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<th>Waste reduction at source</th>
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<td><strong>Author(s)</strong></td>
<td>Mak, Hoi Shan Kiki (麥凱珊); Wu, Yuen Ning Keiko (胡婉寧); Yim, Shun Yee Sharon (嚴舜怡); Yu, Shuk Ting Tiffany (余淑婷)</td>
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<tr>
<td><strong>Citation</strong></td>
<td>Mak, H. S. K., Wu, Y. N. K., Yim, S. Y. S., &amp; Yu, S. T. T. (2013). Waste reduction at source (Outstanding Academic Papers by Students (OAPS)). Retrieved from City University of Hong Kong, CityU Institutional Repository.</td>
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<tr>
<td><strong>Issue Date</strong></td>
<td>2013</td>
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<tr>
<td><strong>URL</strong></td>
<td><a href="http://hdl.handle.net/2031/7162">http://hdl.handle.net/2031/7162</a></td>
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Department of Public Policy

POL 3109 Approaches in Political Analysis

Research Project

Waste Reduction at Source

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Puzzle:

Why Hong Kong cannot implement the reduce waste at source by comparing to other Asian cities?

Part 1: Statement of Topic

What are the issues?

Waste management is a troublesome issue in Hong Kong. Hong Kong government only uses short-term methods (e.g. landfills) instead of using a long prospective methods (e.g. reduce waste at source) to solve the waste problems. Hong Kong people are making up to 2.67 kg garbage per capita daily, which ranks first among the world. The landfills in Hong Kong are going to be saturated within 2-6 years. Dealing with the landfills crisis, Hong Kong government proposed to allocate 8.3 billion to expand three landfills, in order to extend the lives of the landfills for 6-10 years. Although the cost of using landfills are relatively cheap, it causes a lot of long term problems. As the lifespan of landfills are short and they cause some side effects like deterioration of environment, like our problems. Incinerator is another waste management method. Government wants to build incinerators in outlying islands. However, Hong Kong citizens did not welcome this method, as they have some negative impression towards incinerator. The above ideas are passive ways to solve the waste problem. We should try to solve this problem by reduce waste production. Therefore, Environment Agency proposed to levy garbage fees on the public as they think that it is the most effective way to promote waste reduction at source.

Why the problem is so significant and worth studying?

The current landfills will be saturated soon. The government is now finding other solutions to solve the waste problem, such as building more landfills or incinerator. However, we think that waste reduction at source is the key method to stop the problem for getting worse. Comparing to other developed countries in Asia,
Taiwan, Japan and South Korea, they have been successfully implemented the policies of waste management. We want to figure out the reasons why Hong Kong is so much slower than other developed countries in reducing waste at source.

**Literature Research**

**Hong Kong**

The major serious waste management problem of Hong Kong is that the saturation of Hong Kong’s landfills. Hong Kong nowadays relies on three landfills - Tseung Kwan O Southeast New Territories Landfill Area, Ta Kwu Ling Northeast New Territories Landfill Area and Nim Wan West New Territories Landfill Area. However, these landfills will be soon ended within two to six years. Previously, the Hong Kong government has no other choice but to propose the extension of landfills to solve this alarm as fast as possible. The cost of waste management in Hong Kong is very high that around thirty millions per day. For long term, waste control at source is the way of most essential and significant method to reduce waste and stop the problem getting worse. Lots of the waste control at source polices have been implemented in nearby countries since 90s. It clearly showed that Hong Kong government has fallen behind very much. Some articles mentioned that the reasons may be:

1. Hong Kong citizens are lack of awareness of waste division due to the lack of promotion and education from the government;

2. The recycle industries in Hong Kong are not thriving and there is lack of support from the government;

3. The government officials are conservative and lack of knowledge in environmental issues.

The government is now aggressively finding the solution. The waste reduction at source plan is currently considered by the government. Therefore, the government has been announced “Waste Changing –How to make it work?” consultation document in the 1st October 2012. However, Hong Kong as one of the
most developed and rich place in Asia, we are interested in further explicate why Hong Kong has fallen far behind other Asian countries by using political science theories in this paper. Comparing to other developed countries in Asia, such as Taiwan, Japan and South Korea, they have been successfully implemented the policies of waste reduction at source. The following part is going to introduce their advance waste management experiences.

**South Korea**

Compare with Hong Kong, South Korea’s government started to promote waste reduction at resource much earlier. According to Friends of the earth, Seoul, South Korea started to implement volume-based waste charging since 1995. South Korea has reduced its waste by 44% since 1995, which puts current per capita waste disposal at 0.44kg, a third of Hong Kong’s per capita figure of 1.22kg. South Korean environment officials said that the waste charging is stimulus for waste reduction. Even after the implementation of recycling measure and producer responsibility scheme, if there is no charging scheme, public do not have much incentive to separate waste and produce less waste. Moreover, they put emphasis on reducing food waste and recycling of furniture or electronic appliance. They manage food waste and solid waste separately. They started to implement Basic Plan for Food Waste Recycling at 1998-2002, landfill ban of food waste in 2005 and charging citizens for food waste. Therefore, it is not only helping to relieve pressure on landfills, it can also help to promote the waste reduction at source. Also, citizens have to pay extra charge before they dispose any large furniture. It discourages them to dispose and replace furniture frequently. In addition, government treats waste reduction as producers’ duty. They implement Extended Producer Responsibility in 2003; it forces producers to invent new producing methods that can produce less waste.

Together with the strict monitoring system, these comprehensive policies are useful in waste reduction at source. They made South Korea leads the other three Asian Dragons in waste reduction since 1990s.
Japan

In Japan, waste classification was started in 1980 and Japanese people have been doing very well in waste management. Japanese people are accustomed to do solid waste classification and dispose their wastes according to a well-developed schedule. There are many strict regulations related to waste management; even different districts or streets have different definite rules. Also, levying disposal tax on bulky waste had been implemented in Japan for a long time. They aim at reducing the air and environmental pollution generated by incinerations and landfills and increasing the effectiveness of recycling to the greatest extent.

Waste in Japan can be classified into five main categories: Combustible waste (e.g. leftovers); incombustible waste (e.g. plastic bottle); bulky rubbish (e.g. old furniture); recycle waste (e.g. paper, metal, glasses) and harmful waste (e.g. battery). Indeed, to be more specific, waste can be classified into 25-30 categories. In order to popularize the knowledge of classifying waste, the responsible department will distribute pamphlets and hold talks in schools etc.\(^1\)

Moreover, Japan government had imposed many laws in managing waste. In 2001, Japanese government implemented the ‘Basic Law for Establishing the Recycling-based Society’ and vigorously promoted the 3R (Reduce, Reuse, Recycle). As a result, from 2000 onwards, the waste production in Japan was stabilized around 3.5 million tons, which was largely reduced from 4.9 million tons in 1989.\(^2\)

Japan paid much attention in promoting and teaching the idea of eco-friendly, especially for the children. The education of waste classification has been successfully gone deep into the Japanese national concept. From childhood onwards, parents will educate their child how to deal with the waste, schools will also organize some activities like visiting incineration plant for the students. Undoubtedly, Japan is the best example in waste management that the Hong Kong government and citizens can learn a lot from its experience.

\(^1\) 蒲生彥, 可怕的日本人--談日本的垃圾分類 [http://blog.sciencenet.cn/blog-291092-282024.html](http://blog.sciencenet.cn/blog-291092-282024.html)

Taiwan

The practice of waste management in Taiwan is quite similar to South Korea. Since 1980, municipal solid waste (MSW) in Taiwan has increased from 0.63kg to 1.15kg per person a day. As landfill space become scarce, people’s environmental awareness has grown, and demonstrations and protests about MSW have become common. As a result, the culture of waste reduction and recycling has spread among the citizens. There are two profound programs regarding to the waste management in Taiwan. “Keep Trash Off the Ground”: On the day of recycle, garbage truck following by a recycle truck would be on service. Citizens have to use exclusive bag carrying their solid waste to the trucks and they are charged on weight of waste. To make it enforceable, people are legally prohibited to discard the trash either in trash bin or on the street. The front-line administrators plays an important that they have to monitor whether the waste is well divided by category. If it is violated, citizens are advised before being fine. More importantly, there is a reward for reporting the illegal disposal of waste in which effectively regulates Taiwan people’s behavior. “4-in-one Recycling Program”: it is a concept showing how community residents, private collectors and recyclers, municipal collection teams, and a recycling fund are integrated. Each actor plays different roles in the program. The objective is to make the waste profitable in which encourages the waste collection and recycle service in private sector. Together with the support from local governments, the program runs very effective that Taiwan has proceeded to zero waste.

In addition to mandatory policy, there are volunteers promoting and encouraging people to join their environmental protection activities that enhance people’s participation in waste management and thus strengthen their social responsibility and knowledge. In short, the cooperation of different sectors and trust of government policy have contributed to the success of waste management in Taiwan.
Conclusion

Compare with the laboring countries, like Taiwan, Japan and South Korea, Hong Kong is lack of comprehensive policies and campaigns organized by government to promote reduce waste at source. Although there are some food wastes and furniture recycling campaigns, they are organized by non-governmental organization. Therefore, these campaigns are less widely spread and effective.
Part 2: Research Design

In this research proposal, we are going to examine the issue by using two theories namely Rational Choice Theory and Institutional Theory.

1. Rational Choice Theory (RCT)

Rational choice theory is widely used to analyze the human behavior and it has some major assumptions. It is assumed that rational individuals would weight their cost of action before making a decision. They are able to choose one among the options that would bring them the best benefits. Their preferences and belief are perceived as the only relevant variables for determining action. After preferences are identified, they would use a means-to-end method to achieve their goals in terms of maximizing their self-interest. By implication, the slow process of waste reduction at source in Hong Kong may be attributed to different goals of individual actors and their preferences. In following, we will try to examine three major individual actors’ behavior regarding to waste management in Hong Kong, namely ordinary citizens, private sector and government.

i. Ordinary citizens

According to a survey conducted by Chinese University of Hong Kong,3 Not In My Back Yard (NIMBY) principle is commonly found among the general public in Hong Kong. It refers to any locally unwanted land use that may be regionally or nationally needed but is considered objectionable to people who live nearby4. To address the problem of waste, Hong Kong government has recently proposed to expand its landfill located in Tsang Kwan O that triggered residents’ protest. They were demonstrating their discontent in the name of protecting their health. Yet, it is revealed that the sitting of landfill is more likely to negatively affect the price of nearby residential flats that implies an impact on residents’ self-interest. Based on the above reasons together with NIMBY, rational individual would reject government’s proposal because there is low incentive for them to engage in waste management. Furthermore, the same survey shows that there is a lack of

3 Lam, Lee, Fung and Woo, “Challenges of Managing Nimbyism in Hong Kong”, Chinese University of Hong Kong
trust in the government in terms of implementing environmental protection policy. In other words, the public has more trust in civil societies and non-governmental organizations than in government and private sector. Yet, the lack of a comprehensive and convenient waste collection system diminishes effort people are willing to make. In this regard, rational individuals may think that government and private sector are not the most appropriate means (implementers) to achieve the goals of effective waste management and thus not intend to support corresponding policies.

However, with reference to Taiwan, there is a mandatory waste charging policy that not only restrict but also encourage the citizens to participate in waste reduction. Also, the collection system is very convenient that the garbage trucks would serve to collect the recyclables and waste on specific days. Therefore, rational individuals would reduce their waste and properly clarify the garbage because it is convenient and they avoid from being charged so much. Together with the NGOs active engagement, it further encourages Taiwan people to frame their goal of waste reduction and develop to a non-economic-oriented goal in which they are satisfied by social responsibility or happiness.

ii. Private sector

There are two types of private actors relevant to the issue namely private recycler and business waste producers. For private recycler, it is reported that there is very low quantity of materials to be recycled. With absence of mandatory waste recycling, they usually only collect materials that are of higher value. Materials of lower value such as glass and wood will be disposed of landfills. Moreover, the high operation cost has diminished the incentive for industry development. For instance, the transportation cost is high for delivery collected plastic bottles to Ecopark located in Yan Oi Tong that the value of recycled plastics cannot cover the cost. As a result, there is low incentive for rational private recycler to participate in recycling business without the assistant from government. As their goal is maximization of profit, if they do not see there is profitability in recycling industry, they will not engage in it. However, Taiwan government would subsidize private collectors and recyclers using the recycling fund that encourages their active participation in recycling industry.
For business waste producers, as there is no “Producer Responsibility Scheme” in Hong Kong, business sectors (retailers, distributors and importers) are not required to pay for their disposal of waste. With absence of “Polluter Pays” principle, it is hard to enforce them to produce less waste as they concern more profit maximization than social responsibility.

iii. Government

In Hong Kong, the issue of economic development and social welfare are undoubtedly more preferred to environmental protection. The objective of government policy is more or less to strike a balance of interest and better resource allocation. It is rational to deal with the social problems first which is encompassed by the discontent of citizens. After settling the social issues, it is believed that it would bring the best satisfaction such as good governance or increase in trust of government. In other words, waste management seems not the most appropriate means to achieve such goal. As a result, effective waste management tends not to be implemented.

2. Sociological institutionalism

Sociological institutionalism is a form of new institutionalisms which is about the impact of institutions as social facts; conditioning our mindsets and framing our vision of what is possible and what is beyond limits and imagination, often in subconscious manner. It treats institutions as cognitive constraints rather than normative rules. It concerns the way that institutions create meaning for individuals and provide important theoretical building blocks for normative institutionalism. Compare with other Asian countries, Hong Kong government as one of the institutions in this case, it did not pay much effort in promoting waste reduction at source, recycling, waste classification, eco-friendly education etc. As a result, Hong Kong citizens did not pay much attention in waste management also. Besides, Hong Kong society was strongly influenced by some other institutions like Chinese culture and British colonial government. These facilitated the subconscious behavior of the Hong Kong citizens of not doing much in protecting the environment and reducing waste at source.
i. **Hong Kong Culture**

Making a comparison between Japan and Hong Kong, the Japanese government had taken significant actions in waste management in early years. For examples, waste classification was started in 1980, laws related to recycling and promotion of 3R was implemented in 2001, Japanese children can learn the idea of eco-friendly and recycling from their parents and schools. Japanese government is a good example that an institution had successfully indoctrinated the idea of reducing waste in daily life into the Japanese people’s minds and they will do the waste management intrinsically. However, Hong Kong government did not do much in education, promotion and legislation for effective waste management. Generally, Hong Kong citizens do not have a strong sense in waste management and environment protection. Since there are no laws and disposal taxes in Hong Kong, Hong Kong citizens can just focus on their daily routines and never care about their waste. They do not have to bear any responsibility or pay for the waste; they can simply throw away the waste without classification. Moreover, recycling in Hong Kong is not strictly enforced; Hong Kong people can choose not to do it. As a result, there is always a slow progress in implementing the waste reduction at source in Hong Kong.

Besides, Referring to the history of Hong Kong, Hong Kong is a special place that experienced turbulence and transition. On one hand, Hong Kong inherited a long history of traditional Chinese culture. On the other hand, it was under the control of the British colonial government for one hundred years. Therefore, Hong Kong has developed a unique local culture that blending the Eastern and Western cultures together.

ii. **Chinese Culture**

Hong Kong people are living in a materialistic and prosperous society. Its nickname is “Shopping Paradise” There are wide range of shops and shopping malls inside the Hong Kong City, so people can always go shopping easily. While shopping, Hong Kong people may have bought many useless things, and sooner or later they just throw them into rubbish bin. Also, Hong Kong people are upholding some Chinese beliefs or norms like “Getting rid of the Old to make way for the
New”, “New things can bring good fortune”. As a result, Hong Kong people are accustomed to replace the old things with new things, then thousands of old things are sent to the landfills without mercy. Therefore it is difficult to implement the waste reduction at source in Hong Kong.

iii. Western Culture

Hong Kong had been influenced a lot by the Western ideas under the control of the British colonial government. Hong Kong as an international finance center that is upholding Western Capitalism, Hong Kong people seems to be business-oriented. Since they are business-oriented, they will rank business matter at the top priority, but seldom consider the environmental problems. For instance, Hong Kong people just focus on how to make more money to survive, but not how to protect our living environment. The environmental problem issues always get the lowest ranking among all the political, economic and social issues. Therefore, the implementation of waste reduction at source is difficult to enforce in Hong Kong.

3. Rational Choice institutionalism

By using institutions to supplement rational choice theory, rational choice institutionalism shows that how the individuals attempt to maximize their utilities through the political institution. Firstly, we find out the formation of preferences in politics of the Hong Kong people. Then, we figure out how the preferences of the Hong Kong people influence the government and legislative council in making policy. The following part will further explain the causes of the slow progress of waste management in Hong Kong.

i. People’s Level of Concern about Political, Economic and livelihood problems

According to the research form the public opinion program, the University of Hong Kong (2013) - People’s Level of Concern about Political, Economic and livelihood problems. It shows that the most concerned problem is the economic aspect. There were over 60% people concerning Hong Kong’s economy after the handover from 1997 to 2005. And the Hong Kong people concerned less about the
livelihood problems, the percentages are around 30% in these 8 years. The least concerned problems are political problems; there were just around one of ten Hong Kong people concern about the political problems the most. From this research, we can grasp the preferences of the most concerned problems of Hong Kong people in the past, first is the economic issues, second is the livelihood issues and the last one is the political issues.

ii. The effort in economic development after hand over

The transfer of sovereignty back to the PRC made lots of Hong Kong people felt pessimistic about the political future for Hong Kong. Some of them even outflow their capital and emigration to other western countries. In 1995, the "Fortune Magazine" published an article entitled "The Death of Hong Kong". After the transfer of sovereignty in 1997, Hong Kong's economic development can be described as many twists. For example, the financial crisis in 1997 and later international speculators attacking the Hong Kong futures market and the stock market, the Internet stock bubble in 1999 and the outbreak of SARS in 2003. This made both Hong Kong citizen and the government put lots of attention, resources and effort in economic aspect. Therefore, the government has continually put lots of effort in improving the economic development in Hong Kong. For example, in 1998 the government decided on 14 August unprecedented interventions invest large sums of money and it attracted considerable controversy; The government to use HK$11.8 billion bail-out the impact of SARS in 2003; and later to carry out the mainland and Hong Kong and Macao closer economic partnership arrangement and individual travel plans to boost tourism in 2003 policy address, the government established the finance, logistics, tourism and business support services for the "four major economic pillar industry of Hong Kong". We can see that the Hong Kong government did a lot in economic development. The economy growth in Hong Kong has remained strong since 2005.
iii. **Slow Progress of Waste Reduction in Hong Kong**

The measurements of waste reduction are always remaining in planning stage. In 1998, the government unveiled the Waste Reduction Framework Plan (WRFP), which sets out various initiatives for waste reduction. The progress of the Plan was reviewed in 2001. It is found that although we have made some progress in the overall waste recovery rate, there is still room for improvement in different aspects in waste reduction and domestic waste recovery. The review recommends a series of measures to facilitate domestic waste separation and recovery in Hong Kong. The EPD also published "A Policy Framework for the Management of Municipal Solid Waste in Hong Kong (2005-2014)" (the Policy Framework) in December 2005. The Policy Framework sets out the strategy and measures to address the MSW problem in Hong Kong in the next decade. We can see that the government used around 15 years to do the planning. In 2007, the EPD announced a proposal about environmental tax levy on plastic shopping bags to reduce their indiscriminate use, but this efficiency is very limited for the whole waste problem. Therefore, we understand that there is no concreted law and measurement to manage the waste problem in Hong Kong.

Compared to South Korea, the kitchen waste recycling program in South Korea has carried out by law before 90s. The manufacturers of kitchen waste such as restaurants and food outlets are responsible for recycling the food waste in its manufacturing process. The public also needs to manage their household food waste well by separately disposing the waste to the local government unified collection points. The South Korean government used carrot and stick, it prohibited direct disposal of kitchen waste landfills and strengthened the promotion of another food waste recycling program. After years of efforts, food waste recovery rate from 45% in 2000, doubled to 95% in 2009 with encouraging results.

We can understand that the Hong Kong citizen was putting the economic problem at the first priority; they hoped the government could improve the economy at that moment. It was the most urgent need for the sake of the Hong Kong citizen and the whole Hong Kong development. So, there are less people putting attention on the environmental issues. As a result, the government put a
large number of resources to boost the economy. The ignorance of the waste problem made Hong Kong’s waste management development remaining in a slow progress and far behind the nearby Asian countries.

4. Historical institutionalism

Historical institutionalism emphasis historical and past events are influential in making changes or implementation of new policies. Path dependence is one of the ideas of historical institutionalism showing that institutions tend to follow previous experiences, trends and expectations when they act. It is useful to explain why Hong Kong government still using old methods to solve waste problem rather than implement innovative methods to encourage waste reduction at source. Both government and citizens are reluctant to have changes until there are exogenous shocks. In this case, the external shocks are increasing of wastes and saturation of existing landfills. Therefore, Hong Kong government started to promote waste reduction at source in recent years. For example, they organize ‘Food Wise Hong Kong’ campaign in 2012 to promote communities’ awareness on waste management problems (especially food waste) in Hong Kong.

i. Following past successful experience

Hong Kong government follows the old trends and methods to solve waste problem. In past decades, we are using landfills to manage waste. Compare with building of incinerator and other methods, building landfills relatively has less cost and has less oppositions from general public. Therefore, government still wants to build and expand landfills to manage wastes. However, it is a short-term method and it is not a way that can help to solve the root cause, since people still producing garbage every day.

ii. Following past direction when formulating policies and making decisions

Government usually prioritizes economic development and has less concern about environmental and waste problems. During 1960s-1980s, government emphases economic development, as they want to improve living standard of
Hong Kong people. Afterwards, Hong Kong was experienced few incidents that hurt our economy badly. For example, financial crisis in 1997 and SARA in 2003. Therefore, government still pays more effort to stabilize and facilitate the economic growth over environmental protection and waste problem. As a result, reduce waste of source cannot perform well as government did not put much effort on this aspect.

iii. **Expectations are influenced by past actions**

   Government are conservative, they expect incremental policies are more welcomed by general public. Therefore, they are reluctant implement new policies to facilities reduce waste at source. For example, garbage tax was suggested ten years ago, but this policy still not implemented until now. Moreover, general public treat waste management as the government’s duty. It is because citizens think that individuals only have little power and influence on reducing amount of waste and solve garbage problem, they believe government has crucial role on settling these issue. Moreover, citizens do not have incentive or do not aware they have responsibility to preform reduce waste at source as there is no waste charging or other related policies to regulate their act. So, waste reduction at source cannot successfully implemented.
Part 3: Research Implementation Plan

A. Operationalization

1. The determination of the government

In this case, government has a dominant role on improving waste reduction at source.

i. Policy

The effectiveness and efficiency of waste reduction at source is largely related to the policies of government. From the previous parts, it show that government only use landfill to manage waste problem, but do not have some innovative policies to discourse public to the produce waste and encourage people to recycling. If government has strict policies, like garbage tax, the effectiveness and efficiency of waste reduction will increase.

ii. Promotion

If government does more promotions, general public or business sector will have more awareness about environmental protection and know the seriousness of over waste production. For example, “Food Wise Hong Kong” campaign organized by Hong Kong government in 2012 make public aware that we are wasting food every day. Government promote this idea through mass media by interesting song and slogans to attract people attention on reduce waste production.

iii. The effort of the department

The environmental protection department in Hong Kong is responsible for formulating and implementing policies and plans on environmental protection and the promotion of sustainable development; raising community awareness of and promote public support for issues related to environment. They are expected to contribute their professional knowledge and judgment to provide first-class physical infrastructure for the treatment and disposal of waste and wastewater. Since the environment protection department is the most appropriate government department to deal with environmental problems, if it has done
more promotion, the waste reduction at source may have been implemented already.

iv. Education

Education is always the key element to influence people minds. If we want people to participate in the plan of waste production at source intrinsically, education is a must, in order to teach them the rationale and methods of implementing the plan. Subjects like general studies or civic education should be teaching the idea of waste reduction at source in the kindergarten and primary school, so as to start training the Hong Kong people when they are small and build up the habit of reducing waste, just like other developed countries e.g. Japan and South Korea.

Hypothesis 1 (H1): The determination of government and the effectiveness and efficiency of reduce waste at source is positively related

2. Citizens

We assume that the awareness of citizens has positive relationship with the implementation of the waste reduction at source. If the awareness of the citizen about the waste impact is high, then the possibility of implementation of the waste reduction at source is high. To measure the awareness of the waste impact of citizen, we use two indicators 1) the habit of waste management and 2) Ignorance of seriousness of over waste production.

H2: If the habit of waste management is good, then the possibility of implementation of the waste reduction at source is higher.

H3: If the Ignorance of seriousness of over waste production is high, then possibility of implementation of the waste reduction at source is lower.

As it is reflected that there is low incentive for citizens to participate in waste management, we assume that there is positive relationship between the incentive and tendency of waste reduction
H4: If there is an increasing incentive such as waste charging, citizens will attempt to reduce their waste.

3. Business sector

Government needs help from the business sector in order to implement the policies related to waste reduction at sources. If the companies in the business sector can support the government, the effectiveness and efficiency of promoting waste reduction at source will be enhanced. Also, those companies should uphold corporate social responsibility that means not only focus on making profits, but also care about environmental issues. For instance, Bonaqua uses environmental friendly plastic material to produce water bottle that are easier to collect and recycle.

H5: There is a positive relation between the support from the business sector and the implementation of the waste reduction at source in Hong Kong.

B. Information needed and Methodology

Hong Kong stakeholders’ attitudes (citizens, business sector and government) towards the waste management are important information going to be collected. Moreover, the outcomes of past government policies whether can contribute to waste reduction at source is worth to examine. The successful elements in other Asia cities can be used a reference to see why Hong Kong is so late to start the corresponding policy. What other cities have but Hong Kong does not in terms of culture, norms and even political support. The following are the sample questions we are going to ask the citizens.

1. Do you know how to separate recyclable waste?
2. What do you think of government policy regarding to waste management?
3. Do you support the mandatory waste-charging scheme?
4. Do you think you have responsibility to reduce waste?
Regarding to the methodology, literature research, questionnaires and group interview are considered to be major methods of data collection. Our targeted interviewees are mainly Hong Kong citizens, waste recyclers and collectors, business companies and government. After data collected, it will analyze the data whether it can find out any significance and whether the identified variables are relevant to the research.
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