 + \varepsilon_5 \quad (5)$$

$$F_6 = \ell_{63}F_3 + \ell_{65}F_5 + \varepsilon_6 \quad (6)$$

3. Results and Interpretation

The research is based upon 250 respondents. The data consisting 36 different questions coded with two possible options (yes-1, No-2) for each question. Table-2 shows that test distribution is non-normal at 5% level of significance by using Kolmogorov Smirnov test of normality.

Table 2: Kolmogorov Smirnov Z test of normality

Variables	Kolmogorov Smirnov Z	p-value
X_1	7.932	.000
X_2	7.441	.000
X_3	6.561	.000
X_4	7.561	.000
X_5	8.345	.000
X_6	7.381	.000
X_7	6.237	.000
X_8	5.977	.000
X_9	7.472	.000
X_{10}	8.090	.000
X_{11}	7.850	.000
X_{12}	7.071	.000
X_{13}	7.794	.000

X_{14}	8.303	.000
X_{15}	6.881	.000
X_{16}	7.959	.000
X_{17}	6.529	.000
X_{18}	6.754	.000
X_{19}	7.905	.000
X_{20}	5.781	.000
X_{21}	7.289	.000
X_{22}	7.591	.000
X_{23}	5.716	.000
X_{24}	8.259	.000
X_{25}	8.365	.000
X_{26}	8.165	.000
X_{27}	8.504	.000
X_{28}	8.471	.000
X_{29}	7.561	.000
X_{30}	6.722	.000
X_{31}	6.367	.000
X_{32}	7.620	.000
X_{33}	7.620	.000
X_{34}	7.502	.000
X_{35}	8.116	.000
X_{36}	8.303	.000

A path diagram in Figure-1 is constructed by taking all six sections which are represented in questionnaire in which F_1 is first factor representing social section consisting of first fourteen questions as X_1 to X_{14}, F_2 is second factor representing behavioral section consisting of next five questions as X_{15} to X_{19}, F_3 is third factor representing religious section consisting of next four questions as X_{20} to X_{23}, F_4 is fourth factor representing psychological section consisting of next three questions as X_{24} to X_{26}, F_5 is fifth factor representing economical section consisting of next six questions as X_{27} to X_{32}, F_6 is sixth factor representing educational section consisting of next four questions as X_{33} to X_{36}. These factors are not independent but they are interdependent with each other in a way that F_1 is interdependent with F_2, similarly F_2 with F_3; F_3 with F_4; F_4 with F_1; F_3 with F_6 and F_6 with F_5.

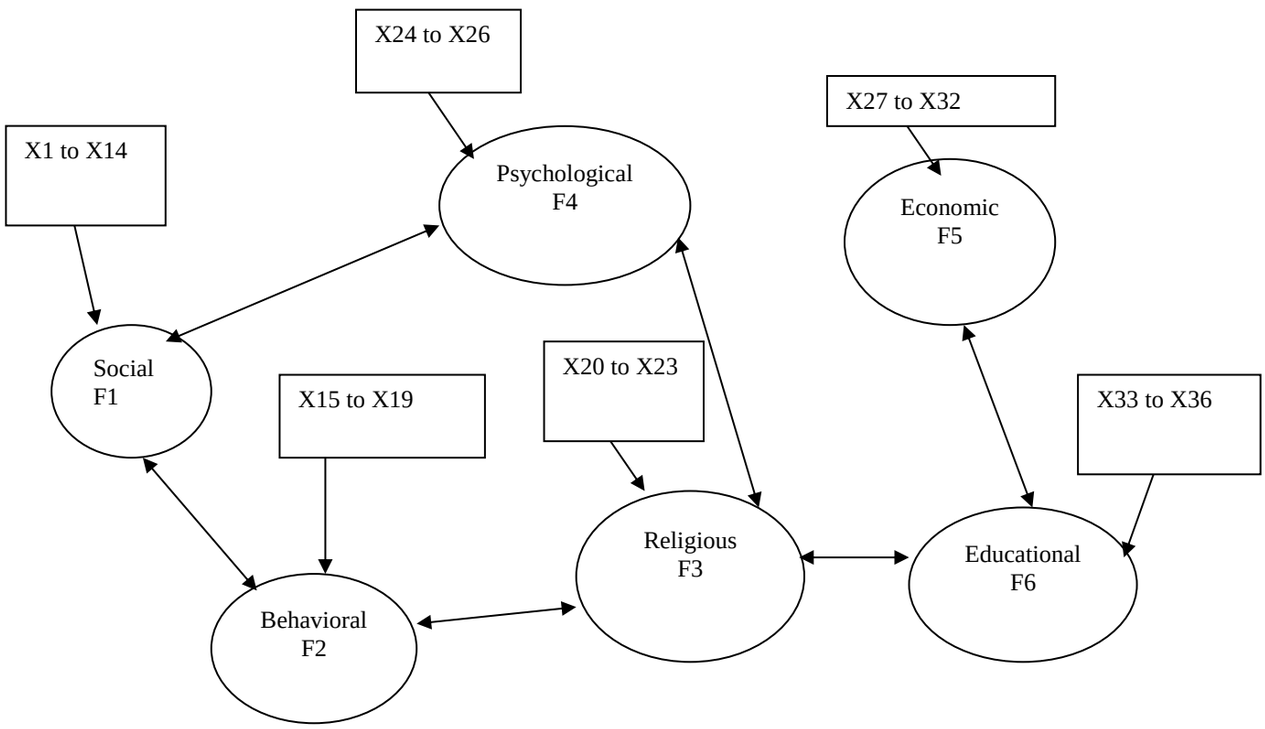

Figure 1: Path Diagram

The results of Table 3 show that variables X_2. X_{10}, X_{11}, X_{12}, X_{13} and X_{14} are significantly contributing in first factor (F_1). Similarly variables X_{16}, X_{17}, X_{18} and X_{19} are significantly contributing in second factor (F_2), variables X_{20}, X_{21}, X_{22}, X_{23}, variables X_{24}, X_{25}, X_{26}, variables X_{28}, X_{29}, X_{30}, X_{31}, X_{32} and variables X_{33}, X_{34}, X_{35}, X_{36}, are significantly contributing in third (F_3), fourth (F_4), fifth (F_5) and sixth (F_6) factors respectively. The variables D_1 to D_{36} represents error terms of variables X_1 to X_{36}, which are all significant showing that error variances are not constant and data is of variable form itself. Table-4 shows that Joreskog GFI is 0.808, which is equivalent to goodness of fit (R-square). So SEM explains 81% variation.

Table 3: Model Estimates

Contribution of Variables in Factor	Parameter Estimates	Standard Error	T-Statistic	p-value
(F_1)-1->$[X_1]$	.068	.074	0.924	.356
(F_1)-2->$[X_2]$	.232	.071	3.289	.001
(F_1)-3->$[X_3]$	-.130	.073	-1.976	.073
(F_1)-4->$[X_4]$	.045	.074	0.608	.543
(F_1)-5->$[X_5]$	.009	.074	0.117	.907
(F_1)-6->$[X_6]$	.036	.074	.486	.627
(F_1)-7->$[X_7]$	-.021	.074	-.282	.778
(F_1)-8->$[X_8]$	.116	.073	1.585	.113
(F_1)-9->$[X_9]$	.051	.074	.690	.490
(F_1)-10->$[X_{10}]$	.384	.065	5.885	.000
(F_1)-11->$[X_{11}]$	.434	.063	6.889	.000
(F_1)-12->$[X_{12}]$	-.705	.050	-14.124	.000
(F_1)-13->$[X_{13}]$	.541	.058	9.370	.000
(F_1)-14->$[X_{14}]$	.456	.062	7.353	.000
(F_2)-15->$[X_{15}]$	-.190	.074	-2.580	.010
(F_2)-16->$[X_{16}]$	.207	.073	2.817	.005
(F_2)-17->$[X_{17}]$	-.290	.071	-4.071	.000
(F_2)-18->$[X_{18}]$	-.436	.066	-6.622	.000
(F_2)-19->$[X_{19}]$	.713	.064	11.203	.000
(F_3)-20->$[X_{20}]$	.338	.076	4.432	.000
(F_3)-21->$[X_{21}]$	.542	.075	7.225	.000
(F_3)-22->$[X_{22}]$	.661	.079	8.406	.000
(F_3)-23->$[X_{23}]$	.262	.078	3.367	.001
(F_4)-24->$[X_{24}]$	-.205	.094	-2.169	.030
(F_4)-25->$[X_{25}]$	-.399	.102	-3.904	.000
(F_4)-26->$[X_{26}]$	-.389	.101	-3.849	.000
(F_5)-27->$[X_{27}]$	.034	.085	.404	.686
(F_5)-28->$[X_{28}]$	.169	.084	2.012	.044
(F_5)-29->$[X_{29}]$	.224	.083	2.681	.007
(F_5)-30->$[X_{30}]$	.623	.106	5.878	.000
(F_5)-31->$[X_{31}]$	.555	.099	5.612	.000
(F_5)-32->$[X_{32}]$	.289	.083	3.500	.000
(F_6)-33->$[X_{33}]$	.298	.071	4.198	.000
(F_6)-34->$[X_{34}]$	.468	.065	7.168	.000
(F_6)-35->$[X_{35}]$	.761	.068	11.182	.000
(F_6)-36->$[X_{36}]$	.632	.065	9.708	.000
(F_1)-37->$[F_2]$	.778	.077	10.158	.000
(F_1)-38->$[F_4]$	-.306	.124	-2.473	.013
(F_2)-39->$[F_3]$	-.277	.090	-3.063	.002
(F_3)-40->$[F_4]$	.553	.155	3.566	.000
(F_5)-41->$[F_6]$	.040	.101	.397	.692
(F_3)-42->$[F_6]$	.081	.094	.860	.390
(D_1)-43->$[X_1]$	.998	.005	199.319	.000
(D_2)-44->$[X_2]$	.973	.017	57.618	.000
(D_3)-45->$[X_3]$	.991	.010	103.509	.000
(D_4)-46->$[X_4]$	.999	.003	302.150	.000
(D_5)-47->$[X_5]$	1.000	.001	1568.238	.000
(D_6)-48->$[X_6]$	.999	.003	378.272	.000
(D_7)-49->$[X_7]$	1.000	.002	651.171	.000
(D_8)-50->$[X_8]$	.993	.009	116.772	.000
(D_9)-51->$[X_9]$	.999	.004	266.572	.000
(D_{10})-52->$[X_{10}]$	.923	.027	33.940	.000
(D_{11})-53->$[X_{11}]$	.901	.030	29.603	.000
(D_{12})-54->$[X_{12}]$	.709	.050	14.284	.000
(D_{13})-55->$[X_{13}]$	.841	.037	22.670	.000
(D_{14})-56->$[X_{14}]$	.890	.032	27.989	.000
(D_{15})-57->$[X_{15}]$	.982	.014	68.704	.000
(D_{16})-58->$[X_{16}]$	.978	.016	63.101	.000
(D_{17})-59->$[X_{17}]$	.957	.022	44.445	.000
(D_{18})-60->$[X_{18}]$	.900	.032	28.258	.000
(D_{19})-61->$[X_{19}]$	.701	.065	10.845	.000
(D_{20})-62->$[X_{20}]$	.941	.027	34.377	.000
(D_{21})-63->$[X_{21}]$	.840	.048	17.385	.000
(D_{22})-64->$[X_{22}]$	.750	.069	10.807	.000
(D_{23})-65->$[X_{23}]$	.965	.021	45.502	.000
(D_{24})-66->$[X_{24}]$	.979	.020	49.487	.000

$(\boldsymbol{D_{25}})$->$[\boldsymbol{X_{25}}]$	.917	.044	20.639	.000
$(\boldsymbol{D_{26}})$->$[\boldsymbol{X_{26}}]$	.921	.043	21.631	.000
$(\boldsymbol{D_{27}})$->$[\boldsymbol{X_{27}}]$	.999	.003	341.743	.000
$(\boldsymbol{D_{28}})$->$[\boldsymbol{X_{28}}]$	.986	.014	68.212	.000
$(\boldsymbol{D_{29}})$->$[\boldsymbol{X_{29}}]$	.975	.019	50.813	.000
$(\boldsymbol{D_{30}})$->$[\boldsymbol{X_{30}}]$	.782	.085	9.251	.000
$(\boldsymbol{D_{31}})$->$[\boldsymbol{X_{31}}]$	.832	.066	12.628	.000
$(\boldsymbol{D_{32}})$->$[\boldsymbol{X_{32}}]$	.957	.025	38.294	.000
$(\boldsymbol{D_{33}})$->$[\boldsymbol{X_{33}}]$	.955	.022	43.151	.000
$(\boldsymbol{D_{34}})$->$[\boldsymbol{X_{34}}]$	.884	.035	25.581	.000
$(\boldsymbol{D_{35}})$->$[\boldsymbol{X_{35}}]$	.649	.080	8.150	.000
$(\boldsymbol{D_{36}})$->$[\boldsymbol{X_{36}}]$	.775	.053	14.602	.000

Note: Probability Level in last column shows the significance of variables at 5% which is significant at p<0.05

Table 4: Single Sample Fit Index

Value	R-square
Joreskog GFI	.808

Finally the estimated structural equations model on the basis of significant path coefficients from Table-3 is as:

$$F_1\,(\text{Social}) = 0.778F_2(\text{Behavioral}) - 0.306F_4\,(\text{Psychological})$$
$$F_2(\text{Behavioral}) = 0.778F_1\,(\text{Social}) - 0.277F_3(\text{Religious})$$
$$F_3(\text{Religious}) = 0.553F_4\,(\text{Psychological}) - 0.277F_2(\text{Behavioral})$$
$$F_4\,(\text{Psychological}) = -0.306F_1\,(\text{Social}) + 0.553F_3(\text{Religious})$$

4. Conclusion

In the present research, we tried to model the social factors affecting the increasing trends of dowry in Asian culture. Previously many studies addressing the exploratory factors related to system of dowry but our study focused on significant causal relations on the basis of structural equations model. It is concluded that most of questions have significant contribution in their respective factor. Moreover social factor can significantly regress on behavioral and psychological factors; behavioral factor on social and religious factor; religious on psychological and behavioral and finally psychological factor is significantly regressed on social and religious factors.

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