An Empirical Analysis of Individual's Happiness in Pakistan

Farkhanda Jabeen[*] & Faiza Azhar Khan[†]

Abstract

This study aims at analyzing the determinants of individual's happiness in Pakistan. However, this kind of research is hardly undertaken in Pakistan. The present study is first of its kind in Pakistan to analyze the determinants of individual happiness by using the data from World Values Survey (WVS) for three different waves, which are 1994-1998, 1999-2004, and 2010-2014. Total sample consists of 3,933 individuals with 733 individuals in the 1994-98 wave, 2000 individuals in the 1999-2004 wave and 1200 individuals in the recent wave of 2010-2014. Happiness is measured by a question regarding feeling of happiness of individuals on a four-point scale with the options, very happy, quite happy, not very happy, and not at all happy. This happiness measure is regressed on socio-economic and demographic variables, namely, age, health status, gender, marital status, education, income, children, employment status, importance of religion, family saving during past year, trust and satisfaction with financial situation of household. Ordered Probit regression technique is used for estimation. Interestingly, the percentage of 'very happy' individuals has increased over time in Pakistan as in the 1994-98 wave the frequency of very happy individuals is 28% which increased to 45% in the recent wave. However, happiness is lower for males, married persons and for aged people and for persons, having children. Results suggest the need for policy makers to adopt social programs to increase income of the people and to improve health status of individuals.

Keywords: Happiness, Ordered Probit, World Values Survey

Introduction

The origin of concept of happiness or utility can be traced back in the work of Jeremy Bentham during the sixteen and seventeen century (Stark, 1952). Bentham (1789) defines happiness as "*the sum of pleasures and pains*" and utility being well-thought-out measure of happiness and satisfaction (Bentham, 1789). However, earlier economists like Smith (1963) and Mill (1863) have defined happiness in terms of utility which was generally referred as satisfaction from consumption of material goods and services. Early economists always desired to use the assumption that for the measurement of utility income can be a proxy. Meanwhile, the concept of utility in economics revolved around a particularly basic psychological notion. The absolute measure of utility, namely, cardinal utility, has later been replaced by the relative measure of utility, namely, the ordinal approach.

[*] Department of Economics, Fatima Jinnah Women University (FJWU), Rawalpindi
[†] Department of Economics, Fatima Jinnah Women University (FJWU), Rawalpindi

For quite a long time, studies related to happiness have been the domain of psychology and sociology and economists recently ventured into this enclosure especially from the last two decades. In late 1970s, the path breaking contribution was made by Easterlin (1974), the first economist who focused on the concept of happiness. Since the pioneering study of Easterlin (1974), there have been a huge number of studies on happiness leading towards a new approach namely, 'economics of happiness'. In recent decades, research in the area of happiness has been in the limelight and has resulted in new developments. The pursuit of satisfaction and/or happiness is a vital element of human actions and creation. It implies that economics should focus on individual's happiness. In particular, many psychologists and economists have started to take an interest into the development of relatively more subjective way of measuring happiness. They suggested that subjective approach to utility should be used to measure individual's happiness not objective approach (Frey & Stutzer, 2003a & b). However, ordinal concept of utility has been referred as "intuitive" by orthodox economic theory because of the absence of identifiable objectivity. Similarly, cardinal utility with its focus on the consumption of tangible and intangible products can also be regarded as vague representation of individual's happiness (Slesnick, 1998).

Presently, it is widely recognized that the notion of subjective well-being is multifaceted which covers all aspects of human life such as social, demographic, economic, cultural and environmental aspects that cannot be captured solely by income or material wellbeing (McGillivray, 2007). Instead of relying on a single dimension, an alternative and internationally well-known approach is the self-reported happiness, in which happiness is measured by using representative surveys and individuals are directly asked about their level of happiness and life satisfaction. This subjective approach is preferred to measure individual's happiness, as it offers a "*fruitful complementary path to study the world"* (Frey and Stutzer; 2003a & b).

Focusing on the measurement of utility or happiness, it was believed to be a subjective measure of wellbeing. However, over the passage of time, there is extensive research by numerous psychologists and economists on the measurement of happiness, which has made a good amount of progress. Resultantly, it is now possible to measure individual's level of utility/happiness in a plausible way through representative surveys (Diener *et al*., 1999). Now a day's most of the economists are making use of self-reported subjective measures of well-being to elucidate the relationship between a number of socio-economic factors and happiness. Notwithstanding the early concerns, studies like Sandvik *et al*., 2009) have shown that subjective self-reported happiness validly measures the wellbeing, as compared to non-self-reported measures. Although study of income being a determinant of happiness has been the central focus of the literature for quite a long time, a number of researchers have moved their attention towards the alternate determinants of happiness with the motivation to understand the determinants of individual's well-being.

There are different theories which describe the association between individuals' actual life circumstances and happiness. There is a set point theory in psychology which is given by Heady and Wearing (1989) and Lykken and Tellegen (1996). The theory stated

that each individual is thought to have a fixed set point of happiness. Life happenings for instance, loss of job, serious illness and marriage possibly will distract a person from that fixed set point, but these effects are temporary and after a certain period of time, an individual will adapt a new situation and return to the original set point level. Contradicting to the set point theory, there is the objective list theory (Veenhoven, 2009) which suggests that happiness is about an individual's subjective feelings, which in general can be affected by the evaluation of an individual's own life. There is another theoretical approach that is aspiration theory (Easterlin, 1995, 2001 & 2003) which discusses that an individual's happiness and satisfaction is not a function of its absolute level of income, but it depend on the gap between income and people's aspirations level and can be influenced by social evaluation or hedonic adaptation.

Pakistan is a rapidly developing country and has been facing many economic and social problems. According to the national and international poverty line measures, a considerable number of people still lie below the poverty line (Government of Pakistan, 2015). As far as happiness of individuals in the Country is concerned, the latest *World Happiness Report* placed Pakistan at 81st among 158 world countries with a happiness score of 5.2 on a scale from 0 to 10. This score is above the average score of all 158 countries and also higher than the score of neighboring countries of Pakistan i.e. China, Bangladesh and India (World Happiness Report, 2015: pp.26-28).[i] Another related measure is the Happy Planet Index (HPI). The latest HPI report of 2012 ranked 151 countries across the globe, and Pakistan is ranked 16th thus being among the top 20 happiest countries, also beating its neighboring country India and even the USA. The total HPI of Pakistan was calculated to be 54.1 on a scale running from 0 to 100.[ii]

Given these varying statistics on happiness indicators, a thorough study on factors determining individual's happiness in Pakistan is worth doing. The purpose of this study is to provide micro-level evidence on determinants of happiness by focusing on socio-demographic characteristics of individuals. The study is first of its kind to analyze the determinants of individual happiness by using the data from World Values Survey (WVS). The paper proceeds with comprehensive review of literature in section 2. Section 3 presents the methodology and data while, results of descriptive and inferential analyses are presented in section 4. Finally, last section presents the conclusions of the paper together with some policy recommendations.

Literature Review

Since late 1990s, the happiness functions have been analyzed in numerous studies. Numerous surveys have been carried out, that are conducted worldwide and over time, where thousands of individuals can quantify and evaluate their own happiness and satisfaction. Similarly, measurement of the determinants of happiness is also built on the results of comprehensive surveys. In general, it is motivated by the objective to understand the major determinants of individual's happiness with the aim of improving the human life. These surveys offer evidence about the significance of a variety of factors which influence the happiness of an individual, including income (Gerdtham and Johannesson, 2001; Peiro, 2006; Selim, 2008) but also others such as better quality of

life, health status, marital and employment status, and trust on others (Graham, 2010). These studies have been conducted for a wide range of nations and for multiple time periods both with panel and cross-sectional data methodologies. For example, studies have evidently recognized that, unemployed individuals report very unhappy feelings (Peiro, 2006). Joblessness decreases happiness more than any other single factor. While, other researchers argued that the impact of unemployment on happiness also depends on gender: since, it affects males more (Brereton *et al*., 2008).[iii]

Quite a number of studies on the relationship between age and happiness concluded a U-shaped relationship between happiness and age (Blanchflower and Oswald, 2004); Hlavac, 2011); Oswald, 1997; Gerdtham and Johannesson, 2001). The level of happiness is relatively high among the younger and older age groups, whereas lowest in the middle age people. In a number of studies, the relationship between happiness and gender turned out to be ambiguous. Generally, women are considered to be happier than men. A plausible explanation of this relationship is that women are socially more active than men (Blanchflower and Oswald, 2004).

According to results of numerous studies, health can be regarded as one of the strongest determinants of an individual's level of happiness. People with better physical and mental health are happier than otherwise (Selim, 2008; Peiro, 2006; Shields and Price, 2004; Gerdtham and Johannesson, 2001; Diner *et al*., 1999). Similarly, literature on happiness has also concluded positive impact of education on individual's level of happiness indicating that with increase in education, the happiness also increases (Subramanian *et al*., 2005; Gredtham and Johannesson, 2001; Oswald, 1997). In case of marital status, married individuals are found to be happier than never married individuals, and many studies also concluded a positive relationship between happiness and being in close relation (Helliwell, 2003; Gerdtham and Johannesson, 2001). However, essential negative determinants of happiness are separation and divorce (Clark and Oswald, 1994; Frey and Stutzer, 2002; Peiro, 2006).

Furthermore, many studies on happiness affirmed that having children also exert a positive impact on individual's happiness (Angeles, 2010), nevertheless, Hudson *et al*., (2014) concluded that having children diminishes happiness, possibly as a consequence of the influence on the time and income constraints. Additionally, some earlier researches have argued that happiness can be regarded as a stochastic phenomenon (Johnson and Krueger, 2006; Roysamb *et al*., 2003; Lykken and Csikszentmihalyi, 2001; Lykken and Tellegen, 1996).

Continuing with the studies on determinants of happiness, Gerdtham and Johannesson, 2001) reported that urbanization has a significant negative impact on individual's happiness. While, panel data evidence on determinants of happiness have shown that subjective wellbeing is not dependent on being born in foreign country (Hlavac, 2011). Results of the study by Bratu (2011) showed that both trust on government and faith in God have positive impact on an individual's level of happiness. Further the author argued

that religion, location, institutional aspects, confidence on health care system and satisfaction with democracy are contributory factors towards the happiness of individuals.

In a recent study, Hudson *et al*., (2014) analyzed the impact of democracy on individuals' wellbeing for a number of countries and results established that level of satisfaction with democracy affects both individual's life satisfaction and the level of happiness. Yet, this relationship is less evident for rich persons, women, and for residents of rich countries. Results also revealed that quality of governance and level of happiness often differs within and across countries.

Methodology and Data

For the analysis on determinants of happiness in Pakistan, data has been taken from World Values Survey (WVS). WVS provides the survey data on subjective well-being to formulate, assess and elucidate differences in individual's well-being which will further help in making policies for its improvement. WVS covers a total of six waves of surveys which have been conducted in 1981, 1990-1994, 1995-1998 and 1999-2004, 2005-2009 and 2010-2014. Pakistan's code is 586 and only 3rd, 4th and 6th waves are studied for Pakistan. Given the vast literature on determinants of happiness, the basic model of an individual's happiness function takes the following form:

$$H_i = \alpha_0 IS_i + \alpha_1 lage_i + \alpha_2 lage_i^2 + \alpha_3 IR_i + \alpha_4 HS_i + + \alpha_5 Edu_i + \alpha_6 SS_i + \alpha_7 sSFS_i + \beta_k \Sigma D_{ii} + \varepsilon_i$$

Whereas:

H_i = level of happiness
IS_i = income status
$lage_i$ = log of the age[iv]
IR_i = importance of religion
HS_i = health status
Edu_i = education status
SS_i = status of the savings
SFS_i = satisfaction with financial situation

ΣD_{ii} represents dummy variables for gender, marital status, children, employment status, trust, region and province and ε_i is the error term. The detailed description of dependent and explanatory variables is given in the Table 1. Happiness is the dependent variable of the study and is ordinal in nature. The happiness variable is measured through a standard question, asking people, *"Taking all things together, would you say you are: very happy, quite happy, not very happy, and not at all happy?"* Each response then scores on a four point numerical scale with 1 representing 'not at all happy' and 4 representing 'very happy'.

Table 1 Description of Variables

Variables	Respective Question Codes in WVS	Variable Description
H_i	A008	Respondent's perceived level of happiness, 4 for very happy, 3 for quite happy, 2 for not very happy, and 1 for not at all happy
Income status	X047	Different categories , 1 for 'Lower step' to 10 for 'Tenth step'
age	X003	Log of age of respondent in years.
Important of religion in life	A006	4 'Very important', 3 for 'Rather important', 2 for 'Not very important', 1 for 'Not at all important'
Health status	A009	Respondent's condition of health 5 'Very good', 4 for 'Good', 3 for 'Fair', 2 for 'Poor', 1 for 'Very poor'
Education status	X025CS	Different categories, 'Illiterate/ No formal education' To 'University level education with degree'
Status of Savings during the last year	X044	4 for 'Save money ', 3 for 'Just get by', 2 for 'Spent some savings and borrowed money ', 1 for 'Spent savings and borrowed money'
Satisfaction with financial situation of household	C006	1 for 'Dissatisfied' up to 10 for 'Satisfied'
Gender	X001	Dichotomous variable, 1 for male, 0= female
Marital status	X007	Dichotomous variable, 1 for never married, 0=ever married (married, widowed and divorced)
Children	X011	Dichotomous variable, 1 for having children, 0= no children
Employment status	X028c	Dichotomous variable, 1 for employee or self-employed, 0= otherwise
Trust	A165	Dichotomous variable, 1 for Most people can be trusted, and 0= Can´t be too careful
Region	X048	Dichotomous variable, 1 for 'urban' and 0= otherwise
Province	X048	Punjab, Sindh, KPK, and Baluchistan (reference category)

Due to the ordinal nature of the dependent variable, an ordered probit estimation technique has been used in the present analysis. Use of ordered probit model in examining the determinants of happiness is in line with many empirical studies including Kahneman *et al*., (1997), Frey and Stutzer (2002a) and Hudson *et al*., (2014).

Table 2 reports the responses on feelings of happiness in all the three waves for Pakistan. The total sample consists of 3,933 individuals, while the respective number of respondents in the 3rd, 4th and 6th waves is 733, 2000 and 1200 respectively. In the first wave which was conducted for the period 1995-1998, 28% people reported "very happy",

50% reported "quite happy", and 4% of people were "unhappy". In the 4th wave, 1999-2004, 20% people were very happy while, 56% of the people were quite happy.

Table 2 Feelings of Happiness (Frequency in Percentage)

Self-reported level of happiness /Waves	3rd wave (1995-1998)	4th wave (1999-2004)	6th wave (2010-2014)
No. of obs.	*733*	*2,000*	*1,200*
Very happy	28	20	45
Quite happy	50	56	38
Not very happy	18	21	12
Not at all happy	4	3	5

Source: World Values Survey (value surveys databank).

The combined frequency of 'not very happy' and 'not at all happy' in the period 1999-2004 is 24%. According to Table 2, in the 6th wave, a highest percentage of people, 83, were either very happy or quite happy which is highest compared to the 3rd and 4th waves. Pakistan a rapidly developing nation is the world's 24th largest economy based on its purchasing power parity (PPP), and 44th largest considering the nominal GDP despite the fact it is 6th most populous country in the world.[v] Like the other developing countries, Pakistan is also facing various problems like macroeconomic instability, poverty, unemployment and unequal income distribution. While the cause of this happiness may be because in 2011 poverty has declined to 13.6% and unemployment has reduced up to 6.2%.[vi]

Descriptive statistics of both dependent and independent variables are presented in Table A-1 in appendix. Total sample consists of 3,933 respondents. In the results of summary statistics most respondents indicate that they are either very happy or quite happy as the percentage frequency is 78%, while not at all happy respondents are just 3.4%. For the age variable, the mean age of respondents is 36; while the minimum age of the respondent is 18 and maximum is 95. For gender variable, almost half, 48%, respondents are female, and 52% of respondents are male. For marital status variable, 29% respondents are unmarried and two third, 71%, are ever married (divorced, widowed) respondents. Moreover, 52% individuals reported that they have children, while 48% individuals reported that they have no children. Moreover, 84% of respondents consider religion being very important in their lives. While 24% respondents reported that religion is not very important in their life. In terms of employment status, 57% of respondents are unemployed and 43% of respondents are either self-employed or full time employed.

Focusing on individual's reported health status, 29% individuals indicate that they have a very good health, while 47% and 24% respondents have a good and fair health respectively, and less number of people i.e. 6% and 0.15% reported that they respectively have poor and very poor health status. Considering the education variable, 29% of respondents has no formal education, while slightly much less of respondents, 11.5%, has complete primary education, 21% of respondents has complete secondary education, and very few i.e. 5% reported 'complete masters' education.

Concerning the 'income variable', 7% of the respondents belong to the lowest income group while, majority of sample individuals belong to the third and fourth step that is 16% and 18% respectively, while 2% individuals belong to the highest income group that is 'tenth step'. Responses on an answer to the question on "*satisfaction with financial situation of household*" were given on the scale of 1-10 with 10 being completely satisfied and 1 indicating completely dissatisfied. These responses were re-coded and 38% individuals reported satisfaction with financial situation by ticking in the range of 6-10 on the scale, while 62% reported either dissatisfied or completely dissatisfied with financial situation of household by responding in the range of 1-5 on the scale. For the trust variable, majority i.e. 69 % of the respondents reported that they "*can't be too careful*" to trust someone, while 25% of the respondents reported that 'most people can be trusted'. With regard to the saving variable, 42% reported that they 'just get by' and quite a number, 41%, of respondents reported that they either spent some saving or spent saving and borrowed money.

Results and Discussion

Table 3 shows the regression results for the determinants of happiness for all waves. The ordered probit regression is first estimated using the full sample and then separately done for three individual waves. Most of the explanatory variables are common to all waves; however, there are few questions which are asked in one of the waves e.g. the question about region is only asked in the 4th wave (1999-2004). The separate estimations for each wave are also done for the comparison purpose. Overall significance of the model is examined through likelihood ratio (LR) test and in all models the LR statistics shows a very small probability value, hence rejecting the null hypothesis and explicating the joint significance of the regression coefficients. Goodness of the fit of regression is measured through Pseudo R-square. In all models, the Pseudo R- squared shows small values. As in case of ordered probit regression Pseudo R-squared can be expected to be low (Powdthavee, 2003).

Table 3 Determinants of Happiness

	(a)	(b)	(c)	(d)
Independent Variable	Total (1995-2014)	Wave 3rd (1995-1998)	Wave 4th (1999-2004)	Wave 6th (2010-2014)
IS_i (Income status)	-0.012	0.041	0.017	0.035*
	(0.013)	(0.025)	(0.030)	(0.018)
Lage	-2.604**	-5.741*	5.624**	-3.894
	(1.345)	(3.44)	(2.412)	(2.550)
$Lage^2$	0.404**	0.778*	-0.742**	0.583
	(0.185)	(0.466)	(0.329)	(0.361)
IR_i (importance of religion)	0.094**	0.262***	0.066	0.045
	(0.037)	(0.071)	(0.056)	(0.091)
HS_i (Health status)	0.612***	0.272***	0.613***	0.940***
	(0.032)	(0.054)	(0.055)	(0.060)

Education	-0.007 (0.006)	-0.024* (0.013)	0.002 (0.011)	0.017 (0.014)
SS_i (Savings status)	0.041 (0.027)	0.288*** (0.046)	0.010 (0.049)	-0.016 (0.050)
SFS_i (Satisfaction with financial situation)	0.153*** (0.010)	0.450*** (0.119)	-0.121 (0.011)	0.563*** (0.089)
D_{1i} (Gender)	-0.185*** (0.057)	0.034 (0.135)	0.065 (0.095)	-0.474*** (0.104)
D_{2i} (Marital status)	0.153 (0.096)	-0.275 (0.196)	0.282* (0.149)	0.214 (0.213)
D_{3i} (Employment status)	0.088 (0.057)	-0.106 (0.123)	0.013 (0.093)	0.261** (0.110)
D_{4i} (Trust)	0.138*** (0.047)	0.046 (0.116)	0.250*** (0.067)	0.017 (0.094)
D_{5i} (Children)	-0.004 (0.086)	0.057 (0.185)	0.187 (0.124)	-0.154 (0.201)
D_{6i} (Region)	--	--	0.295*** (0.097)	--
D_{7i} (Punjab)	--	--	0.427*** (0.124)	0.087 (0.109)
D_{8i} (Sindh)	--	--	0.002 (0.134)	-0.063 (0.127)
D_{9i} (KPK)	--	--	0.621*** (0.136)	0.269* (0.150)
Cut1	-2.86 (2.427)	-9.139 (6.324)	11.62 (4.412)	-3.89 (4.472)
Cut2	-1.656 (2.427)	-8.004 (6.322)	13.09 (4.415)	-2.756 (4.469)
Cut3	0.056 (2.428)	-6.424 (6.320)	15.04 (4.420)	-1.114 (4.469)
Wald chi^2	971.8	180.3	320.43	486.57
Pseudo R- squared	0.155***	0.1063***	0.116***	0.253***
N	3328	722	1461	1145

Note: (.) reports robust standard errors. ***, **, * indicates significance at the 1%, 5% and the 10% levels respectively. N is the sample size.

Column (a) contains the regression results of combine effects of determinants of happiness from 1995 to 2014. With regard to 'age', coefficients of age and age square are respectively negative and positive and show significant effect on individual happiness. It implies that one additional year in age decreases the happiness by 2.6. Results of these two coefficients imply that happiness decline with age up to the age of 25, then, it starts increasing later. This result confirms the theoretical expectation of the existence of U-shape relationship between happiness and age (Gredtham and Johannesson, 2001; Clark

and Oswald, 1994). The 'gender' variable shows a negative and significant relationship with individual happiness at 1% level. Its coefficient reveals that the probability of being happy is 0.18 higher for females as compared to males. This result is aligned with the evidence reported by many studies that on average females tend to feel happier than males (Blanchflower and Oswald, 2000; Frey and Stutzer, 2002).

Focusing on the variable of 'trust on other people', results in Table 3 shows a positive and significant relationship with individual happiness. This implies that the probability of being happy is higher by 0.13 for those individuals who trust other people as compared to those who do not trust majority of people in society. This result is aligned with the previous studies of i.e. (Helliwell, 2003) and (Hudson *et al*., 2014).

The individual's reported health status appeared as one of the most significant and robust determinants of happiness. The coefficient value indicates that being in good health status raises the probability of happiness by 0.61. This result is aligned with the previous findings like (Veenhoven, 1996; Helliwell, 2003 and Haller and Hadler, 2006). 'Importance of religion in life' is another variable showing a statistically significant and positive relationship with individual happiness at the 5% level. It is predicted that being religious raises the probability of happiness by 0.09. In case of Pakistan 84% of the people in sample renders religion being very important in their life (Table A-1 in Appendix). This result is aligned with the previous studies of i.e. French and Joseph (1999) and Abdel-Khalek (2011). According to these studies, a possible justification for this positive relationship is that religion provides an important purpose, norms, beliefs and source of social support in their life. 'Satisfaction with financial situation of household', is an explanatory variable showing a statistically significant and positive effect on individual happiness at 1% level (see Table 3). The coefficient value shows that one point increase in satisfaction with financial situation increases the probability of being happy by 0.15. This result is instinctive and entirely conform to the results of many earlier studies i.e. Peiro (2006); Ramos and Soukiazis (2014).

According to the reported results of column (a) variables of marital status, employment status, children, savings, income and education do not seem to affect happiness significantly for Pakistan.

Column (b) contains the regression results for 3rd wave i.e. 1995-1998. Results of variables i.e. age, age square, self-reported health status, satisfaction with financial situation of household and religion are same as presented above for the full data. In context of 'savings during the past year', the coefficient of saving shows statistically significant and positive effect on individual happiness at 1% level. It is evident that an increase in saving will raises the probability of happiness by 0.29. It implies that people who had saved money in the previous year are relatively more satisfied and happy with their lives. This result is aligned with the previous study of Hudson *et al*., (2014).

An unusual finding in results of Column (b) is with regard to 'education' which is having a significant negative relationship with happiness. It implies that increase in education

lowers the probability of being happy by 0.02. This result is completely opposite to the evidence stated by numerous studies that educated individuals are happier than the less educated ones (Gredthamand and Johannesson, 2001). Although there is little evidence reported by few studies that there may be negative or insignificant association between education and happiness (Theodossiou, 1998).

Column (c) contains the regression results for 4th wave i.e. 1999-2004. The age variable here is illustrating an inverted 'U' relationship with happiness. Because the coefficients of variable age and age square are positive and negative respectively and show significant effect on individual's happiness. It is predicted that each additional year in age increases the happiness by 5.62. It implies that individuals' happiness level increase with age up to the 44, and then decreases later. This result is aligned with some studies which found ambiguous or inverted U-shape relationship between age and happiness (Diener and Seligman, 2009).

The variable of 'marital status' shows a significant and positive relationship with happiness at the 10% level. It implies that the probability of being happy for never married persons is higher by 0.28 as compared to the married individuals. In case of Pakistan, this result is aligned with the evidence reported by few studies that marital status can affect happiness in both directions, and there may be no significant relationship between marital status and individual happiness (Lee *et al*., 1991).

The dummy variable of 'region' shows statistically significant and positive relationship with happiness at the 1% level. It implies that predicted probability of being urban inhabitant raises the happiness by 0.29 as compared to the rural inhabitant. This result is in accordance with some prior studies which reported that urbanization has a positive significant relationship with individual happiness and urban inhabitants are found to be happier than rural inhabitants. Numerous studies which reported that urbanization has a positive significant relationship with individual happiness, and people living in urban areas are found to be happier as big cities provides economic opportunities such as bigger shopping malls, restaurants, safer and quicker commutations, better access to health and education facilities (Henderson, 1985). Positive relationship between urbanization and happiness is also concluded by Veenhoven and Berg (2013) and Berry and Okulicz-Kozaryn (2009).

Another explanatory variable is 'Province' for which Baluchistan is the reference category. The coefficient of 'Punjab' is showing a significant and positive relationship with happiness at 1% level. It implies that predicted probability of being an inhabitant of Punjab raises the happiness by 0.42. It implies that people living in Punjab are happier than the people living in Baluchistan. The province 'KPK' is also showing a significant and positive relationship with happiness at the 1% level. Its impact reveals that the probability of being happy is higher by 0.62 for KPK inhabitant as compared to people living in Baluchistan. The comparison of province related coefficients fin column (c) of Table 3 shows that residents of KPK are happier than individuals living in any other

province of Pakistan. Moreover, people living in Sindh and Balochistan are unhappy compared to those living in Punjab and KPK.

Column (d) contains the regression results for the 6th wave i.e. 2010-2014. With regard to 'employment status' the coefficient shows a statistically significant and positive relationship with individual happiness at 5% level. It implies that predicted probability of being happy is higher by 0.26 for employed persons as compared to the unemployed. This result is aligned with empirical literature i.e. Gerlach and Stephan (1996), Clark and Oswald (1994) and Winkelmann and Winkelmann (1998).

The variable of 'income' is only significant in the results for the 6th wave. Its results imply that an additional unit of income increases the probability of being happy by 0.03. This result is verified by some earlier studies which found that higher income is positively related with higher levels of happiness i.e. Easterlin (1974) and Frey and Stutzer (2003b).

Conclusions

The present study has contributed to the literature on happiness by analyzing the determinants of happiness for Pakistan using the world values survey data. The present study has focused on three different waves of data which has been studied for Pakistan over the time span 1995-2014. The total sample consists of 3933 individuals and a variety of socio-demographic and economic determinants are used. Estimation has been done using the ordered probit technique. Theoretical literature shows that different social and economic factors for example marital status, education, trust, income, employment status, importance of religion, children, and financial situation can affect an individual's happiness. However, existing empirical literature showed mixed evidence on the determinants of happiness.

World happiness report and happy planet index have shown that in all rankings Pakistan is ranked higher than its neighboring countries i.e. India, China, and Bangladesh. Moreover, WVS data exhibits that a good percentage of people of Pakistan are overall happy in all the waves and people are most happy in the 6th wave (2010-14) as compared to the 3rd (1995-98) and 4th (1999-2004) waves.

Results from the ordered probit model are consistent with the previous studies and provide evidence that age depicts a U-shaped relationship with individual's level of happiness. Females are found to be happier than males while, good health is associated with higher level of happiness. Religious, not married, and employed individuals are found to be happier. Typical to the earlier results rich individuals are found to be happier. Satisfaction with financial situation, saving and trust are also positively related with happiness. Furthermore, urban inhabitant's reports higher level of happiness, people of Punjab and KPK are found to be happier than those living in Baluchistan and Sindh.

In the light of results attained from present study, in order to raise standard of living and people's level of subjective well-being (happiness), following policy recommendations are suggested.

- Creating more jobs will increase employment and hence the level of happiness in the country.
- Government should make some income support programs to help needy people and to redistribute the monetary allowance to the unemployed.
- Government should reevaluate some policies that should help its residents to meet their basic needs, such as providing better health and education facilities that can potentially boost up happiness of citizens.

References

Abdel-Khalek A. M. (2011). Religiosity, Subjective Well-Being, Self-Esteem, and Anxiety among Kuwaiti Muslim Adolescents. *Mental Health, Religion, and Culture*, 14, pp.129-140.

Angeles L. (2010). Children and Life Satisfaction. *Journal of Happiness Studies*, 11:4, pp.523-538.

Bentham J. (1789/1998). *An Introduction to the Principles of Morals and Legislation*. Clarendon Press: Oxford.

Berry B. J. L. and A. Okulicz-Kozaryn (2009). Dissatisfaction with city life: A new look at some old questions. *Cities*, 26:3, pp.117-124.

Blanchflower D. G. and A. J. Oswald (2004). Well-Being over Time in Britain and the USA. NBER Working Paper No. 7487.

Blanchflower D.G. and A.J. Oswald (2000). Well-being over time in Britain and the U.S.A. Mimeo, University of Warwick.

Bratu C. (2011). Determinants of Subjective Well-Being: A Romanian Case Study. *Economics*, 399, pp.1-23.

Brereton F.; J. P. Clinch and S. Ferreira (2008). Employment and Life-Satisfaction: Insights from Ireland. *The Economic and Social Review*, 39:3, pp.207-234.

Clark A. E. and A. J. Oswald (1994). Unhappiness and Unemployment. *Economic Journal*, 104:3, pp.648-659.

Darity W. J. and A. H. Goldsmith (1996). Social Psychology, Unemployment and Macroeconomics. *The Journal of Economic Perspectives*, 10:1, pp.121-40.

Diener E. and Seligman M. (2004). Beyond Money: Toward an Economy of Well-Being. *The Science of Well-Being*, 5:1, pp.201–265.

Diener E.; Eunkook M. Suh; Richard E. Lucas and Heidi L. Smith (1999). Subjective Well-being: Three Decades of Progress. *Psychological Bulletin*, 125:2, pp.276-302.

Easterlin R. (1974). Income and Happiness: Towards a Unified Theory. *Economic Journal, 111:34*, pp.465-484.

Easterlin R. (1995). Will Raising the Incomes of All Increase the Happiness of All? *Journal of Economic Behavior and Organization,* 27, pp.35-47.

Easterlin R. (2001). Subjective Well-Being and Economic Analysis: A Brief Introduction. *Journal of Economic Behavior and Organization,* 45, pp.225-226.

Easterlin R. (2003). Explaining Happiness. *Proceedings of the National Academy of Science,* 100, pp.11176-11183.

Ferrer-i-Carbonell A. (2005). Income and Well-Being: An Empirical Analysis of the Comparison Income Effect. *Journal of Public Economics*, 89, pp. 997-1019.

French S. and S. Joseph (1999). Religiosity and its Association with Happiness, Purpose in Life, and Self-Actualization. *Mental Health, Religion & Culture*, 2:2, pp.117-120.

Frey B. and A. Stutzer (2002). What can Economist Learn from Happiness Research? *Journal of Economic Literature*, 40:2, pp.402-435.

Frey B. and A. Stutzer (2003a). Testing Theories of Happiness, in L.Bruni and P.Porta (eds), *Economics and Happiness. Framing the Analysis,* Oxford: Oxford University Press.

Frey B. and A. Stutzer. (2003b). Economic Consequences of Mispredicting Utility. Institute for Empirical Research in Economics, University of Zurich, Working Paper Series, ISSN 1424-0459.

Frey B.; Bruno S.; and A. Stutzer. (2002a). *Happiness and Economics: How the Economy and Institutions Affect Well-Being.* Princeton, NJ: Princeton University Press.

Gerdtham U. G. and M. Johannesson (2001). The Relationship between Happiness, Health, and Social Economic Factors: Results Based on Swedish Micro Data. *Journal of Socio Economics*, 30:6, pp.553-557.

Gerlach K. and G. Stephan (1996). A Paper on Unhappiness and Unemployment in Germany. *Economics Letters*, 52, pp.325-330.

Graham C. (2010). *Happiness around the World: The Paradox of Happy Peasants and Miserable Millionaires*. Oxford University Press: USA.

Haller M. and M. Hadler (2006). How Social Relations and Structures can Produce Happiness and Unhappiness: An International Comparative Analysis. *Social Indicators Research,* 75, pp.169-216.

Headey; and A. Wearing (1989). Personality, Life Events, and Subjective Well-Being: Toward a Dynamic Equilibrium Model. *Journal of Personality and Social Psychology*, 57, pp.731-739.

Helliwell J. F. (2003). How's Life? Combining Individual and National Variables to Explain Subjective Well-being. *Economic Modelling*, 20:2, pp. 331-360.

Hlavac M. (2011). Subjective Life Satisfaction in the European Union: Determinants and Policy Implications. Harvard University.

Hudson J.; M. Orviska and A. Caplanova (2014). The Impact of Democracy on Well-Being. *Social Indicators Research*, 115:1, pp.493-508.

Johnson W. and R.F. Krueger (2006). How Money Buys Happiness: Genetic and Environmental Processes Linking Finances and Life Satisfaction. *Journal of Personality and Social Psychology*, 90, pp.680-691.

Kahneman D.; P. Wakker and R. Sarin (1997). Back to Bentham? Explorations of Experienced Utility. *Quarterly Journal of Economics*, 112, pp.375-406.

Lee G.R.; K. Seccombe and C. L. Shehan (1991). Marital Status and Personal Happiness: An Analysis of Trend Data. *Journal of Marriage and the Family*, 53:4, pp.839–844.

Lykken D.T. and A. Tellegen (1996). Happiness is a Stochastic Phenomenon. *Psychological Science*, 7:3, pp.180-189.

Lykken D.T. and M. Csikszentmihalyi (2001). 'Happiness stuck with What You've Got? A Debate. *The Psychologist* 14, pp.470-472.

McGillivray M. (2007). *Human Well-being: Issues, Concepts and Measures.* Basingstoke, UK: Palgrave MacMillan.

Mill J.S. (1863/1970). *Utilitarianism*. Warnock M. (ed.), Oxford University Press; Oxford.

Oswald A.J. (1997). Happiness and Economic Performance. *Economic Journal,* 107, pp.1815-1831. Pakistan Overview (2015). worldbank.org.

Pakistan Economic Survey (2014-15). Government of Pakistan Ministry of Finance.

Peiro A. (2006). Happiness, Satisfaction and Socio-economic Conditions: Some International Evidence. *Journal of Socio-Economics* 35, pp.348-365.

Powdthavee N. (2003). Happiness and the Standard of Living: The Case for South Africa. Warwick Economic Research Papers No. 675.

Ramos S. and E. Soukiazis (2014). Determinants of Subjective Well-Being in Portugal: A Micro-Data Study. *Social Indicators Research,* 87, pp.16-39.

Roysamb E.; K. Tambs; T. Reichborn-Kjennerud; M. C. Neale and J. R. Harris (2003). Happiness and Health: Environmental and Genetic Contributions to the Relationship between Subjective Well-being, Perceived Health, and Somatic Illness. *Journal of Personality and Social Psychology*, 85, pp.1136-1146.

Sandvik E.; E. Diener and L. Seidlitz (2009). Subjective Well-being: The convergence and stability of self-report and non-self-report measures. *Journal of Personality,* 61:3, pp.317-342.

Selim S. (2008). Life satisfaction and happiness in Turkey. *Social Indicators Research,* 87, pp.531-562.

Slesnick Daniel T. (1998). Empirical Approaches to the Measurement of Welfare. *Journal of Economic Literature,* 36:4, pp.2108–65.

Smith A. (1963). *The Works of Adam Smith.* Essays on Philosophical Subjects, 5, pp.49-399, Netherlands.

Stark W. (1952). *Jeremy Bentham's economic writings.* George Allen & Unwin: London.

Subramanian S. V.; D. Kim and I. Kawachi (2005). Covariation in the Socioeconomic Determinants of Self-Rated Health and Happiness: A Multivariate Multilevel Analysis of Individuals and Communities in the USA. *Journal of Epidemiology and Community Health,* 59:8, pp.664-669.

Veenhoven R. (2009). How Do We Assess How Happy Were? Tenets, Implications and Tenability of Three Theories. *Happiness, economics and politics*, pp.45-69.

Veenhoven R. and M. Berg (2013). Has Modernization gone too far? Modernity and Happiness in 141 Contemporary Nations. *International Journal of Happiness and Development, 1:2, pp.172-195.*

Winkelmann L. and Winkelmann R. (1998). Why are the Unemployed so Unhappy? Evidence from Panel Data. *Economica,* 65, pp. 1-15.

World Happiness Report (2015). Columbia University Earth Institute. unsdsn.

World Value Survey (1980-2012). Official Data File: www.worldvaluessurvey.org.

Appendixes

Table:		**Descriptive Statistics: Determinants of Happiness**															
Dependent Variable								**Independent Variables**									
Happiness								**Gender**		**Marital Status**		**Employment Status**		**Trust**			
		Very Happy	Quite Happy	Not Very Happy	Not At All Happy	No Answer	Don't Know	Male	Female	Unmarried	Married	Employed	Unemployed	Most People can be trust	Can't be too careful	Don't Know	No Answer
Total (1995-2014)	**Freq.**	1145	1948	677	135	2	26	2035	1898	1137	2796	1700	2233	976	2731	198	28
	%Age	29	49.5	17.2	3.4	0.05	0.7	51.7	48.2	28.9	71	43.2	57	24.8	69.4	5	0.71

		Income scale										
		Don't know	**Lower step**	**Second step**	**Third step**	**Fourth step**	**Fifth step**	**Sixth step**	**Seven step**	**Eight step**	**Ninth step**	**Tenth step**
Total (1995-2014)	**Freq.**	130	277	279	636	700	604	500	366	277	82	82
	%Age	3.3	7	7	16.1	17.8	15.3	12.7	9.3	7	2.0	2.0

		Children		**Health Status**							**Important In Life Religion**					
		Children	**No Children**	**Very Good**	**Good**	**Fair**	**Poor**	**Very Poor**	**No Answer**	**Don't Know**	**Very Important**	**Rather Important**	**Not Very Important**	**Not Al All Important**	**No Answer**	**Don't Know**
Total (1995-2014)	**Freq.**	2574	1359	912	1831	955	223	6	5	1	3,285	464	158	18	5	3
	%Age	65.4	35	23.1	47	24.2	6	0.15	0.13	0.03	83.5	11.8	4	0.46	0.13	0.08

		Education													
		Illiterate/ No Formal Edu.	Incomp. Primary Edu.	Comp. Primary Edu.	Incomp. Middle Edu.	Comp. Middle Edu.	Incomp. Secondary Edu.	Comp. Secondary Edu.	Incomp. Intermediate Edu.	Comp. Intermediate Edu.	Incomp. Bachelor's Edu.	Comp. Bachelor's Edu.	Incomp. Masters Edu.	Comp. Masters Edu.	No. of Obs.
Total (1995-2014)	**Freq.**	1,126	225	452	39	197	399	826	24	110	25	51	258	201	3933
	%Age	29	5.7	11.5	0.99	5	10.1	21	0.6	2.8	0.64	1.3	6.6	5	100

		Family Saving During Past Year					Satisfaction with financial situation of household									
		Save Money	Just Get By	Spent some saving & borrowed money	Spent saving & borrowed money	Don't Know	Dissatisfied	2	3	4	5	6	7	8	9	Satisfied
Total (1995-2014)	**Freq.**	619	1654	1118	511	31	500	327	433	374	622	334	329	385	175	141
	%Age	15.7	42	28.4	13	0.79	13.8	9	12	10.3	17.2	9.2	9	10.6	4.8	4

Age					
	Obs	**Mean**	**Std.Dev.**	**Min**	**Max**
Total (1995-2014)	3933	36	12.3	18	95

Notes

[i] The World Happiness Report is a measure of happiness, which provides guidance to governments for improving the world's wellbeing and sustainable development. World happiness report ranks countries according to six key factors i.e. GDP per capita, social support, healthy life expectancy, perceived freedom to make life choices, freedom from corruption, and generosity.

[ii] The Happy Planet Index (HPI) is also a new measure of progress which ranks countries on the basis of three key factors ecological footprint, life satisfaction, life expectancy of the countries and how many long happy and sustainable lives for the people that live in them. Ecological footprint analyses the impact of human activities quantified through the amount of land necessary to produce the goods and services required to support a particular country lifestyle.

[iii] For detail literature on macroeconomics and subjective wellbeing see Darity and Goldsmith (1996) and Oswald (1997).

[iv] Log of age and the age square is used to get better results (Ferrer-i-Carbonell, 2005). In addition, the age variable, square of age (age^2) is also taken into account in order to capture the U-shaped relationship between age and happiness

[v] For more details see Pakistan Economic Survey (2014-15.

[vi] For more details see Pakistan Overview (2015).