Environmental Corporate Social Responsibility Management and Strategy to Reshaping Consumer Behaviour

GN Lim and PV Arumugam

Wawasan Open University, Penang, Malaysia
E-mail: gnlim@wou.edu.my

Abstract. Plastics have become a major issue to our environment especially the unavoidable usage of plastic straws whenever you buy drinks. Plastic straws, lid and stirrer is not completely biodegrades. Ban the straws is not possible since it is an accessible tool to mankind especially to disable people. This issue can be solved with collective effort amongst the customers and companies to replace plastic straw with biodegradable straws. This paper provides review on the contribution and potential of consumer behaviour concept and marketing capabilities in initiating the right mindset in promoting pro-environmental behaviour. A feasible framework model is proposed to companies especially food and beverages companies. The framework comprise of two key issues (1) sustainable competitive advantage to companies (2) promoting pro-environmental behaviour amongst customers. The first key issue discusses about how companies can benefits from environmental friendly practice. These benefits comprise of sustainable branding, incorporating in corporate social responsible and better business performance. The second key issue discusses systematic perspective for food and beverages companies to promote understanding and changing environmental behaviour of their customers. Huge franchise chain food and beverages companies like McDonald and Starbucks support on biodegradable straw, lid and stirrer would contribute to a snowballing effect worldwide. McDonalds is in 100 countries and having more than 35,000 restaurants worldwide, is more than capable to promote pro-environmental behaviour to their customers. This paper provides a feasible framework for McDonalds and Starbucks to initiate the pro-environment lifestyle and experience towards sustainable competitive advantage. This paper also proposes some strategies suggest to reshaping consumer behaviour which include the government, company and customer. Thus, provide recommendation to carry more studies on Environmental Corporate Social Responsibility Management model and preventive measure in managing plastics issues for future research.

1. Introduction

Environment problem cause by plastic is a classical phenomenon that created by mankind the whole ecosystem. In the recent world economic forum, the issue of plastics was raised and some of the experts presented that by 2050, oceans will be filled by plastics more than fish. World Bank also supported the statement with their estimation of 6 tons of plastic waste produced each day by 2025 [1]. In the tons of plastic debris, the most found item is plastic straw. This staggering finding also happens whenever there is an ocean coastline cleanup [2].In United States, millions of plastics straws thrown each day, meanwhile...
United Kingdom contributes close to 4.4 billion of straws annually references. Hotels are the main offender of plastic straws. Hotel like Hilton Waikoloa Village was the first hotel to ban plastic straws this year onwards as they used more than 800,000 in previous year [3]. Plastics straws are dangerous to marine lives and seabirds. They gets choked and suffocated by this delicate and colourful straw and surprisingly close to a million seabirds die yearly due to this plastic culprit [4].

The common question raised here is that how can plastic straw possibly be causing so much damage to the environment? First plastic straw is a single-use plastic item. Secondly, its lightweight in nature which makes it easy to be littered around even during garbage collection or through mechanical recycling sorters. Thirdly, due to its lightweight nature, easily flown away by wind into oceans. In the oceans, this plastic straw will gradually be fragmented into many tiny pieces known as microplastics that commonly mistaken for food by marine lives [5]. Some mistaken for jelly fish, worm, grass and so on. Related incidences include sea turtles accidentally swallowing the straw, and then had it trapped at its nostril [6].

Recycling industry has increased tremendously in the past decade. Nonetheless, the amount of plastic waste increased annually. Biodegradable plastics consist of different blends of plastics. The downside it cannot be decomposed at home backyard as it require very temperature to breakdown. Some cannot be completely degradable [7]. Based on the study completed by Japan International Cooperation Agency, households and businesses in Malaysia produced 8% and 30% plastic waste respectively. With this, the recovery rate was only 5% to 7% respectively. The recovery rate depends on the demand for resin and crush form of plastic from both local and international market. Volatile demand for resin and crush form of plastic are not a reliable solution to plastic waste. There are few more major challenges to recycling industry such as insufficient technology, high operation cost and biodegradable plastics regularly cause contamination to the recycling process [8,9]. With these challenges, plastic recycling industry is not a long-term solution but should continue to operate to manage the remaining plastic waste. More importantly companies should promote biodegradable practice to replace plastic wares [10]. This gap can be filled by selling the concept through branding with environmental corporate social responsibility (ECSR). These challenges had inspired the author to raise the first objective of this paper as the following:

a) To propose an environmental corporate social responsibility management (ECSRM) model to re-establish a known brand name company to another higher level.

In term of consumer perspectives in Malaysia, a survey was conducted by National Department of Solid Management to measure consumer awareness on the impact of plastic. Findings revealed that 66% of 200 respondents knew about degradable plastics and 90% of them supported biodegradable plastic bags usage. Another findings carried out by Penang Green council, revealed that 70% of 270 consumers supported the campaign while 33% them not supported or willing to pay addition 20 cents for plastic bags [9].

Though majority of consumers are aware of the harmful of plastic to environment but a considerably large portion of consumers are still not giving up the practice or habitual of using plastic bags. This habitual is highly related to the consumer mindset and behaviour. It is another important gap to be filled. Reshaping the consumer behaviour is important in this context. Though there are many challenges to overcome in this process of reshaping the behaviour but it would be priceless effort for long-term purposes. The cost of environmental conservation could easily reach a few hundred billion USD a year if consumers continue with their plastic habitual [11]. With this, the author proposes the second objective as to fill the gap mentioned above.

b) To suggest strategy to reshape consumer behaviour which include the government, company and customer.
2. Model
This model is known as Environmental Corporate Social Responsibility Management, ECSRM is practically reengineered from a widely accepted Urde’s brand management model with environmental CSR dimensions. Combination like this will be more attractive to profit oriented company where it guides the proper way to manage their ECSR contributing to branding, potential target audience and foremost important business sustainability.

2.1. Internal considerations
Internal considerations are adapted from Caroll’s corporate social responsibility (CSR) model upon which it has been utilized by a number of different theorists. This model is widely cited in articles mainly in the area of social issue in management and business society [12]. In ECSRM modelling, the internal considerations adapted some dimensions of Caroll’s model. The dimensions are E-Philanthropy, E-Community Services and E-Customer Welfare. These dimensions are discussed as below.

2.1.1. E-Customer Welfare
Providing superior customer experience is the essence for most successful company [13]. Typically the objective of e-customer welfare is to create and deliver the best product for customers with sufficient information of the product including the safeness of the usage [14]. Hence it should include providing product that is friendly to the environment. Referring to food and beverages (F&B) industry, their product should be of quality, provide information on nutritious value, do not contain harmful materials. Above all, this dimension emphasizes eco-friendly practices right from the preliminary stage until the end-user stage. Companies like McDonald and Starbucks have successfully replacing plastic bags with paper bags in almost all stages of the operation. Plastics are still widely used for plastic straws, paper cup lids and coffee stirrer. Though these plastic tools are useful especially for disables but it contributes to proportional amount of plastic waste. It would be using biodegradable material to manufacture these plastic tools.

2.1.2. E-Community Involvement
A success of CSR programs highly relying on the social and community involvement. Hence E-community involvement is important to initiate the involvement of members of the community in any CSR programs [15]. McDonald is widely known as the leader in F&B industry, it is more than capable to initiate paradigm shift and culture change worldwide. This globalize company successfully promotes the Americanization concept, followed by globalisation to suit the locals better [16]. Author believes that McDonald will be the right brand to effective approach the world community to support environmental programme. For instance, environmental education workshop and promote biodegradable straws as a new and cool lifestyle.

2.1.3. E-Philanthropy
Philanthropy is the main agenda to carry out CSR at the first place. Generally philanthropy is about the will or the desire of the organisation to reach for the needy by offering a better welfare through donation of money to different channels mainly health care, education, humanitarian causes and community programs. The participating company at the same time promote the sense of identity and nurturing customer loyalty. In ECSRM context, philanthropy like McDonald should be seen as a world role model when it comes to environment. Generously sponsor events concerning plastic waste and provide funding...
for study related to environment conservation in order to cultivate this kind of culture. Study shows that customers favour to company that are more philanthropic especially those committed in environment. Customers usually will show their support by being more loyal to company through buying more environmental friendly product regardless of the price. [17].

2.2. External considerations
Aligning to the three dimensions of internal considerations, three other equally important external considerations based on Urde’s model, the brand hexagon [18]. This model is modified create a brand concept for ECSRM as shown in figure 1. ECSRM is part of the product that has a functional as well as a symbolic component. Let’s look at McDonald’s soft drink, a biodegradable straws and lid provide the functional component while the entire soft drink product representing the symbolic value to the company.

2.2.1. Brand Name
Here is the answer to why establish brand name is needed to makes this modelling works better. For instance, credit should be given to Ananatra and Avani Hotel for having the courage and be the first in the hospitality industry to ban the usage of plastic straw in their hotels across Asia. Last year alone, the hotel recorded close to 2.5 million straws in Asia and 4.2 million straws in both U.s and Canada [19].

Working with established Brand Name is important to remove the plastic straw concept. It will not be as effective if ECSRM is applied to non-Brand Name company as this moment in time especially for Asian society. This society is still not ready to change their daily plastic usage due to massive availability and demand and costing. Amongst the major reason is a low literacy lead to poor health awareness and primitive mindset. Brand like McDonald’s offers a life changing dining experience to many people relevance with its tagline “I’m Lovin it”, would be a good initiator to change consumer mindset to be more pro-environment and use biodegradable product instead of plastic[20]. A well establish brand name will be the first stage for this ECSRM to be successful; likewise, ECSRM will also contribute to further strengthen the Brand name. it is proven that positive brand name is vital in contributing to customers trust,
satisfaction that’s leads to loyalty[21]. If McDonald’s successfully practice full pledge eco-friendly operation, this will create a whole new value added branding for McDonald’s with a promising sustainable business in the future. As an environmental symbolic business is an important area of strategic business plan to capture the younger and future customer segments by planning ahead of their competitors and gaining better competitor advantage.

2.2.2. Target Audience
The second stage of ECSRM is tapping the right target audience which place as the highest priority in the area of marketing in this modelling target audience comes after brand name because brand name play a more important role to the success for ECSRM at the initiator or preliminary stage of promoting environmental paradigm shift and ban the use of plastics. However targeting the right audience/customer is important to ensure that company receives a good respond and support to their newly launch environment program and educational workshops. Furthermore, communication plays a major role in this concept, because through communication the ECSRM can be explained to the customer. Generation Y and Z having more pro-environmental mindset due to factors such as exposure to technology and higher literacy, hence they are more supportive to pro-environmental programs [22]. Company that target this segment should embed eco-friendly process, McDonald’s is a typical example where they expand their current ageing segments to a younger segment by incorporating more eco-friendly process in their operation in order to build a whole new level of loyalty. Long-term loyalty is created not only through the function of the product but symbolic value that attach to the brand name. New way of communication has make it possible for everyone to access to information without boundary. McDonald’s is amongst the first F&B own an App to have more effective communication with the younger customer segments [23]. A well establish brand name with massive target audience and above all owning a powerful tools of communication is on the right track to move to the third component of the external considerations.

2.2.3. Product (Pasta Straw)
The product component is referring to the biodegradable straws, cup lid and coffee stirrer. The right brand name with the right target audience is essential to create the awareness on this eco-friendly product. For McDonald’s, it will not face any competitor but will enjoy being the leader in the market to introduce biodegradable straws in F&B industry through awareness pro-environmental program. Their customers will support their eco-friendly operation since younger and future segments are ready for the change. Equally important issue when comes to biodegradable product is price. With great amount of research comparing the price quotation, the best price comes from straws that make of pasta or better known as pasta straws. A straw with an averagely cost of USD0.02 and the price is expected to be lower with greater order volume. This type of straws will not affect any type of cold drinks as room temperature will not hit its’ melting point. This straw can be edible like any pasta and definitely not harmful as compare to plastic straws. The same material will be proposed for coffee stirrer and cup lid. If these products receive good acceptance from their customers, in return it will associated to it brand name. The alternative types of straw are shown in table 1 below:
Table 1. Quotation from different straws companies

| Company              | Product      | Price USD | Quantity | Per piece USD |
|----------------------|--------------|-----------|----------|---------------|
| Aardvark, (A)        | Paper straw  | 167.65    | 3200     | 0.052         |
| Bio Strohhalmes, (B) | Paper straw  | 8.50      | 50       | 0.17          |
| FinalStraw, (C)      | Reusable straw | 30       | 1        | 30            |
| Bunkoza, (D)         | Stainless steel | 15.75     | 1        | 15.75         |
| Softy Straw, (E)     | Reusable silicon | 11.99     | 5        | 2.39          |
| PastaStraws, (F)     | Pasta straw  | 69.90     | 1000     | 0.0699        |
| EcoStraw, (G)        | Pasta straw  | 9.80      | 20       | 0.49          |
| StrawFree.org, (H)   | Bamboo straw | 1.80      | 1        | 1.8           |

There are basically two types of straws, single-use and reusable straws. The reusable straw is more costly as made of stainless steel or silicon. The choice of single-use straw is either paper straw or pasta straw. PastaStraws is selling at USD0.0699 per piece as compared to a cheaper paper straw supply by Aardvark, (A) with the difference of USD0.018 per piece. Nevertheless straw made of pasta is safer compared to make of paper. Pasta straw is edible to all living things and zero harmful to the environment. Hence pasta straw will be the best alternative for amongst others as single-use straw in terms of cost and safety. The testimonials shown below are from the pasta straw users and owners from F&B outlets.

Table 2. Testimonial of Pasta Straws Users

| Testimonial of Pasta Straw users | Remarks |
|----------------------------------|---------|
| Dawn Bye [24]                    | Served pasta straw in her wine and beer cafe. Claimed that pasta straws have no taste, withstand well in water and for a long length of time. The costs of pasta straws are comparable to plastic. Above all, felt happier for contributing to care for Mother Nature. |
| Meghan Burkett [24]             | A recycling coordinator. Claimed that plastic straws not easy to recycle due to light weight, small and easily slip away from recycling facility. |
| Ms. Karen [25]                  | An Ice Cream cafe owner. She introduced pasta straws to her customers and received good response and high acceptance. |
| Ms. Watson [25]                 | Agrees to continue to use pasta straws as it can be decompose organically using certain bacteria. This process is safe and not harmful as it is edible. Importantly pasta straw does not go mushy with any kind of drinks. |

Based on table 2 above, the price of pasta straw were comparable to plastic. The pasta straw would not affect the taste of any beverages. Most importantly all the owners were glad that their customers could accept pasta straws and with the customers support they would continue to contribute to saving the Mother Earth.

3. Strategy to Reshaping Consumer Behaviour

The other objective of this paper is to suggest some strategies to reshaping consumer behaviour which include the government, company and customer. The consumer behaviour here involves three kinds of parties, the government, company and customers. The emphasis here focuses on preventive measures to minimize the burden for the company and government.
3.1. **Government-Company-Consumer Relationship**

At the government level, the strategy is to implement policy to encourage company to adopt eco-friendly straw concept. Mestecc is Ministry of Energy, Science, Technology, Environment and Climate Change in Malaysia recently initiate #plasticfreemestecc campaign, the minister YB Puan Yeo Bee Yin addressed that plastic pollution is everyone shared responsibility and in support of the Sustainable Development Goals (SDGs), many grants and funding are available for companies to adopt eco-friendly concept and carry out R&D to improve their process to be less harmful to the environment. Other than that, government can offer incentives for recycling and reusable practices, offer levies to invite more company to anticipate in eco-friendly program or even endorse strict rules to ban certain plastic materials products.

Though dozens of governments have gradually supporting the usage of disposable plastics by introducing more policies as a way to a healthy and plastic free society, nonetheless many countries around Asia still favouring single-use plastic concept. Governments in these countries play an important role to make both local and foreign direct investment companies to work together with them to achieve the plastic free society. Companies who choose to ignore the governments’ initiatives, perhaps stern action should be taken against them [9]. For example block the companies from renewing their license, perhaps taken away their tax incentives, fiscal incentives increase their corporate tax and compound them. Government is the first and most important level to initiate and enforce all the companies and small medium enterprises (SMEs) to comply with the policies and create awareness at society level through campaign at school level.

3.2. **Company–Customer Relationship**

At this level, company should replace plastic straw with alternatives like pasta straw, paper straw, bamboo straw for their sing-use straw. There are many companies that produce alternatives to plastic straw, companies can liaise with their suppliers for a better price. Suppliers also should play their role well in increasing the awareness where they should provide more promotion to the companies in supporting governments’ mission. In relation to push strategy, government is pushing the supplier for produce more pasta straw by providing them subsidies, incentives and support. Subsequently, suppliers produce more than the demand, and push the companies to stock more by giving them lucrative price and discount if they stock more [9]. The companies with lots of pasta straw will eventually give away to their customers. This is away to create more awareness amongst their customers. At the same time, companies that give away pasta straws are directly rebranding their image and reputation for being loving environment and society as a whole.

Eventually their existing customers will trust the company even more and new customers will buy from the company. Campaign and advertisements in Facebook or any digital platform that create the awareness are in fact creating the pull strategy. All these generating the pull effect where consumer are aware of the existence of pasta straw and being able to anticipate in saving environment by supporting companies that give away the pasta straw and more importantly they will less guilty for not using plastic straw, in fact they are doing the CSR too as in citizen social responsibility.

4. **Conclusion**

This paper propose ECSRM modelling for well establish F&B brand like McDonald’s. The internal considerations comprise of three dimensions as in E-Community Involvement, E-Philanthropy and E-Customer Welfare represent the point of departure and the reasons for ECSR existence. The internal considerations are communicated via the external considerations (brand name, target audience and product). The closely linked to each other and constitute together the basis for the ECSR management. Loyalty, association and awareness build the fundamental inner relationships in this model. Awareness is the first step. Without awareness, the ECSRM is not recognized by the consumers and cannot be further
built up. Following, the ECSRM is differentiated when attitudes and feelings are created through associations and finally, a strong relationship and loyalty are created through the communication of the ECSRM.

This paper also suggest some strategies to reshaping the consumer behaviour right from the government level to company level and end with consumer level. The government, company and consumer have to support the idea of using pasta straw, hence establishing a strong relationship amongst them is important. Convincing the companies to adopt a new idea in expand of their profit is not an easy task. With ECSRM modelling, any eco-friendly idea will sound more convincing and profitable.

5. Recommendation
For future study, a more in depth study should be carried out on ECSRM model on actual companies that plan to embark into creating a better brand name and ECSR. This paper recommends on the preventive measures and that of minimizing the administrative burden to the government. These recommendations are neither mutually exclusive nor exhaustive: there maybe additional measures that would successfully contribute to the more sustainable activity of reuse and recycling of plastic in Malaysia. These recommendations also take into account the waste hierarchy of prevention, reuse, recycle and recover.

References

[1] Jambeck J R et al 2015 Plastic waste inputs from land into the ocean. Science 347 p 768–771
[2] CorcoranP L2015 Benthic plastic debris in marine and fresh water environments Environ. Sci.: Processes Impacts 17 p 1363-1369
[3] Murar K 2018 Hilton Waikola Village discontinues use of plastic straws as bill progressel Pacific Business News [online] TheBusinessJournal.com Available at: https://www.bizjournals.com/pacific/news/2018/02/12/hilton-waikola-village-discontinues-use-of-plastic.html [Feb 13, 2018].
[4] Lavers J, Bond A and Hutton I 2014 Plastic ingestion by Flesh-footed Shearwaters (Puffinus carneipes): Implications for fledgling body condition and the accumulation of plastic-derived chemicals. Environmental pollution 187C p 124-129
[5] Borrelle S B et al2017Opinion: why we need an international agreement on marine plastic pollution. Proc. Nat. Acad. Sci. p 9994–9997
[6] Walker T R and Xanthos D 2018 A call for Canada to move toward zero plastic waste by reducing and recycling single-use plastics Resources, Conservation and Recycling 133 p 99–100
[7] Lott Cer al 2018 Marine fate of biodegradable plastic—substitution potential and ecological impacts ProcIntConf on Microplastic Pollution in the Mediterranean Sea (Springer) p 195–197
[8] Dilkes-Hoffman L S, Lane J L and Grant T 2018 Environmental impact of biodegradable food packaging when considering food waste J. Cleaner Prod. 180 p 325-334.
[9] JabatanPengurusanSisaPepejal Negara 2011 AStudy on Plastics Management in Peninsular Malaysia.Ministry of Housing and Local Government (MHLG) Malaysia.
[10] Japan International Cooperation Agency 2006 The Study on National Waste Minimisation in Malaysia. Ministry of Housing and Local Government (MHLG) Malaysia.
[11] Denni I A and Tjiptono F 2018 Consumer ethics, religiosity, and consumer social responsibility: are they related? Soc. Resp. J. 14 p.302-320 https://doi.org/10.1108/SRJ-03-2016-0036
[12] Carroll A B 2016 Carroll’s pyramid of CSR: Taking another look. Int. J. Corp. Soc. Resp.1 3 https://jcsr.springeropen.com/articles/10.1186/s40991-016-0004-6
[13] Cochran P L 2007 The evolution of corporate social responsibility Business Horizons50 2p 449—454
[14] Rashid N R, Rahman, N I and Khalid S A 2014 Environmental corporate social responsibility (ECSR) as a strategic marketing initiative *Proc. Soc. and Beh. Sci.* **130** p 499-508

[15] Rahman N I A, Rashid N R N A and Khalid S A 2015 Environmental Corporate social responsibility (ECSR): Exploring its Influence on Corporate Image *J. Man. Sci.* **1** (2) p 21–44

[16] Mak A, Limbers M and Eves A 2012 Globalization and food consumption in tourism *Annals of Tourism Research* **39** p 171-196

[17] de Jong M D T and van der Meer M 2016 How does it fit? Exploring the congruence between organizations and their corporate social responsibility (CSR) activities *J. Bus. Ethics* http://isidl.com/wp-content/uploads/2017/09/dx.doi.org/10.1007/s10551-015-2782-2

[18] Iglesias O J, Markovic S, Singh J and Sierra V 2017 Do Customer Perceptions of Corporate Services Brand Ethicality Improve Brand Equity? Considering the Roles of Brand Heritage, Brand Image and Recognition Benefits *J. Bus. Ethics* p 1-19

[19] Veiga C, Santos M C, Águas P and Santos J A C 2018 Sustainability as a key driver to address challenges *Worldwide Hospitality and Tourism Themes* https://doi.org/10.1108/WHATT-08-2018-0054

[20] Yen D A et. al. 2018 Food consumption when travelling abroad: Young Chinese sojourners' food consumption in the UK *Appetite* **121** p 198-206

[21] Nyadzayo M W and Khajehzadeh S 2016 The antecedents of customer loyalty: A moderated mediation model of customer relationship management quality and brand image *J. Retail. Cons. Serv.* **30** p 262-270

[22] Alkaher I and Goldman D 2017 Characterizing the motives and environmental literacy of undergraduate and graduate students who elect environmental programs-A comparison between teaching-oriented and other students. *Environ. Edu. Research* **24** p 1-31

[23] Zhao Z and Balagué C 2015 Designing branded mobile apps: Fundamentals and recommendations *Business Horizons* **58** (3) p 305–315

[24] Bringe J 2018 *Chippewa Falls business offers pasta straws instead of plastic.* [online] Weau.com. Available at: https://www.weau.com/content/news/Chippewa-Falls-business-offers-pasta-straws-instead-of-plastic-492533711.html [Accessed 5 Sep. 2018].

[25] Georgia D 2018 *Genius cafe owner creates pasta straws to get rid of plastic* | Metro News. [online] Metro.co.uk. Available at: https://metro.co.uk/2018/06/07/genius-cafe-owner-creates-pasta-straws-get-rid-plastic-7611970/ [Accessed 7 Jun. 2018].