PalArch's Journal of Archaeology of Egypt / Egyptology

# THEORETICAL INVESTIGATION OF DEMOGRAPHIC DIVIDEND AND ITS RELATION WITH SOCIO-ECONOMIC DEVELOPMENT: A SYSTEMATIC REVIEW

**Muhammad Idrees[1], Zahira Batool[1], Muhammad Atif[1], Basharat Ali[1], Muhammad Roman[2]**

**[1]Department of Sociology Government College University Faisalabad.**

**[2] Department of Sociology, University of Jhnag, Jhnag.**

**Muhammad Idrees , Zahira Batool , Muhammad Atif , Basharat Ali , Muhammad Roman , Theoretical Investigation Of Demographic Dividend And Its Relation With Socio-Economic Development: A Systematic Review , Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(10), 4340-4352. ISSN 1567-214x.**

**Keywords: Demographic dividend, human capital formation, migration, entrepreneurship, education, employment labor force participation.**

## Abstract

The study describes various issues, factors, and population policies and elements responsible for the demographic transition throughout the world. In this study the researcher has reviewed the selective literature of previous two decades to provide a strong base to the study. A number of models depicting the demographic transition have been presented and used also for framing a new model. The literature has also focused on the theories, models and approaches related to the demographic change from pessimistic view point (Population as a problem) and optimistic view point (Population as a positive indicator of development). The principal concern of this study is the utilization of current demographic dividend prevailing in Pakistan for the betterment of socio-economic sector of the country. This situation can be elaborated in its best form by analyzing various indicators associated to the population such as human capital formation, migration, entrepreneurship, education, employment labor force participation etc.

## 1.1 Background of the Study:

This research is formed to review past studies concerned with demographic transition, distribution, and demographic dividend in Punjab, Pakistan. As the population of World reaches 7 billion, countries have a lot of challenges to face in near future in shape of residential, health and food insecurity. The resources are shrinking with the passage of time as population is

growing rapidly. The census of 2017 is clearly showing a huge difference between the number of people living in Pakistan in 1998 and 2017. This census elaborates the number of people in the age category of 17-30 higher up to 30% as compared to the census of 1998. This clearly shows that Pakistan has a huge number of young people, highest among developing countries. This amazing transition of population gives a greater scope to the present study which is planned to analyze the factors behind this transition and its future implications.

### 1.2 Defining Demographic Dividend

Westley and Choe (2002) explained that the, demographic dividend is the consequence of population transition of fertility from high to low about 15 years ago. It comprises of a large numbers of adolescents and young adults who were born in the phase of higher fertility followed by the children born after the declineof fertility". The most Asian countries have experienced this phenomenon.

Sathar, et., al. (2013) argued that the demographic transition is the evolution from a rough equilibrium of high fertilityand mortality, through a phase of rapidpopulation growth withthe coexistence of declining mortality with continuing high fertility, to an ultimate equilibrium of low fertility and mortality.

Bloom and Canning (2014) defined demographic bonus or demographic dividend as the opportunity formed over a time period of about forty to fifty years during which, the proportion of dependent children is reduced and the population with the age of labor force significantly increases. As a result,opportunities of increasing per capita output are grown directly and indirectly.

UNFPA (2016) explained Demographic Dividend (DD) as a temporary source that accelerate economic growthwhich becomes possible by a continuous decline of birth and death rates, and ultimately leads to an increase in the proportion of working population as compared to dependent young population.

Roy and Roy (2017)say that"Demographic Dividend" is extensively talked about term now a day. It also has become the topic of discussion in India. But the question is, whether India will be pretty able to get the maximum advantage of demographic dividend byimproving its labor quality and employability.

### 1.3 Determinants of demographic Transition

Morgan et al (2002) did a comparative analysis of fertility among Muslims and non-Muslims in Asian countries. The results depicted that Muslim couples have more children and have desire of another child and they have tendency of contraceptives usage. However the pro-natalist tendency of Muslim women is not accounted by their less independence as compared to their non-Muslim counterparts. It is because of greater poverty rate among Muslims and some other socio-economic problems.

Alagrajan (2003) did a reassessment of the overall decline in fertility below replacement level in Kerala. It was revealed that Muslims had higher fertility and the prevalence of contraceptive was lower as compared to theChristians andHindus. He observed that the difference between Hindus and Muslims examined at lower educational level did not exist at higher education levels. He

argued further that the witnessed fertility gap between Muslimsand Hindusis a passing phenomenon.

Anwar (2009) empirically inspectedreasons and prevention of population explosion in the rural entities of Peshawar (Pakistan). He identified a number of causes of population explosion related to economy, religion, government, psychological factors and infrastructural issues.

Similarly, Kamal &Pervaiz (2011) analyzed the elements affecting family size in Pakistan and determined that age of women, education of husband, women out ofeconomic activity, lacking consensus between wife and husband on number of children, high fertility rate, lower knowledge about contraceptive usage, son preference,and lower child mortality rate are responsible for big size of family.

Bongaartset al(2013) noted that there are a number of factorsthat play their role as hurdle in the way of contraceptiveusage such asaccess to family planning services, low literacy rate, cost of contraceptives, possible side effects of contraceptives and socio-cultural issues. A number of family planning methods are practiced in Pakistan thatincludes both traditional and modern methods.

Ali (2014) explained thatin Pakistan the demand for contraceptive is 55%, whereas prevalence of its usage is 35%; this depicts the fact of lower demand and usage of contraceptives in Pakistan.

Wei et al(2015) analyzed the elements and models of population growth which affected the Chinese population and determined two factors that significantly influenced the growth of population in China:(1) Level of urbanization and (2) sex ratio.

Nyoni and Bonga (2017)explained the Malthusianpopulation trap which argues that rapid growth ofpopulation is really a problem forth economy of any country. Malthus suggested moral restraint (delay of marriage) and vice (measures of birthcontrol) as significant elements that regulategrowth of population. WilliamFaunce,neo Malthusian intensely support the population theory of Malthus and believes that birth control is the only solution tothe growth of population and it can be achieved through family planning.

### 1.4 Demographic Dividend as a window for Opportunities: An optimistic scenario of population growth and Socio-economic Development

With optimistic approach it is claimed that population growth can be used for facilitation of state. Through proper policy making population growth can enhance the socio-economic conditions of society. One way is to involve them in labor force, entrepreneurship, and skill development programs. If any country successfully achieved these objectives that are also part of the united nations development agenda and millennium development goals that country would be able to harness its dividend and get the socio-economic development by utilizing their youth's potential.

Klasen and Lawson (2007) examined the association among poverty, economic development, and population growth in Uganda. The impact of population growth on poverty and economic development was measured by using cross section and panel data through Harrod Domer and Solow models. It is found that population growth positively influencing the economic development but have negative impact on per capita income growth. It is suggested that by reducing fertility rate and through proper education the economy of country can be developed.

Furuoka (2010) conducted a study in Philippines to measure the relationship between economic growth and population. He concluded that a strong relationship exists between the concepts. He suggested that further studies are needed to understand the relationship between above said variables in the country.

Ali et al (2013) measured the impact of population on growth of economy in Pakistan. They claimed that both the variables are connected with each other in a positive way because growth of population increases the labor force. This conclusion is made on the basis of thirty years of annual data of country by using ARDL co integration technique. The dependent variable of the study was gross domestic product while independent variables were human resource development, trade openness, population growth and unemployment rate. The study helps to understand that the real problem of Pakistan in not population growth but development policies and unemployment. By making appropriate policies for human capital development country can utilize it population for development and resolve the problem of unemployment.

### 1.4.1 Human Capital Formation

Economic and human development is discussed in proceeding portion with the help of reviews of the literature of different authors. Various attempts are made to develop link between human capital development, formation, and socio-economic development but all cannot be discussed here. Some but important reviews are discussed here by following chronological order.

Callaghan (2002) assessed the impact of human capital development on economic growth. For this purpose the researcher gather the information from ten Asian countries from the year 1980 to 1997. Enrolment rate at school level and literacy ratio were used as indicators to conceptualize human capital. A positive and significant relationship found between human capital and GDP rate. It is explained that quality of human capital can increase the GDP growth. The economics in these countries are influenced most by the increase in labor but intellectual development is still under review even in most developed countries such as Japan, South Korea, and Singapore.

Lutz, et al. (2005) claimed that we should predict about the human development because it is necessary for making policies. For doing so, population projects are suitable option which is based on age, sex, and educational attainments of individuals. However, fertility, mortality, and migration are also important factors besides age and sex for estimating the educational transition for future prediction. The model also can be applied to measure education flows, enrolment, and modeling intake as well as completion rates to predict the rate of human capital development.Further, they suggested that the model can be used for educational projection in developing countries because it is an easiest one for gathering information.

Devitt (2009) revealed that investment in education has a positive influence on human growth, for this study they collected primary data from West Bengal which is a state of India. They explored that the investment rate for first generation was modest but it was increased for second generation and in second generation females availed the equal opportunities in education as were enjoyed by the males. Those who didn't have land were influenced little while the same case was with ST/SC households. The land reform benefits expandfurther than the targeted output of betterments in productivity with beneficiary household's strategy of investing in education as it was suggested by the researchers.

Stewart (2010) analyzed the trends in human capital development in Europe in the last two decades and found that levels of both relative poverty and overall income inequality were on the rise across most of the region. The gender gaps in pay were narrowing but poverty rates were generally higher for females particularly in Bulgaria, Baltics, and Romania. Migrants have higher poverty rates and lower employment than non-migrants. There was less improvement in health of the individuals that too was for higher social classes. In the Eastern Europe voting turnout rate dropped considerably and European countries have to face three main challenges. First unemployment and poverty are considered the results of economic crisis in years ahead particularly for children and young people. Second is that these countries are facing the problem of aging population which will increase social spending especially on health and social care as well as state pensions and third and most alarming is changing climate (Naseem et al., 2020; Mohsin et al., 2021; Rafiq et al., 2019; Azam et al., 2020).

Agiomirgianakis et al. (2012) used panel data at large level by including 93 countries and information of 27 years were studied to analyze contribution of human capital in economic growth. They found that a strong and positive connection exists between both the variables, further they said that higher will be the education greater will be the economic growth. Ashtoon et al. (2014) claimed that through increasing investment in physical capital the economic growth can be encouraged and by doing the human capital development can be used to enhance the development process. They argued that physical and human capitals are strongly associated with each other.

Amjad (2015) focused on the factors which are considered important for the improvement in growth performance of Pakistan. Researcher emphasized the on the differences which were found in the quality of human capital formation and he said that physical capital, better institutions, education, and health care are key ingredients for developing human capital and economic growth as analyzed by the cross countries data.

Adeyemi and Ogunsola (2016) studied the impact of human growth and economic progress by analyzing the data of years 1980 and 2013 of Nigeria.Secondaryschool enrolment, life expectancy rate, government expenditure on education, gross capitalformation and economic growth were the indicator through which the researcher examined the human and economic growth of the country. Naseem et al., (2019); Naiwen et al., (2021) They explored that there is a positive association between the variables and government have to pay more attention to increase the enrollment rate at school then to provide health facilities.

Ali, et al (2018) concluded that the increase in output is depend on investment in human capital . Human and economic development can be increased with the help of efficient human capital stock. Johansen co-integration and granger causality approaches were used by the researchers to analyze the function of foreign aid in Pakistan for human capital development especially for the years of 1980 to 2016. Foreign aid, human capital index, and economic growth are associated with each other and a two way relationship exists between HDI and human growth.

### 1.4.2 Educational Achievement (Formal and Informal)

Thyne (2006) explored the ways through which education effect the civil war and examined proofs for stability and grievance arguments. Likewise, high investment in education by government shows that they are worried about the problems of public and decreasing their

grievance and trying to provide them a better lifestyle. It s further analyzed that the stability is result of investing in education, as educated people are not only get skills from education but understands the ways which creates a peaceful situation.

Adewole (2012) conducted a study in Nigeria to find the impact of education rate on economic growth; he used penal data of the years of 1980 to 2008. The results of model were found with the help of Ordinary Least Squares technique. It is recommended that high investment in education is critical for developing the economy of Nigerian.

Afzalet al (2012) demonstrated that without investing in education no one can develop its economy and the outputs of this investment are multidimensional, which includes the reduction of poverty, growth in economic structure and etc.

### 1.4.3 Entrepreneurship and Skill Development

VanStel et al. (2005)narrated that GDP in developed nations is strongly associated with entrepreneurship and have positive effects while there is a negative effect found in countries with poor income.

Audretsch et al. (2006) asserted that the use of knowledge in entrepreneurship is the secret for developing economy of any nation and if it is not in the way it will be remained un-commercialized. Further, a controversial relationship found between economic development and entrepreneurship.

Salman (2009) throw light on the grey areas which are the most unattended fields in case of youth development that are skill gap and career counselling. He highlighted that there is gap between the education provided to the young ones and market requirement as it increases the rate of unemployment. As a result they have to join low paid job. Mohsin et al., (2019) These problems can be overcome by providing the opportunities of career counselling to the youth, as suggested by the study.

Martinet al. (2013) studied a huge amount of literature and claimed that a strong and positive relationship exist among entrepreneurship training, academic programs and human capital development. According to them they are interlinked and support each other to develop economy.

Hesselset al. (2014) stated that those who have highly developed skills will stay in market for long and it creates an innovative environment for organization.

World Bank (2015) reported that governments all over the world are paying attention to promote entrepreneurship and small business to reduce unemployment, especially in last four decades as many studies were conducted to understand the relation between entrepreneurship and economic development. Moreover, innovative activities are considered key element in development of economy and technological advancement is also critical in this way. For competing with world's economy, particularly for countries such Sub Saharan Africa, have to focus on knowledge in economic activities and innovation. Naseem et al., (2018) World Bank suggested that knowledge based economy, innovation and advancement in technology can increase the value of economy of countries such as Sub Saharan Africa.

Chen and Thompson (2016) said that variety in skill development ensure the human capital development and growth n entrepreneurship. For becoming a competitive entrepreneur one needs a variety of advanced skills and by these advanced skills one can get high returns from entrepreneurship.

Bublitz et al (2017) described that those who have variety of work skills have a greater chance to enter in self-employment as compared with those who don't have such skills. They concluded it by studying the necessity of entrepreneurship and opportunities for it.

Krieger, et al (2018) argued that the extension inhuman capital development is significantly attached with the development of skill variety as numbers of researches are conducted to comprehend the outcomes and determents of variety of skills but its connection with gender is still under consideration. The results of literature review stated that skill development is key driver for entering in entrepreneurship but researchers still unable to device the determents of variety of skills. This is yet not confirmed that either the variety of skills is the result of possession of certain endowment factors or purposeful investment strategy. Likewise, it is found that the females are deprived of variety of skills. Conclusion is that the results of different studies are inconsistent and difficult to measure.

### 1.4.4 Labor Force Participation

This researchprovided us the information about the subject understudy and keeping in view the previously given literature. The first part presents a brief overview of the determinants of the labor force participation, followed by a detailed review of factors affecting participation in each country.

Maurer-Fazio et al. (2005) analyzed the impact of economic reforms on labor force participation in rural and urban China. Considerable change in the labor force participation appeared when they disaggregated the data by age group, marital status, location, and gender. A Probit regression is used for the analysis. They explored that labor force participation of woman has decreased compared to male whereas rural females have increased participation more than urban women. Because of high returns on education, single urban youth have reduced their labor force participation than single rural youth. The labor force participation of the elderly was higher in rural areas as compared in urban areas. They uncoveredthe evidence of feminization in agriculture. The researchers concluded that economic reforms have resulted in changes in the labor force participation of particular sub groups of the Chinese inhabitants.

Achaqzai (2010) stated that the youth of Pakistan can excel in all fields of life as they have an extraordinary demographic situation as an opportunity. They can become a productive asset and can reduce the poverty from country. Government with the collaboration of its citizens can develop an environment in which people can enjoy a physically and mentally healthy life, they can learn variety of skills to enhance their knowledge and to develop country economically. But they are provided with very less opportunities that is deteriorating situation in country.

Maurer-Fazio et al. (2011) examined the impact of childcare and eldercare on married urban women's labor force participation decisions in China in the years 1982-2000. They revealed that the odds of females participating in the labor market increases in households with older persons (parent or parent-in-law and any person aged 75 or above) whereas the presence of young

children decreases it. They found that the negative influence on woman's participation on having pre-school aged children in the household is significantly larger for married, rural-to-urban migrants than for their non-migrant counterparts. Likewise, the presence of elders is larger for rural-to-urban migrant women than for non-migrant groups.

Mujahid and Zafar (2012) collected information from Pakistan to explore the females work force participation and used the time period of 1980 to 2010 and the aim of the researcher was to find the impact of female participation in work force and economic development. He used the ARDL method to achieve his goal. It is concluded that female participation in work force has a strong impact on economic development of Pakistan.

Sarwar and Abbasi(2013) estimatedthe female's participation in working force of Pakistan. For this purpose they adopted the data from Pakistan Bureau of Statistics and World Bank. They applied analysis technique that shows that participation of females in work force below the international standard and developed countries. Further, most of the women are working in informal sector such as agriculture. The factor behind the gender based inequality is economic, cultural and political that adversely influenced the women labor force participation in Pakistan.

Shahid (2017) analyzed association between the gross fixed capital formation, participation in work force and economic growth to understand the type of relation they have and to achieve this goal researcher got help from the data collected by World Bank, Pakistan Statistical Bureau, and State bank of Pakistan that was collected in the years 1980 to 2012. The tests like Firstly Augmented DickyFuller and Phillip Perron were used to comprehend the influence of gross fixed capital formation on other variables of study. Furthermore, a sustainable association found between the variables and this result was inferred by using Johnson Co-integration test, while, economic growth and participation of work force have a negative and significant relation, on the other side, gross fixed capital formation has sufficient and positive relation with short time period.

Navneet (2018) described that the women involvement in the labor market is very low. In future rate of women labor force participation expected to increase due to the decrease in the era and duration of childbearing. If sufficient employment opportunities are being created to absorb them into the labor market these countries will have another dividend from more females entering the labor force.Mohsin et al., (2020) The economic benefit derived from the increase in the women labor force participation isexpected to be higher than the economic benefits that would accrue from the increase inthe overall labor supply.

### 1.4.5 Socio-Economic Development

Mayer (2001) examined the variables such as age and gender to measure the health condition of young and their probability to survive. Researcher used Granger-type and causality test and concluded that economic growth influences the health status in countries as such causes eLatin America generally, Brazil and Mexico. The good health of young, especially in case of females, can increase 0.8–1.5% annual economy of a country.

Mason and Kinugasa(2004) stated thateconomic development is accelerated through reducing the fertility rate by adopting different population control methods. These steps are not only developing economy of the nations but expanding skilled working force because of demographic

dividend. The age structure of South Korea, Japan, Singapore, Thailand and Indonesia is changed because of the decline in fertility and mortality rate in these countries. The working aged people increased as compare to children and adults in these six countries of Asia which increased per capita income up to 25% in 1960 to 1990.

Baber et al. (2013) estimated that the working aged people (15-29) are 52 millions in Pakistan and this number will increased in years ahead. By paying special attention to health and education of young country can be stable socially, economically, and politically. Unfortunately, currently, the crime rate in youth of Pakistan, especially in Punjab, is increasing dramatically which is creating an alarming situation and country is pay attention to reduce crime rate in young as Pakistan is amongst the countries where crime rate is higher than the other nations. To deal with such toxic environment, country is try hard as youth is considered the asset of any country.

Akram (2014) stated that a two way relationship exists in health and economic growth as improvement in income results in better health facilities; on the other side better health ensure the economic growth. Increase in per capita income is the result of development of human capital especially betterment in health enlarge the contribution of people in economic activities.

Todaro& Smith (2015) said that economic development is not a unidirectional phenomenon, it depends on multiple factors such as changes are required in all institutions like health and education, in attitudes of people, poverty alleviation, like wise there is need to reduce the inequality in all shares of life and provision of justice must be ensured.

Nowak,et., al., (2016) collected information from Bangladesh and Nepal to analyze the impact of females education and empowerment on social and economic development of the countries and concluded that positive and strong association found between the variables.

**1.6 Conclusion:**

Though the studies reviewed above have been very useful on their own yet they could not go into the depth of the problem being non comprehensive in nature. No such studies are conducted that help one to comprehend the effects of demographic dividend, formation of human capital, social and economic development in all nations. The undergoing research is an attempt to provide people with information which help them to understand the changes taking place in all nations (developed, developing, and underdeveloped) particularly the demographic changes that are influencing socioeconomic growth. In this study, skill development, participation of work force, and human capital growth and their relation with the socio-economic development of country are taken in account. Moreover, this study also discussed to some extent the pessimistic approach towards demographic dividend. This research review more than hundreds of studies from more than 100 countries data that provide different theoretical, methodological point of view of various scholars about the issue and has taken into account more than various variables responsible for reaping or missing the demographic dividend. Hence, the study can be simply put as very exhaustive elaborative and broader in scope and yardstick to measure demographic changes, human capital formation and socio-economic development. On the basis of this theoretical investigation it is suggested that demographic dividend can be sustained if the working population is professionally educated, well trained, and healthy and engaged economically. The issue cannot be solved by increasing the population volume only. Even only the increase in number of working population may not be a reliable solution. The benefits of

demographic dividendcan be exploited if the people able to work get job opportunities, ratio of dependency and infant mortality rate are reduced, literacy rate among adults is improved, facilities of health care are upgraded and labor force qualityis enhanced. These measures may be helpful to attain the real benefits of demographic bonus.

**References**

Ali, H. Siddique, H., M., A., Ullah, K., and Mahmood, M., T. (2018). Human Capital and Economic Growth Nexus in Pakistan: The Role of Foreign Aid. Bulletin of Business and Economics, 7(1), 13-21.

Afzal, M. (2017). Population Growth and Economic Development in Pakistan. The Open Demography Journal, 2, 01- 07.

Amjad, R. (2015). Skills and Competitiveness: Can Pakistan Break Out of the Low-Level Skills Trap? The Pakistan Development Review, 44(4), 387-409.

Ali, S., A. (2014). Unmet Need for Contraception and Unintended Pregnancies among Women of Reproductive Age Group: A Situation Analysis, El Mednifico Journal, 2 (3): 259 – 265

Akram, N., and Khan, M. (2014). The Long Term Impact of Health on Economic Growth in Pakistan. The Pakistan Development Review, 47(4), 487-500.

Ashton, D., N., and Sung, J. (2014). Supporting Workplace Learning for High Performance Working. A Research Report for International Labor Organization , Geneva

Adewole, A., O. (2012). Effect of Population on Economic Development in Nigeria: A Quantitative Assessment. International Journal of Physical and Social Sciences, 2(5), 1-14.

Agiomirgianakis, G., Asterious, D., and Monastiriotis, V. (2012). Human Capital and Economic Growth Revisited: A Dynamic Panel Data Study. Int'l Advances in Economics, 8(3), 177-187.

Achaqzai, S. (2010). "National Youth Conference on Risks and Dividends of Youth Bulge in Pakistan" BARGAD, Gujranwala – Pakistan, 2010

Anwar, A. (2009). Causes and Prevention of Population Explosion in the Rural Areas of Peshawar, Journal of Independent Studies and Research, 7 (1): 1 – 25

Audretsch, D., B., Keilbach, M., C., and Lehmann, E., E. (2006). Entrepreneurship and Economic Growth, Oxford University Press, New York, USA.

Alagrajan, M. (2003). An Analysis of Fertility Differentials by Religion in Kerala State: A Test of Interaction Hypothesis. Population Research and Policy Review, 22, 557-574.

Azam, T., Mohsin, M., Naseem, S., Nilofar, M., Zia-UR-Rehman, M., Nelofer, S., ... & SongJiang, W. (2020). Economic growth vulnerability amid the COVID-19 epidemic: a systematic review of different sectors of Pakistan. Revista Argentina de Clínica Psicológica, 29(4), 705.

Bublitz, E., Nielsen, K., Noseleit, F., and Timmermans, B. (2017), "Entrepreneurship, Human Capital, and Labor Demand: A Story of Signaling and Matching", Industrial and Corporate Change, doi: 10.1093/icc/dtx027.

Bloom, D., D., Canning, and Sevilla, J. (2017). The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change." Population MattersSeries. Santa Monica, California: Rand. (Useful additional materials are available on the web; search under "demographic dividend.)

Bongaarts, J., Sathar, Z., A., and Mahmood, A. (2013). Population trends in Pakistan, PopulationCouncil Book Series, 1 (1): 13 – 23

Baber, M., Zafar, I., M., Maan, A., A., and Sher, M. (2013). Examining The Role Of Family In The Male Youth Involvement In Violence International Journal of Environment, Ecology,Family and Urban Studies (IJEEFUS) ISSN 2250-0065 Vol. 3, Issue 1, Mar 2013, 99-110

Chen, L., W., and Thompson, P. (2016), Skill Balance and Entrepreneurship: Evidence FromOnline Career Histories", Entrepreneurship Theory and Practice, 40(2), 289-305.

Devitt, P. (2009). Qualitative research and evaluation methods (third edition). J Nurse Education Today, 23(6), 467-467.

Furuoka, F. (2009). Population growth and economic development: New empirical evidence from Thailand. Economics Bulletin, 29(1), 1-14.

Hessels, J., Brixy, U., Naudé, W., and Gries, T. (2014), Skill Variety, Innovation and New Business Formation", IZA Discussion Paper No. 7889. Bonn: IZA.

Krieger, A., Block, J., and Stuetzer, M. (2018). Skill Variety in Entrepreneurship: A Literature Review and Research Directions. International Review of Entrepreneurship, 16(1), 29-62.(PDF) Skill variety in entrepreneurship: A literature review and research directions. Available from: https://www.researchgate.net /publication/326742484_Skill_variety_in_entrepreneurship_A_literature_review_and_research_directions [accessed Dec 11 2018].

Kamal, A., and Pervaiz, K. (2011). Factors Affecting the Family Size in Pakistan: Clog –log Regression Model Analysis, Journal of Statistics, 18: 29 – 53

Klasen, S., and Lawson, D. (2007). The Impact of Population Growth on Economic Growth and Poverty Reduction in Uganda. Growth, 15, 64.

Lutz, W. (2009). Sola schola et sanitate: Human Capital as the root cause and priority for International Development? Journal of Philosophical Transactions of the Royal Society of London 364(1532), 3031-3047.

Martin, B., C., McNally, J., J., and Kay, M., J. (2013). Examining the Formation of Human Capital in Entrepreneurship: A Meta-Analysis of Entrepreneurship Education Outcomes, Journalof Business Venturing, 28(2), 211-224.

Mujahid, N., and Zafar, N. (2012). Economic Growth-Female Labor Force Participation Nexus: An Empirical Evidence for Pakistan. The Pakistan Development Review, 51(4), 565-586.

Maurer-Fazio, M., Connelly, R., Chen, L., and Tang, L. (2011). Childcare, Eldercare, and Labor Force Participation of Married Women in Urban China, 1982–2000. Journal of Human Resources, 46**,** 261-294

Maurer-Fazio, M., Hughes, J., W., and Zhang, D. (2005). Economic Reform and Changing Patterns of Labor Force Participation in Urban and Rural China.

Mason, A., and Kinugasa, T. (2004). East Asian Economic Development: Two Demographic Dividend", Paper Presented for Conference on Miracles and Mirages in East Asian Economic Development, Honolulu, HI, pp.1-23.

Mayer, D. (2001). The Long Term Impact of Health of Economic Growth. World Development, 1 025-1 031.

Mohsin, M., Zhu, Q., Naseem, S., Sarfraz, M., & Ivascu, L. (2021). Mining Industry Impact on Environmental Sustainability, Economic Growth, Social Interaction, and Public Health: An Application of Semi-Quantitative Mathematical Approach. Processes, 9(6), 972.

Mohsin, M., Naseem, S., Muneer, D. S., & Salamat, S. (2019). The Volatility of Exchange Rate Using GARCH Type Models with Normal Distribution: Evidence from Pakistan. Pacific Business Review International, 11(12), 124-129.

Mohsin, M., Naseem, S., Zia-ur-Rehman, M., Baig, S. A., & Salamat, S. (2020). The crypto-trade volume, GDP, energy use, and environmental degradation sustainability: An analysis of the top 20 crypto-trader countries. International Journal of Finance & Economics.

Navneet, K. (2018). Age Structural Transition, Demographic Dividend, and Millennium Development goals in South Asia: Opportunities and Challenges, School of Political Science and Social Inquiry, Monash University, Melbourne, Australia.

Naiwen, L., Wenju, Z., Mohsin, M., Rehman, M. Z. U., Naseem, S., & Afzal, A. (2021). The role of financial literacy and risk tolerance: an analysis of gender differences in the textile sector of Pakistan. Industria Textila, 72(3), 300-308.

Nyoni, T., and Bonga, W., G. (2017). Population Growth in Zimbabwe: A Threat to Economic Development? Dynamic Research Journals Journal of Economics and Finance, 2 (6): 29 – 39

Naseem, S., Mohsin, M., Zia-ur-Rehman, M., & Baig, SA (2018). Volatility of pakistan stock market: A comparison of Garch type models with five distribution. Amazonia Investiga, 7(17), 486-504

Naseem, S., Rizwan, F., Abbas, M. Z., Mohsin, M., & Zia ur Rehman, D. (2019). Impact of Macroeconomic Variables on Pakistan Stock Market. Naseem, S., Rizwan, F., Abbas, Z., & Zia-Ur-Rehman, M.(2019). Impact of Macroeconomic Variables on Pakistan Stock Market. Dialogue (1819-6462), 14(2).

Naseem, S., Fu, G. L., Mohsin, M., Aunjam, M. S., Rafiq, M. Z., Jamil, K., & Salamat, S. (2020). Development of an inexpensive functional textile product by applying accounting cost benefit analysis. Industria Textila, 71(1), 17-22.

Nowak, A., Z., and Dahal, G. (2016). The Contribution of Education to Economic Growth: Evidence from Nepal. International Journal of Economic Sciences, 5(2), 22-41.

Roy, S., K., and Roy, S. (2017). Demographic Dividend In India: A Synoptic View International Journal of Business and Administration Review Volume 2. ISSN No. 2347 – 856X

Rafiq, M. Z., Jun, J. C., Naseem, S., & Mohsin, M. (2019). Impact of Market Risk, Interest rate, Exchange rate on Banks stock return: Evidence from listed Banks of Pakistan. Amazonia Investiga, 8(21), 667-673.

Shahid, M. (2017) Impact of Labor Force Participation on Economic Growth in PakistanJournal of Economics and Sustainable Developmentwww.iiste.org ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online) Vol.5, No.11

Sathar, Z., Royan, R., and Bongarts, J. (2013). Capturing the Demographic Dividend in Pakistan, First Edition. Pages; Cm Includes Bibliographical References. ISBN 978-0-87834-129-0 (alkaline paper) Population Council One Dag Hammarskjold Plaza New York, NY 10017 USA.

Sarwar, F., and Abbasi, A., S. (2013). An In-Depth Analysis of Women's Labor Force Participation in Pakistan. Middle East Journal of Scientific Research, 15(2).

Sarfraz, M., Mohsin, M., Naseem, S., & Kumar, A. (2021). Modeling the relationship between carbon emissions and environmental sustainability during COVID-19: A new evidence from asymmetric ARDL cointegration approach. Environment, Development and Sustainability, 1-19.

Salman, A. (2009). "Alternative Youth Policy in Pakistan", BARGAD: Gujranwala, 2009, pp. 41-43.

Todaro, M., P., and Smith, S., C. (2015). Economic Development, 11th ed., New York: Pearson Education.

Thyne, C. (2006). 'ABC's, 123's and the Golden Rule: The Pacifying Effect of Education on Civil Conflict, 1980—1999.' International Studies Quarterly, 50: 733-754.

UNFPA. (2016). Harnessing the Demographic Dividend to Accelerate Socio-economic Transformation and Economic Development in Malawi Ministry of Finance, Economic Planning and Development Department for Economic Planning and Development P.O. Box 30136 LILONGWE 3 MALAWI

Van Stel, A., Carree, M., and Thurik, R. (2005). The Effect of Entrepreneurship on National Economic growth. Journal of Small Business Economics 23: 311-321.

Wei, H., Jiang, Y., and Zhang, Y. (2015). A Review of Two Population Growth Models andAn Analysis of Factors Affecting the Chinese Population Growth, Asia Journal of EconomicModeling, 3 (1): 8 – 20.

World Bank (2015). Doing Business 2015: Going Beyond Efficiency. Washington, DC: World Bank, USA.

Westley, B., and Choe, M., K. (2002). Asia's Changing Youth Population. In East West Center, The Future of Population in Asia, Honolulu: East West Center, pp.57-67.