

# The Role of Social Marketing On the Contagion of Environmental Behavior with Emphasis On Emotional Contagion

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## Abstract

This study seeks to investigate the role of social marketing on the environmental behaviors contagion based on Andreasen's six-step model in the field of waste segregation. Waste segregation at source, is the first phase of the entire waste management cycle. Waste and how to segregation waste faces several issues that require public participation and change in consumption behavior for the optimal implementation and management of waste. The results of reviewing documents and studies conducted in the field of social marketing show that social marketing has an important and decisive role in changing and modifying the behavior of citizens. To be successful in social marketing, the target group must be identified based on individual, social, economic and cultural characteristics and segmented into geographical location. Given that the emotions in social marketing message can absolutely affect its success, by using subtle emotional expressions in marketing communication we can create emotional contagion that help the message make more viral and have ability to change people consumption preference through transfers of emotion. In order to repeat, consolidate and improve the implementation method, the marketing process, training and implementation process of the project must be continuously accomplished and monitored, and through retesting, mistakes and inefficient solutions can be reduced and waste segregation behavior can be improved and corrected. If grassroots environmental groups, NGOs, and citizens come together and have a consistent relationship with proctor organizations, policymakers will have the tools to change citizenship behavior and provide an alternative to increasing legal and educational campaigns.

**Keywords:** Social contagion, Social Marketing, Environmental Behavior, Social networks, Emotional contagion

## Introduction

Social marketing is the application of marketing knowledge to solve social problems. Social marketing is a process that uses principles and techniques to create, communicate, and transform value in order to influence the behaviors of the target community that the whole society will benefit from it. Social marketing serves the public and is the basis for providing services and amenities. Social marketing relies on facts and evidence in the society. In the field of waste segregation, social marketing and modeling consumption behavior can also be used. Citizens, as owners of the city, have a decisive role in improving the safety of the urban environment and the implementation of projects, and their lack of cooperation and support will stop any program and make it difficult to implement. Sustainable development depends on the environmental protection and the prevention of its destruction, as well as the cooperation of every citizen in maintaining the cleanliness of the city as an unavoidable principle and necessity, so that ignoring this important issue will have harmful effects. In order to develop participation culture, first must consider the degree of individuals' participation in activities and their attitudes toward the impact of these activities on individual and collective life, and on the other hand,

the context, appropriate ground, facilities, necessary conditions and obstacles should be considered to achieve better result. Social marketing plays a great role in people's pro-environment behavior contagion and how they react to their environment. The behavior of others, especially in the field of waste segregation, plays an important role in correcting individual behavior and behavioral contagion. In this article, we try to find out what role social marketing and social networks play in individuals' environmental behavior in the field of waste segregation in order to achieve an appropriate model in the field of waste segregation and environmental behavior modification.

### **Social and Emotional Contagion**

Social contagion is a subset of contagion that includes all social phenomena that can spread across social networks. Rumors, fashions, ideas can spread like wildfire and become the norm. What was originally a minority belief by circulating among individuals, can be chosen and believed among their friends and become a dominant and prominent belief. Products can also be socially contagion through verbal suggestions or word of mouth. In some cases, the success of a product is generally driven by traditional marketing methods such as TV or newspaper ads that promote across information networks, and in other cases, word-of-mouth suggestions from individual's social networks will greatly influence purchasing decisions. Social change is the third type of social contagion. What is initially a non-public or even auditory factor can gain a lot of fans by convincing people by their family or friends.

Social contagion is the spread of ideas, attitude, norms, emotions, and a behavior pattern (whether good or bad) among a relatively large number of people from social action through suggestion, propaganda, rumor or imitation. The contagious phenomenon was first examined at the epidemiological level as a living organism (such as a bacterium) that spreads from person to person in the population. Social contagion theory makes collective behavior possible through imitation and conformity. A variety of behavioral contagion mechanisms were incorporated in models of collective human behavior. This theory is closely related to 3 theorists: 1- Gustave Le Bon, 2- Robert Park, 3- Herbert Blumer. Le Bon laid the foundations for what is called the sociological theories of collective behavior. Because he was a historian and philosopher, not a social scientist, his work was also based on his own social and political theories. Park was an educational sociologist who recounted Lebanese theories in more areas of social psychology and explained how contagion occurs socially through group interactions. A few years later, Blumer expanded Park's writings and used the concept of contagion in a wide range of group behaviors. In all three forms of these contagion theories, there is a common basic premise, which is that people can behave temporarily irrationally among the crowd without reason and logic, and return to their normal state by leaving that situation. The word contagion refers to the rapid spread of infection such as the flu virus. It was first used in 1546 on infectious diseases. But today is a metaphor for anything that is passed from one person to another. The first modern theory of collective behavior used contagion to explain the process of transmitting thoughts, ideas, and behaviors from one person to another. The contagion theorists refined this concept and used it in a more specific sense called social contagion to explain this phenomenon. The theory of contagion of collective behaviors is based on the theory that states and thoughts are contagious among certain types of populations. People who are infected by these thoughts will behave irrationally, and people will do things they would not normally do. Anyone in the population who has an idea is considered a carrier who will infected other members of the population under certain conditions. This contagious process is not sudden and can only occur when certain conditions are met. First, the group must focus on one person, idea, or something similar. And once this shared focus occurs, members of the population begin to influence each other. When the desire increases, people lose their self-awareness and enter a situation like an emotional state (mania) and stop thinking before acting. Once members of the group have reached this status, any ideas or behaviors raised by any member of the group will almost certainly be supported by all members of the group. In this way, the whole population is at the level that Le Bon calls the "lowest people status."

According to Schoenewolf "a process in which a person or group influences the emotions or behavior of another person or group through the conscious or unconscious induction of emotion states and behavioral attitudes is called emotional contagion. Hasford mentioned the affect-as-information theory to explains emotional contagion and how consumers use emotional information in decision making, suggesting that individuals examine their feelings during an evaluation of an object and form judgments that are congruent with those feelings. When forming an evaluation or making a

consumption decision, the emotions one experiences provide a prominent source of information. The emotions people experience are important in decision-making, these emotions are used as a source of information when making judgments. Which means that emotions influence evaluations of things like advertising, brands, products and services. When an advertisement features a well-liked celebrity spokesperson, the emotions elicited by the source of affect are subsequently used to evaluate the featured product or brand. Also Negative emotions can lead to contagion, including how sad facial expressions in advertising impact donations. Studies show the presence of favorable affective cues in ads can also increase information search about the brand. According to their research persuasive communications such as point-of-purchase displays, advertising, and evaluative conditioning have the ability to change consumption preferences through transfers of emotion beyond the original target of persuasion (Hasford et al,2015). this behavioral change by emotional contagion can be used in waste segregation behavior and beside that emotionally driven marketing communication can increase engagement.

### **History of Social Marketing**

Marketing is a set of actions taken to create a positive reaction in the intended audience about a product, service or anything else. The concept of social marketing is based on the premise that every organization must first determine the needs, wants and interests of its target markets, then meet them more efficiently and effectively than competitors. In a way that ensures the survival and improvement of customer and the society welfare. The concept of social marketing is one of the five newest concepts in the philosophy of marketing management. Social marketing goal is that marketers balance between demands and long-term interests of target customers and long-term interests of society and the long-term return on capital of the company (Alizadeh Meshkani, 2016). According to Peter Drucker, marketing is about knowing and understanding the customer in such a way that the product or service offered is exactly the right fit and the product itself sells. From Kotler's point of view, marketing is a social-managerial process by which individuals and groups meet their needs and wants through the production and exchange of goods with each other. Marketing refers to a set of business activities that direct goods or services process from production to the final consumer. From the Roosta's point of view, marketing is all systematic efforts to identify the market and take appropriate action, in relation to the types of demand, according to the value system of society and the goals of the organization (Shahab and Khani, 2015). Marketing is a human activity with the aim of meeting the needs and wants through the exchange process.

According to Andreasen (2002), social marketing does not promote ideas but influences behavior. They also point out that although products are often involved in the process of behavior change, social marketing can address quite behavioral challenges. Such as protecting girls in developing countries at school by modifying parental behavior to prevent child abuse. According to Yulsevi (2014), social marketing refers to the implementation and evaluation of programs designed to influence the behavior of the target audience to improve personal and community well-being. In this regard, the main purpose of social marketing is to use business marketing techniques to analyze, plan, implement and evaluate programs designed to influence the behavior of the target audience to improve the well-being and health of the individual and society as a whole. Social marketing is an effort to improve personal and social well-being, maximize the quality of life, advance humanity and illuminate the ambiguous future of society (Yazdani and Moshtaghi, 2016). According to Christine Domegan (2017), social marketing seeks to change behavior in a useful way, which is sometimes achieved by encouraging desirable behaviors (such as encouraging safe driving and reducing barriers) and sometimes by denouncing undesirable behaviors (e.g. Fast driving) by emphasizing the life and property losses by fast driving (Esmaeilpour and Ghasem Nezhad, 2018). According to Veger (1998), social marketing is a way of empowering people to get involved and take responsibility for their well-being, health and problem-solving ability, which is a new and creative way to deal with social issues. According to Andreasen (1995), social marketing is the application of business marketing technologies to analyze, design, implement and evaluate programs designed to influence the voluntary behavior of the target audience to improve individual well-being and their community (Bagheri and Hosseini, 2016). The idea of social marketing was introduced by G.D. Wiebe in 1950 and then continued with the family planning program in 1960. Ling and Tanna describe the development of social marketing in three stages:

Phase One: In this phase, social marketing focused more on the development of early theories from 1960 to 1970. At this stage, executive mechanisms supported the awareness that made people move from the stage of intention to the stage of action. Issues such as family planning are among the most important issues in marketing field of this period. This period ended with confusions of social marketers.

Second stage: This stage also covers the years 1970 to 1980. The move was from theorizing to discussing and exchanging ideas and gaining scientific experience. Topics such as physical activity, improved nutrition, smoking cessation, prevention of alcohol and drug consumption, and healthy driving were among the most important issues that theorists focused on during this period. During this period, social marketing was approved by universities and its theoretical concepts were developed.

Third stage: In this stage, social marketing has started since 1980 and has continued until now. During this period, the acceptance of social marketing by theorist and thinkers increased and was approved as a scientific principle. At this stage, theory was put into practice and topics such as social marketing contexts, effects, sustainability, cost, effectiveness, and ethical issues were clarified. Since 1990, social marketing centers have been established in Scotland, Canada and Poland, and social marketing training programs have been held in different parts of the world (Yazdani and Moshtaghi, 2016).

Social marketing is primarily used by non-profit organizations, charities and government agencies. Some business organizations also sometimes use social marketing strategies. Non-profit organizations and charities use social marketing to raise awareness, promote various causes, and encourage public participation. Social marketing is a way to inform and interact with people. Amnesty International is a charitable organization that helps fight injustice and promote universal human rights. For public sector organizations, social marketing is often used as a way to encourage people to follow rules and regulations, and to practice general safety behaviors. For example, the police department encourages people to wear seat belts with slogans such as "seat belt for life" or warns of the negative consequences of ignoring the law with the slogan "getting a traffic permission". Using social marketing, government organizations encouraged legal behaviors such as: observing the legal age for alcoholic beverages to promote public welfare (Saber et al., 2018). Public Health activists have been engaged in this field since the mid-1980s, and Richard Manoff in 1985 described social marketing perspectives in health as a systematic approach to promoting public health and communication. In 2002, Kotler, Roberto and Lee defined social marketing in public health as the customer-oriented application of marketing principles and techniques to expand and develop these programs, as an effort to change or modify health behavior (Rezaei Pendari and Keshavarz Mohammadi, 2014).

social marketing principles and methods

The goal of social marketing activities, is to influence behavior change in the target audience. Even if the target audience does not like the changes, social pressures confirm the status quo. In terms of social marketing, behavioral change cannot be achieved easily by promoting the benefits of adopting new behaviors. Therefore, social marketing should benefit from all the support and auxiliary forces, this requires a coherent and convincing message from peer-to-peer institutions and industry groups that must be delivered to the target audience through the mass media and at an appropriate time. In order to design an effective strategy for social marketing, it is necessary to analyze the internal and external processes of the organization in order to take a systematic and step-by-step approach to provide relevant and accessible programs to target groups. The ultimate goal is to benefit the target groups and the community in general. In order to achieve this goal, it is necessary to look beyond the common practices and views that oppose creativity, such as:

- The idea that we should change the customer.
- The notion that the program designer knows what is best for the audience based on his or her personal business.
- To measure the program progress, citing the success rate of the media.

It is necessary for the social marketer to examine the assumptions at the outset and to question each of the approaches adopted to fit the particular program, stage or audience. The goal of social marketing is to create behavioral changes in the long run that the process progresses is in a spiral and upward direction and unlike commercial marketing, it does not have monthly profit based goals. Institutions such as the Food Safety Training Center, which designs programs with social benefits, can have a long-term vision for their planning and have the time to set goals to systematically evaluate program

progress. The problem is stopping the process, which is done to correct based on the actual data collected, to evaluate the success of the goals.

A successful social marketing program is customer-centric and far-sighted. It sets itself apart from its competitors, is resilient to changing conditions, is responsive to control outcomes, communication with it is easy, flexible and motivates, most importantly by enabling behavioral changes at Individual level, it creates a positive change in the health and well-being of the whole society (Group, 2011).

basically conceptualization of social marketing and its theories aim to achieve tools for changing social behavior. According to Kotler (2008), change agents often want to influence target markets in one of four ways;

1. Accepting a new behavior (such as food waste composting)
2. Rejecting a behavior that is potentially undesirable (such as smoking)
- 3- Improving a common behavior (such as increasing sports activities from three to five hours per week)
4. Quitting an old bad behavior (talking on the cell phone while driving)

If one or a combination of these occurs for different market segments and remains relatively constant over time, the desired change of social marketers has occurred (Masoudipour et al., 2018). Social marketing programs usually target problems that are mainly associated with suffering in society, such as obesity, disease, smoking, etc. Of course, improving one's life in each of these areas, is likely to trigger activation of public well-being stimuli. The main applications of social marketing include the following:

- Protection of natural and environmental resources, by reducing energy consumption
- Green marketing, help to reduce environmental pollution, air, soil, rivers, hills, cities and ....
- Preventive measures against accidents such as fires, gasses, poisonings.
- Health-related measures such as: periodic medical and dental examinations, psychological tests, avoidance of harmful habits, lifestyle changes.
- Moral changes for better mood, loyalty, fidelity and .... (Okhravi and Rayat, 2019).

Social marketing is the application of marketing principles and tools to achieve desirable social goals that benefit society as a whole, not for organizational goals such as profit. Researchers and experts in the field of social marketing have listed various criteria and characteristics for a successful social marketing program, most of which are based on common criteria such as consumer study or formative research, segmentation, attention to competition and attention to the marketing mix. Compared to other systematic planning processes, social marketing pays more attention and resources to segmentation, designating one or more segments as the target audience (stakeholders), in order to assign planning priorities to them and focuses on creating different marketing strategies for each target sectors. Also, one of the basic concepts of social marketing derived from commercial marketing is the marketing mix, which includes product, price, place and promotion. These essential elements of social marketing play a key role in designing and implementing an integrated marketing strategy. Product is one of the strategies that increase profitability, one of the strategies that are associated with tangible desirable behavior. In social marketing, place is the area and time when the target market performs the desired behavior, achieves any tangible goal related to the desired behavior, and receives any related service. Place includes physical locations, opening hours, overall comfort, attractiveness and access (such as parking and public transportation). Price in social marketing includes the tangible and intangible costs of changing behavior. In fact, price is a way to reduce the barriers perceived by the target audience to implement the desired behavior. But promotion is almost the most obvious component of marketing and includes the persuasive communications that marketers use to induce product and service benefits and related tangible goals, pricing strategies, and location components. We need a deep understanding of consumers to create and implement integrated social marketing solutions. Customer-centric basis, is research on consumer behaviors and needs, and in this regard, formative research is used to gain an accurate understanding of the needs, ideals, values and daily life of the target audience (Mokhlesi et al., 2019).

### **Theoretical Background**

Social marketing is a powerful theory based on socio-psychological theories based on exchange theory. Exchange theory is a tool related to economic and marketing models that is widely used in

social marketing. According to this theory, an exchange (trade) takes place between two people or two groups when the benefits of having a product or good outweigh the costs of acquiring it. In other words, when a product is purchased by a customer whose perceived value is greater than the costs incurred. Various models have been proposed for the successful implementation of social market. A common six-part framework called MINDSPACE has been proposed by the UK Cabinet to complement the National Social Marketing Center's model for influencing behavior, which includes: 1- Exploring the target community, 2- Making it possible, 3- Encouraging, 4- Communicating, 5- Modeling, and 6- Evaluating policy implementation. In 1992, Allen Andreasen introduced a six-step process for behavior change that included; 1- Knowing customers and marketing environment, 2- Planning, 3- Organizing resources, 4- Pre-testing, 5- Implementing strategy and 6- Monitoring (Asgarshahbazi and Khanjari, 2017). Andreasen (1995) calls social marketing a long-term perspective in planning, and other scientists have attributed it to other concepts such as customer service, a trading process, and so on. A) As a customer-centric process: In social marketing, the customer is an active participant in the behavior change process. In the customer-centric approach to social marketing, we do not ask, "What is wrong with people or why do not they want to understand?" Rather, we ask, "What is our mistake and why we do not have a good understanding of our audience?" B) As a process of exchange (trading): Social marketing does not occur unless there are two or more components so that they can communicate and exchange with each other. Exchange here refers to the exchange of resources or values between two or more people with different resources. Of course, in social marketing it is not the commodity or money that is exchanged, but the need, the thought, the idea and the learning that is exchanged and ultimately the change in behavior is achieved. And c) as a long-term (strategic) plan: The marketing process is a complete and gradual plan, starting with the research process and ending with the research (evaluation). In the process, problem analysis (SWOT) methods are used to detect and solve social problems (such as diseases, high-risk behaviors, etc.), so social marketing is a strategic plan. Social marketing follows the effect of behavior not only on individuals but also on groups and organizations (Mirakzadeh and Bahrami, 2011). In this view, if people are aware of what and how the consequences of a behavior are, they will do it right, and on the other hand, people will do something when they are motivated enough.

According to Philip Kotler, economist and marketing professor, a product is more than just a tangible object. A product meets the needs of the consumer and, in addition to tangible value, has abstract value. He introduced the category of social marketing and by emphasizing that marketing is based on communication that results from needs, wants, offers, prices, etc., all of which have a value foundation, led the importance of marketing from price, sales and distribution to customer needs and value creation. He made organizations think in terms of the customer-centric model, focus on customer needs, achieve customer loyalty, and keep up with changing customer demands. Kotler considers marketing as part of the management philosophy of all managers, according to which they should know the needs and wants of the customer and provide the conditions for their satisfaction. Customer satisfaction in his view is achieved when the real value of the product or service is equal to or greater than the value expected by the customer. Kotler believes that while marketing is a simple concept, it is very complex to implement and takes a lifetime to master. Real marketing is the awareness of what is to be produced, not the sale of what is being produced. Kotler introduces social marketing as the design and implementation of ideas acceptance programs, creating a desirable image, promoting appropriate social behavior or voluntarily abandoning inappropriate behavior in the audience (Zarei et al., 2017). As stated by Ajzen and Fishbein, attitudes are formed through behavior. According to this theory, the most important factors determining a person's behavior is the person's intention. It is the intention of the individual to lead a behavior and is a combination of attitudes toward behavior and mental norms. Individuals have different views on an issue. One person may have a positive attitude toward the behavior but the other person may have a negative attitude toward the same behavior. Therefore, the first factor that affects the intention is the "attitude towards behavior" that if a person finds a behavior useful, he does it, and if he finds the behavior harmful, he refuses to do it. In any case, whether or not to do the behavior is up to the individual to judge. A person who believes that doing something has a positive effect on him, will have a favorable attitude towards the result of the behavior and doing it, and the opposite is also true. Therefore, beliefs are effective in forming attitudes as well as in relation to behavioral outcomes and evaluating behavioral

outcomes (Shahtalebi and Ghapanchi, 2013). This theory holds that attitudes influence behavior based on a voluntary decision that is constrained during a process. Environmental quality is a public benefit, and that humanitarian incentives for the individual to participate, are significant and necessary. This model is one of the common models for expressing environmental attitudes and real behavior. Humanitarian motivations for the individual to participate are significant. This model is one of the common models for expressing environmental trends and real behavior (waste segregation from the source) (Poor and Saadat Yar, 2012).

social marketing implementing Steps in waste segregation plan from the source

Step 1: Listen; This step involves several important steps. A) The precise definition of waste issues and the waste segregation from the source is connected with the social aspect and social participation. Because without awareness of this issue and its necessity and consequences, it is not possible to implement social marketing. For this purpose, it is necessary to hold specialized meetings with social science experts, environment and waste managers in order to obtain a detailed analysis of the waste issues, how to implement waste segregation and the damage and problems caused by it. Then identified the appropriate tools to create sensitivity to social and environmental issues in the field of waste among individuals and officials. B) Recognizing social attitude and behavior in all sectors Including household, organizational, industrial waste, etc. To identify current waste segregation behaviors and how to achieve the desired state of waste segregation behavior, quantitative (questionnaire design) and qualitative studies (observation, interviews and group discussions with knowledgeable, interested and involved people) are used. To get acquainted with the necessary information about the amount and type of waste produced, how familiar are people and the organization with waste segregation and waste costs and current methods of informing. As well as be informed about the relationship between waste management organization and stakeholders also their motivating factors for public and organizational participation in the implementation of this project. And how successful these organizations have been in the areas of transparency, creating a sense of participation, participatory action, and introducing interests.

C) In the next step, the performance of the sponsoring organization or waste management organization (municipality and responsible organizations) at the macro level should be examined in terms of strengths and weaknesses, opportunities and threats to determine the desired behaviors and social, economic and cultural aspects for plan of waste segregation from the source, Like the goals and strategies outlined in Table 1. And then we identify the target groups. Because the needs and problems and the way the target communities respond may be different. By identifying and separating target groups, specific costs and resources, budgets and strategies are determined.

**Table 1. Social marketing**

What can be considered social marketing	What cannot be considered social marketing
✓ Behavior change or social change strategy	✓ Rely only on media ads
✓ Strategy for efficient use of resources	✓ Smart slogan
✓ Coherent and planned	✓ Illustration movement
✓ The purpose is a group of audience	✓ Short-term and fast process
	✓ Action in a vacuum
	✓ Addressing everyone through mass media

Step 2: Planning, in this step, general and specific goals include social evaluation, policies and strategies to influence the behavior of the target community. For this purpose, the target community should be identified and the basis of those goals and strategies should be set, and in this regard, the individual, social and .... characteristics of the target community should be considered.

Step 3: The third stage is organization, in which mental and semi-conscious tools for implementing strategies are identified, which include: 1- Appropriate messaging, 2- Incentives, 3- Changing social norms, 4- Default options, 5 - Creating commitment, 6 - mental grounding, 7 - active choice, 8 - simplification of choice and 9 - reminders and communication. Criteria for executive policy feedback are also identified at this stage. What were the short and long term results of this performance, and how much awareness and participation of the people in the implementation of the plan and reducing waste production has played a role. Also the support plans and how the people and organizations participate in this project must be specified.

Step 4: The fourth stage Includes a pre-test. At this stage, the strategy developed by a number of target group members is evaluated by quantitative and qualitative methods. In order to improve and revised audience understanding of the message, proportionate to the level of knowledge and culture of the audience, attractiveness, comprehensibility, capacity to lead the audience to the subject, persuasiveness, reliability, credibility and acceptance. To be able to use an alternative strategy in case of receiving negative feedback.

Step 5: The fifth stage includes the executive part, which covering the precise and clear assignment of responsibilities, schedule and executive tasks, follow-up and implementation of the program step by step according to changing people's behavior pattern. Each step requires the use of strategies formulated in the planning and organizing step according to Table 2.

**Table 2. Social marketing tools for each stage of changing citizens' behavior**

Step	The main challenge at each stage of behavior change	Marketing tools to solve the problem
1	Informing and raising public awareness of correct household waste management behavior and its acceptance in culture and life	Face-to-face training, use of media channels and educational centers, schools, universities, organizations, national and digital media and production of cultural content and product in the field of waste management
2	Transparency in the cost of results and benefits: In other words, what benefits and outcomes does this behavior entail for the target community, what is the duty of the target community, And how to do it and the feasibility of the plan	Using reference and influential groups, holding symposiums and inviting experts , social marketing pioneers and responsible and interested citizens
3	Assessing the skills of the target community, favorable conditions, material and technical tools for the implementation of this project	Establish interaction of waste management organization and citizen education departments with the target community and people, teaching waste management behavior, encourage for repeating and reinforcing behavior, modeling behavior through objective evidence of the implementation of this plan
4	Persistence of desirable behavior, prevention of diminished motivation and loss of trust in waste management behavior	Use of rewards, strengthening desirable behavior, easy access to facilities and information on waste segregation, timely delivery of segregated waste by the waste machine, placing the tank, bin or trash space for waste and segregation and improving service delivery systems

Step 6: Includes monitoring and evaluation. In this step, the progress of the program is followed and, if necessary, the strategy is modified by surveying the target community (according to Table 3). This program is a continuous process and resembles an ascending spiral that is constantly repeated. The desire to continuous test and experience and ongoing correction is the main feature of this program, so in case of no change or correction of behavior, the method can be corrected through social marketing tools. If new behavior is considered as a product, like any other product, it has a life cycle that requires social marketing tools at the time of introduction and growth, and in the stages of maturity and decline, we must use commercial marketing to maintain the desired behavior.

**Table 3. goals and strategies to correct waste management behavior**

General purpose	Minor goals	Strategies
Waste reduction And Waste segregation from origin	behavior pattern correction	Reduce consumerism, buy as much as daily or weekly consumption, avoid unnecessary shopping Buy enough in daily necessities (like bread) Recognize and purchase recyclable items
	Reduce waste generation	Use a cloth bag and handbag instead of a plastic bag Do not reduce or reduce the use of disposable containers and the use of plant and renewable containers Raising public awareness in the field of segregation, leachate risks, environmental risks and benefits (using motivational strategy) Strengthen outsourcing to the private sector to get into the subject
	Reduce the production of organizational and industrial waste and correct the behavior pattern	Using people's beliefs and creating a sense of responsibility Establish a waste management organization interaction with private organizations and give them concessions and even use their executive power to correct the pattern of waste behavior



At this point in the planning process, many strategies have been identified and timed to support the goals and objectives of the desired behavior change. But it will be useful and valuable to include additional solutions in the program; Solutions that expose your activity after the announcement of advertisements and the end of news reports and spreads messages of behavior change. In addition, are there other mechanisms you can incorporate into your activity, mechanisms that help your target audience maintain their behavior in the long run? At this stage, you must make sure that the people who are in the action stage do not return to the stage of hesitation and awareness or people who are in the stage of stability, do not return to the stage of performing irregular actions and determine the stability and ways to achieve it (Kotler and Lee, 2008).

Incentives play a crucial role in behavior modification and sustainability. Incentives, whether financial or non-financial (such as social satisfaction), can motivate people to do more effectively the activity they are currently participating in, such as recycling, or motivate people to start an activity they do not (Such as fertilizing from organic household waste). Incentives play an effective role in promoting waste reduction, energy efficiency, alternative transportation and behavioral sustainability.

When the Seattle-Washington municipality gradually received money from residents for disposing of garbage based on the number of bins they placed on the street, it had a significant impact on reducing garbage. Before that, in the early 1980s, Seattle residents dumped an average of 3.5 trash bins per household per street per week. But in 1992, the average number of bins that each household placed on the street each week dropped to one. This significant reduction was due to the provision of monthly incentives to people who reduced their waste, as well as facilitating the recycling process for these people.

The Municipality of Sidney township, Ontario introduced a user-fee system in which residents received 52 free labels for placing a garbage bin on the street, along with additional labels of "C \$ 1.50". By doing this, compared to last year, the amount of waste sent to landfills was reduced by 46 percent, the weight of recycled materials increased by 26 percent, the large amount of kitchen waste that was fertilized on the site increased by 50 percent, and the amount of hazardous household waste that was put in the trash decreased by 50 percent (Mackenzie Moore and Smith, 2013).

## Conclusion

As a result of the implementation of the segregation at source plan with social marketing method and approach, the waste amount that should be collected, transported and buried will be reduced. This in turn reduces the cost to the municipality, which is responsible for managing solid waste. The most important social marketing approach of this project is how municipality properly educate and inform in the form of one-on-one and face-to-face trainings, production of specialized brochures, training CDs and use of software and apps, city billboards, use of social networks, production of animated characters and its branding, etc., each of these educational tools must be appropriate for each of the segments and groups of society to have the appropriate impact. Everyday human consumption activities generate waste that is often discarded because it is considered useless and unusable by the people who consume it. Many of these wastes are valuable and can be reused and become the primary source for the production cycle of various industries or energy production. Waste segregation from the source is the first chain of the entire solid waste management chain. And since the implementation of this plan depends on the behaviors and decisions of the individual and the family and its education and promotion is related to the municipality and government institutions and policy-making, therefore, to a large extent, it has a great socio-economic burden, and its success depends on the reform of cultural structures of the citizen's mental image and, consequently, their decisions. Success in this project requires the cooperation of people (households), administrative and commercial units operating in the city in line with each other and the formation of an executive team for waste management. The most important and at the same time the least expensive parameter is public participation and decision-making in changing behavior, which includes residential areas, offices, schools, and other public places. This wide and active range in the conditions of optimal planning of this method (social marketing) plays the most important role in the stages of dealing with waste (separation, downsizing, prevention of leachate production at the source or its disposal at the source and change in the purchase pattern and Consumption). Unlike public participation which have a significant share, the municipality

executive team, the contractor and executors of training projects must have special equipment such as special machines, different colors containers to store materials and appropriate and trained personnel. As well as special planning for citizens' waste collection, create incentive mechanisms and of course punishment appropriate to the economic, social and cultural conditions of each neighborhood for the cooperation of the people. Waste management training plays an important role in environmental protection and participation is a prerequisite for balanced urban development. In addition to creating positive effects in the community, participation increases the spirit of collective cooperation and belonging to the city, the growth of talents and creativity, a sense of responsibility and commitment. Creating a positive attitude towards social participation and gaining public trust in the authorities and at another level creating trust among citizens through transparency in performance and having a consistent and continuous program in waste-related programs is essential. Social trust is a very important component in participation and behavior change. To solve the waste problem and achieve the sustainable development goals, other ways to increase public participation in waste segregation are through increased services, using educational institutions and public organizations to institutionalize and cultivate waste segregation from the source, formation of affiliated social networks with local citizens, installation of billboards and educational banners in busy neighborhoods to increase awareness and encourage people to participate in the waste segregation project, strengthen and develop public participation platform in urban planning by improving waste management practices through continuous, uninterrupted and regular collection on a weekly basis or delivery to the recycling booth by citizens, etc., Introducing and encouraging volunteers in this field (encouraging households to segregate waste after training - encouraging social activists who participate in promoting and educating other citizens), appoint a monitoring group to continuously monitor existing programs and trainings. In general, social marketing by using patterns, models, operational and effective methods have an important and decisive role in changing and modifying citizens' behavior. To be successful in social marketing, the target group must be identified based on individual, social, economic and cultural characteristics and segmented geographically. For social marketing to set waste management behavior, people should understand and be aware of the problems and harms of waste and the benefits of waste segregation from the source. For advertising and informing, the media should be audience-oriented and public in order to spread the message in public and online places and made it visible broadly and also appropriate content should be used. Emotionally driven marketing communication can increase engagement better than neutral content and make marketing message more viral. This viral message can lead to Emotional contagion and have ability to change consumption preferences through transfers of emotion. In the other hand, being seen leads to the consolidation, role-playing and reminder of the message. Further, in order to establish, continue and improve the implementation method, the marketing, training and implementation process of the project must be constantly monitored. Through retesting, mistakes and inefficient solutions can be reduced and helped improve waste management behavior. Studies show that social marketing and social networks play an important role in contagion of social behavior and approval and acceptance by others is a determining factor in social behavior contagion.

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