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THE DETERMINANTS OF DEMAND FOR PRIVATE TUTORING IN SRI LANKA

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ABSTRACT: *Private tutoring has engrossed much attention in Sri Lanka with the growing demand to meet the competitive education needs. This study brings together data collected via questionnaires from parents and students selected schools in four district of Sri Lanka and analyses the factors which determine the demand of private tutoring. The results found that the private tutoring is mainly determined by socio-demographic and economic characteristics of the student and household, such as student's academic achievement level, intellectual behavior, parent's level of education, household expenditure level, parent's satisfaction of the school, parent teacher connectedness and parenting level, leisure choice. Results mainly implies that parents practice their academic and economic power to bypass the weaknesses of the current formal education system in the country creating a number of distortions resulting a huge resource waste and widening the inequality in education. The outcome of this study is useful in improving the formal education system in Sri Lanka.*

KEYWORDS: Private tutoring, Determinants, Sri Lanka

INTRODUCTION

Private Tutoring (PT) which has been defined as the lessons and related support obtained in academic subjects beyond the hours of mainstream formal schooling for a fee'' (Bray et al., 2014; Silova et al., 2006), has become a rapidly expanding universal phenomenon(Bray & Lykins, 2012; Buchmann et al, 2010; Guill & Bos, 2014; Song et al., 2013). Broadly, PT may be received for either remedial or advancement purposes (Zang, 2015). High-achievers demand PT at least for two reasons; to raise further the existing level by maintaining their competitive advantage at school and as a supplement that fill the deficiencies of mainstream curricula. In contrast, low achievers seek tutoring to catch up with their peers (Zang, 2015; Song et al., 2013). Thus, limited participation in private tuition classes due to poor academic achievement now has developed to an extent where each and every student participate in PT irrespective of the level of achievement (Guill & Bos, 2014; Cook, 2013) though the public view on private tutoring is not wholly positive (Zang et al., 2013).

Having no exceptions from the global trend, private tutoring has been expanding rapidly and has become a necessity (Pallegedara, 2011) within the education system in Sri Lanka. Students and parents create a heavy demand for private tutoring in terms of PT participation, intensity as well as span. Moreover, as in early decades PT is not limited only to lower performing students but for high achievers in order to improve their existing knowledge. According to De Silva (1994b) 80 percent of Year 6 students attended some form of private tuition classes while this proportion was 75 percent for Year 11 students in 1990. As in Aturupane et al., (2013), about 74 percent of grade four students attend PT. The intensity of PT is gradually increasing when students were getting promoted to higher school levels (Brehem et al., 2012). Students in senior secondary level (grade 12 and 13) tend to attend private tuition classes rather than attending the formal school sessions during the terms of tertiary education entrance exams. As

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such, irrespective of the school grade, from junior secondary to senior secondary level most of the school children tend to attend private tuition classes in addition to day to day schooling. Hence, PT is the largest component of Sri Lanka's household education budget (Institute of Policy Studies, 2017) with a recorded share of 45 percent.

The impact of PT on child's outcome is mixed in the literature. From the positive side, if PT is a source of extra knowledge, method to help weak students providing a sufficient practice and further providing students homework assistance, it should have a significant positive effect on students' academic performance. However, the results on this are largely inconclusive so far (Athurupane et al., 2013; Cole, 2016). Then the regrets of the PT are taken, it focuses students and teachers on exam preparation to the exclusion deviating from the broader goals of education; it may cause perverse incentives for teachers to teach less during the school day; PT is sometimes encouraged by teachers themselves in order to earn an additional income; it will cause fatigue among the students due to excessive pressure and limited time they have on leisure activities and other exercises. Consequently student's attentions to formal school activities would definitely become low. Further, as PT is a free market good it allows families to pay for it depending on the purchasing power. This may exacerbate social inequalities placing more economic burden on middle and low income families. (Barrow and Lochan, 2012; Bray, and Kobakhidze, 2014; Bray, 2013).However, regardless of long term repercussion of PT, there is a tremendous demand on it. The volume of PT is ranging from 30 to 90 percent worldwide (Bray & Kwok, 2003; Bray, 2009; Bregvadze, 2012; Dang, 2011; Tansel & Bircan, 2006).

"Why students and their parents demand for PT?" is still a major problem unsolved. In Sri Lanka, PT is largely ignored, unregulated (Dang and Rogers, 2008) and created a social menace from which the children from upper kindergarten to senior secondary level have been penalized. And it is the livelihood strategy for the millions of people in the country. Hence, answering this question may greatly help the relevant authorities to form an effective policy to minimize the negative consequences by regulating the PT sector in Sri Lanka. Hence the main objective of this paper is to investigate the factors affecting the demand for PT in Sri Lanka.

The remainder of the paper has the following sections: section 2 describes the education system and private tutoring background in Sri Lanka, and literature pertaining to the determinants of private tutoring. Section 3 discusses the methods used in the study. The empirical model was also elaborated in this section. Section 4 analyses the results of the study while the final section provides the summary and conclusions.

Literature review on determinants of private tutoring and status of private tutoring in Sri Lanka

Status of private tutoring in Sri Lanka

Formal education system in Sri Lanka is mainly free for everyone from the primary stage to the first degree level. However, education has become more competitive in Sri Lanka regardless of the free education policy of the government. This competitiveness is mainly arising from three main national level competitive examinations; grade 5 scholarship and placement examination, General Certificate of Education Ordinary Level (GCE O/L) examination conducted in grade 11 which is a prerequisite to qualify for senior secondary level, and General Certificate of Education Advanced Level (GCE A/L) examination conducted in grade 13 which is the qualifying examination for local universities. Private education institutes

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are also available at each level of education and governed by the department of education and by the Ministry of higher education of Sri Lanka. However, at tertiary level government education institutes are not enough to satisfy the existing demand which has led to the extensive competition in education. Only around 6 percent of students who sit for the GCE AL examination can get the chance of being selected to the local university system in Sri Lanka. Further, it is also in the public discussion that at the senior secondary level formal school system fails adequately to cover the syllabus. Consequently, the immense growth of private tutoring supplementary to the formal education system can be observed in Sri Lanka. Besides, it can be observed that Education department has announced regulations in relation to attending formal school to get the eligibility to sit for the national wide examinations.

Literature on determinants of private tutoring

The demand for PT has been operationalized in terms of PT participation, expenditure, intensity or span in the literature. Once the Participation in PT is taken Jumg and Lee (2010) has found a positive correlation with the mother's educational attainment which was considered as preference effect, household income and a negative correlation with the mother's employment status while it can be affected by parents' education, income, and students' academic standings as posited by Stevenson and Baker (1992). Results of the marginal effects obtained from Tobit model by Jelani & Tan (2012) indicate that socio-demographic characteristics – ethnicity, household income, level of schooling, and marital status – affect the probability of PT participation. They found that low income households, primary students and the students from single-parent household were less likely to attend PT.

Among other contexts, a study by Dang (2007) analyses the determinants and impact of PT in students in Vietnam has identified PT as a necessity among the students. Moreover, the study concludes that ethnic majority people spent more on PT that the ethnic minority people in Vietnam. Further, according to Tansel and Brican (2006) parental education and household expenditure are found to be important determinants on PT expenditure in Turkey. Davies (2004), conducted a study to examine characteristics that fuels to hire and the desire for PT and found that parents who hire private tutoring are less satisfied with the school education, their involvement is high in the child schooling and they are more desiring of private schooling and other educational alternatives but not the demographic factors and the political ideology. According to Bray et al. (2014), school band, grade, family income, mother's education, gender, student's perceived effectiveness on PT significantly influence the demand of PT. Aslam and Atherton (2012), have identified that school grade, gender, mother's education, wealth index, and school type (government or private) have significantly influence on demand of PT while wealth is the most significantly influencing factor. Moreover, it has been identified that parents who have higher educational qualification and higher income in urban areas tend to spend more on PT (Dang, 2007; Davies, 2004; Ha & Harpham, 2005; Kim, 2007; Tansel & Bircan, 2006).Another study by Pallegerara (2011), which examine the determinants of PT in Sri Lanka has claimed that household income, educational level of parents, number of school aged children, ethnicity, household location significantly impact on the demand of PT (see also Damayanthi, 2018). Related literature has commented that driving forces of PT are different in urban and rural societies (Stevenson & Baker, 1992; Zhang, 2013). Besides, some studies have identified that size of the family as another factor which determines the demand of PT as it demonstrates the socio-economic background of the family (De Castro & De Guzman, 2010; Liu, 2012). Another study by Silova (2010), has conducted an explorative study to examine the driving forces of PT and government responses to PT in 12 countries of Eastern Europe and

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Central Asia. His findings conclude that factors like poor quality in mainstream schools and deprived pay structure led to the increase demand of PT in Eastern European and Central Asian countries. Further, several studies have considered students' academic achievement as a factor which determines the demand of tutoring and have not found any clear relationship among academic achievement and tutoring (De Castro & De Guzman, 2010; Liu, 2012; Zhang, 2013).

METHODOLOGY

Sample Data and Variables

The data for this study was obtained from a stratified systematic random sample of 785 students studying from 7 - 11 grades in 1C schools and their parents in the districts of Colombo, Kalutara, Galle and Matara covering both junior and senior secondary education levels. Questionnaire survey was conducted in 2017 using the interview method.

The dependent variable for the main estimation was PT participation while auxiliary estimations were done on PT intensity measured through weekly PT hours. The explanatory variables considered in the study were individual and household factors. Demographic factors of the students such as age, gender (Bray et al., 2014; De Castro &De Guzman, 2010; Davies, 2004; Dang, 2007). Further, socio-economic status of the family which measures through the household expenditure, Father's and Mother's education level and Father's and Mother's employment category (Bray et al., 2014; De Castro & De Guzman, 2010; Dang, 2007; Liu, 2012).Moreover, sib-ship structure considered as another explanatory variable (Bray et al., 2014; Dang, 2007; De Castro & De Guzman, 2010; Pallegedara, 2017; Tansel & Bircan, 2006). In this study, sib-ship structure measured by the number of shillings in the family. Students' academic performance for the student (Bray et al., 2014; De Castro & De Guzman, 2010; Liu, 2012; Zhang, 2013were measured as the average score of Mathematics, Science and English language. Further, satisfaction of school learning considered as another variable. This variable refers to whether student is satisfied or unsatisfied with the school learning and measured as 1 if unsatisfied and 0 otherwise. Other composite variables that were derived using principle component method include Parental (education) support (as a measure of overall home support), parent-teacher connectedness, and parent's school satisfaction. Scores of these composites were used for the logit specification (i.e., as continuous variables).

Empirical Model

Since the outcome variable, PT participation, is binary which follows a Bernolli distribution, logistic regression model was specified to examine the effects covariates. Dichotomous dependent variable takes value 1 if a student is PT participant 0 otherwise. Accordingly, the basic model,

$$y_i = \sum_{j=0}^{k} X_{ij}\beta_j + \varepsilon_i \qquad (1)$$

Where y denotes binary dependent variable, β is vector of parameters and the error term Ɛ which has zero mean and logistic distribution. If P_i is the probability that a student is PT participant and it is Bernoulli distribution depends on the vector of predictors *X*,

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$$P_i(X) = \frac{e^{\propto+\beta X}}{1 + e^{\alpha+\beta X}} \quad (2)$$

The logistic function then is,

$$ln\left(\frac{P_i}{1-P_i}\right) = \propto + \sum \beta_j X_{ij} \quad (3)$$

Where $ln\left(\frac{P_i}{1-P_i}\right)$ is the log of the odds being PT participant whereas β_j is the measure of change in the logarithm of the odds ratio of the chance of the PT participant to nonparticipant.

With the logit transformation, the equation 3 is nonlinear: P_i is nonlinear function of all β coefficients. Hence, the maximum likelihood method is most suited which yield consistent and asymptotically efficient coefficient estimates. Maximum likelihood estimates are obtained by maximizing probabilistic function with respect to the parameters.

RESULTS AND DISCUSSION

Table 1 – Sample characteristics & Descriptive statistics

	Mean	Median	PT :Yes	PT :No
Score	51	50	53.4	25.2
Trimmed			53.8	24.1
Stu age	13.7	13		

Gender	%	PT expenditure Rs.	
Male	40.0	Mean	3815.9
Female	60.0	Median	2800.0

Grades	%	HHexpenditureRs.	
7	20.6	5% Trimmed Mean	39096.6
8	22.4	Median	35500.0
9	16.2		
10	16.7		
11	24.1		

No PT classes	Weekly	Education Yrs	Father	Mother
0	14.3	Primary less	3.9	4.5
1	10.0	6-10	21.0	15.6
2	15.7	11-12	36.9	45.9
3	26.5	A/L	30.1	30.6
4	18.3	A /L above	3.7	3.3

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5	10.9
6	3.5
7	.4
8	.4
Mean	2.8

Source: Author's calculations based on survey data

Table 1 reports the basic demography of the sample and the descriptive of the continuous variables. Accordingly, as in the general context, gender composition has been made as 40 percent males and 60 percent females. Most of the sampled students were at 13 years of age while mid data point is also 13 years. Once the grade composition was taken, the highest representation was from grade 11 while the sample representation from grade 9 is slightly low. Average score of three main subjects i.e. mathematics, science and English, was 51 while it was 53 and 25 for PT attendees and non-attendees respectively. As shown in Table 1, a household, on average, spend Rs. 3800 on PT including direct tuition fee and the mean HH expenditure when extreme values are excluded was Rs. 39000. Among the socioeconomic variables, parental education recorded that the majority of the parents were above O/L but below graduate level.

Table 2: School and family characteristics by PT participation status

	PT participation	
Item*	Yes	No
Student's age	13.9	13.5
Father's edu_yrs	10.9	10.1
Mother's edu_yrs	11.9	10.6
Stu school satisfaction	0.109	0.237
Parent's school satisfaction	-0.017	0.013
Parent teacher connectedness	0.036	0.011
Teacher satisfaction	0.011	0.023
Family relationship	0.003	0.14
Cultural capital	0.045	0.18
Self confidence	0.103	0.021
Parental communication	0.017	0.011

*mean

When considering the student's age and PT participation as depicted in Table 2, the percentage of PT participants and nonparticipants show similar values but recording a slightly higher percentage in students who participate for PT. The mean values explain that the age here is not a major factor for students in making the decision to participate for PT or not. PT participation and parent's education level are related positively. Where, when the parent's education level is higher the tendency for children to attend PT is relatively high than the children whose parents with relatively lesser education. When considering the father's level of education and PT participation and nonparticipation shows similar percentages but the amount of PT participants are relatively higher than nonparticipants when the father's education level is high. This pattern is duplicated when comparing the mother's level of education and PT participation. The PT

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participants are relatively higher when the mother's education level is high. When comparing the father's and mother's educational levels influence separately for a child to participate for PT it is clear that the mother's education level influences more upon the children to attend more PT classes than the father. The student's school satisfaction is lower (0.109) among the students who attend PT classes than the students who don't attend (0.273). The parent's school satisfaction shows a negative value (-0.017) among the parents who send their child for PT classes than the ones who don't (0.013). Student's and parent's school satisfaction levels seem as two reasons to why PT participation is high among school students. Parent teacher connectedness has driven more students to attend PT. This is confirmed by the higher mean values which are recorded in the above table of 0.036 among the PT participants and 0.011 among the PT non participants. There could be many reasons behind this behavior. Looking at it positively the connectedness helps the teachers to give feedback to the parents about the areas that the child should improve and it directly influences the parents to enroll their children for PT classes on the other hand parents might be influenced by the teacher themselves to enroll their child into the PT class conducted by the same teacher at school. The level of teacher satisfaction is relatively lower among the students who attend PT classes whereas the parents' and students' are less confident about the performance and teaching methods of the school teacher. On the other hand the students who don't attend PT classes record a relatively higher satisfaction on the teacher. The level of family relationship is at a very least percentage among the students who attend PT classes (0.003) than the students who don't attend PT classes (0.14). The cultural capital or the effect of intellectual environment among the PT nonparticipants (0.18) is at a higher level compared to the PT participants (0.045). This can be due to the time availability. In most cases the PT nonparticipants will have more free time which allows them to allocate more time on other activities. According to the mean values it is clearly evident that the self-confidence of the students who attend for PT (0.103) are very much higher than the students who don't (0.021).The parental communication is relatively higher among the students who attend PT classes. This could be because the students get to spend more time with their parents as in most cases either the mother of father takes charge of shuttling their kids to the PT classes and back and it creates a space for both parents and students to create conversations with their parents.

Table 3: Private tuition participation by grade and sector

	PT no		PT yes	
Grade	Rural	Urban	Rural	Urban
7	26.2	35.5	79.2	64.5
8	25.6	36.7	79.6	63.3
9	33.3	45.8	75.0	54.2
10	12.5	5.6	88.9	94.4
11	8.6	23.5	92.1	76.5

When considering the number of students who attend PT classes and the students who don't, show a vast difference in both sectors (refer Table 3). The student percentage attending for PT classes in the rural sector has out-numbered than that of the urban sector in all grades except in grade 10 (rural- 88.9%, urban-94.4%). The Percentage of students who are not attending for

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PT, the urban sector records a relatively higher amount than the rural sector. Further elaborating the percentage of students who attend PT classes is relatively lower in the urban sector than that in the rural sector. The percentage of students who are not attending for PT in grade 11 (8.6%) in the rural sector is comparatively very low and in grade 10 (5.6%) in the urban sector. Grade 9 students tend not to participate for PT when compared to the other grades as the non-participants percentage is relatively higher than the other grades in both sectors (rural-33.3%, urban-45.8%). As the students get promoted in their grades the students' percentage who are not attending PT gradually declines in both sectors. In other words students consider it as a must to attend PT classes along with their promotion of the school grade. This trend could be observed by comparing the increasing percentage values of PT participants in both sectors. Observing the PT participants percentage in both sectors, the rural sector itself records a significantly a higher value than the urban sector. The PT participants remain quite constant in grade 7 and 8 in both sectors. But beyond grade 9, the PT participants' percentage keeps on increasing with large gaps.

Table 4: Reasons for PT participation (%)

Reasons	Student's view	Parent's view
Parents influence	13.7	
School subject teacher told	24.0	25.4
Only school teaching insufficient	30.0	63.5
Difficult to understand school teaching	25.5	42.2
Exam preparation	33.3	53.2
Parents don't know/have no time	23.3	41.7
PT participants score well	19.7	21.3
Friends are going	12.8	
Make new friends/for fun	7.0	

As records in Table 4, the majority of the students take PT with the motive of preparing for the exams, insufficiency and the difficulty of understanding school teaching. According to the student's view 1/3 of the sample (33.3%) attends PT with the motive of preparing for the exams. And another 1/3 (30%) of the sample attend PT as they think that school teaching is insufficient. There is a belief among students that school teaching is difficult to understand and therefore require students to attend for PT classes. Out of the many popular reasons among most of the students, influence of parents, teachers and friends also play a role in a student enrolling for PT classes. The busy lifestyles and unawareness of subject matter of the parents have also driven students to choose PT classes. There is a belief among the students that PT participants score well in the exams. Nevertheless there is a strong belief among the parents (63.5%) that school teaching is insufficient. Further almost 42 percent of the parents do think that PT is important for exam preparation purposes and it is a great remedy to understand subject matter better. Another reason is that the parents have limited time to help out their children in studies and at some instances parents are unaware of the subject matter of the relevant subjects.

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Table 5: Logistic regression results: determinants of PT

Variables	β	S.E.	Sig.	Exp(β)
Student gender	-2.51	3.79		0.08
Student age	0.50	1.23		1.65
Average (Math/Science/English)	0.11	0.01	*	1.01
TVhabit	0.18	0.05	**	1.19
Intellectual/reading	0.07	0.01	*	1.07
Family expenditure (logged)	0.15	0.07	**	1.05
Mother employed	0.22	0.10	**	1.25
Father education	0.29	0.14	**	0.75
Mother education	0.93	0.13	***	2.52
Sib ship size	-0.80	0.43	*	0.45
Parental education support	-0.45	0.11	**	0.64
Parental school satisfaction	-0.46	0.10	***	0.63
Parent teacher connectedness	0.14	0.03	**	1.15
Perceived teacher quality	0.13	0.03	**	1.03
Residential sector (Urban)	0.22	0.28		1.25

*p<0.05, **p<0.01, ***p<0.001.

Results of the Logistic regression analysis are reported in Table 5. Estimated Logit coefficients (β) are reported inthe first column, and standard errors (SE) in the second column while the fourth column present the coefficients in their odds-ratio forms. As recorded in the table, βweights for basic demographic variable gender, showed a positive but insignificant association while age recorded negative and insignificant relationship with PT participation confirming the nature of the social background in the country.

Effect of student's academic performance level on PT participation decision is positive and significant as in Table 5. The purpose of PT may be either remedial or advancement or both. As Zang and Bray (2015) stated, high-achievers receive tutoring to maintain their competitive advantage at school and perhaps to learn what mainstream curricula cannot provide while low achievers seek tutoring to catch up with their peers. Research in Asian context clearly stated that PT is quite popular among top achievers (Zimmer et al., 2007). Similarly, as the results shows, most of the Sri Lankan parents send their children to PT for enrichment. There is a tremendous competition created due to the educational aspirations by both students and parents. Entering into a popular school, obtaining nine A's or qualifying into a suitable A/L stream may have motivated high achievers to take PT in Sri Lanka (Zang, 2015).

Student's television habit used to capture the effect of current popular leisure time activity. It was found a positive and significant association between TV habit and the odds of being in PT participants group. Student's who watch TV more likely to take PT. Student's TV habit is one of the common complaints from parents for which they have chosen PT to keep the child occupied. Further students who spend most of their time watching TV are highly likely to

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underperform at exams and thus are directed for PT. Hence, it is clear that if students engage more with TV that they have to attend more PT classes. This indicates the distortion of the life style of the students mainly due to excessive, less practical syllabi and excessive number of subjects. The present curriculum merely focuses on book work where students always learn by heart and no experience or creativity is embedded. There is no entertainment in the learning process on one side and lengthy syllabi do not permit students to enjoy the life on the other. Students who like to read more as their leisure time activity and who have higher level of intellectual connectivity are positively associated with odds of being taking PT but the effect size is very low compared to students who are addicted to watching TV. Thus, family communication, conversation and fruitful leisure time activity may cause to reduce a child's PT engagement.

Higher parental education levels and higher household expenditure both predict a higher tendency to direct their children for private tutoring. Log of family expenditure is positively significant at 5percent level of significance. Beta weight for log expenditure is below one confirming that PT is a necessary good as in Pallegedara (2009; Damayanthi, 2017). Parents who are educated well have the advantage of having better paying jobs. They have economic strength to bear the cost in one side and as Zang (2015) showed educated parents place a higher value on education and are more likely to search for alternative measures to ensure that their children do well in their academics (also see Kim and Lee, 2010).

Sib ship size, which reflects children's family socioeconomic status and sibling spillover effects, is significant at 5 percent level of significance recording beta coefficient as -0.80. Keeping other factors constant, increase of sib ship size by one would decrease PT participation by 55 percent showing a negative effect on the likelihood of PT participation. Similar results have been found by Zang and Bray (2015) in Chinese context while Lamprianou & Afantiti Lamprianou, (2013) found the same in Cyprus. Reason behind this fact may be directly related to the family's economic status where more affluent families send all children for PT classes while not all children from economically weak families take PT. Further, the "sibling spillover effect" in terms of assistance with homework; information about educational choices etc have been suppressed by the economic status showing a net negative impact. Further, the qualitative data obtained from focused group interviews revealed that most of the students have no time to help their sibling because of school homework and PT.

As revealed in the Table 5, present study found a significant negative association between parental education support and PT taking. Odds of PT taking are high when parental support is low. Activities of parental support vary from direct teaching to the provision of activities to support the learning at home such as, homework supervision, helping hand for learning activities, making a suitable learning environment for the child, etc. If the parents have sufficient time, capacity and patience to help their child, tendency of PT taking can be reduced. Similarly, parental school satisfaction significantly negatively related with PT participation. Unarguably, if parents are unsatisfied with the school academic level they have no other option than directing their children for PT because the children are bound to face national level competitive examinations regardless of the school situation. In contrast and surprisingly, parent-teacher connectedness showed a positive and significant effect on PT participation. This says that the parents who are more connected with the teachers more likely to take PT for the children. Reason behind this positive effect can be found from the focus group interviews. Most of the parents have claimed that they were advised to send children to good PT by respective school teachers to improve the child's performance. Moreover, perceived teacher quality also

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plays a significant role in increasing the odds of PT participation. Quality or effective teaching is the main determinant of the demand for PT for an individual PT supplier. Thus, if parents believe that the teacher is good, they are more likely to take PT from that teacher. Finally, although, prevalence and the supply of private tuition in urban areas is high compared to rural areas this study found that there are no sectoral difference in PT participation in Sri Lankan context.

CONCLUSION AND POLICY IMPLICATIONS

In general, the results of this study found that the PT is determined by socio-demographic and economic characteristics of the student and their respective household, such as academic achievement level, intellectual behavior, parent's level of education, household expenditure level, parent's school satisfaction, parent teacher connectedness and parenting level. All these factors were positively associated with a higher probability for children to participate in PT while sib-ship size was negatively impacted.

This study found that higher socioeconomic status families are more likely to purchase private tutoring services for their children, and their spending on private tutoring tend to be higher than an ordinary household. Further, the probability of PT purchasing is higher when parents are more educated and less satisfied with the school/teacher. Within the existing competition intense education environment, parents who consider formal schooling is inadequate to secure their children a good place in higher education thus have utilized private tutoring as an alternative means to improve their child's academic competitiveness. This clearly implies that parents practice their own academic as well as economic power to bypass the weaknesses of the formal education system in the country creating a number of distortions to the system. Firstly and fore mostly, parents are unaware of or have forgotten their rights and responsibilities as citizens in the country. Rather than using their private spending to take private lessons for their children, parents could use their lobbying power to fix the weakness and the voids of the school system. In this regard, actions should be taken to make the parents well aware of their rights and responsibilities so that they know exactly how to exercise power through school development associations, parent-teacher associations to customize the mainstream and to increase the parents' confidence levels in their own ability to manage the education of their children which will tend to mitigate the repercussions of PT.

Secondly, wealthy parents spend more on PT and purchase comfortable services for their children while economically disadvantaged parents experience the opposite for their children. This unequal investment in private tutoring has become an effective mechanism for maintaining and generating educational inequality undermining the basic objectives of the free education policy in the country. Thus, in the short term, necessary interventions have to be made to impede the inequality providing at least adequate extra time and resources for disadvantaged students. This would be feasible because the main actors of PT industry are formal school teachers. In the long term and at the meso level, there is a great need of expanding higher education opportunities allowing a considerable share of A/L passed students to enter into state universities. This will reduce the excessive pressure aroused due to high competition which then eroded the base of PT syndrome.

Thirdly, this study also finds that PT consumes a considerable portion of household budget regardless of the sector (Urban, Rural). Thus, education is no longer free in its real sense

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(Sharmila, 2013). PT is known as the shadow of the mainstream school system. But unlike the other shadows, PT shadow can surpass its origin. Agreeing with this situation PT imitate the formal school curriculum more speedily instead of supplementing it. Therefore, government and also parents spent more or less on the same primary purpose. This may have severe reverberations on the formal education system in the long term. For instance, at present, state education department has to impose attendance rules (80%) on senior secondary students to maintain regular attendance in school. As discussed elsewhere, eroded parental trust on the school education may aggravate this problem. Further, it has been found that there is no such strong impact of PT on academic performance of the students (Cole, 2016; Damayanthi, 2018) as well. Hence, it is suggestive to change the focus of the conventional slogan "protect free education" that asks not to cut the state budget on education and charge money from parents to "protect and improve the quality of the free education" so that the formal education system is secured. Public discourse on the matter is needed to be formed.

Moreover, the positive relation between parent-teacher connectedness and PT participation should be a case for concern. This implies a grater possibility of student blackmailing in one side and duty neglecting on the other. Prohibition or supporting/forcing students to take PT by the formal school teacher may be easy but it is rarely feasible given the huge demand for it due to diverse reasons. Thus, some kinds of policy actions have to be taken to increase the productivity of the teachers. Further, unnecessarily blown publicity on PT has to be controlled to reduce student's and parent's motivation.

Future Research

Further research works should be undertaken to replicate the present as well as previous studies especially using the data from an island wide nationally representative sample. Moreover, this study focuses on the actual participation of PT willingly or unwillingly. Findings of this study may vary if parental willingness is considered as the dependent variable. Future researches can focus on this matter as well.

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