

The Effect of Students' Part time Employment on their Academic Performances: Evidence from Hajee Mohammad Danesh Science and Technology University, Dinajpur, Bangladesh

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Abstract

We examine the effect of part-time employment on students' academic performance using primary data collected from randomly selected 108 students of Hajee Mohammad Danesh Science and Technology University (HSTU), Dinajpur. We estimate the impact of both work participation and work intensity of student involved in part time job on academic performance using ordinary least square (OSL) method. The regression results show that there is a significant negative relationship between work participation and academic performance of the students. Further, it was observed that the Cumulative Grade Point Average (CGPA) declines with increment hours in part time employment.



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Introduction

Institutional education is always considered to be first and foremost duty of the students in Bangladesh. In recent times, however, there is a substantial growth in part time earning activities i.e. part time jobs, freelancing, outsourcing, tuitions etc. among the students during their institutional education. Nowadays, a great portion of students in developed countries participates in part-time employment, and this rate is increasing day by day. For example, in a study it is observed that over 40% of students from Spain, Sweden and Finland have some work experiences, depending on Social and Economic Conditions of Student, before entering higher education in Europe (**Essays, UK, 2013**). The motivation behind the involvement in part-time earning activities while studying are: (i) financial crisis, (ii) tuition fees, (iii) lower socio-economic status, and (iv) development of self-skill (**Baert, et.al, 2018**). Besides part time earning activities, students also indulge in different extracurricular activities i.e. social clubs and organizations, student's association, sports clubs, and so on. As students face a leisure-study trade-off, these part-time activities might have influences on student's academic performance. The previous literature in examining the effects of part-time employment on students' academic performance ended with mixed results. Some previous studies (**Baert, et. al., 2018; Stinebrickner & Stinebrickner, 2003**) show that students' involvement on part-time employment has a negative effect on their academic performance. On the other hand, **Wang et. al. (2010) & Green (1987)** showed that there is no significant negative relationship between part time earning activities and academic performance.

In this study, the population comprises of the students of Hajee Mohammad Danesh Science and Technology University (HSTU) from all level. It is situated in the northern region of Bangladesh, which was established in 1999. Currently, the university has more than eleven thousands students under forty four departments of nine faculties, and it offers a total of twenty three degrees. Every year new students coming from various part of the country are admitted through a qualifying examination. Although most of the enrolled students here successfully complete their graduation, some of them end up with scoring low marks and with poor overall CGPA due to their carelessness in academic activities. There are a huge number of students who are involved with some part-time earning activities out of their necessities. On the one hand, income earned from these part-time activities may help to their education expenses, and in turn may affect academic performance positively. On the other hand, it may have a negative effect as it costs the student an amount of time leaving a relatively less time for study. So the net effect of the student's participation in part-time jobs besides their academic studies is a question of empirical investigation. To this end, this study made an attempt to examine the effects of part-time earnings activities on academic performance of students in HSTU.

Review of Literature

There is a substantial number of studies have been carried out to examine the relationship between student's involvement on part-time employment and academic performance. A study carried out by **Body et. al.(2014)** on the students of France University showed that students' employment negatively affect their academic achievement. The study also stated that who work more than 16 hours a week are affected negatively, while those who work fewer than 8 hours a week are unaffected. **Baert et.al.(2018)** in Belgium studied to examine the relationship between students' employment and academic performance, and find a negative effect of working hour on their academic performance. At Griffith University in Australia **Bradley (2006)** found five propositions regarding the relationship between work

participation and academic performance were tested, and none was found to adequately account for the relationships observed. Rather, Grade Point Averages were relatively high amongst two groups of students: those who did not work, and those working more than 20 hours per week. Future research should explore the strategies through which students who work long hours manage to perform well academically. **Buschaet.al. (2012)** carried a study in USA using panel data on grade 12 students and concluded that the casual effect on educational attainment of working during grade 12 in high school was small which can be neglected in most cases. In a study in Scotland, **Carney et. al. (2005)** found that students who are involved in part time employment have a significant negative effect on health and academic performance. The study also showed that the more the working hours of the student, the larger the negative effect on the student's academic performance. **Curtis (2002)** carried out their study at Manchester Metropolitan University and showed that student's employment adversely affect on their academic activities like missed lectures and students, participation on course work grades were lower than if they did not work. Study carried by **Darolia (2014)** in the USA to identify the cause and effect between working hours and academic performance in both part time and full time students. He used nationally representative data from the 1997 National Longitudinal survey of Youth and concluded that students grade are not harmed by marginal work hours but the full time students complete fewer credits per term when the students used to work increasingly. Using two stage least squares method, **DeSimone(2006)** monitored a future survey in USA from 1991-2004 among 12th grade students. The result showed that GPA increased additional work hour up to 15 per week and then declined. It also showed working had a small negative effect on educational time. Study carried out by **Ha et.al (2016)** at the Ton DucThang University of Vietnam assessed the demand of students employment, statues of their employment associated with the effect of part time employment with the students learning. Using various statistical tools they concluded that students take part time jobs to increase their income. In addition to part time employment it did not improve students' learning performance as well as have negative effect on students who were involved with jobs of deliverer and leaflets. Using American Time Survey (ATUS) data from 2003-2006 **Kalenkoski(2009)** found that while working in high school did not affect largely on USA students study time. It also showed that in weekday's extra working hours reduced study time. A study conducting in Irelandon nursing students about effect of working hour on their academic performance by **Rochford (2009)** found that average number of hours worked per week is a predictor of course performance, the students experience of college, and grade achieved. The study indicated that students involved in grater working hours gave a negative outcome. They supporting the idea of part time employment suggested that only working in college time have a negative effect on academic performance. **Tam Oi I (2005)** conducted their study by using cross-sectional survey that investigated the reasons and effects of taking part time jobs. Their studies showed some important differences between western studies and those of the Universities of China. Their empirical research did not find any significant negative effect on the student's academic studies while the western studies had found the opposite result about the same topic. Students held positive views of taking part time jobs and agreed their academic results would not be better if they did not take part in term time jobs. **Wang et. al. (2010)** exerted that doing part time jobs has no effect on academic performance Chinese society. They treat the part time job as heterogeneous experienced and made remarks incentive to work have most effect students academic performance if it provide opportunities to develop skill and if it is related students respective field of the study. Inconsistent with previous studies they exerted that part time job increase student's school life as well as social support network but it

damaged student's relationship with their parents. According to the study of **Wenz (2010)** in USA the term-time employment and academic performance of undergraduate students are negatively correlated. They studied the motivation of involvement in during academic activities. The result showed that students work with the motive of only financial reasons and that had a negative effect on academic performance rather than the students who work for improvement of career specific skill.

Research Methodology

In the present study, the population comprises the student of Hajee Mohammad Danesh Science and Technology University of Bangladesh. Currently, there are ten thousands student studying under nine faculties in this university. We randomly select 108 student choosing 12 students from each faculty. The data were collected through interview using a structured questionnaire both from the students of undergraduates and post graduates in HSTU. The questionnaire includes the data on students working activities, working hours, family size, father's occupation, presence educated siblings, number of siblings, habitation of the students. To examine the effect of students' earning activities on academic performance of students we use the linear regression model:

$$Z_i = \beta Y_i + \delta X_i + \varepsilon_i$$

Here, Z_i is the academic performance of the student-our outcome variable of interest. Cumulative GPA is used as proxy of academic performances of a student. Student's academic performance has been measured by Cumulative Grade Point Average (CGPA) that reflects the outcome variable of our study. We used CGPA instead of GPA because GPA reflects short term academic outcome, while CGPA reflects long term academic outcome. Y_i is the key independent variable. In our study key independent variable is student's involvement in part-time employment (Yes =1, No =0). We used both work participation and working hours to take into account student's part-time employment. X_i represents the control variables or other covariates. The control variable includes age of the students, sex of the students, household size of the students, number of siblings of the student, a dummy variable indicating whether the student resides in campus or not (Yes=1, No=0). ε_i is the stochastic disturbance term. β represent the estimated regression coefficients of our key independent variable. δ represent the estimated regression coefficients of our controls variables. The summary statistics of the variables used in the regression model are reported in Table1.

Results and Discussion

Table 2 shows that student's work participation has a significant negative effect (Coefficient -0.153 Std.errors0.045) on the academic performance of students, measured as the cumulative GPA of the students. The students who are involved in earning activities beside their studies have 15.27% lower GPA as compared to those students who does not engage in any part time jobs. The result is statically significant at 1% level of significance. Other control variables are worth noting. Age has a positive and statistically significant effect on cumulative GPA of the student. One year increase in age leads to a 0.18 point increase in the cumulative GPA of the student. This may due to the reason that older aged students might be able understand the lectures well. The result is consistent with the findings of **Voyles (2011)**. Gender has a positive and statistically significant effect on cumulative GPA of the student. The CGPA of the female student is higher by 6.3% relative to male student. This is probably due to the fact that male students, as compared to the female students, might spend more time in

extracurricular activities that might harms their academic results. This result is consistent with the findings of **Aransi (2017)**. But the result is not in line with the findings of **Wangu (2014)** Family size has a negative and significant effect on the academic performance of the students. One additional member in the household will results in the 0.083 percentage decrease in the cumulative GPA of the student. This is probably due to the fact that the household with a small number of family members has enough financial and other resources to support their children than those with large numbers of family members. The result is consistence with result of **Ella (2015) and Cobb-Clark(2013)**. The table 2 also shows that student's, whose father is a farmer, has a lower CGPA as compared to those whose father has other occupation except farmer but the finding is not significant. Sibling's number has a negative but not significant effect on cumulative GPA/ academic performance. One increase in the number of siblings will lower the CGPA of the student by 0.22 percentages. This might happens as parents may not be able to provide necessary supports for all children when there are a large number of children in the household. The presence of any educated sibling in the family has significantly positive effect on academic performance of the respondent student. The GPA of the student is higher by 5.6 percentages when any educated sibling is present in the household. When there is no singled educated sibling in the family, the student deprived of the necessary suggestion and advice, and faces problems in taking decision that eventually harms in academic performance. The students residing in campus dormitory has a higher CGPA as compared to those who resides outside the campus but the result is not significant. This may be due to the reason that a hostel living student will get more advice, help and advantages than the students who resides in mess or home. If we replace the students' work participation with the work intensity of students measured as working hours variable the results are similar in pattern as shown in table-3. Table 3 shows that working hour has a significant negative effect on the cumulative GPA/ academic Performance of students. The students who are involved in earning activities have -0.021 (2.1%) lower GPA relative to others. The result is statically significant at 5% level. Other control variables are worth noting. This result is consistent with the findings of other researchers (**Baert. et.al, 2018, Stinebrickner &Stinebrickner, 2003**). But this result is inconsistent with the findings of **Wang (2010)**.

Table 1: Summary statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Cumulative GPA	108	3.375963	.2282223	2.8	3.9
work participation(yes=1, no=0)	108	.5504587	.4997451	0	1
working hours (weekly)	108	1.853211	2.221843	0	9
age of the student	108	22.65138	1.197035	20	27
Gender(Male=1, Female=0)	108	1.46789	.5012726	0	1
Family size	108	5.119266	1.451211	3	14
Father is a farmer (Yes=1, No=0)	108	.3486239	.4787357	0	1
Siblings number in household	108	2.495413	1.221898	1	7
Presence of any educated sibling(Yes=1, No=0)	108	.853211	.3555301	0	1
Student resides in campus dormitory (Yes=1, No=0)	108	.7706422	.4223617	0	1

Table 2: The effects of work participation on CGPA

Dependent Variable: CGPA	OLS without control	OLS with controls
work participation	-0.135 (.041)	-0.153***(0.045)
Age of student		.018** (0.019)
Gender (Mele=1 Female=0)		.063** (0.043)
Family size		-0.083** (0.018)
Father is a farmer (Yes=1, No=0)		-.049 (0.045)
Number of sibling in household		-0.002 (0.027)
Presence of any educated sibling (Yes=1, No=0)		0.057*(0.068)
Student resides in campus dormitory (Yes=1, No=0)		0.002 (.056)

Note: Robust Standard errors are in parentheses, *** indicates 1% level of significance, ** indicates 5% level of significance, * indicates 10% level of significance.

Table 3: The effects of working hours on CGPA

Dependent Variable: CGPA	OLS without control	OLS with controls
working hours (weekly)	-0.023 (0.012)	-0.021* (0.011)
Age of the student		0.021 ** (0.020)
Gender (Mele=1, Female=0)		0.0562** (0.046)
family size		-0.016 ** (0.019)
Father is a farmer (Yes=1, No=0)		-0.033 (0.046)
Number of sibling in household		-0.019 (0.026)
Presence of any educated sibling (Yes=1, No=0)		0.0294* (0.065)
Student resides in campus dormitory (Yes=1, No=0)		-0.022 (0.057)

Note: Robust Standard errors are in parentheses, *** indicates 1% level of significance, ** indicates 5% level of significance, * indicates 10% level of significance.

Conclusion

In this paper, we examine the association between students' involvement in part-time earning activities and their academic performance. We find that the students' participation has a significantly negative effect on their academic performance as measured by Cumulative Average Grade Point. We also find that their work intensity as measured by working hours has a detrimental effect on the CGPA of the students. Our study also suggests that male students are more affected than female students in terms of their academic performance by the involvement in part-time jobs. In spite of having negative effect on academic performance, some of the students who are engaged with different types of earnings activities stated that

they had gained job skills, experience, and knowledge of a variety of jobs, a sense of accomplishment, a feeling of responsibility and money for personal and educational expenses. Since there are negative effects on their educational performance who are engaged with earning activities, they should be more conscious about their time management of study. Educational institutions also should have some opportunities of such types of scholarship which will be provided to the financially insufficient students so that they can keep concentrate on their studies. Teachers should put extra efforts for the students who are involved in part-time employments. The study has some limitation. Firstly, the data used in the study were cross-sectional, therefore, the results of the estimation were not causal. Secondly, sample size of the study were not so large that's why some of the standard errors are very large, and finally, the results of the study cannot be generalized for all the students in public universities because the public universities of the Bangladesh are not homogenous: some universities are general, some of them are technical universities.

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