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Head of household characteristics and family economic status (FES) among Kerman households, Iran

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Families are economically successful when they can meet their needs, provide a stronger and more protected financial future, and can move stably towards attaining the family vision. Economic status represents the economic capacity of families to meet their material and non-material needs. The aim of this article is to determine the effect of demography variables that is, age, gender, level of education, and occupation, on family economic status (FES). FES included three dimensions (income, expenditure, and ownership of physical asset). In this study, questionnaires were used as a survey instruments; the researcher selected 390 households, based on Kraji and Morgan table. Data collection was through face-to-face interviews to obtain information from the heads of households. In this research, Pearson product-moment correlation, Chi-square, Spearman rho, and independent sample t-test were used to analyse the data. Findings indicated that the demography variables have effect on FES, and the dimensions, but the effect was different in variables. It may be interesting for future studies to look at the effect of other elements on FES.

Keywords: Demographic variables, income, expenditure, ownership of physical asset.

INTRODUCTION

Human capital theory

In human capital theory, it is discussed that educational attainment of the individuals or groups has a significant relationship on income distribution. Especially, it supposes that more uneven distribution of educational attainment among individual or groups will guide to more unequal income distribution (Alam, 2009a). In addition, this theory argues that, the ability to benefit from education and to finance human capital investment varies between individuals with majority of them having less capability in both aspects. Consequently, in view of a positive relationship between level of education and income, there will be fewer individuals with high income (Alam, 2009b) Human capital theory hypothesizes that, human capital increase individual's productivity, hence,

increasing their earning and income (Schultz, 1961; Becker, 1962; Mincer, 1974;). Much empirical evidence has supported this hypothesis in developed countries as well as in developing and underdeveloped countries (Schultz, 1988; Blaug, 1974; Griliches, 1978; Jamison and Lau, 1982; Psacharopoulos, 1973, 1985; Rosen, 1985).

Many economics and family economics have striven to understand why people invest in themselves, and to focus on the effects of the development of knowledge and skills through education or training on economic well-being (Bryant and Yarnold, 1990). Alam et al. (2009) provided evidence of the economic value of human capital by demonstrating that, the rate of return on investments in human capital exceeded the rate of return on investment in physical capital (Alam et al., 2009).

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Empirically, in many sociological and economic studies (Duncan et al., 1996; Mincer, 1974; Morgan and Duncan, 1982; Powell and Parcel, 1997; Rice and Tucker, 1986), Becker's human capital theory has been used as a theoretical framework to predict the effects of human capital on economic outcomes, as well as to find the determinants of human capital investments. A low level of human capital investment is an independent variable that explains low earnings and poverty, although, earnings profiles are presumed to fluctuate with market demand for the diverse skills of workers with different level of skills (Duncan et al., 1996). Mincer's (1974) classic study analyzed how the human capital model accounted for pattern of education, experience, and earning using cross-sectional data from the 1960 census. According to the basic human capital model, human capital variables are likely to affect remittances because more educated people enjoyed greater employment (Schultz, 1982; Todaro, 1976).

Human capital investment results in personal characteristics, capabilities, talents, skills, and traits that are instrumental in achieving other resources (Rice and Tucker, 1986). Human capital investment also increases future economic and social productivity (Morgan and Duncan, 1982), just as investment in physical capital can create greater future productivity. In general, this theory explains why people invest differently in human capital. It has been used to analyze strong relationship between human capital and economic well being (Alam and Hoque, 2010).

Life cycle income hypothesis (LCH)

The life cycle hypothesis (LCH) is an economic concept that analyse individual consumption patterns. The life-cycle model also predicts that individual's save while they work in order to finance consumption after they retire. LCH assumes that individuals consume a constant percentage of the present value of their life income (Alam et al., 2010). The family life cycle model has long received consideration as a significant influence on the pattern of household consumption and income. At the same time as its acceptance in the analysis of housing consumption is under no new conditions, it appear to have received surprisingly little attention such that most recent study of housing consumption and tenure determination do not explicitly consider the family life (Du Rietz, 1977; Wilkanson and Law, 1978).

The life cycle income/ consumption approach, dating back to the research of Friedman (1957) and Ando and Modigliani (1963), introduces considerations that are absent in analysis of consumption based on current income. They hypothesis recognizes predictable life cycle pattern in earning, asset accumulation, and consumption (Blomqvist, 1981; Mincer, 1974). Friedman's (1957) permanent income hypothesis postulates that people make

consumption decisions based on permanent, rather than current income. Looking at donations as a consumption good, people will tend to smooth their donations, making giving less sensitive to transitory income than to permanent income (Friedman, 1957).

The permanent income hypothesis stated that, the choices made by consumers regarding their consumption patterns are determined not by current income but by their longer-term income expectations. The key conclusion of this theory is that transitory, short-term changes in income have little effect on consumer spending behaviour. Measured income and measured consumption contain a permanent (anticipated and planned) element and a transitory (windfall gain/ unexpected) element (Friedman, 1957).

Friedman (1957) concluded that an individual will consume a constant proportion of his/her permanent income; and that low income earners have a higher propensity to consume; and high income earners have a higher transitory element to their income and a lower that average propensity to consume. In Friedman's permanent income hypothesis model, the key determinant of consumption is an individual's real wealth, not his current real disposable income. Permanent income is determined by a consumer's assets' both physical and human. These influence the consumer's ability on earned income. The consumer can then make an estimation of anticipated lifetime income.

Engel curve analysis

In classical consumption theory, household preferences are assumed to be ordered (Green, 1978). An optimum assortment of goods and services is consumed, according to Prais and Houthakker (1971), household preference function, within the limits of the household budget constraint (Prais and Houthakker, 1971).

The relationship between the quantity of goods consumed and household income is called an engel curve, and is studied using cross-sectional data. Price is assumed to be constant (Deaton and Muellbauer, 1980), so the resulting engel curve represents the relationship between household income and expenditure (Phlip, 1983). This relationship is based on the assumption that, the noneconomic determinants of expenditure are equal for all households (Phlips, 1983; Prais and Houthakker, 1971). It is then necessary to control the effects of social and demographic factors on expenditure by including them in the estimating function (Phlip, 1983).

In Engel curve analysis, the choice of a functional form is based on both economic and statistical considerations (Prais and Houthakker, 1971). The simplest of these is linear; theoretically, this is a plausible relationship because in a complete system of demand equations, linearity satisfies the adding up criterion (Phlip, 1983), that is, the sum of the one at all income levels (Phlips,

Table 1. Classifications of expenditure into the want for nourishment, clothing, accommodation, heating and light, household goods, spiritual education (education and entertainment), public safety, health and recreation and personal services.

Wants	Relevant expenditures
1. Nourishment	Daily nourishment from meals and beverages, spices, stimulants
2. Clothing, linen...	Clothing and shoes of all kinds
3. Housing	Shelter, furniture, household appliances
4. Heating and lighting	Wood, coal and gas heating; lighting via candles, oil and gas.
5. Appliances for work	Tools, machines, mechanical instruments; crockery and vessels etc wagons
6. Intellectual education	tuition, worship; scientific equipment, literary and artistic production
7. Public safety	Legal protection; administration; police; state defence; care for the poor etc.
8. Health, recreation	Medical treatment and pharmaceutical expenses, bathing
9. Personal service	Personal services attained from use of domestic servants of all kinds.

Source: Engel, 1957.

1983; Prais and Houthakker, 1971). In statistical analysis, the fit of linear Engel curves has been found to be poor (Philip, 1983), leading economists to use other functional forms. From a theoretical point of view, this functional form is not desirable because it violates the adding-up criterion (Deaton and Muellbauer, 1980). However, the tradition of household budget analysis has been to choose functional forms on the basis of statistical fit (Deaton and Muellbauer, 1980). The double-logarithmic form is useful in expenditure studies because the income elasticity of expenditure for the good in question can be read directly from the income coefficient. Estimation of this functional form is appropriate for broadly defined expenditure categories, like clothing (Dardis et al., 1981a; Wagner and Hanna, 1983), in which all or most households report expenditure during the survey period. Consequently, by utilizing the concept of wants, Engel devised a classification method that enabled him to empirically measure the impact of a particular want on consumption over a range of observed income. He did so by classifying expenditure into the want for nourishment, clothing, accommodation, heating and light, household goods, spiritual education (education and entertainment), public safety, health and recreation and personal services (Table 1) (Engel, 1857). Engel did not create a separate category for travel and trade, reasoning that these types of expenditure are not end purposes in themselves, but that they are done for other purposes, for example, expenditure on travel contributes to either work or pleasure (Engel, 1857).

RESEARCH METHODOLOGY

The aim of this study is to determine the effect of demography variables on FES in Kerman city. The survey methodology was deemed appropriate for this research as this study intends to use the survey responses from the Kerman City families to explore the effect of demography variables on FES. The survey design can present a quantitative or numeric description of some portion of the population (sample) by asking questions. This data collection

technique allows a researcher to generalize the results from a sample of respondents to a population (Fowler, 1988).

The research design employed in this study was a correlation research. Correlation research investigates the degree to which variables are related and the direction of the relationship. This study is also descriptive, and, therefore, will provide a description of the population, the instruments, the data collection procedures, and the data analysis utilized in this study. The target population of the study is 127,891 families in Kerman City. The list and map areas were obtained from Kerman Planning and Management Organization. Therefore, the list of areas was presented as the sampling frame for the study. The samples are households selected randomly from the five areas. The unit of analysis is the head of households that were selected as respondents, so for selecting sample size. For this survey, the researcher selected 390 households, out of a total of 127,892 families in Kerman City, based on Keraji and Morgan's Table and the sample size schedule (Saifollahi, 2008). Due to the large research area, the researcher used a cluster or area for random sampling.

This study examines the effects of the demography variables on the economic status of families in Kerman City, Iran. For the purpose, instrument used for this study is a questionnaire consisting of two sections. The first section focuses on information regarding the demographic characteristics such as age, gender, level of education, and occupation. The second section consists of the questionnaire that concerns FES, including income, expenditure, and ownership of physical assets.

Delphi technique was used in different research steps, such as research framework, design of the research questionnaire; determine spectrum of choices scales (array of choices scales), set of indicators, data analysis, and conclusion. Pilot tested was done concerning questionnaires to ensure the high reliability of items, five representatives from Kerman Planning and Management Organization helped to distribute the final version of the questionnaires between respondents. All essential and suitable precautionary measures were taken by the researcher in order to improve the response rates. These measures were as follows: initially, each questionnaire had a letter from the researcher attached to introduce the researcher and to develop a rapport between the researcher and the heads of the households. Second, the research purposes and the procedures in answering the questionnaire were explained in the letter.

Data collection

In this study, data collection was through face-to-face interviews.

The interviews began with an introduction of the purpose of the study, and being a scientific study the reporting will be done without mentioning any names; this was explained to the respondents (Isadore and Carolyn, 1998). During the interview, the interviewer interacted with the participants using a relaxed, friendly and informal tone. In cases of misunderstanding, outright incomprehension or topic avoidance, the interviewer repeated the statements for clarification to fulfill the purpose of the interview.

In the course of this study, the city map, which was detailed enough to facilitate the identification of each state, sector, block, and house was used. Kerman City comprises of five municipality states (Jalal Maab, 2008). Using the map to randomly select households has its own merits; first, this map is updated regularly and, second, it helped minimize the selection bias by including all houses in Kerman and by equalizing the probability of each house and household for selection (Tesfa and Luther, 2003). The selection process was absolutely random since no information concerning the demographic or socioeconomic characteristics of the households was available at the time, and the selection process was not based on any stratum or other characteristics (Tesfa and Luther, 2003). The final sample size was 390 households and it was used to analyze the data. The interviews were carried out from November, 2008 until the end of January, 2009.

Data analysis

Subsequently, the collected data was coded before being entered into the computer for analysis. The collected data were summarized, analyzed, and interpreted to answer the research question and objective. For descriptive purposes, the demographic variables of the head of households were categorized into a range of different categories and levels for comfortable analysis and interpretation.

The objective is to determine the effect of demography variables on FES. The demography variables are the independent variables (x) (age, gender, level of education, and occupation), and FES is the dependent variable (y). The relationship between the age and FES dimensions (income, expenditure, and ownership of physical asset) was investigated using Pearson product-moment correlation coefficients. Pearson product moment correlation is the most commonly used method of computing a correlation coefficient between variables that are linearly related. Correlation is a measure of the strength of the relationship between two variables (Hair et al., 2006; Bryman and Bell, 2003). Furthermore, Pearson correlation is suitable for interval and ratio scale (Sekaran, 2001). The direction of the relationship is indicated by + and - signs. The value can range from -1 indicating a perfect negative relationship, 0 indicating no relationship, and +1 indicates a perfect positive relationship.

A chi-square test of independence was conducted to assess whether the FES (poor, middle class, and better off) of respondents is related to their gender (male, and female). An independent sample t-test was conducted to determine the effect of gender on household expenditure, income, and ownership of physical asset.

The relationship between, FES and level of education, level of education and income, household expenditure, and level of education, ownership of physical asset, and level of education were investigated using Spearman rho correlation coefficients.

And finally, a chi-square test of independence was conducted to assess whether the FES (poor, middle class, and better off) of the respondents is related to their occupations (self employed, government employee, and others).

FINDINGS AND DISCUSSIONS

The respondents' is described in terms of demographic

characteristics, which comprised of marital status, age, gender, occupation, and level of education. Looking at the marital status, majority of the respondents were married (89.5%), while 3.1% were divorced, 6.9% were widowed, and only 0.5% heads of households were single.

The respondent's age ranged from 22 to 87 with a mean of 45 - 40 years old and a standard deviation of 13.40 indicating variability in age among the respondents. A total of 17.7% of the respondents are young with 30 years old and younger, 32.3% was between 31 to 45 years old, while 37.9% were between 46 to 60 years old and only 12.1% were more than 60 years old. Most of the respondents were male (92.3%) compared to female respondents (7.7%). The findings revealed that 72% of the heads of the households in Kerman were self employed (35.1%), full time employed (25.4%) and part time employed (11.5%). In addition, 27.7% were pensioners and retirees. The percentage of head of the households who were homemakers is lower (0.3%).

Comparing the research data about the level of education of respondents with the information from the Statistics Center of Iran (SCI), it can be seen that, there is significant difference. National data indicated that 18.3% of the illiterate population as compared to only 4.9% of the respondents studied, 21% population had primary and secondary level of education as compared to 26.6% of the respondents; 7.4% population had high school education as compared to 17.3% of the respondents; 38.6% of the population had diploma and associate degree as compared to bachelor degree of the respondents (7.3%); in Iran 7.3% of the population had bachelor degree, while respondents was 14.6%; mean master's and above degree population was 2.3%, and respondents was 7.2%. Generally, the average level of education among respondents was higher compared to the Iranian population. According to Ministry of Statistics, Small Industries and Industrial Parks Organization, Iran's Statistics Center and Planning, Development and Technology Planning Office in Iran (2009), Kerman is categorised in the first level of industrial developed provinces. And this indicated that Kerman province is more developed in various aspects such as industry, agriculture, level of education and so on as compared to other provinces.

The effect of age on family economic status (FES) dimensions

The relationship between age, income, expenditure, and ownership of physical asset were investigated using Pearson product-moment correlation coefficients. Preliminary analyses were performed to ensure that there is no violation of the assumptions of normality and linearity. Since there were two (2) bivariate pairs, Bonferroni adjusted alpha of 0.01 (0.05) was used to test null hypothesis of the bivariate pairs.

Table 2. Pearson's correlation coefficients of FES dimensions and age.

	Variables	Y	X ₁
Y	Income		
X ₁	Age	.110*	
Y	Asset		
X ₁	Age	.300**	
Y	Household Expenditure		
X ₁	Age	0.087	

*, Correlation is significant at the 0.05 level (2-tailed); **, Correlation is significant at the 0.01 level (2-tailed).

As depicted in Table 2, the linear relationship was found to exist between age, and income ($r = .110$, $p = .030$), age and ownership of physical asset ($r = .300$, $p = .0001$). The positive correlation coefficient of .110 indicates that an increase in age is results to increases in income. For supporting this idea, Western researchers found completely significant differences in the financial practices of households conditional upon, household composition, the size and sources of household income, age, education, occupational, and employment status of family members (Morris, 1990). The test of hypothesis shows that this test is significant; there is a significant relationship between age and ownership of physical asset. To support this idea, Kelly (2001) documented that differences in ownership of physical asset according to education were commonly small between younger cohorts but considerable among older age people. Results indicate that age has effect on ownership of physical asset, but the effect was not very strong. Asset and age had significant relationship and this indicates that as the age increases, the asset will increase. Also, this result indicates that with age increase between respondents their tendency to increase asset; with age increase people do not have tendency to go on the sumptuous journeys, high expensive recreations, and usually they are parsimony in buying unnecessary things. The relationship between age, and household expenditure was investigated using Pearson product-moment correlation coefficients. Preliminary analyses were performed to ensure no violation of the assumptions of normality and linearity. Since there were two (2) bivariate pairs, Bonferroni adjusted alpha of 0.01 (0.05) was used to test null hypothesis of the bivariate pairs. As depicted in Table 2, the linear relationship was not found to exist between age and household expenditure ($r = .087$, $p = .087$). The test of hypothesis shows that this test is not significant; there is no significant relationship between age and household expenditure. And this indicates that age different levels did not have a significant relationship with household expenditure.

Gender and family economic status (FES)

Chi-square compare expected frequencies with observed frequencies. A chi-square test of independence was conducted to assess whether the FES (poor, middle class, and better off) of respondents is related to their gender (male and female). The finding of cross-tabulations analysis for FES and gender was found to be correlated or related [Pearson χ^2 (2, $N = 390$) = 6.553a, $p = .038$]. Researchers mentioned that, according to standard economic analyses, there is some support of a significant gender difference in the probability of being poor (Falkingham and Klytchnikova, 2006).

One of the most important reasons that men's were more than women's contribution in household financial management, refer to the kind of relationship between them. To confirm these findings, researchers believe that, the scope that together managed and controlled systems of financial management are related by the gender-specialized and monetary unbalanced household exchange, interaction cost and exchange theories would propose women's are more likely to be found in steady, long term relationship (Brines and Joyner, 1999; Trease, 1993). Couples whose association is less confident to be stable might have a preference systems of financial management and control that instead highlight balanced, short-term exchanges, with an importance on equivalent financial contributions to operating cost rather than common access to all monies (Brines and Joyner, 1999; Vogler, 2005).

A close inspection of Table 3 for pattern of relationship reveals that, 32.5% of respondents were in poor group (28% male and 4% female), while 41% of the middle class respondents were male, and female were only 3%. But for better off respondent's situation, 22.3% of them were male and only 1% of better off respondents were female. This finding provides enough evidence that FES is related to gender. Or from these results, there is relationship between FES and gender with $\chi^2 = 6.553a$ DF = 2, P-value = .038.

Table 3. Chi-square test of independence for FES by sex.

Sex	FES			Total
	poor	Middle class	Better off	
Male	111 ^a 87.4 ^b	162 94.2	87 95	360 92.3
Female	16 12.6	10 5.8	4 4.4	30 7.7
Total	127 32.5	172 44.1	91 23.3	390 100

Pearson $\chi^2 = 6.553a$; DF = 2; P-value = .038; Number of cells with expected count less than 5.0 = 0%; ^a = Count/Frequency; ^b = Row %/Within FES%.

Table 4. Group statistics household expenditure.

	Gender HH	N	Mean	Std. Deviation	Std. Error Mean
Monthly household expenditure	Male	360	583	5.368	28,291.87
	Female	30	357	2.181	39,829.77

variable dimension (the effect) in order to compare their scores. Data analyses are needed to determine whether the independent variable manipulation produced significant differences in scores between the two groups (male and female) on dependent variables (household expenditure, income and asset).

Independent sample t-test was used to determine whether the difference between the means of two groups or conditions is due to the independent variable (gender), or if the difference is simply due to a chance.

A question was asked to determine whether there is any difference in FES dimensions for male and female?

This question includes three sub hypotheses, which measures the main hypotheses about gender and family economic status dimensions. Are there any differences in household expenditure between male and female?

An independent sample t-test was conducted to determine the effect of gender on household expenditure. A preliminary assumption testing was conducted to check for normality and equality of variance with no serious violation noted in Levene's test for equality of variance in the present analysis, $F(1,388) = 5.634$, $P = .018$ (Table 5.38).

Using a two tailed .05 criterions, null hypothesis was rejected and alternative hypotheses was accepted. There was significant difference in the mean household expenditure for male ($M = \text{USD } 583$, $SD = 5.368$) and female ($M = \text{USD } 357$, $SD = 2.181$), $t(388) = 2.280$, $P = .000 < 0.05$ (Tables 4 and 5). An inspection of the two means suggests that the male have higher household expenditure than the female (Table 4). There are some documents to support this idea; Age and gender are

significant in determining housing expenditures. Change in age and gender with change in income significantly change expenditure patterns (Aydogan, 2008).

In the United States, house services consist roughly 30% of the generally expenditure of an average family and it is the biggest factor of expenditure (U.S Bureau of Labor Statistics, 2002; U.S Bureau of Labor Statistics, 2004). For this reason, household plays such a dominant position in household' budget sets and as household is significantly heterogeneous in term of age, gender, and income compositions, it is essential for us to develop our understanding of the relationship between these factors (age, gender, and income) and household expenditures (Aydogan, 2008). A question was asked: is there any difference in family income for male and female? An independent sample t-test was conducted to determine the effect of gender on family income.

A preliminary assumption test was conducted to check for normality and equality of variance with no serious violation noted. Using a two tailed .05 criterions, the null hypotheses was rejected and alternative hypotheses was accepted (6). There was a significant difference in the mean family income for male ($M = \text{USD } 1202$, $SD = 1.319$) and female ($M = \text{USD } 850.4$, $SD = 842$), $t(388) = 2.193$, $P = .034$ (Tables 6 and 7). An inspection of the two means suggests that the male have higher family income than the female (Table 6). Some researchers suggested that demographic variables such as age, gender and household size have effect on income (Hansen et al., 1998). Also, the gender differential directly reflects the differentials in income between men and women in the household (Jane and Angela, 2009).

Table 5. Independent samples test household expenditure.

		Independent samples test									
		Levee's test for equality of variances		t-test for equality of means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% Confidence interval of the difference		
										Lower	Upper
Monthly household expenditure	Equal variances assumed	5.634	0.018	2.28	388	0.023	2.25	98774	31030	419428	
				461	64.32	0	2.252	48855	127639	322819	

Table 6. Group statistic family income.

Total family income (monthly)	Gender of Head of Household	N	Mean	Std. deviation	Std. error mean
	Male	360	1202	1.320	695
Female	30	850.4	842	1536	

Table 7. Group statistics asset.

Ownership of physical asset	Gender of head of household	N	Mean	Std. deviation	Std. error mean
	Male	360	1.0139	1.04352	0.055
Female	30	1.1333	0.50742	0.09264	

Level of education and family economic status dimensions

The relationship between level of education and income, household expenditure, and level of education, ownership of physical asset, and level of education were investigated using Spearman rho correlation coefficients. Preliminary analyses were performed to ensure that there is no violation of the assumptions of normality and linearity. Since there were three (3) bivariate pairs, Bonferroni adjusted alpha of 0.01 (0.05) were used to test null hypothesis of the bivariate pairs.

An independent sample t-test was conducted to determine the effect of gender on ownership of physical asset. A preliminary assumption testing was conducted to check for normality and equality of variance with no serious violation noted. There was no significant difference in the mean ownership of physical asset for male (M=1.0139, SD=1.04352) and female (M=1.1333, SD=.50742), $t(388) = -.620, P=.535$. (Table 7-8). An inspection of the two means suggests that the female don't have ownership of physical asset than the male (Table 8). However, relatively little attention has been paid to the differences between ownership

of physical asset and gender.

As depicted in Table 9, the linear relationship was found to exist between income and level of education ($r = .222, P = .0001$). The positive correlation coefficient of .22 indicates that, the amount of income increases with an increase in the level of education. Education is the most commonly used indicator of household and social economic status (Miech and Hauser, 2001).

There is some documented evidence that show education have more effect on economic resources and lifestyle for man than women (feldman et al., 1989). Tilak (2002) mentioned that

Table 8. Independent samples test ownership.

		Levene's test for equality of variances		t-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% Confidence interval of the difference	
								Lower	Upper	
Ownership	Equal variances assumed	3.722	.054	-.620	388	.535	-.11944	.19256	-.49803	.25914
	Equal variances not assumed			-1.109	52.517	.273	-.11944	.10774	-.33558	.09669

Table 9. FES and the dimensions and the level of education.

Y	Income	
X ₁	Level of education	.222**
Y	Household expenditure	
X ₁	Level of education	.272**
Y	Ownership	
X ₁	Level of education	0.002
Y	FES	
X ₁	Level of education	.251**

*, Correlation is significant at the 0.05 level (2-tailed); **, Correlation is significant at the 0.01 level (2-tailed).

there is a relationship between household income and education, and this is more highlighted in rich households compare to the middle and low income families (Tilak, 2002). Also the human capital theory explains the positive relationship between an individual's educational attainment and income (World Bank, 1998).

As depicted in Table 9, the linear relationship was found to exist between household expenditure and level of education ($r = .272$, $P = .0001$). The positive correlation coefficient of .27 indicates that as the amount for household expenditure increases level of education increases as well. For support, there is some documented evidence by

researchers; they mentioned that there is a positive relationship between education and expenditures (Dardis et al., 1981b; Frisbee, 1985; Hager and Bryant, 1977). Tilak (2002) mentioned that education and household expenditure are related together and this relationship are more highlighted, when economic status of families go beyond from poor and middle class to better off situation.

As depicted in Table 9, the linear relationship was not found to exist between ownership of physical asset and level of education ($r = .002$, $P = .967$). After testing the hypothesis, since significant P value (.967) is bigger than alpha

(.005), it fail to reject the null hypothesis and it is concluded that there is no significant relationship between ownership of physical asset and level of education. The correlation coefficient of .002 indicates that, the amount of ownership increases while the level of education does not increase.

Although, this study was not designed to determine, whether an increase in one variable can cause an increase in the value of a second variable, it would seem logical to say that income is more likely to increase when level of education increases, household expenditure is more likely to increase when level of education increases, ownership of physical asset is not more likely to

Table 10. Family economic status and occupation.

Occupation	FES			Total
	Poor	Middle class	Better off	
Self Employed	48a 37.8b	54 31.4	35 38.5	137 35.1
Government Employed	44 34.6	68 39.5	32 32.5	144 36.9
Other Jobs	35 27.6	50 29.1	24 26.4	109 27.9
Total	127 32.5	172 44.1	91 23.3	390 100

Pearson $\chi^2 = 1.965$, DF = 4, P-value = .742, Number of cells with expected count less than 5.0 = 0%, ^a = Count/Frequency, ^b = Row %/Within FES%.

increase when level of education increases.

The Level of education and family economic status (FES)

The relationship between FES and level of education was investigated using Spearman rho correlation coefficients. A preliminary analysis was performed to ensure that there is no violation of the assumptions of normality and linearity.

Since there was one (1) bivariate pairs, Bonferroni adjusted alpha of 0.01 (0.05) was used to test null hypothesis of the bivariate pairs. As depicted in Table 9, the linear relationship was found to exist between FES and level of education ($r = .251$, $P = .0001$). After testing the hypothesis, since significant P value (.0001) is smaller than alpha (.005), null hypothesis is rejected and it is concluded that there is a significant relationship between FES and level of education. The correlation coefficient of .251 indicates that as the level of FES increases the level of education increase as well. Education has an important responsibility in determining one's situation in the social structure. It can be considered a predecessor to other indicators of economic status, such as, income and occupation. Some researchers suggested that education is a strong indicator of economic status than either income or occupation (Miech and Hauser, 2001; Muller, 2002). Educational achievement of the head of household is as well strongly correlated with the socio-economic status of households. It is obvious that the rate of poverty is higher among illiterate households (Sen and Begum, 1998). The World Bank (1998) stated that, the level of education of the head of household is a good proxy of his/her income and the economic status. Although, this study was not designed to determine, whether an increase in one

variable can cause an increase in the value of a second variable, it would seem logical to say that FES is more likely to increase when level of education increases.

Occupation and family economic status (FES)

Chi-square compared the expected frequencies and observed frequencies. A chi-square test of independence was conducted to assess whether the FES (poor, middle class, and better off) of the respondents is related to their occupations (self employed, government employee, and others). The finding of cross-tabulations analysis for FES and occupation was found to be correlated or related [Pearson $\chi^2 (4, N = 390) = 1.965a$, $P = .742$].

A close inspection of Table 10, for pattern of relationship reveals that the 32.5% of respondents was in poor group, which included, 12.3% for self employed, 11.2% government employed, and 9% other jobs. While the almost all of (44.1%) middle class respondents had three kind of occupations (13.8% self employed, 17.4% government employed, and 12.8% other jobs). But better off included 23.3% of respondents, which is included (9%) self employed, (8.2%) government employed, and (6.1%) as other jobs. This finding does not provide evidence that FES is related to occupation or from these results, there is no significant relationship between FES and occupation with $\chi^2 = 1.965$ DF = 4, P-value = .742. The result indicates this incoherence to refer the construction of culture in society, where the people usually have various occupations, that is, a person can be a government employee and who has agricultural activities, therefore he introduces himself/herself as a government employee. But the other sources to get earn money, even though the individuals have to a lot of money in numerous ways, so far had been isolated to occupations, these reason haven't been relationship

between occupation and their FES.

Conclusion

This is a quantitative study that investigates a social or human problem based on testing a theory; comprising variables measured with numbers and analyzed using statistical measures. The research design employed was a correlation research, which examines the degree to which variables are related and the direction of the relationship. For this survey, based on Keraji and Morgan's Table and the sample size schedule, the researcher selected 390 households out of a total of 127,892 families residing in Kerman City. The instrument used for this study was a questionnaire consisting of two sections, with data collection through face-to-face interviews to obtain information from the heads of households.

The objective is to determine the effect of demography variables on family economic status. The relationship between the age and FES dimensions (income, expenditure, and ownership of physical asset) was investigated using Pearson product-moment correlation coefficients. , results indicated that, the linear relationship was found to exist between age and family economic status dimensions.

A chi-square test of independence was conducted to assess whether the family economic status (poor, middle class, and better off) of respondents is related to their gender (male, and female). The finding of cross-tabulations analysis for FES and gender was found to be correlated or related. An independent sample t-test was conducted to determine the effect of gender on household expenditure, income, and ownership of physical asset. Results indicated that from FES dimensions household expenditure and income have a significant difference in mean household expenditure, and mean family income for male and female. But there was no significant difference in the mean ownership of physical asset for male and female.

The relationship between, FES and level of education, level of education and income, household expenditure, and level of education, ownership of physical asset, and level of education were investigated using Spearman rho correlation coefficients. Results revealed that the linear relationship between were found to exist between, FES and level of education, income and level of education, income and expenditure, but there was not found linear relationship between ownership of physical asset and level of education.

And finally, a chi-square test of independence was conducted to assess whether the FES (poor, middle class, and better off) of the respondents is related to their occupations (self employed, government employee, and others). The finding of cross-tabulations analysis for FES and occupation was found to be correlated or related.

It may be interesting for future studies to look at the

effect of other elements on family economic status, for example, the effect of leadership approaches on FES, the effect of different leadership styles on FES, and the effect of the surrounding environment on FES. Future studies can look at the effect of family economic status on management functions. Furthermore, it is recommended that policy makers give attention to future plans for such research.

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