

INNOVATING LITTERING PREVENTION MODEL IN HANOI: THE REALITY AND LESSONS FROM THE EXAMPLE OF SAN JOSE CITY, USA

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Abstract

The study aims at suggesting a new littering prevention model in Hanoi based on analyzing Hanoi citizens' awareness of littering, their understanding of law and legislation relevant to littering and their own ideas of littering prevention methods. Survey, in-depth interview and focus group discussion have been conducted on a sample of 400 people in Hoan Kiem district, including native residents, people from other cities living in Hoan Kiem district and tourists. Research team also carries out in-depth interview on 10 Vietnamese-American in San Jose city, USA. The study results indicate a good awareness of littering among Hanoi citizens, which is not compatible with their behaviors as well as the current state of environmental pollution here. Most people do not have good understanding of law and legislation regarding littering. Those who understand these mainly own high level of education. Most people believe that administrative penalty is the most effective method to prevent littering. From these finding, we suggest a new model of littering prevention which focus on education and strictly enforcement law. Environmental education should be inserted into the current curriculum while a more democratic interaction between the government and people concerning littering should be set up. The way of advocacy and propaganda about environmental protection should also be innovated, following the example of San Jose city.

Keywords: *Littering; Littering Prevention; Environmental Protection Education; Hanoi; San Jose*

INTRODUCTION

Littering can simply be defined as “the careless, incorrect disposal of minor amounts of waste” (Hansmann and Scholz, 2003, p.753). Items are discarded either actively or passively (Sibley and Liu, 2003). Littering places are often roads, parks, camping grounds, store, paths and other public buildings. The rubbishes littered include bottles, cigarettes, snack wrappers and so on. According to Finnie (1973), littering is the most visible form of environmental degradation; however, this seems to be neglected. As pointed out by Batles and Haywards (1976), so far, while studies about littering behaviors has turned empirical and focused on finding methods to adjust people’s behaviors, two main strategies stand out, which are (1) propagandizing to help individuals voluntarily change their behaviors

and (2) applying sanction to force individuals change their behaviors. Other researchers also suggest two methods for reducing littering. About the first method, Dwyer et al (1993), cited in Torgler et al (2008), believes that the antecedent conditions of littering behaviors can be changed using commitment, goal-setting strategies and demonstration. The second method, on the other hand, concentrates on the consequences of littering by either offering rewards for abstinence or applying taxes/penalties (Fullerton and Wolverton, 2000).

In the case of Vietnam, the issue of waste and environmental pollution has been widely studied. Through previous researches, the current state of the environment in Hanoi

particularly and Vietnam generally show a gloomy picture. Litter tends to spread, causing unsanitary situation in Hanoi (Dung V.T.K, 1995). Comes with these studies is a set of proposals and recommendations which emphasize cognitive change, environmental protection behaviors of people through education (Dam T. V., 2000), the participation of the community in environmental protection activities (Thom H. T., 2000)... In addition, many studies have pointed out the impact of government regulations as well as the sanctions measures to the issue of littering. For example, according to Tuan D. H. (2009), people tend to litter more in public places where there are no regulations prohibiting littering and measures to implement such regulations. This is also emphasized in many studies of environmental conflict in Vietnam since 1990 (Dam V. C., 2002). Finding solutions for combating littering in Vietnam, just as international scholars have analyzed above, should be based on strengthening the system of sanctions, legislation and improving people's consciousness.

With this study, we focus on finding a new and more efficient littering prevention model in Vietnam based on analyzing two components including people's consciousness and the effectiveness of anti- littering policies in Vietnam as well as the experiences learned from the model of the city of San Jose, United States – the foreign city with biggest population of Vietnamese descendants in the world.

Since the paper is a part of the research project "Awareness, attitude and behavior toward littering of urban people in Hanoi, building solutions based on the experience of San Jose city, USA", which is a collaborating work between the University of Science social and Humanities, Hanoi National University and San Jose State University, USA and is sponsored by the National Foundation for Science and Technology, the data used in the paper are the results obtained from the project.

METHODS

This research is conducted at three wards in Hoan Kiem District, Hanoi including Hang Ma, Hang Bai, Chuong Duong. Random selection has been made with the sample

structure as following: 300 residents from Hoan Kiem District, 100 people from other places living and working in Hanoi and 100 tourists.

The data collection instruments are questionnaires designed by a researcher group from Hanoi University of Social sciences and Humanity and San Jose State University, USA. In-depth interviews are also carried out with 20 authorities at the ward level, 20 business household representatives, 10 street vendors, 10 tourists met at Hoan Kiem district, 10 Vietnamese-Americans living in San Jose city, USA. Each group of interviewees is asked a particularly designed set of questions.

The research team also leads focus group discussions at the three wards with three groups of officials of the wards' government; three groups of leaders of residential groups. Each discussion bases on a different set of questions and the researchers play the role of discussion coordinators.

Besides, the study also analyzes pieces of law and legislation relevant to environmental protection in Vietnam, foreign and indigenous researches relating to the issue of littering as well as documents about littering prevention model in San Jose city.

RESULTS

Awareness of littering behaviors

The study has indicated that, when asked, the percentage of people believe that proper littering is important/highly important accounts for nearly 97% with the mean of 4.68. In particular, the proportion of female perceiving littering at the prescribed places as "highly important" is higher than that of male. By region, in the three surveyed wards, this awareness is the highest in Hang Bai wards (with mean of 4.75) and is lowest in Hang Ma ward. Moreover, the perception of the importance of proper littering of people residing in Hoan Kiem district is higher than those from somewhere else that come and stay for a living here.

Most people understand the negative influences of littering at the wrong places to the

environment, public health... In particular, the mean of the affecting factors stay at “highly important” significance level. The most serious consequence is recognized to be environmental pollution, and then come bad impact on public health, urban landscape and the image of the country and Vietnamese people to international community, the last one is the degradation of residential culture.

Understanding of the laws

Survey result on people’s understanding of three current pieces of legislation relevant to littering in Hanoi has shown that, the majority of people have no idea of these regulations, the percentage of people who know well about these is quite low (provisions of littering in the Capital Law 2012 – 8.3%; regulation of littering in Environmental Protection Act – 6.5%; Decree 73

prescribing sanction in administrative violation – 10.3%), most of which are people residing in Hoan Kiem district.

Correlation analysis with educational attainment of the respondents indicates that most of the people that know well about the law and legislation have high level of education, especially, the percentage of people with university or postgraduate degree account for 70%. Correlation analysis between knowing well littering regulation and the respondents’ place of birth also shows significant results. Accordingly, the proportion of people born in Hanoi understanding well the regulations is considerably higher than that of people born elsewhere and move to Hanoi.

Table 1: Correlation between understanding the provision of littering in the Laws and the birthplace of respondents (%)

Understanding of provisions of littering in the Laws	Respondents’ birthplace	
	Hanoi	Other regions
Understand well the regulations proposed in The Capital Law 2012	7.8	19.0
Understand well the regulations proposed in The environment protection law	6.6	9.5
Understand well the regulations proposed in the decree 73/2010 about administrative sanction	10.1	19.0

Suggestions of solutions

Through focus group discussions with staffs from local governments, leaders of residential groups, some solutions to cope with the littering situation in Hanoi has been suggested. The research team also conducts a referendum on people about the effectiveness of these solutions if coming into effect. The results

show that most people choose “administrative penalty imposed for not littering as regulation” (80%), then comes “increasing the number of public trashes” (77.3%); “setting up supervising committee on environmental hygiene” (78.8%). The solutions considered as less effective are those that concerning propaganda and environmental movements.

Table 2: Evaluation of people on suggested methods to reduce misplaced littering behaviors (%)

Evaluation	Suggested methods					
	Propaganda about environmental protection and proper litter	Administrative sanctions against misplaced littering	Strengthen environmental protection forces	Increase public trash	Set up supervision committee	Launching more environmental movement
Ineffective	3,0	3,0	2,5	1,0	2,5	2,3
Not very effective	6,0	3,5	4,0	1,3	4,5	7,5
Average	19,0	14,5	20,8	20,5	14,3	16,0
Effective	28,8	29,5	43,5	40,3	39,3	36,8
Highly effective	43,3	49,5	29,3	37,0	39,5	37,5
<i>Mean</i>	<i>4,03</i>	<i>4,19</i>	<i>3,93</i>	<i>4,11</i>	<i>4,09</i>	<i>4,00</i>

Moreover, when asked about the reasons for not littering at the right place in Hoan Kiem district, Hanoi, 51.1% of the respondents claim that it is because the current sanction system is not effective enough.

DISCUSSIONS

According to the findings, it can be seen that majority of Hanoian citizens are well aware of the importance of littering as well as the negative impacts of wrong littering behaviors on their lives. Explicitly, there is a gap between people's expression of perception toward littering and their actual performance: awareness of people seems to be very good while in fact, "littering behavior is a common phenomenon that can be easily observed daily everywhere in Hanoi" (Hoa N. T. K., et al, 2013, p.63). There emerges the question for the effectiveness of

advocacy to raise people's awareness of environmental protection here in Hanoi. It looks like banners, slogan, loudspeaker which have been widely used so far are not enough to help people get rid of their bad habit and do what they think is right.

The Theory of Planned Behavior (Icek Ajzen, 1980) explains what influences a person's decisions, and attempts to reveal why we might make certain choices. (Jodie Moule, 2011). Littering, hence, need to be clarified as an intentional behavior or not. This theory suggests that in order to predict whether a person intends to do something, we need to know: (1) Whether the person is in favor of doing it (attitude); (2) How much the person feels social pressure to do it (subjective norm); (3) Whether the person feels in control of the action in question (perceived behavioral control). Without going too deeply

into the cognitive side of things, it's important to bear in mind that behavior is often not *intentional* or *controlled* at all. So if littering is this kind of behavior, how do we intervene to change it? Nevertheless, because if we can understand the attitudes of customers and what influences the choices they make, we are better able to use this information to design solutions that will resonate with their belief system, and ultimately, have a greater chance of influencing them to change their behaviors (Jodie Moule, 2011).

A totally different picture can be seen in San Jose city, USA, which has 10.6% of the population own Vietnamese origin and is considered as the foreign city with the biggest population of Vietnamese descendant in the world. Many Vietnamese people living here share that as they were in Vietnam or had just moved to the USA, they did litter, but now, they have totally stopped that kind of behavior.

"In the US, people do not litter often simply because it has become a sticky habit and no new penalty is needed to ensure that they consciously preserve the environment. In my neighborhood, if someone litters, people around would immediately denounce the police. It is not that they would gain some rewards for that report, they just want their living area to be clean" (Female, 51 years old, Master of Social work)

"Foreign people own very good sense of environmental protection. Once they have made the habit of not littering, they will not litter even when they are standing on a dump bank. In Vietnam, people do not have good sense of self-government while holding low level of education" (Female, 33 years old, Housewives)

It can be seen that the sense of environmental hygiene protection of American citizens is better respected and promoted than that of Vietnamese citizens. According to the sharing of the surveyed Vietnamese-American, this is formed through the socialization process of American society. The reason for littering being rare here is because of "the self-governing mechanism" in American society, which is mentioned by many interviewed Vietnamese-Americans. People not only aware of their behaviors but also attempt to adjust others'

behaviors. While littering at the right place has become a social norms, what go against this will be subject to the condemnation of the society, which is stronger than any other kinds of penalty and sanction. The question is how to create such mechanism in Vietnamese society? As shared by many Vietnamese people living in San Jose city, education and annual environmental activities are prerequisites to build this consciousness in people. As mentioned above, propaganda is not enough. The sense of environmental protection, otherwise, should be developed by education. Vice-ambassador of Sweden in Vietnam, Maria Selin emphasizes "School is the best place for us to start educating about environmental protection". The declaration of UNESCO-UNEP in 1998 (cited in Long N. H., 2012) also claims that "Environmental protection education is not meant to be inserted into the curriculum as a separate part or a research topic but must be integrated into to the program". This integration has not been fully implemented in Vietnam and is still at the stage of preparation. Accelerating the application of environmental protection education should be the very first step of building a littering prevention model in Vietnam.

On the other hand, seems like the implementation of sanitation movement has not been done well in Vietnam. People's involvement is mainly due to the force of local government. Seems like they are more willing to clean their own houses than public streets (Hoa N. T. K., 2013). Meanwhile, in San Jose, "the San Jose City Department of Park and Recreations organize environment cleaning every summer. It is a good opportunity for people in the community to get together and clean garbage along heavy polluted areas such as the Guadalupe River Park. I am not sure if there is any change in these activities, I think they provide the same activities every summer for many years now. I did participate in cleaning up the Guadalupe River Park a few times because I often use this park for relaxation" (Male, 63 years old, Master of Social work, living in San Jose for 30 years). Thus, in order to enhance people's perception of environment protection, innovating the way of implementing environmental activities in Hanoi is the first thing to do. The role of young people, young volunteers in these activities should be highlighted because they are always the most

enthusiastic group, no matter where. A program like “Adopt-A-Park, Adopt-A-Trail” in San Jose city can be launched in Hanoi with the participation of a network of young people mobilizing across the city to identify and deal with the consequences of littering behaviors. However, instead of raising them as volunteers like in San Jose city, in Hanoi, these young people can be paid with fixed or flexible salary.

The study also shows a not very positive result on people’s level of understanding of law and legislation relevant to littering which are currently applied in Hanoi. It looks like majority of people do not actually access to these documents. Those who believe that they understand well these regulations mainly belong to the group with high educational attainment, which raises a big question for the dissemination of law regarding littering in the local area. If the dissemination is carried out exactly as set out in the official dispatch from central government to local government, then people are supposed to be aware of the basic contents of the laws so that, to some extents, they can adjust their behaviors following those regulations. That most people understand the law own high level of education poses another issues that whether these regulations or the way they are propagandized are suitable for the perception and education attainment of majority of Vietnamese population. As has been recognized, Vietnam is a developing country with quite a low level of literacy. Law advocacy in this country as well as the law itself must be flexible and in accordance with its people’s condition.

Social control function of Law has become transparent in every country and society. However, since 1942, Chares E. Clark, while discussing of the functions of Law in democratic society pointed out that “still widespread is the view of the law which conceives of its only function as that of forbidding or negating action, without apparent realization that it can and must be dynamic and constructive. In no place is this more true than in a democracy, where the law must be employed to foster and safeguard that equality of opportunity which is the essence of the democratic way of life” (Clark E. Charles, 1942, p.399). It is essential that the government plays the active role in implementing waste control system. However,

the empowering people and promoting democracy would help to create a more effective and flexible model of interaction. This has been applied by many Western countries and positive results have been observed. The software application for smart phones called “San Jose clean” which allows citizens to send pictures and reports of littering, graffiti drawing at public places to local government is an example. This democratic interaction model can be well applied in Vietnam since we have a very thorough management system from central to local government. Young adults, volunteers, leaders of residential group can join the network of officials who receive, process information and approach offenders and get paid for their work. If it works, we can probably create the so-called “self-governing mechanism” which is very popular in American society.

Beside the flexibility and innovation, the laws must also ensure the seriousness and determination toward violation. Most people, when asked, agree with the raise of administrative penalty imposed for improper littering.

To get more understanding of this issue, A-B-C model of Cognitive and behavior theory (Ellis, 1977) will be a good tool to apply in those cases. Indeed, human behavioral analysis is to view behaviors as a function of a person and their environment. In this model, human behavior will be seen as a consequence of a train of factors, particularly: something happens to precede behavior (the *antecedent*) which in effect causes or influences the “*behavior*”, resulting in a “*consequence*”. In leads to a strategy that “we can’t change a person, but we can influence the way they behave by shaping the environment they function within. What this model shows us is that we can shape behavior, and generally the easiest way to do this is through some form of positive reinforcement or removal of a negative.” (Jodie Moule, 2011). Although, initially, most of the participants express their awareness of littering behavior, the key critical issue is what level of their awareness is at and how much influence of the antecedent impacts on this behavior. So maybe, well-designed education and strict rules will be a good antecedent which changes the orientation of human behavior. Growing up with a good social

control, young generation is much easier to be educated by social workers and others and then, will become a key force to set up and maintain environmental protection which replaces littering with positive behaviors.

“Well, fine, heavy fine and people will be afraid. Just economy hit scares them...” (Female, 74 years old, residential group leader)

Strict law is the foundation of social order. According to the sharing of many Vietnamese-American, strictly enforced law is the most important factor that helps ensure environmental sanitation in the USA.

“When I moved to the US at 13 years old, during the first 1 or 2 years, I kept littering as I did in Vietnam. But my classmate complained about that, I felt pressed and stopped those behaviors.

Ever since college, I understand more about littering. I think educational environment here is very important. A 4-6 years old child shall be punished with a yellow card if littering. And if his or her friends do not help with the cleaning, they are all get fined. The education of environmental protection for children starts very soon. To the grown up, it is public pressure that adjusts their behaviors...” (Female, 33 years old, Housewife)

“I understand that Vietnam already has environmental sanitation laws, all we have to do is to enforce it strictly. After a period of time, people will learn the new habit. Students and children can play a very active and effective role in this area” (Male, 63 years old, Master of Social work)

Moreover, since Hanoi is the capital of Vietnam, locating majority of the most important offices of culture, economic, politic of the whole country, it attracts many people from other regions come to live and work. With different background, these people bring cultural diversity, human resources to the city's activities; however, they also create many challenges for the local authority, one of which is environmental issue. According to the study results, those born outside Hanoi but currently living here show less awareness of littering as

well as a lower level of understanding on law and legislation regarding littering in comparison to Hanoi-born citizens. This suggests that, while setting up a littering prevention model, those people should be taken into account.

CONCLUSIONS

The problem of the current prevention against littering in Vietnam is the gap between people's perception and behaviors towards littering. Though being aware of littering issue, people keep performing misplaced littering.

Propaganda for raising awareness is just not enough and there raises the need of integrating environmental protection into the curriculum to educate people right from the personality formation stages. Environmental movements also play an important role in community cohesion and building a sense of environmental responsibility in people. But it seems that these movements have not been implemented effectively and obtained good results in Vietnam. Motivating people, especially young people like students, volunteers will help raise the morale of people's participation. Our goal is to build a self-governing mechanism among Hanoi citizen as the city of San Jose has achieved. The fact that many people are not aware of the laws and regulations relating to litter and most people that are capable of understanding these are at the high level of education raises questions for the appropriation of these law and legislation to the majority of Vietnamese population. In addition, besides strictly enforcing the law implementation as well as the sanction system, a democratic interaction mechanism between the government and its citizens will help increase the effectiveness of this model against littering. Efforts to change the current situation of littering in Vietnam are based not only on education and penalties. What we need is an innovation in thinking, step outside the box, learn from the other countries' experiences and apply them to the particular conditions and circumstances of Vietnam .The ongoing war against littering now requires more advanced and creative ways but above all, a lesson learnt from San Jose city is that people's trust in the government is extremely important in implementing any policy (the implementation of the 1993 policy). It is time for Vietnamese

government to innovate its thinking and start learning the lessons from advanced models in the world, typically, the model of San Jose city, United States. A few suggestions given in this article, applying the experience of San Jose city on the specific conditions of Vietnam, hopefully, can be the first suggestions for the renewal of the anti-littering model in Vietnam today.

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