Gender Responsive Budgeting in Education in the Kingdom of Saudi Arabia

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Abstract
Globally Gender Responsive Budgeting (GRB) has come to light as an important tool in the ongoing struggle to make budgets and policies more gender responsive, the last two decades have witnessed an overwhelming endorsement of GRB as a valuable tool for engendering budgets and policies all over the world. The government of Saudi Arabia, has been aware of the importance of female education, to fulfil a comprehensive development, it is committed to implement the convention of all kinds of discrimination against women. Since financial resources are one of the most powerful factors to ensure gender quality, the government has realized its urgency through the series of gender responsive budgets. This paper attempts to examine the impact of these budgets on elimination gender inequality, using for this purpose different technical of statistical framework to categories GRB outcomes into three guiding goals: (Ichii, Reina, 2010)

1. to raise awareness and the understanding of gender issues and impact of budgets and policies
2. to change and refine government budgets and policies to promote gender equality
3. to make governments accountable for their budgetary and policy commitments to gender equality

The interrelated nature of the goals suggests that progress on all three is required in GRB implementation.
However, Sharp (2003) points out that many GRB initiatives do not progress much further than the first goal of raising awareness of gender issues around budgets, in this case education should be given the first priority to implement the GRB.

Education play vary vital role in uplifting the economic problems of an economy in contemporary world. The Oxford Dictionary defined Education as means a process of teaching, training and learning, especially in schools or colleges, to improve knowledge and develop skills. The role of education in economic development cannot be denied as it produces the human capital, the most important factor for development. Human capital or human resource are important whether they are full, part time employees, permanent, temporary or contract workers. (Rao, 2000).There are wrathfully ample empirical evidences which support and suggest that education is capable of producing both private and public benefits. As the private benefits of education can be seen by better employment forecast high wage rates and alternatively the higher power to save and invest more and education also leads to a more entrepreneurial and civic society. As the total number of students is the combination of both genders, Gender refers to the social roles and status difference between women and men in a society. The roles are determined by the social cultural and economic organization of a society and the prevailing religious moral and legal norms “sex” is a biological term while “gender” is a psychological and socio-cultural one (Anderson, 1988). The industrial human resource development is the present need. We have enough hard working forces and sincere manpower. They can be triumphant if guided by education and training. We have to learn from experiences of rich economies and of the more recently industrialized countries that sustained investment in human capital for competitiveness and growth. Thesituation is now changing with globalization, increased investment and trade. The spread of technology investment in human capital is no guarantee of development if other relevant policies are inappropriate or are not properly implemented. It is the time for investment in human capital to bear fruit. Human capital does not waste or diminish in worth by using its values. Overall society is the constitution of both male and female, so both are important with social and economic perspective. Economic development is the direct function of educated human resource so for the sustainable development we have to focus on both genders. As it is impossible to gain development with just educating, developing skills of the male segment of the society while leaving the female segment. Because the role of female cannot be denied as they can be equally productive like male in many occupations. So we have also to educate them, to provide them skills, to furnish their capabilities side by side. A well-educated, innovative and skilled population is the foundation as well as the goal of development (ILO workshop on Employers, 1997).

OBJECTIVES OF THE STUDY
The current work is an attempt to find out whether the educational budget is responding to gender changes in number of students. Or in other words to find out whether any changes in the absolute number of student’s effect the budget allocation to education at school level or.

ECONOMETRIC METHODOLOGY
The current work is an attempt to investigate the budget responsiveness of education expenditures at school level to gender. For the purpose of analysis we will use the OLS procedures, using the following multiple linear regression model.

\[ \text{Total Edu Exp} = \beta_0 + \beta_1 \text{male students} + \beta_2 \text{female students} + \mu \]

Where Total Edu Exp: the Total Education Expenditure on both male and female students at school level in Saudi Arabia. Whereas:

\( \beta_0 \) is the estimator of the Constant term of the model.

\( \beta_1 \) is the estimator of the effect of number of male students on the total education expenditures.

\( \beta_2 \) is the estimator of the effect of number of the female students on the total expenditures.

\( \mu \) is the error term

DEVELOPMENT OF THE EDUCATION SECTOR IN SAUDI ARABIA
Saudi Arabia is youngcountry, till1950s this country was without resources, people were living simple life without any new technologies. After discovering the oil this life witnessed massive improvement in all life aspects and education is one of these aspects. During the period before discovering the oil, there was a traditional educational system called’’ Kuttab’’. Kuttab is a place where students can go and learn how to read the holy book the “Quran” and the Hadith [Prophet Narrations], and Sunna [Prophet Mohammad’s customary behavior and opinion on various issues drawn from the Hadith, talknow how to pray and to follow the rules of behavior of the Muslim community. Thus, type of some times referred to Kuttab schooling which were open for boys only the earlier period. Kuttab have been open for girls at the lower levels where ladies were teaching them. This kuttab schools were located in the mosque or in the teacher house and mostly the Imam (A person who leads Muslims in prayers) take the role of teacher. The king Abdulaziz had a full understanding of the importance of education where in 1925 the directorate of education was established. Then the interest in education grew with
the discovering the oil in the country. In 1953 the Ministry of Education was established and public schools where opened for boys in the same year, girls were still confined to the traditional Kuttab educational system in their homes. In late 1950s and early 1960s an important step were taken to open the first school for girls in Saudi Arabia and since then the formal education for girls started, by mid 1980s education was available for all females even at the university level. The public system of women’s education is segregated and is supported by the Saudi government (Almunajjed, 2009).

Before exploring women’s education in Saudi Arabia, it is important to review some of the political and social events that have contributed to Saudi women’s position in their society. In the past 50 years the Middle East region has endured some major challenges that have affected all Middle Eastern nations and particularly the gulf nations. Saudi Arabia, like other Gulf nations, both directly and indirectly, has experienced some major social upheavals. First and foremost, the discovery and production of oil in 1930s was a major occurrence in the country. The oil-generated revenue in the early 1970s introduced large-scale changes, including the opening of education to both boys and girls. The economic upheaval arising from the increased income from oil gave rise to a trend towards education abroad, and a change in lifestyle, and these two changes affected the whole structure of society. Oil and its resulting wealth had an unimaginable impact on Saudi Arabia in an extremely compressed period of time, (Amani, 2005).

National development plans stressed a basic philosophy for the successful modernization of the Kingdom of Saudi Arabia. This philosophy was based on two major principles: 1) developing needed human resources through education and training, and 2) building a comprehensive economic infrastructure. Due to their importance to the National Development Plans, human resources development along with infrastructure, economic resources and social resources, including education, were given high priority. The following table shows the number of students for selected years, the figures in this table show that the number of student have increased from 3521867 in 1994 to 6388538 in 2011 which means that it has increased at an average of more than 5 per cent per year which is much higher than the population annual growth rate which means that the proportion of population attending schools have increased over the time. The related data also shows a great improvement in the percentage of female students to the total which has increased from 33 per cent in 1974 to the 49 per cent in 2011 which almost near to the percentage of female population to the total in 2011. Figure No.2 shows the percentage of male and female students in 1974 and 2011.

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**TABLE NO.1**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>1995</th>
<th>1997</th>
<th>1999</th>
<th>2001</th>
<th>2003</th>
<th>2005</th>
<th>2010</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>3521867</td>
<td>3844730</td>
<td>4094985</td>
<td>4291005</td>
<td>4385975</td>
<td>4540836</td>
<td>6357504</td>
<td>6388538</td>
</tr>
<tr>
<td>Male</td>
<td>1876799</td>
<td>2038922</td>
<td>2156833</td>
<td>2257299</td>
<td>2299032</td>
<td>2371346</td>
<td>3272737</td>
<td>3285963</td>
</tr>
<tr>
<td>Female</td>
<td>1645068</td>
<td>1805808</td>
<td>1938152</td>
<td>2033706</td>
<td>2086943</td>
<td>2169490</td>
<td>3084767</td>
<td>3102573</td>
</tr>
</tbody>
</table>

Source: Ministry of Economy and Planning, Central Department of Statistical and Information, Statistical Yearbook, Different Issues.

For the past several years, strong government budgets have accompanied the development of general education to emphasize governmental support for continued growth of the education sector. The upward trend of budgetary allocations highlights the Saudi Government's conviction that education is the cornerstone of sustained economic development, as it enhances human capital and knowledge, both essential ingredients for economic growth and social cohesion. Public spending for education is estimated at 5.7 percent of the country’s Gross Domestic Product (GDP), comparable with the France 5.9 percent, Germany 5.1 percent, and South Korea 5 percent, (World Bank). In absolute figures the government expenditures on school education have increased from 19928 million Saudi Riyals in 1995 to 83001 million Saudi Riyals in 2010 which means it has increased by...
more than 20 percent annually, which make education sector the largest consuming sector of government funds. The following diagram gives more idea of the improvement of educational expenditures during recent years.

FINDINGS AND DISCUSSION
Below is given the overall picture of the results of the model for analysis. The results of the model indicate that there is significant negative relationship between total education expenditures and number of male students, that is according to the results as the number of male students changes with 100 units bring 19 units inverse changes in the total education expenditures, the -4.03 t-value justifies this results further the small p-value of 0.001 also verify that there is significant negative relationship between absolute number of male student and total education expenditures on school level.

Further the results reveal that there is positive significant relationship between absolute number of female students and total expenditures on education at school level. The elasticity estimate show that as the number of female student’s changes with 100 units it affects the total education expenditures by 18.75 units in the same direction. The values of t and p statistic also verify the positive relationship between the number of female students and total expenditures on education at school level. The value of coefficient of determination or more technically the R-square value of .89 shows that the 89 percent changes in the total expenditures are explained by changes in number of male and female students at school level. The overall significance of the model is shown by the F- statistic, the 56.26 value of F-statistic supports the overall significance of the model.

Table 2
The Elasticity Estimate of the model

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient</th>
<th>Std.Err</th>
<th>t-values</th>
<th>p-values</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>No of Male student</td>
<td>-19.038*</td>
<td>4.7225</td>
<td>-4.03</td>
<td>0.001</td>
<td>-29.24053 -8.835827</td>
</tr>
<tr>
<td>No of Female student</td>
<td>18.7481*</td>
<td>4.1771</td>
<td>4.49</td>
<td>0.001</td>
<td>9.723887 27.77246</td>
</tr>
<tr>
<td>Constant</td>
<td>16.7338*</td>
<td>8.6600</td>
<td>1.93</td>
<td>0.075</td>
<td>-1.974973 35.44276</td>
</tr>
</tbody>
</table>

*R* show significance at 5%

R-squared = 0.8964 \( \text{Adj R-squared} = 0.8805 \)

Overall significance of the Model used i.e value of F-statistic= F (2, 13) = 113.86

Total Edu Exp = 16.7338-19.038male students+18.7481female students \*\mu

t-values (-4.03) \( (4.49) \)
P-values (0.001) \( (0.001) \)

Unit root Tests:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Augmented Dickey Fuller test Statistic: with trend and constant.</th>
<th>Phillips – Peron statistic: with trend and constant.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEE</td>
<td>At level -1.237 ( -4.177^* ) At difference -1.080 ( -15.610^* )</td>
<td>At level -1.080 ( -15.610^* ) At first difference</td>
<td>AR(1)</td>
</tr>
<tr>
<td>NMS</td>
<td>-0.290 ( -3.831^* )</td>
<td>-0.305 ( -15.591^* )</td>
<td>AR(1)</td>
</tr>
<tr>
<td>NFMS</td>
<td>-0.345 ( -4.141^* )</td>
<td>-0.326 ( -16.742^* )</td>
<td>AR(1)</td>
</tr>
</tbody>
</table>

*indicate the significance at level of 5%.
The result indicates that all the variables are having a unit root at the level suggesting that they are non-stationary.
at level at the first difference all variables become stationary. So all the variables included are I (1).
From the above discussion it is clear that government of Saudi had allocated a huge amounts of its annual budgets to education which led to an increase girls access to education and narrowing the gap between boys and girls education. This improvement in girl’s education will defiantly result into other social developments.

REFERENCES
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17. Ministry of Economy and Planning, Central Department of Statistical and Information, Statistical Yearbook, Different Issues.