

Influence of Motorcycle (Bodaboda) Business on Pupils' Drop-Out in Public Primary Schools in Rangwe Sub County, Homa-Bay County, Kenya

Joseph Kipkoech Keino, Lewis Ngesu, Christine Kahigi
University of Nairobi, Kenya

Abstract: The purpose of the study was to explore the influence of motorcycle (bodaboda) business on pupils' dropout rates in primary education in Rangwe Sub County in Homa Bay County. The study examined the influence of gender related issues, mode of transport, socio-economic factors and school location on pupils' dropout rates in primary education. The study was based on Tinto's Model of student retention. The research adopted a descriptive survey design with a target population comprising of 120 public primary schools, 120 head teachers, 428 teachers' and 8277 class six, seven and eight pupils' as well as 600 boda boda operators. Stratified random sampling was used to arrive at schools to participate in the study by dividing the target population of schools into six strata on the basis of the six zones in I Rangwe Sub County. Census sampling approach was used to sample head teachers' in the sampled schools, while random sampling was used to sample teachers' and pupil's from the selected schools. Therefore, the total sample of the study comprised of 12 head teachers, 43 teachers' 828 pupils' and 60 boda boda operators. The researcher used questionnaires to collect quantitative and qualitative data. The study established that gender related issues and use of motorcycle transport had a significant effect on pupils' dropout rates in primary schools. Further, the study established that most parents were unable to raise adequate funds to pay school levies for their children. It was also established that the distance from home to school, mode of transport, lack of money and insecurity had a bearing on students' dropout in primary schools. The study recommends among others that the school administration and other stakeholders should come up with programs and forums to enlighten parents on the importance of pupils' education. A study should be carried out to find out the possible policies that can be put in place to improve the completion rates of pupils in primary schools in Kenya.

Key words: Public schools, head teachers, teachers, pupils, Bodaboda operators, dropout.

I. INTRODUCTION

Transportation of people and goods on land has been greatly improved all over the world of late with invention of a variety form of transport. These include vehicles, bicycles, tricycles, and motorcycles (Adogu, 2006). Motorcycles have become a popular choice of many basic modes of transport (Lombard & Ninot, 2010). According to Kumar (2011), there is a shift in public mode of transport particularly in the developing countries; the converse is the case of developing countries, shifting to individualistic means of transport.

Globally, there is sporadic use of motorcycle as a means of public transport, particularly in East Africa whereby they are referred to as motorcycle taxi (Amadi, 2013). In Indonesia the motorcycles are referred to as Ojek. Motorcycles are also used as a means of transport in United Kingdom, France, United State of America, China and Vietnam. Motorcycle taxis yield numerous benefits to individuals as well as to the economy (Tech Sci 2016). Motorcycle taxi industry is expected to grow by over 50% in five years globally (World Bank, 2017). The rise in traffic accounts partly for the rise of motorcycles around the world.

A study done in Venezuela by a travel company in Amsterdam revealed that motorcycle taxis does not only contribute to economic mobility but physical mobility as well (Buser, Noemi, & Wolter, 2017). This ensures income earning as well as livelihood for the riders. A motorcyclist in Indonesia shared that he earned 10 times more from the motorcycle taxi than the construction job he did before (Kurdaningsih, Sudargo, & Lusmilasari, 2017). In countries like Thailand, motorcyclists have better income than most of the other informal sector. Thus, attracting a high population of youths especially school dropouts.

Motorcycle taxis has been boosted by the invention of apps which has increased daily trips leading to increased earnings (Phun et al 2018). In Indonesia, a report from Statistical Agency shows that unemployment rate dropped from 6.18 percent to 5.61 percent in 2016 due to the increase of motorcycle taxis. The logistics of the bodaboda industry causing numerous loophole on the authenticity of riders and not following transport laws like hiring of child-riders, untrained operators and lack of protective gear. Thus, there is need for transportation authorities to regulate this sector especially due to its dire need in their semi-urban areas that are characterised by inadequate technical and financial capability (Khisty, 1993). One of the strategies employed to curb this need is privatisation of the public transport system that will enable operators have no compunction about adopting profit-making strategies or corporate practices that make essential services unaffordable or unavailable to large segments of the population. Thus, through privatisation the government is not able to control individual operators who take advantage of regulatory and institutional gaps (Kisaalita & Sentongo, Kibalama, 2007). Private transport operators in

South and Central America have embraced regulated motorcycle taxis, courier services and minibuses to buttress transportation gaps (Kumar, 2011). Numerous studies on this phenomenon has been carried out in United States of America in the light of enabling understanding its origin. This kind of transportation is sporadic to Latin America (Schipper, 2009).

In the past twenty years, motorcycle taxis have been witnessed in many developing countries particularly in the urban areas, making it the dominant transport mode (Al-Hasan, Momoh & Eboime, 2015). The use of motorcycles has existed for a long-time as they have been used for private purposes and transportation of goods (Oladipo, 2012). In Uganda's capital city, motorcycle taxis are second in command after agriculture as far as how employment demographics is concerned. In countries like Kenya, motorcycle taxis fetches an estimated Kshs 400 million per day, according to data from the motorcycle assembly Association of Kenya, making them an important player in the country's overall economy (Kenya Business Guide, 2016).

The motorcycle *Boda-boda* business upsurge is a recent Kenyan phenomenon. In the rural and urban areas, *Boda-boda* provide taxi services and transportation of goods in small scale level for businesses as well as for households. *Boda-boda* is flexible in mobility due to the fact that it can be used on poor roads and it is cost effective. The preference of *Boda-boda* is motivated by the fact that Kenyan government waived taxation on the importation of motorbikes in 2008. The tax waiver was geared to boosting job creation among the youth (KNBS, 2010).

The motorcycle has benefitted the rural folk due to poor road network. The people in rural areas have come to utilize the *bodaboda* starting with the adults upto the school going children as schools are few and widespread which has led to pupils travelling long distances. Ananga (2011) argues that primary school children's education is invaluable as it contributes to economic growth; sustainability of development, education for posterity and social development.

In Rangwe Sub County, Motorcycle taxis constitute the main means of public transport for all passengers as they carry up to four passengers at ago from one place to another on a daily basis. Currently, transportation of pupils to and from school is done using the *Boda-boda*. Due to the rise of pupils attending schools, motorcycles have significant contribution not only on pupils but also to patients who need to see a doctor in case of emergency (Nandwoli, 2014). While boys are likely to drop out of school to become *bodaboda* riders, *bodaboda* business has been linked to teenage pregnancies.

Motorcycle business has contributed a lot economically. Poverty and lucrative income-based factors have increased primary school dropout rate in Kenya. A survey done by the Ministry of Education has revealed that most young boys in informal business popularly known as *bodaboda* (motorcycle business) are school drop outs leading to a decline in the number of the male pupils in schools. According to M.O.E

basic statistics shows that the enrolment of boys is less than that of girls in primary schools.

In Rangwe Sub County, motorcycle taxi business has increased as more motorcycles are bought each year, which eventually lead to seeking of more operators to sustain the influx of the money minting machines. This has consequently led to early pregnancies among school going children, early marriages, school dropouts and youngsters who are less qualified operating the motorcycle taxis. The study therefore sought to examine the influence of motorcycle taxi business on primary schools dropout in public primary schools in Rangwe Sub County, Homa-Bay County.

Statement of the Problem

Increased cases of school dropout among pupils in public primary schools have become a concern to educational stakeholders. A report by Rangwe Sub – County Education Office (2018) shows that pupils dropped out of school due to Motorcycle (*Bodaboda*) business. The government of Kenya have come up with measures to curb school dropout for example; guidance and counseling programs, enacting laws that make it difficult for underage learners to engage in *Bodaboda* business.. Moreover, the Government of Kenya has put considerable efforts towards pupils' retention and completion rates in primary education through Free Primary Education. It has also enhanced participation through 100% transition from primary to secondary as well as implemented subsidy fees in public secondary schools to reduce dropout rates. However, despite these efforts by the Government of Kenya, increased reported cases of pupils dropping out of primary schools are on the increase. The need for quick money, freedom and poverty has compelled some primary school pupils to dropout from schools to venture into *bodaboda* business. The massive entry of young people into the motorcycle business due to access for quick money has in the recent past impacted negatively on school going children. The temptation of making quick money and self-employment away from the school life has motivated some primary school pupils especially boys in upper primary level to drop out of school. These boys take advantage of the young girls going to school for sexual exploitation in exchange for free rides. This has resulted into teenage pregnancy among other vices. It is against this background that the study was carried out to establish the influence of motorcycle business on pupils' dropout rates in primary education in Rangwe Sub – County, Homa Bay County, Kenya.

Significance of the Study

The research findings from the study may lead to a great deal of development of management tools and instruments through the provision of information to the schools' stakeholders to improve on the existing intervention points against the motorcycle taxi-based dropout portent. The information gleaned may be useful to education planners and other stakeholders in designing customized, most effective and

efficient strategic intervention schedules to the motorcycle taxi-based dropout related problem.

Objective of the Study

The objective of this study was to explore the influence of socio-economic factors (parents' level of education, level of income and peer pressure) on school dropout in public primary schools in Rangwe Sub-County, Homa Bay County-Kenya.

II. LITERATURE REVIEW

Over the past decade, there has been a significant growth in the use of motorcycles as a commercial public transport mode. Though, commercial motorcycle service growth has led to an increase in road accidents, traffic management problems, pervasive noise and increases in local air pollution and greenhouse gas emissions, it offers transport advantages in the form of easy maneuverability, ability to travel on poor roads and demand responsiveness. Oyedepo, Fadugba and Odesanya (2016) further affirmed that "the collapse of public intra-city transport system paved way for the rise of motorcycles as means of public transportation in most towns and cities".

In USA, registration of motorcycles increased by 51% between 2000 and 2005. This was mainly attributed to increasing fuel prices and urban congestion O'Hara (2003). In numerous cultures, motorbikes are the primary means of motorized transport. According to the Taiwanese government, for example, "the number of automobiles per ten thousand population is around 2,500 and the number of motorbikes is about 5,000." In places such as Vietnam, motorbike use is extremely high due to lack of public transport and low-income levels that put automobiles out of reach for many (Adogu, 2006).

In Sub Saharan Africa, the ancestor of the motorbike taxi is the "bicycle-taxi" used in the transport of goods and men in rural areas since the colonial era. In Benin, transport by road Akassa was done by bicycle known as "kèkèkannan". The passenger transport known as "taxi kannan" came later on to complete this activity (Tossou, 1993). While in West and Central Africa, the motorbike taxis were introduced in Niger, Nigeria and Cameroon in the 1980s. Currently, motorcycle has become generally accepted as means of commercial transportation and possibly the best form of flexible public transportation system (Ebonugwo, 2009). Motorcycle Taxis or Bodaboda became a means of public transportation in Nigeria due to the decrease in the supply of new vehicles of all types since the 1970s. (Oyesiku, 2002) cited in (Oladipo, 2012).

This mode of public transport satisfies more and more the population's needs in terms of public transport in Africa, whilst raising critics from its users, other transport operators and government authorities. It can also be seen as a "Response from below" to the prevailing transport crises. This situation can better still be termed "development

from below". Development being a fact in all societies (Mbonji: 1988). In East Africa, Kenya and Uganda have recently realized the growth of *boda-boda* taxis as a fast and cheap mode of transport. The (*boda-boda*) taxis are part of the African bicycle culture; they started in the 1960s and 1970s and are still spreading from their origin on the Kenyan - Ugandan border to other regions. In Kenya and Uganda, the bicycles are more and more replaced by Motorcycle taxis Howe & Mander ((2004) points out that the motorbike taxis have taken the name '*boda-boda*' as well, though in much of Uganda, the Swahili term for motorbike, (piki-piki), is used to describe motorbike (*boda-bodas*).

Study Theory

The study was based on Tinto's Model of student retention espoused in July 1997. Tinto's theory of retention to education is centered on the concept of 'integration' with three underlying principles namely: academics, social and economic which he collectively referred to as spheres of integration on academic integration, Tinto observes that for a student to be fully retained in an institution of learning, the quality of education provided must be satisfactory. On social sphere of integration, he observes that for a student to concentrate fully during learning there should be a very conducive location provided by the institution. The location that guarantees safety, comfort and cordial relationship between peers, staff and school administration. On economic sphere, Tinto (1997) observes that the socio-economic status of parents of a student influences his or her retention to education. The theory examines the relationship between enrolling in a school and future income, bringing about the concept of opportunity cost. Moreover, Tinto's argument on learning and social integration is devoid of credible frame of reference.

A student's retention is wholly dependent on symbolic approach. This theory is structured by dialogue and reflections as opposed to normative and univocal regulations (Joas, 1987). Social relations are seen not as stabilized once and for all but as open and tied to ongoing common acknowledgement (Joas, 1987). Exchange and interaction is essential to the maintenance of the rules as well as alterations and reproduction of the rules. This theory was deemed relevant to this study because it is anchored on retention to education.

III. RESEARCH METHODOLOGY

The study adapted descriptive survey design, the study population was all 120 public primary schools in Rangwe sub - county and hence 120 head teachers, 428 teachers, 8277 class six, seven and eight pupils as well as 600 Bodaboda operators. The study sample comprised of 12 head teacher, 43 teachers, 828 pupils and 60 Bodaboda Operators giving a total of 943 respondents. The study used three sets of questionnaires for head teachers, teachers and pupils and interview schedule for Bodaboda operators. The validity was

established by use of expert judgment and piloting. Instrument validity was ascertained using test – re-test technique and values from the two testing periods were correlated using Pearson product to determine the reliability of the instruments. Statistical package of social sciences software programme (SPSS) version 2.2 was used to analyze the data. This was done by using descriptive statistics and presented in the form of tables showing frequencies and percentages.

IV. RESEARCH RESULTS

Response rate: A total of 883 questionnaires were distributed during the study. From the data collected, a total of 847 questionnaires were duly filled and returned thus representing an overall return rate of 86.2 percent.

Respondents Gender

Table 1. Indicates that out of the 12 head teachers who participated in the study, majority (83.3%) were males while 19.4% were females. According to the findings the highest proportion of primary school teachers were males at (60.5%) and female teachers were few rated at (39.5%). This showed that both genders were represented in the study to avoid gender biasness. The findings show that there were more male teachers than females. Males therefore dominate in the leadership. This means that the two-third gender rule has been violated in the appointment of head teachers within the Sub – County (Constitution of Kenya 2010). This concurs with the findings of Plan International (2012) that male dominated school erode pupils' confidence and completion rates in school. Therefore, the teachers service commission (TSC) needs to encourage and promote more females to head public schools in Rangwe Sub – County.

Further, from the pupils, 57.8 percent were females while males constituted of 42.2 percent. These findings showed that the number of girls was higher than boys in primary schools in Rangwe Sub-County implying that more boys than girls were enrolled in schools and perhaps boys had dropped out of school to join informal employment like the bodaboda business among other petty jobs.

Consequently, during an interview with the bodaboda riders, all the respondents interviewed were males. This therefore implied that the commercial operations of the bodaboda were dominated by male riders. The other factor that may have led to male domination in this sector is the nature of work and the risks that were involved.

Table 1: Respondents' gender

Gender	Head teachers		Teachers		Pupils	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Male	10	83.3	23	60.5	336	42.2
Female	2	16.7	15	39.5	461	57.8
Total	12	100.0	38	100.0	797	100.0

Influence of socio-economic factors (parents' level of education, level of income and peer pressure) on school dropout

As shown in Table 2 the research findings showed that pupils from low income families drop out of school more frequently than those from middle and higher income families as indicated by a mean of 3.54 and a standard deviation of 0.70. This was due to greater constraints experienced by low income families increasing pupils' dropout rates. They also seem less motivated to learn due to lack of financial support as compared to those from higher income families as indicated by a mean of 3.52 and a standard deviation of 0.74. It may be concluded that lack of school fees compelled head teachers to send pupils home for school levies not catered for by the Free Primary Education program. It may be concluded that there was a significant relationship between financial support and students' progression.

Table 2: Head teachers' and teachers' responses on the influence of socio-economic factors on pupils completion rates in primary education

Factors under consideration	Head teachers		Teachers	
	Mean	St. Dev	Mean	St. Dev
Low income families are not capable of paying the required fees hence pull their children from school	3.54	0.70	3.71	0.78
Low income families may not buy the required learning resources for their children who end up failing in academics	3.26	0.76	3.11	0.69
Low income families often lack money to pay school fees and their children do not regularly attend school sessions as they are always sent for school fees	3.52	0.74	3.53	0.75
Inability of low income families to buy their children sanitary pads force pupils to miss school days during menstruation period	3.49	0.72	3.50	0.74
Middle and high income families are able to cater for their children' primary education and always complete class-work and other activities	3.46	0.70	3.49	0.73

The teachers were in agreement that most pupils came from low income families that do not encourage pupils to continue with school as shown by a mean of 3.49 and a standard deviation of 0.72 and also prefer paying school fees for boys to girls as shown by a mean of 3.46 and a standard deviation of 0.70. They also accepted the fact that most pupils drop out of school due to poor payment of school fees as indicated by a mean of 3.26 and a standard deviation of 0.76. The study findings implied that financial status of a family played a significant role in pupils' dropout rates in primary schools. This indicated that majority of the cost related aspects cause pupils to discontinue with their education lowering their completion rates.

This concurs with Mbugua (2011) who noted that PTA levies are utilized in development of school physical facilities and not retaining pupils in schools. The finding indicates that development fund influence pupils' completion rates in school. This agrees with Roschanski (2007) who found in a study in Homabay district that when pupils were repeatedly sent home for school levies some became too shy to return to school.

The findings agree with Sabates, (2010) who noted that "financial level of the family affect a child's education

meaning that, the higher the income of parents, the more the possibilities of retaining their children to a school of their preference. Income also influences school outcomes through enabling a child to participate in co-curricular activities like games after school and special trips. Such activities improve children's skills directly and also indirectly through general intellectual stimulation which affected subsequent learning. Therefore, if the opportunity cost of a child being in school is high for the parent, the chance of dropping out increases.

Table 3. Influence of socio-economic factors on pupils' dropout rates in primary education as perceived by pupils

Factors under consideration	1		2		3		4	
	f	%	f	%	f	%	F	%
Low income families are not capable of meeting the required fees hence pull their children out of primary schools	125	31.5	159	40.1	42	10.6	71	17.9
Low income families are not able to purchase required learning resources for their children who end up failing in academics	215	54.2	98	24.9	67	16.9	17	4.3
Lack of fees by low income families results in the girl child missing school days as they are normally chased from school	197	49.6	102	25.7	76	19.1	22	5.5
Middle and high income families are able to cater for their children's primary education hence such pupils have maximum completion of class and other school activities	301	75.8	58	14.6	38	9.6	0	0.0

According to study findings presented in Table 3 a majority of the pupils (52.8 percent) strongly agreed to the statements provided on the influence of socio-economic factors on pupils dropout rates in primary schools. 40. percent agreed that low income families are not capable of meeting the required fees hence pull their children out of primary schools, while 54.2 percent strongly agreed that low income families are not able to purchase the required learning resources for their children who end up failing in academics. There is a possibility that most families in the study area prioritize boys' education over girls education lowering the latter's completion rates. Moreover, 49.6 percent strongly agreed that lack of fees by low income families results in the girl child missing school days as they are normally sent home from school to collect school levies and 75.8 percent strongly agreed that middle and high income families are able to cater for their children's primary education hence such pupils have maximum completion of class and other school activities. The findings established a relationship between socio-economic factors and pupils' dropout rates in primary education. The findings were in line with Grant and Hallman (2006) who found an association between a family's financial strength and the likelihood of the daughter's dropout in South Africa.

V. DISCUSSION AND INTERPRETATION OF RESEARCH FINDINGS

Motorcycle business is a major contributing factor to school dropout. The need for easy money, poverty and long distance between some public schools and homes have impacted negatively on pupils' progression to the next level of schooling. The parents' level of education, economic and culture have a strong bearing on pupils' academic aspirations

with little or no significant motivation coming from parents. It seems from the findings that the head teachers, teachers and parents have no control over what takes place after pupils leave home and school. Further, it is clear that acquisition of basic wealth is perceived to be a limitation to pupils' progression. There is a significant relationship between parents' socio-economic status and pupils progression with pupils from low income households dropping out to engage in informal business sectors more repeatedly than those from middle and higher income families.

VI. RECOMMENDATIONS

As a general recommendation, the school administration and the Parents Teachers Association should endeavor create income generation projects/ventures to assist parents from low income families raise funds for pupils' education, so as to reduce school dropout due to lack of basic amenities and the Ministry of Education Science and Technology (MOEST), other stakeholders and education partners should provide and allocate more bursaries, through the various counties, for pupils and streamline the procedures followed in allocating those bursaries. This would enable pupils to complete primary education since majority drop out due to lack of fees.

REFERENCES

- [1] Adogu, O. U. (2006). Codes among commercial motorcycle riders in Nigerian. *Postgraduate Medical Journal*, 13(4), 297.
- [2] Al-Hasan, A. Z., Momoh, S. & Eboime, L. (2015) Urban poverty and informal motorcycle transport services in a Nigerian intermediate settlement: a synthesis of operative motives and satisfaction, *Urban, Planning and Transport Research*, 3 (1), 1-18.
- [3] Amadi, E. C. (2013). Socio-cultural factors on the girl-child education in Secondary Schools in Ihiala Local Government Area of Anambra State, Nigeria. *Human Factors and Ergonomics in*

- Manufacturing. *International Journal of Education, Learning and Development*, 1 (1), 71-74.
- [4] Ananga, E. (2011). Typology of school dropout: The dimensions and dynamics of dropout in Ghana. *International Journal of Educational Development*, (31) 374-381.
- [5] Buser, T., Noemi, P., & Wolter, S. (2017). Gender, Competitiveness, and Study Choices in High School: Evidence from Switzerland. *American Economic Review*. 107. 125-130.
- [6] Ebonugwo, M. (2009). Okada; not Lucrative business any more in Okonkwo, E.C, Emehute, V. C and Nwosu A.C (eds) The Okada phenomenon: effects on agricultural and Rural development. Proceeding of the 44th Annual Conference of Agricultural society of Nigeria pp 278- 279.
- [7] Grant, M.J., & Hallman, K. (2006). *Pregnancy-related school dropout and prior school performance in South Africa*. DOI:10.31899/pgy2.1042.
- [8] Howe J., & Maunder D. A. C., (2004). Boda boda – lessons from East Africa's growing NMT industry. *10th World Conference on Transport Research*, Istanbul, 4-8 July 2004, p. 10.
- [9] Joas, H. (1987). Contemporary sociological thinkers and theories. *Social Forces*, 65 (3), 891–892.
- [10] Khisty, C.J. (1993). Nonmotorized transportation research and issues: A new approach to spacial analysis of motorcycle taxis activities *Transportation Research Board*, p. 44-49.
- [11] Kisaalita, W., & Sentongo-Kibalama, J. (2007). Delivery of urban transport in developing countries: the case for the motorcycle taxi service (boda boda) operators of Kampala. *Development Southern Africa*, 24(2), 345-357.
- [12] Kumar, A. (2011). Understanding the role of motorcycles in African cities: A political economy perspective. *Sub-Saharan Africa Transport Policy Program. SSATP discussion paper No 13* (urban transport series).
- [13] Kurdaningsih, S., Sudargo, T. & Lusmilasari, L. (2017). Physical activity and sedentary lifestyle towards teenagers' overweight/obesity status. *International Journal of Community Medicine and Public Health*. 630-635.
- [14] Lombard J., & Ninot O., (2010). Connecting and integrating: territories and transport changes in Africa. *Bulletin of the Association of French Geographers*, 1, p. 69-86.
- [15] Mbonji, (1988). *The Socio-cultural impact of the introduction of Motorbike*.
- [16] Mbugua, C. (2011). *The effects of the motorcycle transport revolution on the economic growth of Kenya: A case of Thika*. MA online published thesis.
- [17] Nandwoli, F.W.N. (2014). *Factors influencing motorcycle transport on creation of employment opportunities in Kenya; a case of Bungoma south sub county, Bungoma county*. Unpublished M. E.d Thesis, University of Nairobi.
- [18] O'Hara, P. A. (2003). Deep recession and financial instability or a new long wave of economic growth for US capitalism? A regulation school approach. *Review of Radical Political Economics*, 35(1), 18-43.
- [19] Oladipo, O. (2012). The development and impact of motorcycles as means of commercial transportation in Nigeria. *Res. Humanit. Soc. Sci.* 2.
- [20] Oyesiku, O.K. (2002) Policy framework for urban motorcycle public transport system in Nigerian cities. In: Godard, X. & Innocent, F., Eds., *Urban mobility for all*, A. A., Lisse, Balkema, 255-261.
- [21] Phun, V. K., Masui, R., & Yai, T. (2018). Operational characteristics of paratransit services with ride-hailing apps in Asian developing cities: The Phnom Penh case. *Journal of Transportation Technologies*, 8, 291-311.
- [22] Roschanski, H. (2007). Deprived children and education in Ethiopia. *International Research on Working Children*.
- [23] Russell, R. (2001), "The role of values in servant leadership", *Leadership & Organization Development Journal*, 22 (2), 76-84.
- [24] Sabates, R., Akyeampong, K., Westbrook, J. & Hunt, F. (2010) *School dropout: Patterns, causes, changes and policies*. Unset. UNESCO.
- [25] Schipper, L. (2009). Fuel economy, vehicle use and other factors affecting CO2 emissions from transport. *Energy Policy*. 37. 3711-3713.
- [26] Techsci (2016). TechSci Research analyses the worldwide market for plastic additives, [https://doi.org/10.1016/S0306-3747\(19\)30030-2](https://doi.org/10.1016/S0306-3747(19)30030-2)
- [27] Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition*, (2nd Ed.), Chicago: University of Chicago Press.
- [28] Tossou C. A., (1993). Cotonou urban motorbikes: safety and the environment. In: Proceedings of Codatu Urban Transport in Developing Countries, Tunis, 15-19 Feb. 1993, p. 45-55.
- [29] World Bank (2005). Reshaping the future. *World Bank Education Project*.