The Impact of Education on Consumer Behavior in District Dir Lower

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Abstract

The role and importance of education cannot be ignored. Education plays a significant role in grooming the people in shaping their character buildings and career too. Education provides a healthy society to state. In this context, education has a dominant role in the consumption pattern, food items, health, females' spending pattern, human capital formation. Education enables the common people to read, write, serve and support their families to live good standard of life.

In this study, an attempt is made to explore the impact of education on consumption behavior. We have selected three villages of District Lower Dir for the purpose of collecting primary data. Specifically the impact of academic performance, family composition, family size, farming, use of forming techniques etc. using primary data collected through well designed questioners and applying the linear regression model. Our findings suggest that education plays a significant role on consumption behaviors of households of District Lower Dir.

Keywords: Expenditures on education, joint family, consumption pattern

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Introduction

It is a well-known fact that education influences consumer behavior in many ways (Micheal, 1975). Even casual observations well reveal that individual behavior, such as the choice of occupation, mobility, consumption expenditure, labor leisure choice and so on are influenced by schooling. The impact of education on variables such as national income and economic growth are well documented as the new growth theory place much more emphasis on human capital as the driving force of economic growth (Romer, 2006). But the micro level studies that explain the link between education and saving/consumption behavior, and its subsequent impact on growth are lacking, especially in Pakistan. Education in a broad sense have very effective role on human mind, character and physical ability. Similarly, technical education makes the human being more skillful and vocal.

Backer conventional theory of human capital views that education and training have direct and positive effect on individual income and consumption and on its life time earnings. The increase in total enrolments at schools positively affects economic growth rate (Maddison, 1983; Jargenson & Fraumeni, 1991). This is a well-known fact and numerous studies, even in case of Pakistan, have reported this positive relationship between human capital and consumption (Afzal, Farooq, Ahmad, Begum & Quddus, 2011). The conventional theory of human capital developed by Becker (1964) and Mincer (1974) viewed that the education and training as the major sources of human capital accumulation. On the other side it has direct and positive effect on individual consumption.

Education has very bright and distinguish role in the human capital formation. Through education the efficiency and productivity of individual raises which positively affect the economy and it will lead the economy on sustainable economic development. (Nazil & Nasir, 2000). Education system has old history since its origin .Now a day's education is much more structured in comparison to yesterday, when there was no such concept of a formal education system. Each philosopher has defined education in their own words and different ways. But the complete and meaningful definition of the education is the knowledge of putting one's potential into maximum use. It helps a person to make the right decision in one's sphere of life. A positive association between the levels of education and house hold consumption and the inverse relation between the degree of income inequality and educational attainment has also been noted.

The figure 1 shows the trend of GDP growth rate and Degree colleges' enrollment red line indicate the GDP growth rate while blue line shows the enrolment in degree colleges. Surprisingly that there is continuous rise in the enrollment of degree colleges and parallel to GDP growth rate, which is good sign for Dir district. In figure 2, green-line indicates the share of labor force in the agriculture sector while the red and blue color lines indicate the share of the labor force in the industry sector and enrollment in the degree colleges respectively. It is viewed from the figure that most of the people engaged in agriculture sector and less in industrial sector. Though there is gradual rise in all three sectors including agriculture, industry and educational enrollment at degree level but there is huge gap among three.

Figure 1: Trends of GDP and Degree college enrolment in Dir

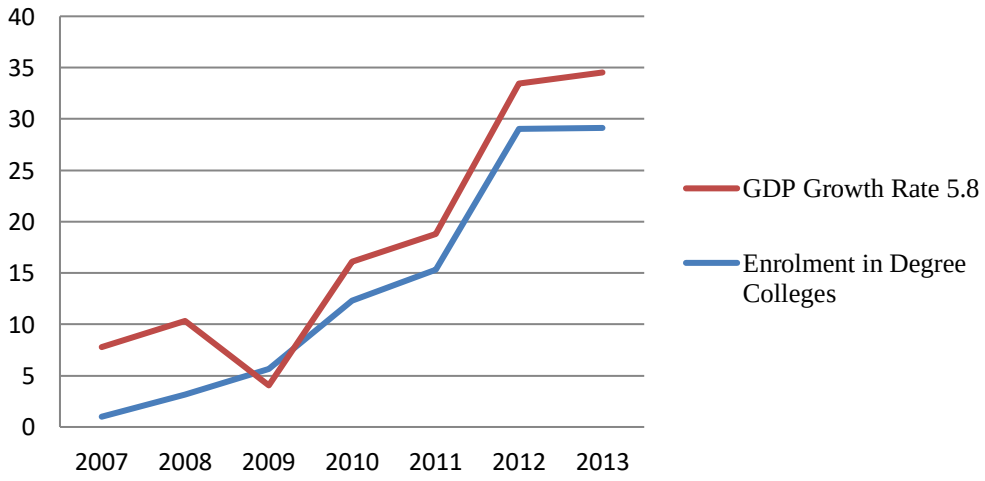


Figure 2: Share of labor in agriculture, Industry and total enrollment in Colleges

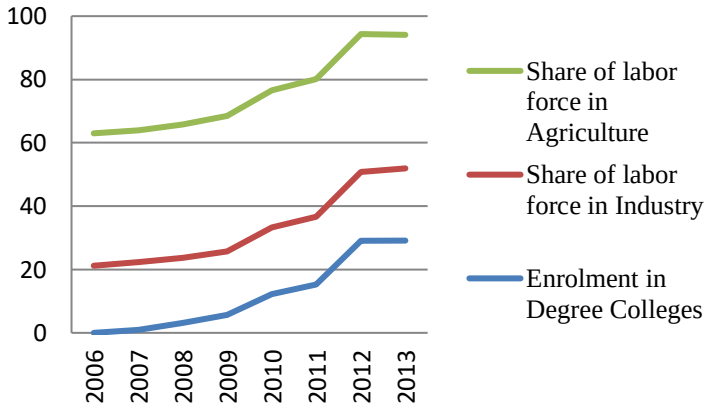
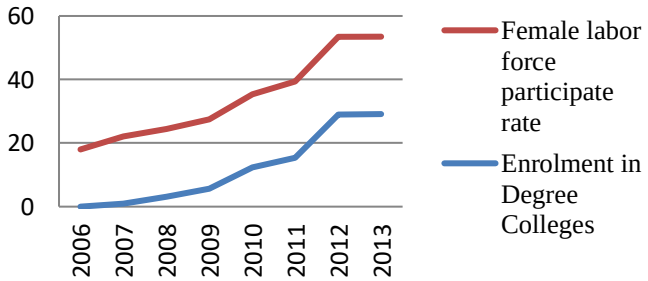


Figure 3: Female Labor Force participation Rate and Enrollment in Colleges



In the figure 3, red line indicate us the female labor force participation rate and blue line indicate enrolment in degree colleges. Figure 3 reflects that most of the females involve in the different kinds of jobs as red-line is above to enrolled, which indicates that not only they are getting education, but also play role in agriculture sector to the maximum helping their husbands to run their families. Similarly, education is said to be effect a number of other socioeconomic variables. For example, borrowing opportunities vary amongst people from various education backgrounds simply because more educated people are more willing to take loans from formal financial institutions than less educated people. The same general conclusion emerges in case of mode and purpose of savings and household management. However, there is a general dearth of aggregate data on such variables (the size of black economy could be used to proxy mode of saving but such data are mere approximations). The specific objective of the study is to explore the link between education and household disaggregated and aggregate consumption behavior of district Dir Lower.

Literature Review

The development of modern literature on education and household consumption can be attributed to the work of Becker's research on human capital (Becker, 1964) and household allocation of time (Becker, 1965). To explain the work of Becker, consider that a household is an organizational unit which engages in the production of many different things. Within the household the family seeks to achieve as great a level of satisfaction or utility as possible, subject to its resource limitations. The

household, then, is a small multiproduct firm which produces many commodities by combining time and other market goods. The household production capabilities are limited by the available time and the hourly wage rate. Thus the household either directly use his time to produce commodities, i.e. household production, or indirectly by first selling his time in the marketplace and then using the income to purchase goods and market services

Given that households combine market goods with their own time to produce commodities, it is reasonable to assume that education will affect the household's capacity to convert market goods and time into commodities. This is so because given that labor markets are perfectly competitive implies that wages are paid according to marginal productivity, and that wages are positively correlated with the level of education. If education increases the productivity of time in one activity (labor services), it is logical to predict that it will also enhance productivity in other activities, such as consumption (Taubman & Wales, 1974).

A second reason for expecting education to increase the efficiency in all activities is the similarity between education and technology (Becker & Murphy, 2007). The introduction of additional education into the household's production process is similar to the introduction of new technology into the firm's production process. Households having more educated members have relatively more access to knowledge, concepts, facts, and ideas that may enable the household to arrange nonmarket production more efficiently (Micheal, 1975). Thus, given that education increases the value of time in the labor market and that education in household production is similar to technology in firm's production, education is expected to increase efficiency in non-market activities and thus affect consumer behavior.

If education improves the household's capability in converting time and money into commodities, this may affect behavior in two ways. First, since education has a bigger impact on efficiency in some activities than in others, this will alter the relative prices of the commodities. For instance, if education is particularly effective in improving reading efficiency but is ineffective in improving physical exercise efficiency, then, with increases in education, the commodity associated with reading becomes cheaper relative to the other commodity. Economic theory suggests that there will be an incentive to shift consumption toward the relatively cheaper activity. Second, if education improves the average efficiency of nonmarket production, then households with more educated family members are wealthier in the sense that they can produce more with a given amount of time and money. Thus even if their available time and money are held fixed, families with more education will have more real wealth in terms of commodities (Michael, 1975). Economic theory suggests that this difference in real wealth among households will affect observed behavior systematically.

Education has a wide range of impacts, some of which may be termed market impact while others non market / non pecuniary impacts. There is no doubt that education enhances job market prospects, productivity and hence wages. But economists have researched even the minute specifics resulting from education. Economists are beginning to investigate the causes and consequences of financial illiteracy to better understand why retirement planning is lacking and why so many households arrive close to retirement with little or no wealth. For example, Hytti, Stenholm, Heinonen & Seikkula (2010), studied the impact of studying entrepreneurship courses

on generation of business ideas. For this purpose, a total of 117 students, who participated in pre-program and post-program surveys, provided the sample data. First, explorative factor analyses were employed to examine the latent variables. Second, hierarchical lineal regression analyses were carried out to test the proposed hypotheses. The study found that intrinsic motivation has a negative effect on the learning outcome while extrinsic motivation had a positive one.

Economists have also investigated the impact of education on health outcomes. One such study (Silles, 2009) used changes in compulsory schooling laws in the United Kingdom to test whether schooling improves health outcomes or good health improves schooling outcomes. Multiple measures of overall health are used. The results provide evidence of a causal relation running from more schooling to better health which is much larger than standard regression estimates suggest. Another study by Cutler and Lieras-Muney (2010) with similar purpose reported that income, health insurance, and family background can account for about 30 percent of the improved health. Knowledge and measures of cognitive ability explain an additional 30 percent. Social networks account for another 10 percent.

Methodology

Study Area, Sample Size and Data

The study is carried out in two Tehsils of District Lower Dir namely, Tehsil A (Chakdara) and Tehsil B (Tamergara). From each of the two Tehsils, three villages will be selected purposively. For the selection of villages, we scaled different villages according to their education level and then select one village from the upper education level, middle and lower education levels respectively. Then households are divided into those who are in proximity to the local market and those who are situated away from the local market. In each village a total of 40 households, 20 living away from the market and 20 living in the neighborhood of the market were interviewed. Since a total of six villages are considered for data collection, total of 240 respondents are interviewed for the purpose.

Analytical Methodology

Basic characteristics of the respondents is analyzed through descriptive statistics, such as mean, median, standard deviation, graphs, charts and other associated measures of dispersion. Moreover, regression analysis may be utilized to explore the relationships between variables of interest. For example, if we are interested in the impact of education on consumption levels, a typical regression can be specified as;

$$C_i = \beta_0 + \sum_{i=1}^{N} \beta_i Xi + \varepsilon_i \qquad (1)$$

Where C_i is the consumption of the i^{th} household and X_i is a vector of explanatory variables including education. ε_i is the white noise error term. Let the total covariates of consumption are income (Y), education (E), age structure (AS), locality (L), land ownership (LO), then a typical regression to assess the impact of all those covariates on consumption could be specified as;

$$C_i = \beta_0 + \beta_1 Y_i + \beta_2 E_i + \beta_3 AS_i + \beta_4 L_i + \beta_5 LO_i + \varepsilon \qquad (2)$$

Since the study is based on survey data, necessary diagnostic checks, such as outlier checks, post stratification weighting, multi co-linearity and heteroscedasticity are be carried out to get reliable estimates of the desired parameters.

Results and Discussion

First of all, we have compiled cleaned the data and provide the main characteristics of data and in the later section analyzed by applying simple model.

Table 1: Distribution of Respondent Sex-Wise

Male/Female	Frequency	Percentage
Female	**24**	**10.0**
Male	**216**	**90.0**
Total	**240**	**100.0**

Source: Authors' calculation

Table (1) provides the total number of respondents. Out of 240 married respondents, 24 were female and 216 male respondents were interviewed for purpose of research work.

Table 2: Respondents' Education

Education level	Frequency	Percent (%)
Illiterate	87	36.2
Middle	26	10.8
Matric	45	18.8
Intermediate	23	9.6
Bachelor	31	12.9
Master	28	11.7
Total	240	100.0

Source: Authors' calculation

Table 2 shows that 36.2% households were illiterate and rest of 53.8% were educated at different level. Out of which 10.8 % were having middle level education, 18.8% were matriculate, 9.6% have done intermediate, 12.9% were bachelor, and 11.7% have done the master degree.

Table 3: Respondent Family Type

Family type	Frequency	Percent
Nuclear	172	71.7
Joint	68	28.3
Total	240	100.0

Source: Authors' calculation

Table 3 indicates types of the family in their livings. Out of 240 households there were 172 were living in nuclear system while 68 are living in joint family systems.

Table 4: Respondent Area Level in Education

Area level of education	Frequency	Percentage
High	84	35.0
Middle	78	32.5
Low	78	32.5
Total	240	100.0

Source: Authors' calculation

Table 4 tell us the area level of education .the researcher have interweaved 35% households t from the high education level area while 32.5% households from middle and low level area of education respectively

Table 5: Respondent access to clean water / availability of electricity/education/health facility

Respondent	Yes	Frequency	Percentage	Total
Respondent access to clean water	Yes	234	97.5	240
	No	6	2.5	
Respondent electricity at home	Yes	183	76.2	240
	No	57	23.8	
Respondent education facility near to home	Yes	178	74.2	240
	No	62	25.8	
Respondent health facility near to home	Yes	157	65.4	240
	No	83	34.6	

Source: Authors' calculation

Table (5) tells us the household's access to clean water, availability of electricity at home, education, and health facility. Second row of the table shows us that out of 240 respondent 234 have accesses to water while only 6 respondent doses not have this facility. Further it shows the availability of electricity at home .So 183 respondent have the electricity at home while 57 respondents does not have this facility at home. The fourth row indicate that the education facility near to home .178 respondents have the education facility near to home while 62 respondents have not. Last row shows the health facility near to respondents home. 157 respondents have health facility near to home while 83 respondents have not this facility near to home.

Table 6: Households Saving Purpose

Household	Response	Frequency	Percent	Total
Respondent uses the saving amount for family Debt	Yes	152	65.0	240
	No	82	35.0	
Respondent uses the saving amount for precaution	Yes	83	35.9	240
	No	148	64.1	
Respondent uses the saving for land assets	Yes	63	27.2	240
	No	169	72.8	
Respondent uses the saving for marriages	Yes	47	20.3	240

	No	185	79.7	
Respondent uses the saving for the home construction	Yes	72	31.0	240
	No	160	69.0	
Respondent uses for the business establishment	Yes	79	33.9	240
	No	154	66.1	
Respondent uses for the child education	Yes	137	59.1	240
	No	95	40.9	
Respondent uses for the religious obligation	Yes	96	41.4	240
	No	136	58.6	
Respondent have personal car	Yes	44	19.0	240
	No	187	81.0	
Respondent other use of saving amount	Yes	27	11.6	240
	No	205	88.4	

Table 6 indicates the households saving purpose. At first place it shows that how much household use savings for the family debt. 152 household use their saving amount for the family while 82 household are not using savings for this purpose. Out of 240 respondents the 83 household used their saving for precautionary purposes while 148 household does not use their savings for the precautionary purposes and 9 household refused to answer the question. 63 respondents use the saving for land assets while 169 people answered that they do not use their saving for this purpose. 47 respondents use their saving for marriages while 185 respondent does not used their saving for the marriages. 72 respondents used their saving for the home construction while 160 respondents do not use their saving for this purpose. Out of 240 respondents the 79 respondents use their savings for the business establishing while 154 respondents do not use for this purpose. 137 respondents out of 240 use their saving for the child education while 95 respondents does not use for this purpose. 96 respondents use their saving for the religious purposes while 136 respondents do not use for this purpose. 44 respondents use their saving for the purpose to have a personal car while 187 respondents out of 240 do not use their saving for this purpose. Out of 240 only 27 respondents use their saving for the other purposes while 205 respondents do not use their saving for the purpose.

Table 7: Respondent Family Composition

Variables	Min	Max	Mean	Std. Deviation
Respondent illiterate family members	0	12	3.53	2.854
Respondent primary level family members	0	13	2.41	1.433
Respondent middle level family members	0	7	1.99	1.365
Respondent family male members	2	12	5.30	1.983
Respondent family female members	2	19	5.58	2.298
Respondent family disable members	0	3	0.23	0.539
Respondent total family members	4	31	11.08	3.599

Table 7 shows us the Household family composition and their education level. The household has minimum 0 unit illiterate family members and maximum 12 unit's illiterate family members. An average illiterate family member of household was 3.53 minimum primary level family member was 0 unit and maximum were

13-unit, average primary level family member was 2.41 unit. Minimum middle level family members of household are 0 unit and maximum is 7 units and average is 1.99 units. Minimum male member of household is 2 units and maximum was 12 units' members and average was 1.99 units. Minimum female member of households was 2 units and maximum was 1 unit and average 5.30 units. Minimum household disable family members were 0unit and maximum was 3 units and average .23 units' members. Minimum household total family members were 4 units and maximum was 31 units' members and an average of 11.8 members of household.

Table 8: Households management

	Education level	Response	Percent
Household Home Management	High	Very Good	8
		Good	17
		Average	43
		Bad	4
		Very Bad	6
	Middle	Very Good	8
		Good	13
		Average	37
		Bad	16
		Very Bad	2
	Low	Very Good	3
		Good	10
		Average	43
		Bad	19
		Very Bad	1

Source: Author's calculation

The table 8 indicates the different education level respondents home management .8 percent high education level respondent have very good,17 percent good,43 percent average ,4 percent bad and 6 percent very bad home management.8 percent middle education level respondent have very good,13 percent good,37 percent average ,16 percent bad and 2 percent very bad home management.3 percent low education level respondent have very good,10 percent good,43 percent average ,19 percent bad and 1 percent very bad home management.

Regression Analysis

Dependent Variable: Per capita expenditure on education

Model 1:

$$EDEX = \beta_0 + \beta_1 Y_i + \beta_2 E_i + \beta_3 AS_i + \beta_4 L_i + \beta_5 LO_i + \varepsilon$$

Table 9: Regression Analysis

Variables	Coefficient	Standard error	T value	Sig
(Constant)	85.000	51.325	1.656	.099
Location of the respondent	19.802	6.343	3.122	.002

Per capita income	.045	.003	14.464	.000
per capita value of land holdings	.044	.021	2.068	.040
male female ratio	18.799	18.862	.997	.320
average household age	-2.680	1.635	-1.638	.103
AR= 0.576	F= 56.129,		Sig= .000	

The above table indicate us the results of the model 1 in which the dependent variable is per capita expenditure on education while independent variables are (Location of the respondent, Per capita income, per capita value of land holdings, male female ratio average household age). The entire variables have positive relationship with per capita expenditure on education. All explanatory variables are statistically significant. F value 56.12 which explain the significance of the model it means that all the variables have jointly effect variation in education. one unit increase in location of the respondent leads to increase 19.80 unit in per capita expenditure increase in education .by change of one unit in per capita income ,per capita land holding ,and male female ratio resulted increased .045,.044,.18.79 unit respectively in per capita expenditure on education .One explanatory variable that is average household age which effect 2.680 unit negatively by increasing one unit of household age.

Conclusion and Recommendations

Education is said to be one of the major determinants of how individual behave in various situation. It influences many, if not all, household decisions such as the choice of residential area, consumption and its composition, occupational choice, borrowing and saving decisions and the way household is managed. To investigate the impact of education on the variable mentioned above, this study utilizes survey data from district Dir lower. The survey was conducted in six villages of two Tehsils (namely Chakdara and Timergara) of district Dir lower. A total of 240 respondents (including 216 male and 24 female respondents) were interviewed in the study area. Information on various household decisions, education level and other socio economic and demographics are collected and analyzed through SPSS. The analysis constituted descriptive statistics (frequencies, means, standard deviations and cross tabulations) and regression analysis.

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