

Importance of Population Growth in Future Economic Development of Pakistan

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Abstract

Population growth is considered by most of the scholars an obstacle for economic development of any country as the resources are always limited. Therefore, this study is conducted to analyze the population growth in terms of old age security, cultural pressure and women empowerment in order to visualize its impact on future economic development of Pakistan. The study while quantitative in nature with complimentary qualitative features found at the end that there is a weak relationship between components of population growth and future economic development of Pakistan.

Keywords: population, economic development, women empowerment, old age security.

INTRODUCTION

This study empirically explores the relationship between population growth and future economic development of Pakistan. It has taken population growth in terms of old age security, cultural pressure and women empowerment and experiment to find relationship between these elements and future economic development of the country. Pakistan is ranked as 6th most populated country in the world as populace is grown from merely 31 million in 1947 to 191,807,221 as of 01 November 2015^{1,2,3}. Economic development is mostly characterized by increasing gross domestic product GDP in nations and GDP per capita (Rautakivi, 2012). It also means the distribution of income (Coleman & Nixon, 1985). Population growth is considered to be a biggest problem for Pakistan as GDP per capita growth is not as fast as population growth hinders the progress of the country in a substantial way⁴. Since the 1950, Pakistan has experienced a significant population growth rate ranging between two to four per cent per annum. During the period of 1950-1985, the country's population had grown at the average rate of 3 per cent per annum. However, it declined to an average of 2.6 per cent per annum during the period 1986-2000⁵. In 2015, the population growth rate in Pakistan would remain at 1.92 per cent⁶. Pakistan is likely to continue experiencing population growth in the near and distant future at least until 2050 and more so than any other world region except sub-Saharan Africa⁷. If the population continues with the same pace, Pakistan would be 5th largest populated country in the world until 2050. On the other hand, GDP has increased from last six decades (1951-2015) with 5 percent growth rate as an average as compared to the population growth rate approximately 5.5 fold until 2013. The population that was 32.5 million in 1951, when Pakistan was the 14th most populous country in the world moved to become a 6th populated country in the world with almost 200 million population⁸.

The relationship between population growth and economic development has long been theoretically and empirically analyzed by various schools of thought in economics. Most development economists believe that rapid population growth is detrimental to growth. Population growth reduces savings and the capital-labor ratio. It raises the dependency ratio, and puts strains on education and health systems as well as the food supply. Larger and larger populations may also contribute to environmental degradation⁹. Economic development is

mostly characterized by increasing gross domestic product GDP in nations and GDP per capita¹⁰. The first scholar who emphasis on the impact of population on economic growth was Malthusian (1798), he argues that the population growth is geometrical in nature while economic growth is linear¹¹. Malthus's view of population is based on the assumption that human behavior is driven by nature, and men will have as many children as nature gives them the possibility to sustain¹². Indeed, Malthus demographic theory regarding the equilibrium between fertility and mortality rates is based on his basic philosophy regarding human beings which he termed the general laws of nature¹². That difference will cause population to grow much faster than the economic growth. In the long run, there would be scarcity of food as the land would be depleted by its production capacity¹². He further argues that growth is vice versa means that economic growth will also stir population growth in the form of early marriages and the increase in fertility rate¹¹. Counter argument to the above theory was made by Karl Marx and Engels (1948) that man controls nature: man therefore is able to control nature consciously and make his own history. It is this ability which allows him to produce beyond subsistence and which guarantees that he will not have subjected to the dilemma that Malthus has described (p.109)¹². Since, in Marx view, the decisions about fertility are related to the modes of production and also to social class, there should be a difference in family decisions between the bourgeois and the proletariat. He stresses that it is the economic differences between classes that lead to a difference in family behavior. Regarding the bourgeoisie, children are a means for continuing the family business: On what foundation is the present family, the bourgeois family based suppose on capital or on private gain. In its completely developed form this family exists only among the bourgeoisie. The bourgeois sees in his wife a mere instrument of production (Marx and Engels, 1948, p.26)¹². Population growth enlarges labour force and, therefore, increases economic growth. A large population also provides a large domestic market for the economy¹³¹⁴¹⁵. Moreover, population growth encourages competition, which induces technological advancements and innovations. Nevertheless, a large population growth is not only associated with food problem but also imposes constraints on the development of savings, foreign exchange and human resources ¹⁶. The relationship between population and economic growth is complex and the empirical evidence is ambiguous, particularly concerning the causes and impacts¹⁷. It can be demonstrated in a theoretical model that a large population growth could have both negative and positive impacts on productivity. A large population may reduce productivity because of diminishing returns to more intensive use of land and other natural resources. Conversely, a large population could encourage greater specialization, and a large market increases returns to human capital and knowledge¹⁸. Thus, the net relationship between greater population and economic growth depends on whether the inducements to human capital and expansion of knowledge are stronger than diminishing returns to natural resources. Therefore, it is important to examine the population and economic growth nexus¹⁹.

Therefore, this study presumably assume in favor of theory of Malthusian that population growth in the long run is hampering the economic growth and development of any country or in this case Pakistan. This study would investigate the population in terms of old age security, cultural pressure and women empowerment components. This study will only cover these three elements and would reflect the understanding of postgraduate students and business intellectuals about the subject as sample size would be taken from this group. The study has limitations in terms of sample size and financial resources and access to participants as well. The primary objectives of this study are to find out the relationship between old age security, cultural pressure and women empowerment with the future economic development of

Pakistan. The secondary objective is to get the general perception about the impact of population growth on the future economic development of Pakistan.

PROBLEM STATEMENT

Population trend is on the upward side from the last six decades as population has been increasing constantly from 1950s with more than 2%-3% as an average per decade until 2010. In this year 2015, there has been a slight decrease of 0.10 percent with 1.90 percent PGR but as compared to the world population growth rate that is decreasing from 2.3 percent in 1960s to slightly over 1% in this decade and expected to reach 0.6 percent until 2050^{6,7}. In this scenario, Pakistan has to be aware about the consequences of rapid population growth and how it can produce extra pressure on socio-economic structure and prove to be the biggest hurdle in the face of rapid economic development.

LITERATURE REVIEW

Economic development ideally refers to the sustained, concerted actions of communities and policymakers that improve the standard of living and economic health of a specific locality²¹. The terms “economic development” and “economic growth” are often used interchangeably but in fact there is a very big difference between the two. Economic growth can be viewed as a sub category of economic development²². In recent years the relationship between population growth and economic development in the developing countries has attracted a considerable attention of economists and researchers²³. As Dawson and Tiffin (1998) have observed, “The relationship between population growth and economic development has long been thought to be fundamental to our understanding of less developed countries (LDCs)”^{pp149}²⁴. Economists have often neglected the impact of fundamental demographic processes on economic growth²⁵. Bloom and Canning (2001) are among the few who explore the effect of the demographic transition on economic growth. They argue that it is possible that the interaction of economic growth with population dynamics can result in a poverty trap. Consider two clubs: one with low income and high population growth rates, while the other with high income and low population growth rates. While transition between these clubs may be rare, they are able to show that when it does happen, it does so very quickly, due to the positive feedbacks between growth and the demographic transition²⁶. More recently, Dyson (2010) claims that mortality decline aids economic growth and hence leads to an increase in the standard of living²⁷. As people live longer, they tend to think more about the future and are more likely to take risk and innovate. For instance, Bloom and Canning (2001) and Kalemli-Ozcan (2002) find evidence in developing countries that mortality decline has the tendency to raise educational attainment and savings rates and thus to increase investment in both physical and human capital^{26,28}. There is one most popular model in population studies that is called demographic transition model, that shows that population in all contemporary developed nations is that over the past couple of centuries it has passed through three stages (i.e., demographic transition). The first stage is characterized by high birth rates and high death rates, resulting in a slow population growth. In the second stage there was a decrease in death rates, however the birth rates remained high as a consequence of increases in population. Finally, in the third stage, fertility rates fell and combined with low mortality rates resulted in very low or no population growth¹⁹. Pakistan is trapped into the second stage where birth rates exceed the mortality rates as 26.1 percent crude birth rate in 2015 as compared to 6.80 percent mortality rate⁶. Huge gap between these two are the point of concern for this research as the working population age group from 15-64 has increased from 53% in 1998 to 56% in 2014 with unemployment rate increasing from 5.6 percent in 2009-2010 to 6.00 percent in 2014-2015^{29,30,31}. Moreover, total fertility rate (TFR) in two decades (1996-2014) as an average 3.775 percent with the dependency ratio of almost 50% in 2014^{31,32,33}. GDP growth rate

(1951-2015) is also dismal showing 5% growth rate in last six decades as an average^{34.35}. GDP per capita at current prices increased from \$348.2 in 1981 to \$1,427.1 in 2015 with an average of \$665.49 in 34 years with less than 2% in US dollars as an average^{36.37}. On the other hand, it's also a fact that economic development at different stages encourages or discourages population growth as economic incentives changes human behavior, access to education and evolution of new lifestyle³⁸. That is why the population growth in developing country contributes more than 80% in world population³⁹. Becker (1960) argued that the decline in fertility is a by-product of the rise in income and the associated rise in the opportunity cost of raising children. His thesis suggests that the rise in income induced a fertility decline because the positive income effect on fertility was dominated by a negative substitution effect brought about by the rising opportunity cost of raising children⁴⁰. Similarly, Becker & Lewis (1973) postulated that the income elasticity with respect to investment in children's education was greater than that with respect to the number of children, and hence the rise in income led to a decline in fertility along with an increase in the investment in each child⁴¹. In traditional societies it is often argued that parents' desire for old age security in the form of transfers from their children provides an important motive for childbearing. Some doubt has been cast on this "old age security hypothesis" by recent estimates which suggest that the rate of return on investments in children tend to be negative in most developing countries⁴². One of these studies on population suggests that it may be inappropriate to infer that negative rates of return to children imply that the economic motivation for childbearing is weak. Rather, the combination of a negative rate of return and a positive rate of population growth may imply a very strong economic motivation for childbearing because parents need to have a large number of children in order to obtain a subsistence level of old age consumption⁴³. The further implication is that population growth in such circumstances is inefficiently high in the sense that each individual in current and future generations could be made better off if (a) the rate of population growth were lower and (b) the level of transfers to the elderly from the economically active segment of the population were increased. Moreover, the microeconomic model of fertility decisions assumes that children are treated purely as capital goods⁴³. That is, parents do not receive any direct utility from their children; their only motivation for childbearing stems from the expectation that children will support them in old age⁴³. Longitudinal evidence from Thailand suggests that intergenerational support flowing from children to parents does not seem to abate ⁴⁴. The same study suggested that many aspects of intergenerational solidarity persist although the forms taken may be altered as both older age parents and adult children adapt to changing circumstances⁴⁴. In the case of Korea, it's found that despite a decline in the Confucian tradition of filial piety, a majority of elderly (70 percent) received financial transfers from children, transfers accounted for about a quarter of the average elderly person's income, and they constitute the main mechanism to prevent poverty⁴⁵.

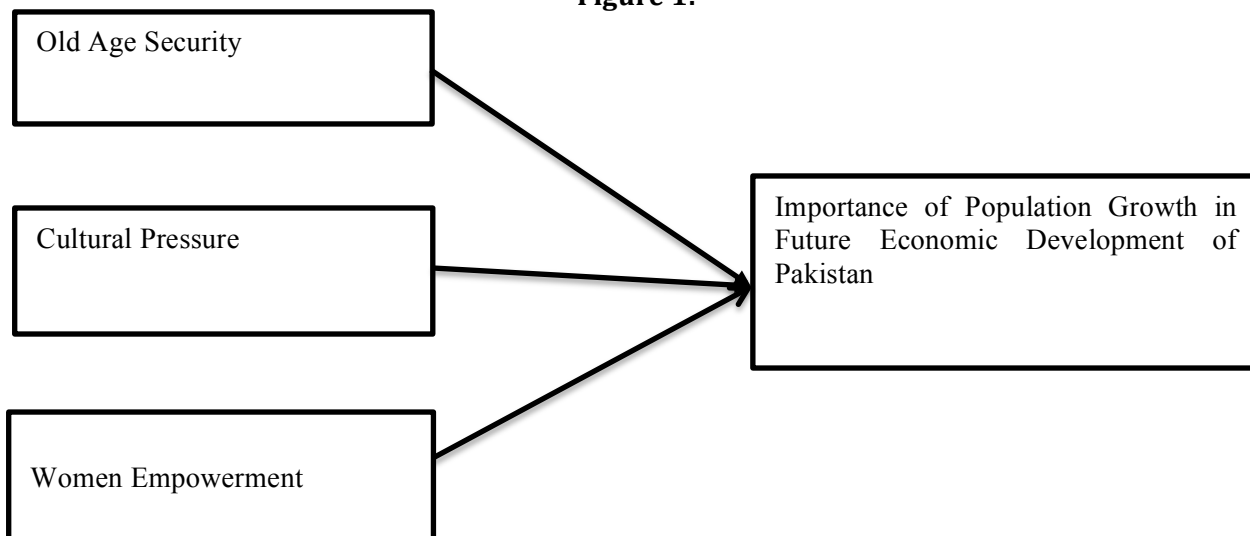
Culture has an important role to play in economic development of any country as well as cultural differences are an important part of the story of economic growth and development. From past five decades, the Confucian- influenced economies of East Asia outperformed the rest of world by a wide margin. This holds true in spite of the fact that they are formed by a wide variety of economic and political institutions⁴⁶. By comparison; most African economies have experienced low level of growth rates during the same period of time. Both societal-level and individual-level evidence suggest that it is not only a society's economic and political institutions but also its cultural factors values, norms and factors are important in determining the economic development of any country⁴⁶. Numerous studies empirically provide the credence to the hypothesis that informal convention and culture play a vital role in economic

growth 47.48.49.50.51.52.53.54.55.56.57. Scholars from various disciplines have observed that distinctive cultural traits endure over long periods of time continue to shape society's political and economic performance^{58,59}. In the field of population studies, it has long been recognized that education is strongly related to a broad range of demographic behaviors. The spread of education throughout a population has been shown to be of central importance for the long-term demographic transition from high to low levels of fertility⁵⁹. Caldwell (1980), in particular, has maintained that high levels of fertility would nowhere persist for long once a society had achieved "mass education", that is to say, once a large majority of children were sent to school⁶⁰. Over the 30-year period between 1970 and 2000, estimated adult illiteracy rates (for ages 15 years or over) declined worldwide from 37 to 20 per cent, mostly owing to effects of increases in primary school enrolments⁵⁹. Mainly from 1990 to 1999, the Gender Parity Index (based on gross enrolment ratios) increased from 0.87 to 0.92 for primary school age enrolments and from 0.75 to 0.89 for secondary school enrolments in the developing countries. The proportion of girls in primary and secondary enrolment remains considerably lower than that of boys in many parts of the developing world, notably Southern Asia, the Arab States, North Africa, and sub-Saharan Africa. By 2015, adult illiteracy is projected to decrease further to 15 per cent. Even though there has been substantial progress in all regions, illiteracy remains common in much of the developing world like Pakistan. On the other hand, the demand for children (the number of children that a couple desires) is also the outcome of complex calculations⁵⁹. Economists have predictably focused on the net contributions of children to the income and material welfare of the family. In very low-income communities, children typically become contributors to the economic welfare of the family at a very young age⁶¹. Small children care for younger siblings, thereby releasing their mothers to work either in the fields or in shops. Often, very small children also assist in the herding of small animals and in the care of kitchen gardens. In addition, children provide parents with economic security in their old age⁶¹. Around the world; women play a vital role in providing for families, sustaining communities and managing natural resources. Yet too many lack the means to improve lives and shape the planet's future. Empowering women through better education, economic opportunity and healthcare including family planning is pivotal to world progress, with far-reaching benefits for families, communities and the planet. Women who are empowered to make choices about childbearing are more likely to seize economic opportunity and invest in their children's education; they and their children are less likely to be poor⁶⁴. The health benefits would be dramatic: universal access to reproductive healthcare could prevent two-thirds of unintended pregnancies, 70% of maternal deaths, 44% of newborn deaths, and three quarters of unsafe abortions⁶². Despite significant progress toward universal primary education, only 87 out of 100 children in developing countries complete primary school and more than half of those not in school are girls like in Pakistan⁶³. Because women typically invest more in their children than do men, helping women has significant benefits for families. Improvements in women's education and health have been linked to better outcomes for children in countries as varied as Brazil, Nepal, Pakistan, and Senegal⁶². A range of legal and social measures are needed: primary and secondary education for girls; enforcing laws and human rights standards that prohibit child marriage and gender-based violence; and improving women's access to credit, land, employment, and training⁶². In addition, experts tell us that family planning and reproductive healthcare is one of the most cost effective and powerful strategies to empower women and improve their lives. The ability to choose whether and when to have a child is a fundamental human right; it is central to women's health, wellbeing and in many cases survival. Addressing the unmet need for family planning and reproductive healthcare is an essential tool for achieving women's empowerment and sustainable development⁶².

CONCEPTUAL FRAMEWORK

The conceptual framework is based on theory of Malthusian (1798) based on his book “An Essay on the principle of population”¹¹. This research has chosen three independent variables namely old age security, cultural pressure and women empowerment in order to find their relationship in terms of population with future economic development of Pakistan.

Figure 1:



RESEARCH METHODOLOGY

This research is an empirical positivist study based on deductive approach with mainly data collection through quantitative and complementary qualitative instruments suits the nature of this research. This research will use non-probabilistic judgmental sampling because the subject at hand is complicated enough and only some individuals with the background knowledge of subject could be included in the sample size based on their academic and professional qualification. The sample size is 226 participants for data collection through questionnaires and 3 participants for data collection through unstructured interviews. The participants are divided into two categories one for questionnaire and one for unstructured interviews. The questionnaire participants are business postgraduate students from IBA (Suk), Sbazaist(Hyd & Karachi), IMSA(Hyd), Isra University(Hyd), Sindh University Main Campus(Jamshoro), Iqra University(Karachi). While unstructured interviews are taken from lecturers and employees working in private and public financial institutions. Independent variables are operationalized for questionnaires in terms of three different factors. Old age security is operationalized into financial incentives; lack of effective government social security and lack of opportunities for old age people. Cultural pressure is operationalized by social recognition, family succession and time pressure. The last but not the least women empowerment is operationalized by women education, participation in decision making and gender equality awareness. Economic development is operationalized in terms of GDP growth per capita, government expenditure and current account status. The data collected then is analyzed through SPSS Spearman and Pearson correlation test to find the relationship between each independent and dependent variables and by the combination of all independent variables and dependent variable.

FINAL RESULTS

This research was carried out in an endeavor to understand the population phenomena and its impact on economic development of Pakistan. The research found at the end of its descriptive analysis of questionnaire through SPSS that 60% participants agree that financial incentive to

old people encouraging population growth while only 13% are disagreed, 58% agree with the point raised by this research that lack of effective old age security contributes in population growth while only 23% are disagreed, 70% participants agree that due to lack of opportunities for old people playing its role in population growth in Pakistan. Furthermore, it was also found by this research that 50% participants are agreed while only 30% are disagreed that younger population get married because of social recognition, 65% participants agree while only 16% disagree that younger population produce babies due to family succession. This research also mentioned that younger population produce babies before their middle age and 69% participants were agreed on this point while only 15% showed their disagreement. Moreover while asking women empowerment questions; it was come up to the surface that 61% participants agree that women education plays a role in women empowerment while only 24% disagreed with the point. On the other hand, on the issue of women participation in family decision making, 53% participants were agreed that it would increase women empowerment while 31% disagreed with the notion. While asking gender equality question, 72% participants were agreed that gender equality can empower the women while only 9% were disagreed with the idea. Finally, when it was asked about the GDP per capita relationship with the population growth, 74% participants were agreed while only 8% disagreed that there is a relationship between GDP per capita and population growth in Pakistan. While asking about the impact of population growth on government expenditure and subsequently increase budget deficit, 67% were agreed that there is a relationship while only 14% showed their disassociation. Lastly, when asked about the current account deficit and its impact on population growth, 57% participants were agreed that current account deficit and lesser economic activity have a relationship with population growth while 22% were dissatisfied with the position.

Relationship with Old Age Security:

This research has carried out the Spearman and Pearson correlation test in order to find the relationship between old age security and future economic development of Pakistan.

Figure 2
Correlations

		Dependent	Independent1
Dependent	Pearson Correlation	1	.285**
	Sig. (2-tailed)		.000
	N	226	226
Independent1	Pearson Correlation	.285**	1
	Sig. (2-tailed)	.000	
	N	226	226

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

Figure 3
Correlations

			Dependent	Independent1
Spearman's rho	Dependent	Correlation Coefficient	1.000	.279**
		Sig. (2-tailed)	.	.000
		N	226	226
	Independent1	Correlation Coefficient	.279**	1.000
		Sig. (2-tailed)	.000	.
		N	226	226

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

The above results in Fig 2 & 3 show that there is a weak relationship between future economic development and old age security.

Relationship with Cultural Pressure:

The research has used two analysis tests Pearson and Spearman in order to find the relationship between cultural pressure and future economic development of Pakistan.

Figure 4
Correlations

		Dependent	Independent2
Dependent	Pearson Correlation	1	.063
	Sig. (2-tailed)		.342
	N	226	226
Independent2	Pearson Correlation	.063	1
	Sig. (2-tailed)	.342	
	N	226	226

Figure 5

Correlations

			Dependent	Independent2
Spearman's rho	Dependent	Correlation Coefficient	1.000	.044
		Sig. (2-tailed)	.	.508
		N	226	226
	Independent2	Correlation Coefficient	.044	1.000
		Sig. (2-tailed)	.508	.
		N	226	226

The above findings in Fig 4 & 5 show that there is no relationship according to the test between cultural pressure and future economic development of Pakistan.

Relationship with Women Empowerment:

This research has found the following results by carrying out two different tests in order to find the relationship between women empowerment and future economic development of Pakistan.

Figure 6
Correlations

		Dependent	Independent3
Dependent	Pearson Correlation	1	.183**
	Sig. (2-tailed)		.006
	N	226	226
Independent3	Pearson Correlation	.183**	1
	Sig. (2-tailed)	.006	
	N	226	226

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

Figure 7
Correlations

			Dependent	Independent3
Spearman's rho	Dependent	Correlation Coefficient	1.000	.194**
		Sig. (2-tailed)	.	.003
		N	226	226
	Independent3	Correlation Coefficient	.194**	1.000
		Sig. (2-tailed)	.003	.
		N	226	226

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

The above outcome shows that there is a very weak relationship between women empowerment and future economic development of Pakistan.

Relationship between Population Growth and Future Economic Development:

The research has finally carried out the final tests in order to find the relationship between Population growth and Future economic development of Pakistan.

Figure 8
Correlations

		Dependent	Independent
Dependent	Pearson Correlation	1	.252**
	Sig. (2-tailed)		.000
	N	226	226
Independent	Pearson Correlation	.252**	1
	Sig. (2-tailed)	.000	
	N	226	226

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

Figure 9
Correlations

			Dependent	Independent
Spearman's rho	Dependent	Correlation Coefficient	1.000	.239**
		Sig. (2-tailed)	.	.000
		N	226	226
	Independent	Correlation Coefficient	.239**	1.000
		Sig. (2-tailed)	.000	.
		N	226	226

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

The above results show that there is a very weak relationship between population growth and future economic development of Pakistan.

The above findings has achieved the objectives of this research and found the relationship between two of the independent variables namely old age security and women empowerment. Since the research couldn't find the relationship between cultural pressure and future

economic development of Pakistan. But as far as combined variable namely population growth and dependent variable future economic development of Pakistan, it was observed a weak connection between the two factors.

DISCUSSION

This research was carried out based on the theory of Malthus(1798) in which he argues that population in the long run will produce problems for economic growth as economic growth is linear in nature while population growth is geometrical. The research therefore also included the related questions that are asked during interview from different professionals in order to understand the Malthus theory and also to find the relationship between population growth and future economic development of Pakistan.

In your opinion, is old age security means people producing more babies because of those young children will support them emotionally and financially in their future is also a reason behind population growth?

The old age security has some connection with the population growth as this was argued by Benjamin (1989) that the combination of a negative rate of return on child investment and a positive rate of population growth may imply a very strong economic motivation for childbearing because parents need to have a large number of children in order to obtain a subsistence level of old age consumption⁴³. The further implication is that population growth in such circumstances is inefficiently high in the sense that each individual in current and future generations could be made better off if (a) the rate of population growth were lower and (b) the level of transfers to the elderly from the economically active segment of the population were increased. Moreover, the microeconomic model of fertility decisions assumes that children are treated purely as capital goods⁴³. This was supported by our one interviewer "Old age security seems to have a direct impact on population growth because we have more people working for private sector rather than government sector and they don't have old age security as it should be". Another interviewer puts the counter argument "Yes, this is a valid concept but now people are more aware about disadvantages of producing more babies than before. If you look one or few decades back, people were having more children and the behind that the reason was same that that the more children will earn for them and support them in long run and they consider it as old age security for them. Third interviewer disagrees with the above both "There are socio-cultural reasons behind population growth however old age security is not among the key reason. Such factor does exist in rural populace however can't widely recognized in urban family structure". In addition with all above, the questionnaire analysis suggests that 58% participants agree with the connection between old age security and population growth. While 70% seems satisfied with the idea of lack of opportunities for old people contributing in population growth. By that means, the research can say with mild assurance that there is a connection between the two factors. But on the other hand, it was also found during the SPSS correlation test that there is a weak relationship between old age security in terms of population growth and future economic development of Pakistan

Do women education plays a role in population growth in Pakistan?

Women education plays a very significant role in reducing population growth as there has been found a significant relationship between the two during our literature review and during this research as well when this was mentioned by our two interviewees "Women education plays very important role in population growth of Pakistan. If a woman is educated then she is more

concerned about her children than the uneducated woman and also prefers to have few". "Access to education will increase awareness towards women about her duties, health, risk factor and her role understanding in a joint-family-structure". Recent survey data shows that education continues to exert a significant influence on fertility levels, preferences and regulation. At the aggregate level, countries with higher literacy rates and overall educational attainment have lower total fertility rates (TFRs) than countries whose populations have lower education levels⁵⁹. So this time we can say with quite assurance that there is a significant relationship between women education and population growth universally⁵⁹. This trend was also found during our questionnaire survey when 61% participants accepted the notion that women education plays a greater role in women empowerment while 72% were also agreed on the gender equality contribution in women empowerment. While, it was also found through SPSS correlation test there is a very weak relationship between women empowerment in terms of population growth and future economic development of Pakistan

What do you think about Pakistani culture; does it encourage or discourage giving birth to babies generally?

The large Asian population reflects the legacy of history; even in antiquity, the populations of China and India numbered in the tens of millions⁶⁵. Fertile river valleys, complex irrigation systems, extensive trading systems, and strong states created agrarian civilizations with extensive peasant populations. Over the centuries, these civilizations expanded and contracted with accordion-like waves of demographic growth and decline. Asia had fallen behind the European economic and technological advances in the eighteenth and nineteenth centuries, but Asian populations had, overall, continued to grow during this period⁶⁵. Therefore one interview mentioned that "Pakistani culture encourages giving birth to babies as there is no any law for population control like as in China there is law for population control". Another described "Desire of son because of succession of family name, increase in labor and old age security". The third one declared "Pakistan is parochial society that also seems to be reason for high fertility rate". Although the research SPSS correlation test found no relationship between cultural pressure in terms of population growth and future economic development of Pakistan

What do you think generally about population growth in Pakistan, is it good or bad in terms of economic development (GDP, GDP per capita)?

When this question was asked from multiple interviewers, it was mentioned by one interviewer "Population growth is increasing since its inception but in Pakistan (a developing country) it is not good in term of economic development. As the population increase, GDP per capita will decrease due to limited resources". While other one said "This is good for Pakistan in the long-run. Here several theories of controlling population growth has been tried and tested, yet failed to make remarkable impact for one or the other reasons". The last one argued "Impact of population is not the one way street so we can't see if income of the populace increases, will it decrease the population growth or not because it depends on number of other factors as well but population control would have a positive impact on economic development of the country". There are also some other scholars worth mentioning here that supports the above arguments like Cincotta & Engelman(1997) argued that population growth has dampened the growth of per capita gross domestic product, the primary measuring unit of economic growth⁶⁶. The negative effects of rapid population growth appear to have weighed most heavily on the poorest group of countries in the developing world during the 1980s and also throughout the two previous decades. Population affects economic performance suggests a possible resolution of the old and persistent empirical puzzle of the generally small and

statistically insignificant impacts of population growth on the growth of GDP per capita^{67, 68, 69}. It was argued by another scholar that the net relationship between greater population and economic growth depends on whether the inducements to human capital and expansion of knowledge are stronger than diminishing returns to natural resources. Therefore, it is important to examine the population and economic growth nexus¹⁹. It was also found during our questionnaire analysis that 74% participants were agreed on the idea that there is a relationship between population growth and economic development in terms of GDP. The below table shows the indicators of population growth and economic development but it is hard to understand the relationship between the two factors by analyzing the below data.

Table 1:

Year	GDP Growth Rate	GDP Per Capita(\$)	Population Growth Rate(PGR)	Total Fertility Rate(TFR)
1996	6.6	503.7	2.5	5.2
1997	1.7	484.6	2.5	5
1998	3.5	471.1	2.4	4.9
1999	4.2	465.9	2.4	4.7
2000	3.9	534.9	2.3	4.5
2001	2	511.8	2.2	4.3
2002	3.1	501.2	2.1	4.1
2003	4.7	565.3	2	4
2004	7.5	652	2	3.9
2005	9	714	2	3.8
2006	5.8	877	2	3.8
2007	6.8	953.8	2.1	3.7
2008	7.2	1,042.80	2.1	3.6
2009	-1.6	1,009.80	2.1	3.5
2010	3.8	1,043.30	2.1	3.4
2011	3.6	1,230.80	2.1	3.3
2012	3.8	1,266.40	2.1	3.3
2013	3.7	1,282	2.1	3.3
2014	4	1,334.10	2.1	3.2
2015	4.2	1,427.10	2.1	3.2

Source: The World Bank Database, Fertility Rate (1996-2014), Population Growth Rate (1996-2014), GDP growth rate, GDP per capita (1996-2014) accessed on 20th October 2015

During the SPSS correlation test, it was also found that there is a weak relationship between population growth and future economic development of Pakistan. So, it could be said with certainty that population growth has some impact on the future economic growth of Pakistan but whether that impact is positive or negative couldn't be argued at this moment. Although it could be narrated with certainty now that there is a connection between the two factors.

What kind of impact has it produced in the past or going to produce in the future on the socio-economic structure of Pakistan?

During interview from multiple interviews, it was argued by one of them that "Due to high population growth, living standard of people became low. Most of the low income people have

more children therefore they were not able to support them properly” While another one contrasted “Pakistan is among the larger market of youth in world. With increased availability & deployment of human resource would play positive & multiplier impact to the economy like china, and India etc. Third one gave a different view like “Population growth has impact on Health and Education and government is not doing much about it, Pakistan has very high young population that also causes population growth in the country so population growth is hard to decrease substantially in the present or near future. Young population would soon come into reproductive age and cause population growth in the country. So it could be taken from the above discussion that population growth could have a negative impact in terms of education, health and infrastructure but on the other hand, it could be beneficial for economic activity if it is used in an effective and efficient way. Below table information also suggests that even though the there is a huge budget and trade deficit but also there is a good increase in government revenue as well.

Table 2:

Year	Government Revenue(RS) Million	Government Expenditure(RS) Million	Budget Deficit(RS) Million	Trade Balance(RS) Million	Population Growth Rate	Total Fertility Rate(TFR)
1996-1997	3,88,246	5,43,106	-1,54,860	-1,39,688	2.5	5.2
1997-1998	4,29,454	6,34,014	-2,04,560	-63,178	2.5	5
1998-1999	4,68,601	6,47,778	-1,79,177	-75,622	2.4	4.9
1999-2000	5,12,500	7,09,100	-1,96,600	-90,114	2.4	4.7
2000-2001	5,53,000	7,17,900	-1,64,900	-87,930	2.3	4.5
2001-2002	6,24,100	8,26,250	-2,02,150	-73,683	2.2	4.3
2002-2003	7,20,800	8,98,200	-1,77,400	-62,078	2.1	4.1
2003-2004	7,93,700	9,55,800	-1,62,100	-1,88,789	2	4
2004-2005	9,000,14	11,16,981	-2,16,967	-3,68,991	2	3.9
2005-2006	107,600	14,01,900	-12,94,300	-7,26,317	2	3.8
2006-2007	12,97,957	17,99,968	-5,02,011	-8,22,494	2	3.8
2007-2008	14,99,380	22,76,549	-7,77,169	-13,15,434	2.1	3.7
2008-2009	18,50,901	25,31,308	-6,80,407	-13,39,852	2.1	3.6
2009-2010	20,78,165	30,07,226	-9,29,061	-12,93,517	2.1	3.5
2010-2011	22,52,854	34,47,263	-11,94,409	-13,34,439	2.1	3.4
2011-2012	25,66,514	39,36,218	-13,69,704	-18,98,488	2.1	3.3
2012-2013	29,82,436	48,16,300	-18,33,864	-19,83,401	2.1	3.3
2013-2014	36,37,297	50,26,016	-13,88,719	-20,47,058	2.1	3.3
2014-2015	26,82,647	37,31,587	-10,48,940	-16,25,143	2.1	3.2

Source: Pakistan Economic Survey (1997-2015)

It was also found during this research that 67% questionnaire participants were agreed on the impact of population growth on government expenditure and subsequently increase budget deficit, while 57% participants were agreed that current account deficit and lesser economic activity have a relationship with population growth in Pakistan.

Last question, what do you think if the government or society by its own understand and control population growth, will alone or combined endeavor contribute in rapid economic development of Pakistan in the future?

Unchecked and rapid population growth has been a major stumbling block in the way of socio-economic development in most of the developing countries. Usually the positive impact of development initiatives is cancelled out due to corresponding increase in the number of individuals added to the society. Unbridled growth in population needs unlimited resources to maintain and improve its living standards. Since, resources are limited therefore we have no option but to control the population to a manageable extent⁷⁰. This last question was answered by all interviewers almost in a similar way as the first one argued that "Government and society should jointly control population growth and can contribute in rapid economic development of Pakistan by introducing awareness sessions/ seminars and also by providing old age benefits as people may not feel insecure in their old ages. The second one mentioned "Not alone, this can be served. This is a combined effort of govt. as well as society. Where govt. to provide awareness & resource, while society to understand national concerns and pay its duty towards wellbeing of the nation". So, it could be a valid assertion to make that combined efforts are necessary to force the ghost of population growth inside the bottle.

CONCLUSION

The research was carried out in order to understand the population phenomena and its impact on future economic development of Pakistan. The research was quantitative in nature so therefore questionnaires and interviews were used to collect data of different kinds. It was found during this research that there is relationship between old age security and future economic development, women empowerment and future economic development of Pakistan with the exception of cultural pressure factor. Most of the participants of questionnaires and interviewees were agreed on the notion that population growth is quite high in Pakistan and it is not contributing positively in the economic development of Pakistan as it impacts on GDP, GDP per capita and government expenditure. It was observed during the data collection that generally participants were aware of the high population growth problem and considers it as an obstacle for future economic development of Pakistan. It was also unearthed during this study that as a combined factor population growth and economic development has a very weak connection statistically but qualitatively the connection found was strong.

RECOMMENDATION

The research at the end asked a question from interviews about the possible solution of this problem and all are agreed on this point that no single stakeholders can solve this issue. It could only be solved when society understand its importance and takes preventive measures while on the other hand government initiate some policy measures like introducing informative and educational sessions. But in case, if this all is not sufficient, government can merge its population control policy with other policies like Benazir income support program and provide poverty funds to those having fewer children. The government of Pakistan can introduce some new policies like providing scholarships and free admission in government schools and colleges to poor families having two children. It can also give preference to those having fewer children in government jobs and grant income tax incentives as well. This all and more is possible but until and unless people of Pakistan don't consider it as an issue, it could not be possible to control anyway.

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