STUDY ON IMPACTS OF NEWLY PROPOSED POLICIES ON MOTORCYCLE IN VIETNAM

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Abstract:  
Urban traffic in Vietnam has its unique characteristic different from any cities in the world. That is the high level of mixed traffic, of which proportion of motorcycles in traffic stream is extremely high. In these cities, the rapid growth of motorcycles is the main cause of traffic congestions, accidents that are happening more and more. These result in negative impacts on transport, environment, society and economy.  
To cope with this situation, many actions have been worked out. They can be gathered into three groups:  
- Decreasing the rate of motorcycle growth,  
- Restriction of the number of motorcycle traveling on the streets,  
- Restoration of the discipline in abiding by law on road traffic.  
There are various opinions among the people, some argue in favor of and others argue against these proposed actions. So, the assessment of all impacts from them is necessary. A survey by questionnaires has been completed in December 2002 in Hanoi. The results of this survey will be analyzed/synthesized and presented in the paper.

Keywords: Motorcycle, Questionnaire, Survey

1. ABOUT MOTORCYCLES TRAFFIC IN VIETNAM

Urban traffic in Vietnam has a very special feature that is different from many other countries in the world. That is the high level of mixed traffic, of which proportion of motorcycles in traffic flow is extremely high.(see for example, The Hanoi People’s Committee report, 1997) The reason can be explained by the relatively reasonable price in comparison with the income of people. On the other hand, it can be drowed and parked almost every where that a bicycles can run, while a car need more p[lace to run and to stop. According to the latest statistics, the number of motorcycle occurs over 10 million across the country or 125 motorcycle for each 1,000 persons on average and this number will increase rapidly with a very high annual growth rate of 20%. The considerable fact is that a majority of motorcycles is concentrated in some big cities like Hanoi, Ho Chi Minh City... There, the rapid growth of motorcycles is the main cause of traffic congestions, accidents that are happening more and more (the statistical number of traffic accidents caused by motorcycles accounts for 72%). Traffic congestions often take place in 41 places in Hanoi and 84 places in Ho Chi Minh City. They have caused estimated damage of about 6 billions VND (Vietnamese Dong) per day (2.200 billions VND per year), of which, the damage in Hanoi is nearly 1 billion VND per day and in HCM city,
about 5 billions VND per day. This situation impacts negatively on transport, environment, society and economy.

In Hanoi, of 1000 inhabitants, there are 250 owning motorcycles. More than 90% trip demand is assumed by motorcycles and cycles, while only 6% by buses and inconsiderable by trains. At present, motorcycle deserves the most favorite vehicle in Hanoi where the average trip distance is from 3-5 km. In the year 1980s, passengers traveled by bus occupied 25-30%; but after that, most of people uses their private vehicles so that a boom in motorcycle growth appears. Urban order and safety on traffic became also a serious problem.

To find out effective solutions, various proposals have been discussed widely in public medium. Among them, some are operated in foreign countries already, but they occur difficulties when the authority wants to use them in Hanoi. There are various opinions among the people, some argue in favor of and others argue against these proposals. So, the assessment of all impacts from them is necessary. So a study survey has been carried out and completed in December 2002 in Hanoi. The analysis results of this survey will be presented in this paper. This technique has been used in various documents, for example, see Guarino, Cal and Ladasan, 2001.

2. PREPARATION OF QUESTIONNAIRE

2.1 Three proposed action groups

To reduce the number of motorcycle growth and to reduce negative impacts of them on road, three following groups of actions are proposed and discussed widely in the public medium.

Action Group 1: Decreasing the rate of motorcycle growth:
Action 1.1: While now anybody can have as many motorcycles registered as they want, it would restrict that each person can register only a motorcycle and must show driving license, buy civil liability insurance.
Action 1.2: The people must pay fees and charges at higher levels when registering motorcycles (for examples: registration fee for motorcycles is 4.000.000 VND each).
Action 1.3: Hanoi and HCM city will interrupt registration of motorcycles and toward stop registration of motorcycles in the inner city from June the 1st of 2003.
Action 1.4: The Ministry of Finance will impose a luxury tax on 2-wheel motorized vehicles, with a high rate.

Action Group 2: Restriction of the number of motorcycle traveling on the streets:
Action 2.1: To issue a regulation on decreasing and banning motorcycles and cars to run in the cities in rush hours.
Action 2.2: Prohibiting motorcycles to move on some routes, areas like old quarters, centers of city etc.
Action 2.3: Fixing traveling time of motorcycles: the motorcycle with an odd registration number would use road on the odd days only; and the similar rule with even number.
Action 2.4: Amendment of the beginning and ending points of working times so that they are different between school pupils, businessmen and officials in order to reduce traffic jams in rush hours.
Action 2.5: Give more priorities to develop public transport such as underground, tram etc. especially bus system in cities.
**Action Group 3: Restoration of the discipline in abiding by law on road traffic.**

Action 3.1: Perforation on driver license: if motor drivers who violate traffic law are fined 200,000 VND and upward then their driving licenses will be perforated once. If the license is perforated 3 times then they will have driving licenses confiscated and can take an examination for getting driving licenses again after a year only.

Action 3.2: Regular inspection in all the training centers for drivers: control of the examination process for issuing driving licenses, resolutely revoking the driving licenses issued by the centers that do not meet stipulated standards etc., suspending and punishing the exam commissions in their work if they make mistake.

Action 3.3: Strict methods to ensure enforcement of law: severely punish those who violate traffic law or do not have driving licenses including temporal impounding vehicles.

Action 3.4: Confiscation of vehicle in illegal races: drivers who take part in illegal races will have their motorcycles confiscated immediately, the motorcycles then will be sold by auction and the money obtained will be transferred to a Fund for the disabled.

**2.2. Questionnaire**

To carry out the survey, the study group has considered all three above-mentioned action groups. But, it is quite understandable that the survey would not necessary to deal with all three these action groups. The third group consists on normal actions that in the past the people has neglected and now it must be repeated. The action 2.5 is quite unanimously to accept. So the questionnaire would deal with eight actions from No. 1.1 to No.2.4.

Among these actions, the answer options for 1.1, 1.3, 2.3 and 2.4 actions are support or objection only. But with others it is necessary that the interviewees has more options to choose:

- Action1.2 deals with registration fee. The questionnaire will ask opinions on the additional registration fee at three ranks: 0 VND (that means keeping the fee at the existing level), plus 2,000,000 VND or plus 4,000,000 VND.

- Action 1.4 deals with luxury tax rate. It will give five options on tax rate: 0 %, 25 %, 50 %, 75 % or 100 %.

- Action 2.1: Beside of two options: whole support or whole objection, there is one more option regarding banning motorcycles not in the whole city but on some limited areas (downtown, old quarter, often crowded area etc.) only.

- Actions 2.2: Similar with an options on prohibition time for motorcycles during peak hours only (6h30-8h30, 16h30-18h30).

For analysis, the questionnaires must ask interviewees to provide with some personal information:

- Gender (male, female).
- Main residence (in Hanoi or not)
- Age: there are five subgroups: Under 15, from 15 up to 25, from 25 up to 35, from 35 up to 45 and from 45 upwards.
- Occupation: five sub-groups, too: School pupil/student, professional motorcycle driver (a special passenger transport modal by motorcycle), businessmen, official or other.
3. SYNTHESED RESULTS FROM THE SURVEY

The survey has been carried out in December 2002 in Hanoi. From 3,000 distributed questionnaires, the study has received 1,936 answers from interviewees. By studying these answers, it is remarkable that the opinions of interviewees are not quite different between male and female group. The same is the opinions with different residence: the people from Hanoi and the people out of Hanoi. That is why the study group concentrated on synthesizing according different subgroups on age and on occupations.

Action 1.1: (Figures No. 1 and 2) A majority of 55% agreed that each person could register only one motorcycle while understanding that they can possess more than one. It is remarkable that the subgroup of age from 15-25 shows different opinions with the same majority (55%). It can be explained that for the teenage, motorcycle is not only a transport vehicle. For some of them, the vehicle has also other meanings: they can play (even illegal race etc.). But for the pupils (age < 15), they are still too young and knowing that the price of motorcycle is high, they would think simply that one motorcycle is enough. Among occupation subgroups, the professional motorcycle drivers with 63% do not support this action with an understandable reason: the vehicle is their tool for living and they need some for reserve when necessary. But the official support strongly, that can be explained by their relative low income.

![Figure No1. Action 1.1 according to age](image1)

![Figure No2. Action 1.1 according to profession](image2)

Action 1.2: (Figures No. 3 and 4) 48% of total interviewees shows that they do not want to pay more than existing registration fee while 33% are ready to pay 2,000,000 VND more and 19% to pay 4,000,000 VND more. The majority of 52% prepares to pay more fee, that can be explained by numerous information on public medium on the negative impacts of highly growth of motorcycles numbers at present. Between different ages, the younger subgroup (with 76% and 53%) strongly objects to pay more fees because they mainly go to school and cannot earn money. In reference of occupation, all four subgroups of Learners, Drivers, Businessman or Officials shows a majority (69%, 46%, 41% and 49%) with “NO” answer while in the rest subgroup chooses this option with a very small proportion 7%. This can be explained that this subgroup consists of people who rarely run with motorcycles (old people e.g.).
Action 1.3: (Figures No. 5 and 6) All subgroups according to age or to occupation do not want to stop registration of motorcycle. Nowadays, it seems that the motorcycle in any case is still one of the most favorite vehicle of people.

Action 1.4: (Figures No. 7 and 8) While only 33% people do not want to pay extra tax for motorcycle in the form of luxury tax, a majority of 67% understands that anyways this kind of tax is a good way to reduce the motorcycle growth. But there are different opinions on tax level: 33%, 19% and 14% support the tax rate at 25%, 50% and 75% while only 1% supports the rate of 100%. Among age subgroups, the younger does not want to pay more tax for most of them still go to school, but the older could pay more for they can earn money. Regarding the occupation, learners- and drivers-subgroups do not want to pay luxury tax with quite understandable reasons.
**Action 2.1:** (Figures No. 9 and 10) Majorties of 46% think that in rush hours it is necessary to prohibit motorcycles in some limited areas only. This is more rational and that is why most people supported this option while 28% of interviewees objects this prohibition and 26% in contrary, supports it. Among the object people, the driver sub-group strongly refuses this idea (50%) because they are afraid of negative impact on their jobs.

**Figure No9. Action 2.1 according to age**

![Figure No9](image)

**Action 2.2:** (Figures No. 11 and 12) A similar result with this action. A majority of 53% thinks that the prohibition of motorcycles in some crowded areas (old quarter, some road section with numerous congestions) in the whole day is unworthy. They think that this prohibition is necessary in the rush hours only. This is unanimously supported by all age- and occupation-subgroups.

**Figure No11. Action 2.2 according to age**

![Figure No11](image)

**Figure No10. Action 2.1 according to Profession**

![Figure No10](image)

**Figure No12. Action 2.2 according to Profession**

![Figure No12](image)

**Action 2.3:** (Figures No. 13 and 14) The similar rules have been activated in many other countries for cars. But it is quite new for Hanoi and that is why a majority of 85% of all interviewees is against this action.
Action 2.4: (Figures No. 15 and 16) In contrary of the last action, this action seems rational and receives great support (62%). Nevertheless, it appears that the younger people (under 15 years old) does not want to go to school early, so that only 49% of them satisfies with the amendment of school times.

4. CONCLUSIONS AND RECOMMENDATIONS

The paper has presented the results of a survey by questionnaires on newly proposed policies on motorcycles in Hanoi. As others studies has showed that motorcycles contributes a major part to the highly mixed traffic of Vietnam, (see for example, Ministry of Transport’s report, 2000), these policies aim to keep this traffic with discipline by a limited reasonable number of motorcycles. For the great attention of people paid, the survey results show possible social impacts of these policies. From these results, by considering others relative aspects, some actions are quite applicable right now. The Hanoi authorities have stipulated that each person can register one motorcycle (action1.1). Similarly, action 2.4 will be implemented in coming months. Regarding rest six actions, for the survey deals with the social aspects only, it deserves to study in details before any realization; e.g. on technical, economical, financial impacts or on the possible integration of some from them.

From the study, some special features of Vietnam has been noticed in comparison with the similar situation of other countries. In a big difference from other countries, charging and banning on vehicle use (actions 1.3, 1.4, 2.1 and 2.2) are highly supported in Vietnam today. This can be explained by the fact that in last years, the numbers of motorcycles has been
highly increased, especially with vehicles with low quality but very low prices from China. This growth has been seriously impacts on the traffic on road system, which can meet only a limited number of vehicles.

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