

Paradigm of Saving Behavior in Pakistan

Muhammad Ahsan Khan (Corresponding Author)

Hailey College of Commerce, University of the Punjab, Lahore

Dr. Muhammad Ali

Institute of Business Administration, University of the Punjab, Lahore

Waqas Baig

Hailey College of Commerce, University of the Punjab, Lahore

E-mail: waqasbaig33@yahoo.com

Hafiz Fawad Ali

Institute of Business Administration, University of the Punjab, Lahore, Pakistan

E-mail: fawadali94@hotmail.com

Received: January 10, 2019 Accepted: February 12, 2019 Published: February 14, 2019

doi: 10.5296/hrr.v3i1.14343 URL: <https://doi.org/10.5296/hrr.v3i1.14343>

Abstract

Purpose: This paper focus on the relationship between the Net National Saving and the impact of age dependency ratio, worker remittance, gross national income, domestic credit to private sector with help of econometric tool in the prospective of Pakistan over the period 1992-2012

Design/methodology/approach: The multiple regression model of OLS (Ordinary Least Square) is used in this paper to check impact of Variables on the dependent variable. The variable used in this paper are already tested different studies and we have cross validate the results specially keeping view the Madigan Miller “Life Cycle” hypothesis.

Findings: This paper clearly shows that the pattern of the “Life Cycle” theory can be seen, that everyone wants to lead a stable life. The saving of young people is more than the old people and the impact of the domestic credit to the private sector positive and the foreign

remittance plays a negative part in saving. The growth with respect to the GDP is positive.

Keywords: Net National saving, Pakistan, Life cycle, Age dependency ratio

1. Introduction

National investment funds assume an essential job in the financial advancement of any rising creating nation, for example, Pakistan, and so forth. Almost certainly, an excessive number of national funds will build national ventures, which thusly are helpful for the nation in its monetary development (greatest 1953). Pakistan is an immature nation and is contending energetically for its future acclaim in the outside world. Without a doubt, their per capita salary is low contrasted with that of another nation, similar to India, Bangladesh, and so on. In the good old days, the sparing pattern in Pakistan was low, however since the mid-1990s it has expanded. Pakistan faces numerous basic issues that make an impediment to the sparing idea of this nation. Psychological warfare and interior soundness are the most essential issues. Different countries have saving behavior in different ways in which they can save for further years thus establishing main reason to do this study (Agarwal 2001, Sarangis and Stewarts 2001). The purpose of this paper is to determine the National saving, credit of domestic in private sector, similarly compensation of employees and work remittance in growth rate and dependency of age ratio divide by percentage of age working population and growth national income also include in its and also finds if these influences shows a important part in saving attitude of country like PAKISTAN.

2. Literature Review

2.1 Importance of National Saving

Desires can be differed from person to person and places to places (Modigaalani and Anndo 1963, Dooshi 1994, Eddward ,1996). It cannot be matched with each other similarly “The life cycle theory discusses about the consumption pattern of an individual, which he tries to maintain throughout his life. No doubt the saving nature is different from the person to person and is also different because of the income level of a person”. So nature of person always be differed from its similarity is impossible very rare chance that it would be matched.

2.2 Different Theories

2.2.1 Saving Impact on Growth Rate

The funds outline their contact with the development payment rate as indicated by the "life cycle" hypothesis, demonstrating a positive connection between the savings rate and the development wage. Moderate nature is observed more in young people than in more established individuals in creative nations (Agrawal 2001). The poor idea of the regular workers of the economy for the non-working class of the economy is mixed. This relationship is seen as a mixture, for example, (Leff 1969) appears in its examination that it is a real association with the created and creative nation.

2.2.2 Saving Nature of Working Class

Other individuals, for example, (Ram 1982, Doshi1999 and Kelly1988) have discovered that there is a transient connection between the age and moderate behavior of regular workers. However, (Agrawal 2001) has found a negative effect of these determining factors in the three Asian nations. The poor idea of the general population also influences when they are used or when they are not used as (Modigalni 1992), when individuals are used and are at the

time of their monetary improvement, at that time they save more than when they are old in the light of the fact that in ancient times they are not able to preserve. They spend only after retirement, since they do not have an appropriate source of salary.

3. Facts and Figure

3.1 Model description

“The data which are used in this research is considered from the last twenty years from the 1992 -2012 from the WDI (World Development Indicator) website. The model which is established for this purpose is as follows

$$S = \beta + \beta_1 DCP + \beta_2 WRCR + \beta_3 YPR + \beta_4 OPR + \beta_5 GNIR + \beta_6 M_2 + \gamma$$

The variables which are used in the above equation are derived from the different studies to see their impact in the case of Pakistan”.

3.2 Variables and Their Proxies

“The dependent variable which is saving is also used by the (Modigliani, 1992) in his studies. In this paper it is used as the NNS (Net National Saving) and it is actually measured by the % of GNI (Gross National Income). The independent variable DCP (Domestic Credit to Private Sector) is measured by the % of GDP. Such as the other independent variable YPR (Age Dependency Ratio) is measured by the % of the working population, OPR (Age Dependency Ratio old) is measured by the % of the working population old, GNI (Gross National Income) is measured by the GNI Growth Rate, M2 (Money and Quasi Money Growth) is measured by the annual % of the income”.

3.3 Impact of Variables

The pattern of saving in Pakistan was not surprising in the last two decades, and by chance we investigated the past, we realized that the moderate idea of the general population diminished towards the initial structure of the fifties. However, step by step increases in nature the decreases and now the pattern is expanding again in nature. In this exam, the determinants used to see the effect on the NNS (Net National Savings) and these are, for example, the WRCR (liquidation of workers and remuneration of the representative's development rate) negatively affects conservation. GNIGR (gross national income development rate) positively affects the NNS. For example, the YPR (youth age dependency ratio) negatively affects the NNS. The DCP (national credit to the private party (% of GNP) positively affects the NNS.

4. Results and Discussion

“In this study simple regression model is applied to see the impacts of the variables. And also to see what types of effect we have got with respect to the Pakistan. DCP, WRCR, YPR, OPR and GNIGR are significant and M2 is insignificant.

Table 1. Regression on the NNS, DCP, Wrcr, YPR, OPR, GNIGR, M2

NNS	Coef.	An error	t	P>(t)	95% Conf.	Interval
DCP	0.8002567	0.3462432	2.31	0.039	0.046084	1.554447
Wrcr	0.0534714	0.0228384	2.34	0.037	0.003711	0.103232
YPR	0.5679204	0.2000344	2.84	0.025	0.132083	1.003758
OPR	-46.26595	20.35394	-2.27	0.042	-90.6134	-1.91854
GNIGR	0.4368359	0.2149987	2.03	0.065	-0.03161	0.905278
M2	-0.178139	0.1376856	-1.29	0.33	-0.47813	21852
Constants	283.7755	137.0105	2.07	0.061	-14.7447	582.2958

4.1 Correlation

The correlation between independent and dependent variables, individually and as well as combining to check their relevance between them.

Table 2. Correlation matrix

	NNS	DCP	Wrcr	YPR	OPR	GNIGR	M2
NNS	1				s		
DCP	0.5464	1					
Wrcr	0.3591	-0.2216	1				
YPR	-0.2775	-0.3757	-0.2109	1	1		
OPR	-0.4869	-0.3484	-0.359	0.8785	0.5909		
GNIGR	0.5272	0.5969	0.0007	-0.6483	0.0662	1	
M2	0.0127	-0.0418	0.0665	0.2058		0.1251	1

4.2 Multicollinearity

For the purpose of checking the multicollinearity in the data researcher applied test with the help of OLS and verify that data having no multicollinearity because its value is less than from 5.

Table 3. Variance inflationary factor

Variable	VIF	1/VIF
YPR	6.09	0.164181
OPR	5.52	0.181252
GNIGR	2.71	0.369584
DCP	1.76	0.567775
Wrcr	1.42 1.3	0.703772
M2		0.766789
Mean VIF		3.13

4.3 Heteroskedasticity

Hottest command use for the purpose of checking the heteroskedasticity the result shows that it having no heteroskedasticity.

Het test

Breush- Pagan / Cook weisberg test for

Hetroskedasticity

Ho: Constant

variance

Variables: fitted values of NNS

Chi = 1.61

Pron> chi2 = .2043

Generate the different variables for getting the free auto correlation results in regression which are the error and the large variable of the error; also check the correlation between them. And also I apply the Durban Watson test for the purpose of checking the auto correlation in all variables.

By keeping in view the above results we clearly see that to check the different types of error which occur in the data is no more valid. To check that is there any relationship exists between the independent variables we apply the M.C (Multicollinearity). We obviously see that there is not any M.C exists between the independent variables. Then next thing is to test whether there is any relationship exist between the error terms of the data for this ambiguity we apply the Durban Watson test and we see that the value is less than the standard value.

Then to check the thing that can disprove our results and that thing is to check that weather is there any relationship between the error term and the independent variable for this purpose we apply he HSK (Hetroskedasticity) with the help of Breush Pagan and it is clear that there is not any HSK exist in the data. We see the impact of the different variables on the NNS and we clearly see that the DCP, WRCR, YPR, OPR, GNIGR has the significant relationship on the savings as these variables have their impact in the saving but the M2 quasi money growth

have the negative impact on the saving. We can say that there is an insignificant relationship exist between them”.

5. Conclusion

In this article the co integration approach of Persan et al (2001) has used to find out determinants of the net national saving in Pakistan. This model is developed with the help of a Life Cycle approach that states the main determinant of national saving is an age dependency ratio and the growth rate per capita income. Our results are obviously based on the Life Cycle approach. The independent variables used in this paper show their relationship with the dependent variable. The age dependency ratios as used in this model and used by the Modigliani and Miller (1992) in their study clearly show the impact on the dependent variable. In my paper, it shows the negative impact as by the Life Cycle theory relate that the old age people spent more and the young save more than that. Workers remittance has negative impact on the savings because of the underdeveloped country like Pakistan, India the foreign remittance does not play an important part in the saving. The more important the growth rate of a country with respect to the GDP. The country growth plays an important part in the saving. If the per capita income of the people is more than they save more. Saving also depends upon the inflation of a country if there is an unpredictable situation such like the country in Pakistan, then the country does saving nature of the people cannot be easily determined. The domestic credit to the private sector also plays an important part. The limitation of this study is the use specific class of people with respect to certain age limit. In this the people of age 30 to age 55 is considered for the research. The other limitation is the use of the statistical technique such as we have used the simple regression in the paper. It is quite obvious that if we use the latest techniques which are too much common now a day's such as the ARDL model, GOURCH model etc., may the results going too changed. If we add, the more variables and used the other techniques, then it may be possible that our results may be a little bit differ from the present This study helps to see the past over view of the saving nature in the Pakistan and help the policy makers to comprehend or modify the policies with respect to the decision making.

References

- Ali, H. F., & Sohail, M. The Impact of Change in Consumer Taste and Product Innovation on Sales Volumes of Consumer Goods.
- Ahmad, M. B., Ali, H. F., Malik, M. S., Humayun, A. A., & Ahmad, S. (2019). Factors Affecting Impulsive Buying Behavior with mediating role of Positive Mood: An Empirical Study. *European Online Journal of Natural and Social Sciences*, 8(1), 1-17.
- Ando, A., & Modigliani, F. (1963). The life cycle hypothesis of saving aggregate implications and tests. *American Economic Review*, 53, 55-84.
- Aron, J., & Muellbauer, J. (2000). Personal and corporate saving in South Africa. *World Bank Economic Review*, 14, 509-44. <https://doi.org/10.1093/wber/14.3.509>
- Balassa, B. (1992). The effects of interest rates on saving in developing countries. *Banca Nazionale del Lavoro Quarterly Review*, 172.

- Carroll, C., & Weil, D. (1994). Saving and growth: A re-interpretation. *Carnegie-Rochester Conference Series on Public Policy*, 40, North-Holland. [https://doi.org/10.1016/0167-2231\(94\)90006-X](https://doi.org/10.1016/0167-2231(94)90006-X)
- Celasun, M., & Tansel, A. (1993). Distributional effects and saving-investment behaviour in liberalizing economy: The case of Turkey. *Middle East Technical University Studies in Development*, 20, 269-98.
- Corbo, V., & Schmidt-Hebbel, K. (1991). Public policies and saving in developing countries. *Journal of Development Economics*, 36, 89-115. [https://doi.org/10.1016/0304-3878\(91\)90006-H](https://doi.org/10.1016/0304-3878(91)90006-H)
- Danish, R. Q., Shakir, W., Tariq, S., Ali, H. F., Khan, M. A., & Shahid, R. (2018). Determinants of Loyalty through customer satisfaction; evidence from Fast Food Industry of Lahore.
- Danish, R. Q., Shahid, R., & Ali, H. F. (2019). Factors Affecting life Satisfaction of Employees under Financial Threat. *SEISENSE Journal of Management*, 2(1), 85-98. <https://doi.org/10.33215/sjom.v2i1.82>
- Edwards, S. (1996). Why are Latin America's savings rates so low? An international comparative analysis. *Journal of Development Economics*, 51, 5-44. [https://doi.org/10.1016/S0304-3878\(96\)00424-5](https://doi.org/10.1016/S0304-3878(96)00424-5)
- Edwards, S. (1995). Why are saving rates so different across countries? *An international comparative analysis. NBER Working Paper*, 5097. <https://doi.org/10.3386/w5097>
- Evans, O. (1983). Social security and household saving in the United States: A re-Examination, Staff Papers. *Internationa Monetary Fund*, 30, 601-18. <https://doi.org/10.2307/3866727>
- Feldstein, M. (1980). International differences in social security and saving. *Journal of Public Economics*, 14, 225-44. [https://doi.org/10.1016/0047-2727\(80\)90041-9](https://doi.org/10.1016/0047-2727(80)90041-9)
- Fry, M. (1986). Terms-of-trade dynamics in Asia: an analysis of national saving and domestic investment. *Journal of International Money and Finance*, 5, 57-73. [https://doi.org/10.1016/0261-5606\(86\)90050-1](https://doi.org/10.1016/0261-5606(86)90050-1)
- Gupta, K. L. (1970a). Foreign capital and domestic savings: A tes of Haavelmo's hypothesis with crosscountry data: A comment, *Review of Economics and Statistics*, 52, 214-16. <https://doi.org/10.2307/1926125>
- Gupta, K. L. (1971). Dependency rates and savings rates: comment. *American Economic Review*, 61, 469-71.
- Japelli, T., & Pagano, M. (1995). Saving, growth and liquidity constraints. *Quarterly Journal of Economics*, 109, 83-109. <https://doi.org/10.2307/2118429>
- Kelley, A., & Williamson, J. (1968) Household saving behavior in the developing economies: the Indonesian case. *Economic Development and Cultural Change*, 16(3). <https://doi.org/10.1086/450300>
- Kepenek, Y., & Yenturk, N. (1997). Tu` rkiye Ekonomisi, Rem Kitabevi Yayinlari, Dokuzuncu Basim.

- Koskela, E., & Viren, M. (1985). Anticipated versus 'surprise' inflation in household consumption behavior. *Economic Letters*, 17(1-2). [https://doi.org/10.1016/0165-1765\(85\)90131-4](https://doi.org/10.1016/0165-1765(85)90131-4)
- Kumcu, M. E. (1989). The savings behavior of migrant workers: Turkish workers in W. Germany. *Journal of Development-Economics*, 30, 273-86. [https://doi.org/10.1016/0304-3878\(89\)90004-7](https://doi.org/10.1016/0304-3878(89)90004-7)
- Leff, N. H. (1971). Dependency rates and saving rates: reply. *American Economic Review*, 61, 476-80.
- Loayza, N., Schmidt-Hebbel, K., & Serven, L. (2000). What drives private savings across the World. *The Review of Economics and Statistics*, 165-81. <https://doi.org/10.1162/003465300558678>
- MacKinnon, J. G. (1991). Critical values for the cointegration tests. In R. F. Engle, & C. W. J. Granger (Eds.), *Long Run Economic Relationships* (pp. 267-276). Oxford University Press.
- Mahmood, T., Qaseem, S., Ali, Q. M., Ali, H. F., Humayon, A. A., & Gohar, A. (2018). The Impact of Brand Identification, Brand Equity, and Brand Reputation on Brand Loyalty: Mediating Role of Brand Affect in Pakistan.
- Metin, O. K., Voyvoda, E., & Yeldan, A. E. (2001). Dynamics of macroeconomic adjustment in a globalized growth, accumulation and distribution, Turkey 1969-1999. *Canadian Journal of Development Studies*, 22, 219-53. <https://doi.org/10.1080/02255189.2001.9668808>
- Modigliani, F. (1986). Life cycle, individual thrift, and the wealth of nations. *American Economic Review*, 76, 297-313.
- Muradoglu, G., & Taskin, F. (1996). Differences in household savings behavior: Evidence from industrial and developing countries. *The Developing Economies*, 34, 138-153. <https://doi.org/10.1111/j.1746-1049.1996.tb00734.x>
- Ortmeyer, D. L. (1985). A portfolio model of Korean household saving behavior, 1962-1976. *Economic Development and Cultural Change*, 33, 575-99. <https://doi.org/10.1086/451480>
- Ostry, J., & Reinhart, C. (1992). Private saving and terms-of trade shocks: Evidence from developing countries, Staff Papers. *International Monetary Fund*, 39, 495-517. <https://doi.org/10.2307/3867471>
- Rehman, Z., Ali, H. F., Syed, A., Khan, M. A., & Ali, R. (2018). Factors Effecting Consumer Trust in Online Purchases. *International Journal of Global Sustainability*, 2(1), 56-73.

Copyright Disclaimer

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).