

《Chapter 4》 Sustainable Development

Major Factors Leading to out of primary school in Myanmar: A Case study of Non-Formal Primary Education Programme in Dala Township Yangon

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Abstract This paper examines the major factors which forced children out of school. The sample survey and in-depth interviews were conducted at Dala Township. It is a poor area although near center Yangon it is not easily accessible to business district owing to location and transportation across the river. Following most of literatures, we have tested the determinants that have driven children 10-14-year-old to be out of the school system. The econometric estimation is applied to test the impacts of households' head decision. Main reasons that lead to out of school are income level, family size and background of parents respectively. According to our findings, it is confirmed that children have to drop out of school or never have a chance to attending schools is because they have to help housework and taking care of younger siblings at home while parents seek jobs outside. The unstable family income is thus one of the major other than the family size. The trial program of education to let these drop out have second chance in the 'Non-formal primary education programme' with life skills confirmed the ability of learning and skills formation of these children. Hence, providing knowledge to parents on the accessibility to this non-formal education is essential to a human capital investment decision of family. If our findings would be generalized by Myanmar education policy other challenges such financial constraint the socio-economic hardships and poor infrastructure would need to be critically examined for actual implementation.

Keywords out of school, non-formal primary education programme , Dala, Yangon, Myanmar

JEL Classification I210, I250

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1 Introduction

All achievements in the world are created and made by a human and investment in human capital. Without human capital, creative ideas for economic benefits will not be attained by other capital. Therefore, education is universally considered as a powerful tool in enhancing economic growth, empowering people, improving earnings, promoting a flexible and healthy environment, creating a competitive economy based on quality human capital, reducing poverty, and affecting all other sectors of development. (Afzal et al 2010). "Education is also an important medium to transmit national culture to the students." (Tripathi) (Aug, 2014). "Education empowers minds that will be able to conceive good thoughts and ideas and enables students to make rational and analytical choices while making life-decisions" (Sharma, Jul, 2016).

"It is undergirded theoretically by the continued power of human capital theory and its adaptations to the era of the 'global knowledge economy'" (Simon, 2010, p.237). In fact, one of the most important Sustainable Development Goals (SDG) goals (Millennium Development Goals) is related to the education sector: 'Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all'. Hence, World Bank's Education Strategy has been emphasized under a number of core ideas: Invest early, Invest smartly and Invest in learning for all since 2011³. Surely countries are launching "Education for all"⁴ programme and trying to have foundational skills in primary education. Nevertheless, it is normal to see the early dropout and never enrolment for a series of reasons in developing countries.

In Myanmar, a number of out of school children (OOSC) has remarkable increasing trend⁵. It was reported by the Education Management Information Systems (EMIS) (UNESCO Bangkok 2017) that during 2006-2011 the number of OOSC in Myanmar was 1,015,340 students. Most of them were at the primary level (533,906 students or 52.58%), the lower secondary (252,932 students or 24.91%), and the upper secondary level (228,502 students or 22.5%) respectively. The Integrated Household Living Conditions Survey (IHLCS) 2009-2010 reported that the factors that led these children to be excluded from the formal system are mainly unaffordable school expenses and lack of interest. For those aged 5 to 15, the reason for 'school expenses' was accounted for 65% of the children who dropped out of school, while 'lack of interest' was 46.5% accordingly. The other reasons for non-attendance in schools include illness, family obligations, and agricultural work.

The primary goal of this study is to investigate the factors determining in the decision to be out-of-school of the children between the ages of 10-14. These students have participated in the Non-Formal

3 <http://blogs.worldbank.org/education/education-is-fundamental-to-development-and-growth>

4. Education For All (EFA) is an international initiative, led by UNESCO, and was first launched in 1990 to bring the benefits of education to 'every citizen in every society'

5 The current basic education system comprises of five years of primary education, four years of lower secondary and two years of upper secondary education in Myanmar.

Primary Education Programmes in Dala Township, Yangon, Myanmar. We have applied the logistic model estimation to analyze the decision pattern of parents and related issues of the school dropout. We expect to obtain policy recommendation on how to promote children education via parents' education enhancement.

The rest of the paper is structured as follows. Section 2 illustrates a brief presentation of the world out of school condition and current literature. Section 3 presents the trends of out of school and non-formal education in Myanmar. Section 4 focuses on the profile of Dala and NFPE programme in Dala Township. Section 5 and 6 describe empirics and conclusion and policy recommendation respectively.

2 World's Out of School Condition and Current Literature

“As education is so much important in part of people life, educational institutions prepare the citizens to be able to participate actively in all walks of life” (Afzal et al., 2010, p.39). However, the issue of out-of-school children (OOSC) remains a pervasive global problem, as evidenced by the 124 million OOSC in the world; around 14.3 million of them living in East Asia and the Pacific in 2014. The global rise in number suggests that progress in expanding access to basic education is slowly losing steam (UNESCO and UIS, 2015).

In Southeast Asia (excluding Brunei Darussalam and Singapore), over 6.8 million primary and secondary school age are out of school. In terms of out of school rate of children of primary school age in 2014, the highest one is west and central Africa took 30 %while 14% is for World average level. Besides, 18.5% for Myanmar and 12% for the Philippines are the highest rates of out of school in Southeast Asia Countries excluding Malaysia, Singapore, Brunei and Laos (UNICEF 2017). For East Asia and Pacific Region (excluding high-income countries) in 2016, it has been decreasing trends recently but more than 7.3 million are out of primary school in that region (WDI, 2017)⁶. Apparently, UNESCO Institute for Statistics (UIS) reported that 63 million among total 263 million children and youths in the world are out of primary school at the end of the academic year 2016.

As usual logic, major factors which influence for their early out of school can be guessed as of poor, and lack of knowledge of parents are most common. Nevertheless, major reasons of out of school have been classified as (i) family related⁷, (ii) school -related⁸, and (iii) personal⁹ reasons. Adam et al. (2016) emphasized major factors which influencing in basic education drop out in Ghana using primary survey data for trends analysis between boys and girls drop out in rural Ghana. They found out that school-related

6 by World Bank Data: <http://data.worldbank.org>

7 Family Related Reasons involve Socio-Economic Status, Disadvantaged Groups, Parental Education and Single Parent, Families

8 School Related Reasons include attendance, grades, academic achievement, interest in school and school work

9 Personal Reasons consist of Disciplinary Problems, Other extenuating circumstances like marriage etc. (family-related, school-related,& personal reasons: The original message is from Weber (1989) & Rumberger (2001) cited in Roy (2011))

factors are most influencing one which was 32.31% while personal related factors took place second place as 27.69% of early marriage. However, family-related reasons were also important grabbed 26.15% in their study. Sateesh & Sekher (2014) examined the factors leading to school drop out in India for the children aged between 6-16 years. The study stated that children dropped out because of no interest in studies 29.8% and costs of education 18.8% respectively. Early got marriage was one of the reasons and could be seen more in girl students. Mike et al. (2008) examined for the household socioeconomic factors that influence dropout of pupils given free education by applying logistic regression for primary school dropout and made any possible policy alternatives to curb dropout of pupils using 2004 data of Uganda. The results showed the insignificance of distance to school, the gender of a pupil, gender of the household head and total average amount of school dues paid by students in influencing dropout of primary pupils. The results also stated that children's drop out mainly depends on parental education, and household size. Devkota & Bagale (2015) explored and highlighted the situation of dropout of primary education in Nepal children by a look at secondary literature as exploration research. Over the year, it pointed out that children whose family is poor, have less income, social status, migration of family etc. were out of school (both drop-out and never enroll). Duc and Tam (2013) had applied logit models to research for major reasons of children in Vietnam are a drop out of formal school. They found out that lack of interest on education, child work and direct cost of education are the most significant reasons in their study of why children dropping out in 5 provinces of Vietnam: Lao Cai in the Northern Uplands; Hung Yen in the Red River Delta; two provinces in Central Coast - the City of Da Nang to represent the urban sector and the rural province of Phu Yen; and Ben Tre province in the Mekong Delta. Currently, Abdelaal Abdellatif Fadul and Khalda Osman Abd El Ghaffar Mohammed (2018) examines factors associated with basic school drop-out in Kassala state, Sudan by applying logistic regression for Sudan household health survey 2010. It has shown the positive relationship between monthly expenditure and school attendance while others are not quite significant for making a conclusion.

Based on suggestion done by UNESCO and UIS 2015, five -targeted interventions are needed to reach the most marginalized children and youth who are out of school today, including those with disabilities; children from ethnic, religious or linguistic minorities; and children affected by natural disasters and armed conflict. These interventions need to be able to break down the barriers that make education out of reach for many. Barriers may be classified into capacity barriers, access barriers, and financial barriers (UNESCO Bangkok, 2014). The corridors through education systems are varied for different children - often depending on location and other socio-economic factors. High dropout ratio from formal education causes a decline in human capital which ultimately hampers development and economic growth if there is no interest to learn further. Education has multidimensional impacts on socio-economic life via the creation of knowledge and human capital and hence developing educational opportunities and access and encouraging inclusive and sustainable education policies for all becomes critical. Thus, learning by formal education will be questioned in order to accomplish education for all especially for developing countries.

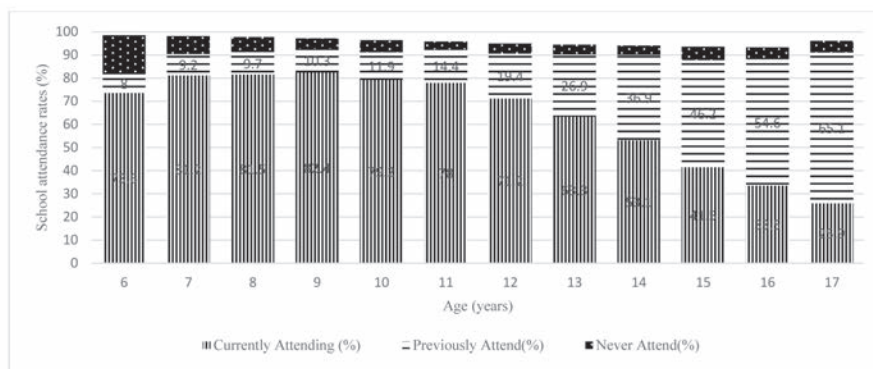
Therefore, the role of non-formal education becomes important in developing countries. Non-formal education could be provided by public institutions, public-private partnerships, employers, trade unions, media organizations, civil society, NGOs and international agencies. Kahler (2000) found that it was NGOs, “sometimes working in parallel or collaboration with government agencies, who with their flexibility and ability to intervene in a timely fashion were at the forefront of innovation in non-formal education for community development, health education, enterprise development, agriculture, and environmental education”.

3 Trends of Out of School Children (OOSC) and Non-Formal Education in Myanmar

Based on the Multiple Indicator Cluster Survey (MICS) 2009-2010, there was no noticeable difference rate of out of school between boys OOSC of primary school age and girls OOSC. However, the rural-based OOSC of primary school age is slightly greater in number (11%) than urban-based ones (7%). The trend is similar to secondary school-age children. Data from the 2014 population and housing census data and from the Integrated Household Living Conditions Survey (IHLCS) have revealed, however, that children aged 5 to 16 who are out-of-school - that is, have never enrolled or else have dropped out of formal school - are estimated to be 2 million children (Myanmar MOE, 2014). However, Myanmar’s out of school children in 2017 has been reduced to 21,675 students although it was more than 500,000 students during 2006-2011. (UNESCO, 2017)

During 2012-2015, the MOE undertook a comprehensive education sector review (CESR). The findings were quite alarming and revealed that out of nearly 1 million children joining primary school each year; only 300,000 remain till the 11th grade after a decade. The main reason cited for dropping out related to ‘lack of interest’ or ‘irrelevant’. “Nearly half of those who take the final exam fail. The statistics implied that an education system be unable to give its children the start in life they deserve” (Montrose, June 2016). Fig. 1 verifies the condition of school attendance and dropout rate in Myanmar 2014.

Fig. 1 School attendance & drop-out rates by age in Myanmar 2014

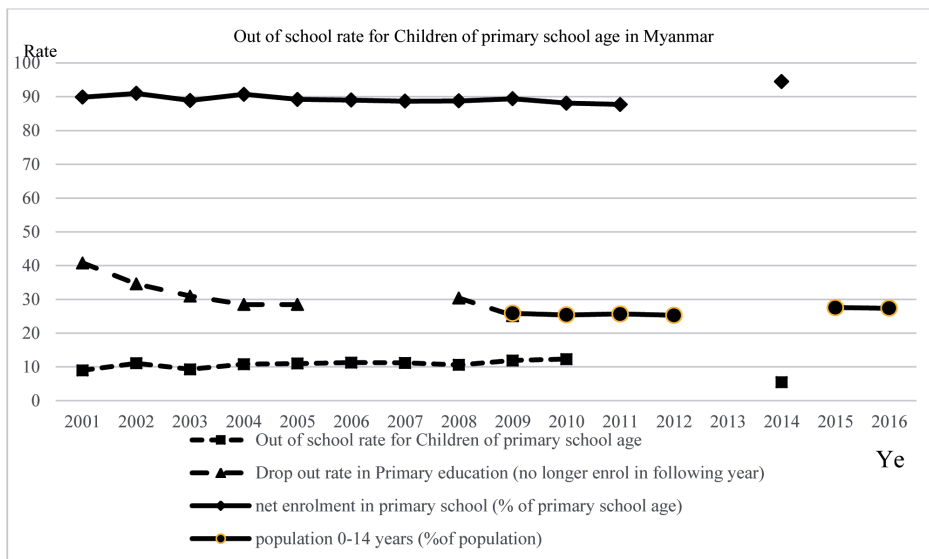


Source: 2014 Population and Housing Census Data, MoLIP website

Trends analysis (Fig. 2) demonstrates that the formal school system cannot cater to all children and youth even though it plays a major role in Myanmar's education system. There are children who cannot attend or transit through formal schools due to various compelling reasons ranging from migration to economic hardship forcing many schools going children into work at an early age. Furthermore, Cyclone Nargis in 2008 hit socio-economic lives of people and pushed to increase out of school rate at that time. Consequently, net enrolment rate in primary school turned out to be down-sided until 2011.

As a reason for dropping out and out of school is that some children work in factories or other jobs to help their family earn money or they can't afford to enroll at the primary school. Hence, non-formal education becomes an alternative mode of education which is more flexible than the formal one. (Carron and Roy, 1991). However, the net enrolment rate turned out to be the highest rate in 2014 over the years. It seems to be Non-Formal Primary Education Programme (NFPE)¹⁰ is fully operated at that time even though the programme started to launch in 1998 but reactivated in 2008. It is the most suitable programme to solve both the drop-out issue and never attend issue as it allows students a chance to reenter/enter the academic system and complete their basic education.

Fig. 2 Out-of-School rate for Children of primary school age in Myanmar



Source: Author's Creation based on secondary data sources UNICEF, and Myanmar MIMU official

10 Developed in 1998 by the Ministry of Education (MOE) in collaboration with UNESCO and UNDP, the programme got revived in 2008 (EFA Review Myanmar, 2015). UNESCO experts assisted educators from the Myanmar Education Research Bureau (MERB), the Department of Educational Planning and Training (DEPT), and Yangon Institute of Education (YIOE) in the development of teaching-learning materials (MOE, 2011). Since 2010/2011, it is being run by the Myanmar Literacy Resource Center (MLRC), and strongly supported by United Nations Children's Fund (UNICEF), the MOE, and local donors.

Additionally, access to primary education for out-of-school, over-aged and poor children is being provided through Non-Formal Primary Education (NFPE). Therefore, it is started to develop in 1998 under the Ministry of Education in collaboration with UNESCO and UNDP, the programme got revived in 2008 (EFA Review Myanmar, 2015). It covered for 80 townships in the academic year 2013-2014 although it was started with 5 townships in 2008. (See Table 1)

The 2014 National Education Law is the first legislation to formally recognize non-formal education, defined as “an education outside the formal school system, based on a curriculum for upgrading learners’ education and that organizes and instructs learners through flexible methods.” There is a plan to include Non-formal education (NFE) as part of the Basic Education sub-sector (The National Education Strategic Plan: NESP 2016-21). The MOE shall outsource the delivery of NFE programmes to partners. Under the law, Equivalency Programmes¹¹ are considered to be equivalent to formal education. These allow students to transfer from non-formal education to formal or technical-vocational education. The NFE Equivalency programme has expanded up to 89 townships currently, representing an increase of 70% annually (NESP 2016-21). Of these, 31 are funded by the private sector, 42 by UNICEF, and 16 by the government.

Table 1 NFPE Implementation Townships by Region/State (AY 2013-2014)

Sr.	State/Region	Total No. of Townships	No. of NFPE Townships
1	Ayeyawady Region	26	18
2	Bago Region	28	9
3	Chin State	9	0
4	Kachin State	18	1
5	Kayah State	7	0
6	Kayin State	7	2
7	Magway Region	25	3
8	Mandalay Region	28	3
9	Mon State	10	10
10	Rakhine State	17	2
11	Sagaing Region	37	4
12	Shan State	55	3
13	Tanintharyi Region	10	3
14	Yangon Region	45	14
15	Naypyitaw	8	8
	Total	330	80

Source: Myanmar Literacy Resource Centre MLRC 2015

The NFPE Programme is an accelerated two-year primary education course offered to children, 10-14-year-old who have missed out on opportunities to complete formal primary education or who have

¹¹ Equivalency Programme is defined as an alternative educational programme equivalent to existing formal general or vocational education (UNESCO, 1993).

never attended school. There are two levels¹² in NFPE, namely, Level 1 (first year) which is equivalent to lower primary level and Level 2 (second year) which is equivalent to upper primary level (EFA Review Myanmar, 2015).

To graduate, learners' achievements are assessed based on regular attendance (75% attendance), the accomplishment of expected learning outcomes (achieve 60%), performance in class work, and completion of the level-end test developed by the technical team (Myanmar MOE, 2011). A nationally recognized standardized test was introduced in 2013-14 that facilitates the transfer of the NFPE graduates to any middle school or technical-vocational center (Myanmar MOE, 2014). The learner earns a certificate upon successful completion of each level.

The government has identified education and poverty alleviation as key drivers to support the democratic and peace-building process and achieve the national goal of Myanmar becoming a Middle-Income Country by 2030 (National Education Strategic Plan, 2016-2021). Its most recent allocation of the budget implies suggests that nearly half the social sector budget goes towards education (2.7% of Gross Domestic Product (GDP), 2017). This translates into a per capita student expenditure (in Purchasing power parity (PPP\$)) of 441.49 for primary, 685.96 for middle and 960.13 for tertiary (UNESCO, 2017). In 2011, it was only 0.8 percent of GDP had been used for the education sector. Compared with 2011, the share of 2017 education expenditure in GDP improved much. However, it is still revealed that Myanmar's public expenditure on Education among countries is the bottom country which has the lowest spending on Education as a share of GDP (World Data Atlas 2018).

4 Profile of Dala and NFPE programme in Dala Township

As Dala Township is the focus of the study, and Dala township background including its location and size is the need for discussion. According to Township General Administration Department, Yangon Southern District, March 2017, the general profile of Dala Township as follows.

Location: Dala Township is located in Yangon southern district and on the southern bank of Yangon river across from downtown Yangon, Myanmar. Its area is 229.23 km square; 11.265 km long from East to West and 16.093km long from South to North. The township is bounded by the Yangon River in the north

12 Learners are placed into either of the two levels depending on their placement results. The completion of Level 2 meant completion of primary education and therefore allows the NFPE graduates to enroll in formal lower secondary school starting at Grade 6. A total of 7553 students in 80 townships participated in NFPE in Annual Year 2013-14 (EFA Review Myanmar, 2015). The NFPE programme's curriculum is skills-based, flexible, adaptable to the local context, and designed to meet the needs and interests of the children aged 10-14 years old. It covers the most essential basic learning competencies of the formal primary education. Four main subjects - Burmese, English, Mathematics and General Studies - are included in the curriculum covering the three major areas of formal primary level curriculum, namely, basic communication skills, expansion of knowledge, and skill and attitudinal development (Myanmar MOE, 2011). General Studies includes the study of the natural and social environment, life skills, moral education, physical education, aesthetic education, and union spirit.

and east, the Twante Canal in the west, and Kawhmue Township in the south. (See Map 1). Despite its strategic location near Yangon, the township is undeveloped mainly because it still lacks a bridge across the Yangon River, with connections between the township and the city being by ferry only.

Population Characteristics: In Dala Township, there are 31,383 housings and 35,223 households in 24 quarters and 54 villages (within 23 village tracks). Nearly one-third of the population is in a rural area while another two third are in the urban area. The total population is 154,563, amongst those 103,536 are above 18 while 51,027 are under 18. That means almost one-third of the total population is children. Dala Township is located in the Yangon region within the business district. Its main business is Agriculture and main products are paddy and rice. Total 8.1% of children aged between 10 and 14 in Dala are working.

Education Facilities: The education facilities in Dala township are basic education high schools, branch high schools, primary schools, nursery schools, and monastic schools but no college and university. The total number of schools in Dala Township is 70 including monastic schools. In addition, the condition that is one of the poorest townships in Yangon region pulls to observe the influencing factors of early dropout and never enroll in primary school age children there.

Non-Formal Primary Education Programme (NFPE) in Dala Township: It was started in the 2011-2012 academic year (AY). In 2014-2015 AY, there were 6 centers in total with 149 total students, 77 students were in level 1 and 72 students were in level 2. In 2018-2019 AY, there are 180 total students, 91 students are in level 1 and 89 students are in level 2 (see Table 2). In addition, there are 16 members in the township monitoring committee, 2 township supervisors, and 12 school teachers who are running 6 centers in NFPE Dala Township. The collection of new students was started in March 2018 by supporting from respective ward/village general administration departments and respective center committee member. The objective of NFPE programme in Dala township is to provide *second chance education* for children age group (10-14) years who have never enrolled or dropped out from Formal Education and who missed the opportunity of completing Primary Education (Ministry of Education Myanmar, 2018).

It is noted that the NFPE is not strictly an academic programme, but a *holistic approach to learning*. The NFPE centers combined reading, writing and numeracy skills with other life skills, child rights, and child protection, in addition to daily life skills such as sanitation and hygiene, nutrition, meditation, and building self-respect and self-esteem - overall a comprehensive learning in a warm and caring environment. Children go through two prescribed levels before they graduate. Appropriate vocational skills are chosen according to market demand, and training is given. Short trips are organized for children when possible, in addition to meditation and prayer sessions. (UNESCO 1993)

Monthly meetings are organized for parents covering a wide range of topics from understanding parent-child relationships, understanding problem of children, coping with disabled children, value of education, importance of attending school regularly, health and hygiene issues covering topics such as hand-washing with soap, keeping food covered, making water safe to drink, abstaining from alcohol, gambling to child protection principles and child rights (World Vision Myanmar, 2015)

Map 1 Dala Township Map, Yangon, Myanmar



Source: Myanmar Information Management Unit MIMU 2017

Table 2 Yearly NFPE Students for Dala Township

Sr	Academic Year	Level 1			Level 2			Total		
		M	F	T	M	F	T	M	F	T
1	2011-2012	73	61	134	37	35	72	110	96	206
2	2012-2013	49	33	82	30	32	62	79	65	144
3	2013-2014	50	24	74	35	27	62	85	51	136
4	2014-2015	62	29	91	62	33	95	124	62	186
5	2015-2016	90	36	126	82	37	119	172	73	245
6	2016-2017	69	44	113	79	35	114	148	79	227
7	2017-2018	72	46	118	72	42	114	144	88	232
8	2018-2019	63	28	91	52	37	89	115	65	180

Source: MOE, 2018-2019 Annual Year NFPE Township Plan, Dala (2018)

Ministry of Education, Myanmar (2008) pointed out that the probability of not finishing 5 years primary cycle and out of school could be unaffordable school expense for poor family and large family size households. Moreover, the Integrated Household Living Conditions Survey (IHLCS) 2009-2010 also found that, for those aged 5 to 15, school expenses, and lack of interest were two major reasons of non-attendance in formal school while illness, family obligations, and agricultural activities were account for other reasons

of non-attendance in formal schools in Myanmar.

5 Empirics

This section represents empirics for examining importance determinants of factors that force children to be out of school. We will apply logistic regression estimation based on collected information on the socioeconomic condition of family and household characteristics. The estimation outcomes will provide further discussion of policy implications in this paper.

5.1 Data and Logistic Model Estimation

We will apply the data obtained from our field survey in Dala Township during June, July and October 2018. The units of study comprise the parents, teachers and administrative committee members principally. We have utilized the 'focus group' discussions in our study to access in-depth information to access their role in non-formal primary education programme launching and its sustainability. We have structured our questionnaire to be consistent with the format of the World Vision Myanmar (INGO) with additional instruments question suitable for our study. Finally, we have utilized the 'Logit model' estimation and test the statistical significance of the determination of reasons behind the observed phenomenon of 'out of school children' in Dala Township.

The selected sample sizes of our units of study comprise 150 students whose aged between 10-14 years. Here, there were 49 females and 51 males who are out of school children and currently join in NFPE programme. There were also 50 students who have never dropped out of school and not from the NFPE programme who were attending formal education. They all were interviewed under purposive and systematic random sampling. Additionally, we have also interviewed 9 school teachers and 4 management committee members of NFPE programme as key informants so as to get necessary ground information of children and programme condition.

Binary logistic regression is the method of choice if the dependent variable is binary (dichotomous) and we wish to explore the influence of independent variables on the dependent variable. The general form of the logistic regression model is:

$$(P_i) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k + e_i$$

where P_i is the probability that $Y_i = 1$; X_i is are explanatory variable; and e_i = random term.

Our target variable for out of school children in our research is a dummy or binary response variable which is taking out of school 1 and otherwise 0 (OSS). Thus, $P_h=0$ if children aged between 10 and 14 is currently participating in formal school education in Dala Township. However, drop-out children and never attend formal school children are also checked separately.

It is hypothesized that the dropout of children from school and never enrolment in formal school over a given period of time reflects the impact of various socioeconomic factors, originating from the community and family head's decision and background condition of the children. Therefore, explanatory variables which are used to explain why students are not participating in formal primary education are divided into three main groups. The first group of explanatory variables, they are household head's characteristics such as age of head of household (*Hhage*, total years), education of household head (*Hhedu*, if household head drop out after finishing primary school, it will be 5 years) and Gender of household head (*Gendhh*, if female =1 and if male =0). The second group represents the household characteristics such as household income per month in local currency unit (*Hhincom*, *Kyats*), household size (*Fsize*, *person*). Community characteristics have been added as rurality (*rural*, if live in rural=1 and urban =0).

The third group of explanatory variables is dummy variables signifying choices or reasons why children are dropping out from the formal school or never entering formal education. The answers are more than one reason and coded as a dummy variable. For instance, the main reason for out of school can be parents' decision for their children not to enter into formal school. (*Propar*, if parent's decision = 1 and otherwise = 0). Reasons can be variety - taking care of younger siblings (*supyo*), working outside (*wor kid*), helping housework (*supf*) (and taking care of younger and housework together as *supffa*), reasons with entering formal school is expensive, no interest in school, child bully, health problem and no birth certificate assigned as healt, and school is too far from home (*far*) respectively. More importantly, we do check the possibility of traditionalism for female students whether female students (*gende*) have more chance to be out of school since our study place is one of the poorest townships in Yangon region.

Furthermore, variable represents the occupation of parents such as causal worker (causal which is causal and services worker), mason or carpenter (*mason*), sales workers and salary-earners (*sal wo*), agriculture and fishery sector worker (*ag wo*) has been considered as one of the main reasons for students can stay in formal education or be out of school and here checking the relationship between their occupation and their monthly income.

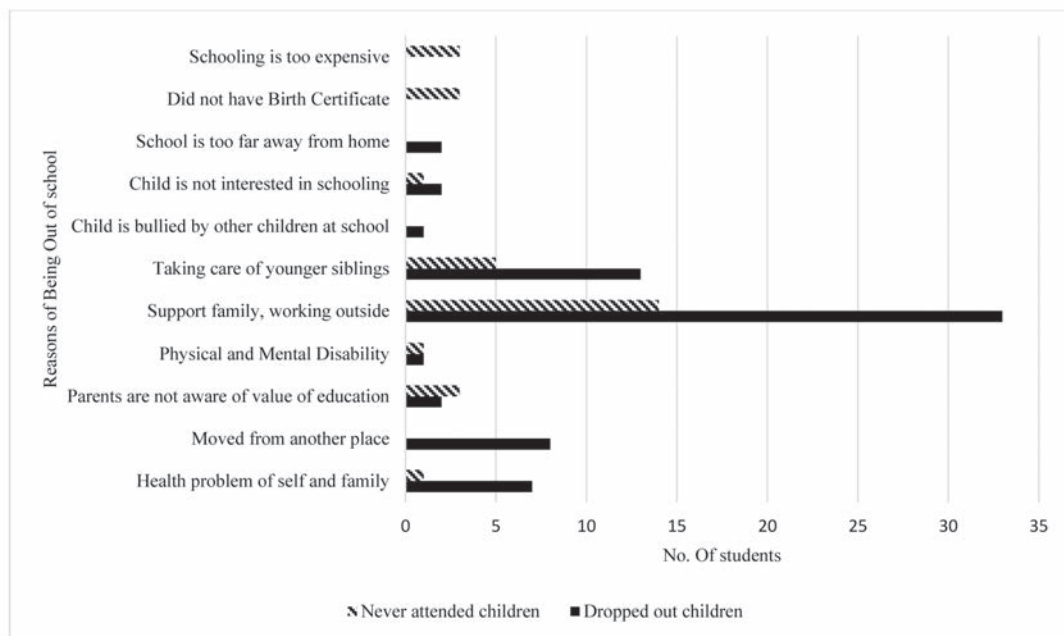
5.2 Major reasons of children out of school in Dala

Following fig. 3 we describe the result of interviews on major reasons why children in Dala NFPE programme are the dropout from formal school and never attend to formal education. Here, very first important reason has been shown although the answer is more than one reason.

Family Related Reasons: In the case of Dala Township, the main reasons of drop out and never attend formal school are family-related reasons more than 70%. The result showed that 47% of children needed to work to support the family or support a family business. Helping parents and working in family-owned small enterprises was the main reason for staying out of school as well.

About 18% of children out of school have reasoned that they had to take care of younger siblings. When parents are always out of home to search for jobs and work, older children are forced to look after

Fig. 3 Major reasons for dropped out and never attend primary school



Source: Author’s creation based on survey result in June, July and October 2018

younger siblings at home. About 8% of children are out of school due to migration or moving houses. Migrant populations often move around to search jobs, run away from conflict or disasters. Children are often encouraged to work in this situation. Some time a minor reason is simply that parents did not bring school certificate from former schools without which it is not possible to enroll at the next formal school. Another 7% of children are dropped out due to the health problem of self and family members. Some children had to take care of their grand-mother or grand-father for a health issue.

School-related reasons such as attending school are such costly, school is too far to go, and child bullied in school are occupied as 7%. The rest is personal reasons i.e. the child is not interested in attending formal school is 3% although another personal reason such as early marriage is not much appropriate one in Myanmar culture at primary school age although it was found out in Ghana and India. Availability of access to school is still an issue in the remote areas where transport and infrastructure challenges limit access.

5.3 Estimation Outcomes and Its Interpretation

Table (3) reports that the estimated result of the logistic regression model. Surely family income is one of the key factors that influence the chances of primary school children to be out of school ones. It is also significant in separate estimation for both never attend school children and drop-out children. Since the coefficient has a *negative* sign, it can be said that the lower the family income, the more chance to be

out of school children.

At the same time, the size of the family is another major influence variable which has a *positive* sign. It tells that the more family members in the household, then the more chance to be out of school children. Average family size of 6 persons in our sample has created an increase in the likelihood of out of primary school children. Large family size will have more burden to help to do housework and taking care of younger siblings while their parents are working. Thus, they have more chance to be out of school. Unexpectedly, children who are working part-time outside family are trying to stay in formal school. It seems they are trying to finance own education investment.

The characteristics of the household such as head, age, gender and education and rural are not *significant* for the major reason for out of primary school children. On the other hand, the age of the household's head determines the tendency of 'never attend of formal education' of their children. Thus, the young household head has a tendency to avoid sending their children to formal school. Our finding of parents' decision (*propar*) indicates that children are never attending to formal school since their parents' are not aware of education and do not have knowledge of education. As a result, children are ending at supporting the family as helping housework and taking care of younger siblings. Then again, for those children with a health problem, no birth certificate, no interest in school, and child bully difficulty are forcing for never entering to formal school atmosphere.

Academic attainment of household head is a key factor that influences the chances of a child dropping out of school whereas the more chance of children dropping out from a primary school in the less year attending of formal education of household head. What other important significant variable found in this study is the gender of children for drop-out analysis. If primary school student is female, then it is more probable for dropping out from formal primary education. It seems that traditional perception of parents and grandparents on a female is still active. Traditionally, especially in the village, parents, and grandparents think that female does not need a high education level and only read and write will be enough for their lives. As a result, female students drop out and support family housework. Dala Township is one of the poorest townships in Yangon region, household heads have only 5.1 years of schooling on average. Distance from home to schools may be obstructed by the poor transportation system from Yangon to Dala. Consequently, the cost of schooling is high.

The big family size with low family income might be the choice to utilize own family workforce rather than sending them to the school system with high opportunity cost before joining to NFPE programme. However, later after students have obtained a second chance of learning, children have improved their self-confidence and effort to cope with hopes and dreams. The Table (4) describes the ambition that children set for themselves, in their current situation.

Table 3 Estimated Logistic Regression Model

Dependent variable	Never attend school (NDO)	Drop-out (DO)	Out of School (OSS)
<i>Household Head variable</i>			
HHAGE (age of head)	-0.05** [-2.13]	0.01 [0.55]	0.02 [0.92]
GENDHH (gender of head)	-0.73 [-0.45]	0.53 [0.63]	0.58 [0.51]
HHEDU (education)	0.21 [1.56]	-0.24** [-2.14]	-0.06 [-0.45]
<i>Family variable</i>			
HHINCOM (income)	-0.00** [-2.11]	- 0.00* [-1.85]	- 0.00*** [-3.84]
FSIZE (family size)	0.04 [0.22]	0.27* [1.89]	1.07*** [3.93]
<i>Community</i>			
RURAL (living in rural)	-0.08 [-0.11]	0.08 [0.14]	-0.49 [-0.69]
<i>Major reasons variable</i>			
GENDE (female students)	-0.3 [-0.62]	0.80** [2.06]	0.46 [0.89]
PROPAR (parent's decision)	3.95*** [3.63]	-1.35 [-1.40]	
SUPF (helping house work)	1.55*** [2.52]	0.86* [1.77]	
SUPYO (younger siblings)	1.29** [2.11]	0.78 [1.41]	
SUPPFA (take care of young and housework)			4.24*** [4.03]
WORKID (working outside)	0.23 [0.37]	-0.09 [-0.16]	-1.98* [-1.87]
FAR (far from home)	2.9 [1.51]	-0.01 [0.00]	
HEALT (health problem)	2.18*** [2.99]	0.74 [1.19]	
Log-likelihood	-57.51765	-81.2978	-48.2628
Deviance	115.0353	162.5955	96.52558

Note: ***, **, * denote rejection of the null hypothesis at the 99%, 95% and 90% level of significance, respectively. And numbers in parenthesis are z-statistic of the corresponding coefficient

Table 4 Goals and Ambitions of Children at NFPE Programme in Dala, Yangon

Description	M	F	Total	%
Business and tailor		2	2	2.60%
Doctor	9	10	19	24.68%
Nurse		2	2	2.60%
Sailor	1		1	1.30%
Football Player	1		1	1.30%
Military Officer and a soldier	13		13	16.88%
Singer and Makeup artist	3	3		3.90%

Teacher	2	21	23	29.87%
Author and Painting artist	2	2		2.60%
Engineer	10	1	11	14.29%
Total	36	41	77	100%

Source: Author's creation based on Survey result in June, July, and October 2018

As can be seen - a majority of students had an aspiration to become teachers (23%), doctors (19%), Soldiers and military officers (13%) and engineers (11%). However, parents do not have big ambitions for their children. They hoped that their children would lead better lives than they do, and "not work in the hot sun". On their part, teachers identified suitable vocational skills for students after conducting small market evaluations and identified students who could be imparted skills training. Parents are so pleased with the "learning while earning" of their children. Parents with disabled children are especially pleased that NFPE centers provided an opportunity for learning without discrimination, unlike formal school.

Table 5 The relationship between family income and household head education

Dependent Variable	Household monthly income
C	143778.9***
	[6.27]
HHEDU (education of head)	4644.466**
	[2.77]
GENDHH (gender of head)	13772.71
	[0.95]
HHAGE (age of head)	-417.68
SAL_WO (salary earner)	46744.2**
	[2.42]
AG_WO (agriculture)	24300.01
	[1.36]
CAUSAL (casual worker)	13105.4
	[0.76]
MASON (Mason and construction)	73896.96***
	[4.27]
R-squared	0.44

Note: ***, **, * denote rejection of the null hypothesis at the 99%, 95% and 90% level of significance, respectively. And numbers in parenthesis are t-statistic of the corresponding coefficient

Additionally, the relationship between household head education and household income displayed that household heads with more years of education have more chance to earn monthly income. Therefore, education is vital for family income as well as children to be in the education system. Table 5, presents the result of the relationship between family income and household head education.

6 Conclusion and Policy Recommendations

Although government states that all children at age five are compulsory to enroll in primary school and all schools tuition fees are free of charge, parents have to be responsible for stationery, school uniform, tuition fees, and other costs. Some poor parents still cannot afford to provide those, and moreover, parents prefer children to work outside to earn some income rather than spend money to send them to school without knowing whether they will pass or not.

Some parents do not have knowledge about getting birth certificates when they delivered a child at home with non-medical doctor/nurse. Some parents are also moving frequently and did not have the chance to get a birth certificate for children. Therefore, parents' or guardians' education level is much important to persuade children enrolled the school. Overall, due to their household heads' education levels being as low as 5.1 average years of education, they fail to understand the value of education. The educational status of the parent, in this study, has a direct bearing on the educational status of the child drop out the problem. Households with poorly educated household heads had the highest percentage of children that dropped out. Apparently, low level of education and no education are directly affecting their decision on children never entering to formal primary education.

We, therefore, recommend having *an extension of the adult education programme* in the alternative education system which is carried out in townships that have very similar parents' education level so that potential human resource development can be accumulated for the community and country whereas they have more chance to earn monthly income by education. "The importance of adult education is envisaged to aide in enhancing attitudinal change among illiterate and ignorant parents in favor of child education" (Mike et al., 2008, p.16)

Furthermore, it seems that "working children" have more chance to be enrolled in the formal education system although they can join to non-formal education nowadays. Therefore, if "*learning while earning*" programme was set up for children, it would be a win-win situation for both parents and children. On the other hand, township authority will be the middleman for negotiation among parents, business owners, teachers, and children. It would be better if the authority set up "*the family planning knowledge*" for Dala township as average family size 6 persons in our sample proved that child from big family size household is more chance to be out of school even though NFPE programme have monthly meeting for parents about health and hygiene issues covering topics such as hand-washing with soap, keeping food covered, making water safe to drink, abstaining from alcohol, gambling to child protection principles and child rights.

During the survey, focus group discussion with teachers revealed that children came in their centers as ill-mannered, rude and children with low esteem at first. A rounded, happy environment provided an ideal setting for not only helping in reading and writing skills, but vastly improved their own self-esteem, as

children are now more confident, sharing, participating, questioning, recognizing their abilities, and work hard to provide a better life for themselves and their families. At the centers, there is no discrimination; all children are treated equally irrespective of their backgrounds, making learning healthier. Small classes, individual attention, no corporal punishment, learning at their own place - all added to their self-esteem.

Management Committee and 50% of parents mentioned that children are more knowledgeable and are able to read and write better after joining the NFPE centers. Students themselves answered that they can read and write, have more knowledgeable and more confident and happier after joining the centers. On the other hand, the management committee stated that financing NFPE only through NGOs and other contributions is not sustainable and completely lacks government ownership. Although the government "contributes" through its schools, a lack of financial commitment reflects policy uncertainty. It is recommended that a careful short and medium-term strategy for NFPE expansion and financing be drafted and implemented through budgetary procedures so as to ensure adequate financing as well as continuity and government ownership in educating Myanmar's children in the NFPE system.

Awareness raising, community and General Administration Department (GAD) involvement in facilitation and monitoring should be encouraged for not losing of children self-esteem. Media promotion of NFPE through campaigns by printing, audio and visual should be conducted. Additional contributions from international and national donors are needed for improving facilities and providing healthy and nutritious snacks to students most of whom are also burdened with long hours of hard work. It will be very helpful if the management committee facilitates with employers for employment of students. Children enjoyed skills-based vocational training, therefore the vocational training and excursion trips should be expanded. Community involvement through active meetings and exchanges between students, teachers, parents, management committee and government officials as well as other stakeholders would be very useful for the students to enter into their second chance learning life. Finally, it is strongly suggested to set up more non-formal middle school education NFME¹³ centers for students who are passing through the NFPE system to allow them to continue their education goals if desired.

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13 The Non-Formal Middle Education (NFME) programme is a follow-up to the NFPE and started in the 2016-17 academic year. The NFME programme takes three years to complete and is designed to be the equivalent of grade 10. Students who finish the NFME can join formal schools. The NFME's testing will be finished in a 2018-2019 academic year.

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