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PORTLAND STATE UNIVERSITY

An Undergraduate Honors Thesis Submitted to the

University Honors College

&

School of Business Administration: Marketing

In partial fulfillment of the requirements for the degree of Bachelor of Arts

*Changing Consumer Behavior Towards Mindful Consumption Through Social Proof to Decrease
Environmental Harm*

by

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Abstract

This thesis describes overconsumption as a cause of climate change and environmental problems. It expands on the idea and definition of mindful consumption to include nine different consumer behaviors people can adopt to decrease their carbon footprint and harmful impacts on the environment. Research shows there is a value-action gap between what consumers value and their purchasing patterns. Therefore, this thesis demonstrates how to use the marketing tactic of social proof to change consumer behavior towards mindful consumption and close the value-action gap. Following suggested approaches of organizations applying social proof messaging to the nine mindful consumption practices, two case studies of researchers studying the influence of social proof messaging are included. This thesis aims to inspire readers to care and take responsibility for their personal and organizational impacts on the environment by changing consumption patterns.

Introduction

The biggest threat the human population faces today is climate change. Along with climate change, many different environmental problems come and have adverse effects on human health and longevity. The area of the ocean with at least 15% sea ice has come to an all-time low of about 11.9 million square kilometers. In 1980, the area of ocean with at least 15% sea ice was 15.8 million square kilometers (NSIDC Arctic News). Furthermore, more than one in five known mammals, over a quarter of reptiles, and 70% of plants are under threat in the ecosystem (Madgoff, 2011, p.18). There is a patch of litter in the Pacific Ocean estimated to be anywhere from 3,100 square miles to twice the size of Texas (Great Pacific Garbage Patch, National Geographic). Forest area on Earth has been declining since 1990 (WorldBank). Moreover, the United Nations Food and Agriculture Organization found that 18% of greenhouse gas emissions are directly attributable to livestock production (Bowling, 2015). The overconsumption of goods and services by humans has caused climate change (Hawken, 2017, Berry, 1999, Magdoff, 2011, Shuman, 2006, Hayhoe, 2009). Humans increasingly rely on businesses for their access to goods and services, and businesses supply according to demand. However, “if economic growth is founded on an ever-increasing reliance on chemicals, toxins, poisons, and energy by-products, then we will choke on the growth that is supposed to save us” (Hawken, page 52). Business has been operating on a linear system that has been depleting Earth’s natural resources and causing environmental damage.

The system begins with extraction. At the start of the supply chain, everything we consume comes from nature. Therefore, businesses take more from nature than ecosystems can provide. Then, businesses rely on burning coal, gas, and oil to produce and transport the product or service. At the end of the supply chain, the product becomes trash and is thrown back into

nature while releasing methane into the atmosphere. The cycle repeats as people increase their consumption. Ecosystem services cannot support unlimited growth in consumption.

Authors are calling for a radical change in lifestyle and energy use. Particularly people living in the global north, need to stop using fossil fuels, consume far fewer resources, use them more efficiently, and produce zero waste. If the world population consumed like Europe, we would need 2.79 planet Earths, and if people consumed like North America, we would need 4.95 planet Earths. However, if people consumed like South America, we would need 1.79 planet Earths, and if people consumed like Africa, we would be sustainable at 0.82 planet Earths (Global Footprint Network, 2018). If over consuming and fossil fuel dependent countries do not change their current course of action, they will continue to harm the environment.

I will establish how overconsumption is a cause of environmental problems, the need for changing consumer behavior, address the value-action gap, and how organizations can close the value-action again through social proof. Then, I will outline the nine behaviors of mindful consumption, provide examples of applying social proof to each behavior, and what the direct and indirect benefits are of mindful consumption. This thesis is for organizations and individuals who value sustainability. To take care of the earth's gifts that give us life—air, water, and food—whether indirectly or directly, is a responsibility of being human.

Consumption Behavior as a Cause of Environmental Problems

The excessive consumption of the Western lifestyle, especially the American lifestyle, has led to many environmental problems we currently face on our planet. Back in 1992, the United Nations agreed that lifestyles by affluent consumers are not sustainable (Thøregersen) and the book, Agenda 21: the Earth Summit Strategy to save our planet was adopted at the United

Nations Conference on Environment and Development in Rio de Janeiro in 1992. Dan Siltraz emphasizes the quality of life on earth, efficient use of the earth's natural resources, the protection of our global commons, the management of human settlements, chemicals and the management of waste, and sustainable economic growth (1994). Stephen Pacals found that the 500 million wealthiest people, who make up about 8% of humanity, emit half of the total greenhouse gas emissions (Magdoff). Authors agree that unsustainable production and consumption is the leading cause of polluting the environment, water pollution, reduction in biodiversity, and climate change (Chen & Hung, 2015 and Liu et al., 2014). The consequences of overconsumption have led to toxic residue from petroleum used to create fibers for fabrics and plastics dispersed into the air, water, and soil (Berry). Further consequences are a thinning ozone layer and rising temperatures of our Earth's atmosphere. The rising temperatures melt the ice and reduce the reflection of sunlight. Then, the oceans warm, which adds 90% to the heat planet Earth accumulates. At this point, sea levels rise (Magdoff). Coastal and inland flooding and erosion are just a few of the many detriments to human beings from climate change. As temperatures rise, they throw off Earth's water cycles. Therefore, people see an increase in hurricanes and droughts (The Climate Reality Project). The environmental detriments are not only a human life cost but a money cost. Hurricane Katrina cost \$160 billion in damages, Hurricane Harvey cost \$85 billion in damages, and Hurricane Irma cost \$58 billion in damages (National Centers for Environmental Information, 2017). Thomas Berry states that "within the next 40 years we will have consumed over 80 percent of available supplies." Besides, if everyone in the world were to consume at the rate the U.S. does, we would need five planet Earths (Sheth et al., 2010). The more people consume, the more environmental damage we do.

Logically, one can see the negative chain reaction overconsumption has on the environment and the very planet we rely on to sustain us.

Changing Consumer Behavior

If overconsumption is a cause of climate change, then consumers need to change their behavior. We are all consumers: we demand, and businesses supply what we demand. Joshi and Rahman argue that “consumers possess the capability to prevent or decrease environmental damage by purchasing green products” (2015). Prothero et al. also agree that changing consumption patterns can relieve environmental problems and they further state that collective solutions are more powerful than individual actions (2011). Chen and Hung also agree that “the most direct and efficient way to reduce overconsumption of resources is by changing consumption patterns... Consumers play a fundamental role in the green revolution because green consumption not only has positive effects on the environment, the economy, and society but is also essential for sustainable development” (2015). Consumers vote with their dollar: “every single day, every hour, every minute we are opening our wallet and casting our ballots” (Shuman). An affluent consumer can choose to support a business with sustainable practices or a business with environmentally harmful practices. However, product-oriented approaches are not enough to solve the problem; we also need to focus on lifestyle and consumer behavior changes (Liu et al., 2016). Therefore, in this thesis, I will focus on lifestyles and consumer behavior changes.

The Value-Action Gap

Many consumers express concern for the environment. However, their purchasing and lifestyle decisions do not reflect their expressed value and care for the environment. Pickett-Baker and Ozaki call this the value-action gap (2008). The United Nations Environmental Program surveyed in 2005 and found that 40% of consumers say they are willing to buy “green” product, but only 4% do (Prothero et al., 2011). Junior et al. also found in their study that environmental concern does not affect the declared purchase for green products (2015). There is a gap between ecological knowledge and environmental performance (Kanchanapibul et al., 2013). Joshi and Rahman conducted a literature review on all the factors that contribute to the gap between beliefs and actions. They found that a lack of knowledge, a lack of concern, a lack of product attributes, a lack of subject social norms, inconvenience, and high prices are all barriers to making green purchases (2015). To change consumer behavior, marketers must address the barriers to sustainable consumption. According to studies conducted by Robert Cialdini and Nolan et al., social norms can be one of the most influential in changing consumer behavior.

Changing Behavior Through Social Proof

Social proof is the phenomenon that people follow the wisdom of the crowd, and proximity strengthens the influence on behavior (Cialdini, 2001). In the study Cialdini conducted with Goldstein, they found that social proof was a stronger influence than knowledge in the case of guests re-using their hotel towels (2008). The descriptive norm—a message that describes a behavior of the majority of a people group—yielded an overall towel reuse rate of 44%. The message appealing to environmental protection yielded an overall towel reuse rate of 35%

(Goldstein, 2008). Furthermore, the same room identity descriptive norm—a message that describes the behavior of a similar identity of the majority people group to that of the individual’s identity—yielded an overall towel reuse rate of 49.3%. Based on this study, one can conclude that subject norms are a stronger influence on behavior than environmental knowledge and a stronger shared identity increases the likelihood of the behavior to occur.

In another context, social proof is most potent when observing the behavior of people similar to the individual (Cialdini, 2011). Furthermore, Cialdini emphasized that “social proof is most telling for those who feel unfamiliar or unsure in a specific situation” (2011). Marketers can use social proof by informing audiences that many other individuals are complying with the behavior (Cialdini, 2011). Nolan et al. also found in their study that normative information influenced people more strongly than appeals to protect the environment, to be socially responsible, or save money in conserving energy in their home by lowering their thermostat. Interestingly enough, the subjects denied that others influence them. However, the results were clear that people are more influenced by what others do around them than they think. Nolan et al.’s study proved that people hold incorrect beliefs about what motivates them and that normative information is a stronger motivator than descriptive information. Kumar et al. note that “subjective norms affect purchase and intention, whereas, knowledge affects attitude” (2017). Therefore, with the goal of changing consumer behavior to become more sustainable, marketers should use the marketing strategy of social proof to influence consumer behavior instead of increasing knowledge, since it only affects the consumer’s attitude.

Also, a focus on social proof will also decrease the value-action gap. Thørgersen notes that people do not act as rational choice theory predicts, but instead follow prescriptive norms about how one should behave as a citizen (2005). Furthermore, the strength of the normative

influence depends on the characteristics of the product, such as if people use the product in public or private. The susceptibility of the individual consumer and influence of the consumer group the purchasers belongs to also influence the strength of the normative influence (Pickett-Baker and Ozaki, 2008). Subjective norms are less influential when the consumer is uncertain whether others will contribute as well (Thøgersen, 2005). Therefore, the higher number of participants in the normative influence, the stronger the influence of adopting the behavior for the consumer will be. “Ultimately, the success of consumption reduction may lie in the extent to which it becomes viewed as normal” (Peattie, 2007). Social proof comes into the success of consumption reduction by normalizing the behavior.

The Behavior Change, What is Mindful Consumption?

What is the behavior change that decreases environmental harm and pollution? There are nine behavior changes affluent consumers in North America can do that I have called Mindful Consumption. Sheth, Sethia, and Srinivas call three behavior changes mindful consumption. I have included those and expanded on their practices of mindful consumption. The four areas of consumption I will cover are energy, food, transportation, and products. The first three, energy, food, and transportation make up 70-80% of the world's total greenhouse gas emissions (Peattie, 2007, Liu et al. 2016, Tukker et al. 2006). Sheth, Nirmal, and Srinivas define mindful consumption behavior as acquiring fewer goods, making less repetitive purchases, and rejecting aspirational consumption (2010, p. 21). I will incorporate these three changes and add-on six more with supported research to expand the definition of mindful consumption. They are in no particular order but from the most significant impact on the environment, most accessible to hardest to do, and a purchasing ladder of which purchases should come before others. In the end,

everything comes from nature. Therefore, not buying would be the option that causes no environmental harm. However, when consumers make a necessity purchase, what are the steps of considerations? I ordered the behavior changes this way.

1. Buy less

Authors Sheth, Sethia, and Srinivas define mindful consumption as caring for self, for the community, and for nature through buying less, making less repetitive purchases, and denying aspirational consumption. Sheth et al. categorize the first mindful behavior as acquisitive consumption. People acquire goods and service to meet their needs. Not only does overconsumption exploit nature, but it produces more waste that is thrown out back into nature. The first consumer behavior change is to buy less, to refuse, and to say no to products and service that one does not need. The guiding principle for acquiring less is asking, does this bring value? One can also participate in a minimalist challenge, such as only owning 100 things, only wearing ten pieces of clothing for ten days, or dressing with 33 things or less for three months. Taking on a challenge can help a consumer realize that less is more.

2. Cutting out repetitive purchases

Sheth et al. define repetitive consumption as buying, discarding, and continually buying again (2010). There are two reasons for repetitive consumption: the products are disposable, or the products become obsolete. Examples of cutting out a repetitive purchase of a disposable product are water bottles, coffee cups, razors, tampons and pads (instead of using a menstrual cup), and food containers. Obsolescence repetitive purchasing occurs when a consumer finds a new more favorable substitute because of the style of the product. Examples of products of psychological obsolescence are apparel, appliances, cars, technology devices, and other fashion

or luxury goods (Sheth et al., 2010). Cutting out repetitive purchases would not only save our environment, but consumers would save their money.

3. Downsizing

The last mindful consumption behavior Sheth et al. include is aspirational consumption. Aspirational consumption is overall upscale spending. Consumers compare their goods and services to those whose incomes are three, four, or five times their own (Sheth et al., 2010). I have named the behavior change as downsizing and specifically focus on housing since buildings account for most significant greenhouse gas emissions (Hawken, 2017). Downsizing factors in the energy that developed nations use to power their homes, business, and workplaces. In fact, “housing-related activities account for 26% of global GHG” (Liu et al., 2014). Furthermore, 70.6% of the U.S. energy for buildings comes from fossil fuels (The World Factbook). However, we only have 500 billion tonnes of coal, gas, and oil left to burn; and on current trends, we will burn the last 500 in the next 40 years (Brahic, 2009). Downsizing is a necessity. The American dream of living in a big home is not an option anymore. Contrary to popular belief, bigger is not better. The bigger living spaces, the more energy, and resources they require from ecosystem services to operate the spaces. Therefore, downsizing in space will use less energy and finite resources to run the space. A smaller space will also stop overconsumption habits because there will be less space to fill up with products.

4. Go Vegan

The most significant positive impact an individual consumer can take for reducing global greenhouse gas emissions is eating vegan. The meat and dairy industry generate 18% of global GHG emissions (Bowling, 2015 and Tukker et al. 2006). Furthermore, eating a diet without meat or dairy is the number 4th solution out of 100 to reducing carbon emissions in Drawdown

(Hawken, 2017). Becoming vegan does not mean taking away food groups, but instead, substituting meat and dairy with veggie patties made from beans or tempeh or tofu and soy milk, almond milk, oat milk, hemp milk, coconut milk and cashew cheese for cow milk. Becoming vegan also means increasing plant-based foods. Eating no meat or dairy may seem daunting, but one substitution at a time makes the behavior change possible.

5. Collective Ownership

Collective ownership means shifting away from individual ownership of a consumer good to collectivity and sharing. Therefore, less demand for a product will decrease environmental harm (Prothero et al., 2011). Another term Prothero et al. use is collaborative consumption. “Consumers are redefining the nature of consumption through the practice of car sharing (e.g., Zipcar), goods redistribution (e.g., Freecycle), and social lending (e.g., Zopa)” (Prothero et al., 2011). Collective ownership can create the biggest impact when applied to the transportation sector. “Passenger transport accounted for about 60% of transport’s total energy use and greenhouse gas emissions” (Liu et al., 2014). Therefore consumers can reduce their carbon footprint by choosing not to own a car, and instead, participate in a ride-sharing service such as Uber or Lyft. Moving away from individual ownership will disincentive consumers to use the product and also eliminate waste.

6. Buy second-hand

Buying second-hand decreases demand for new products, which decreases continued material extraction and energy use associated with creating a new product. Also, buying second-hand also prevents goods from going to the landfill. Consumers can use the products already in circulation instead of creating demand for new products. Buying or selling second-hand plays just as an important role in waste reduction as recycling (Ballantine et al., 2010). Reducing

consumption is a part of voluntary simplicity and includes sharing, eliminating clutter, and buying second-hand (Ballantine et al., 2010). Consumers can use thrift stores and Craigslist to purchase second-hand goods instead of creating a demand for new products. Ballantine et al. quote Nicole in their article, “when you buy an item new in a store, you send the manufacturer a signal that people want this item and more should be produced. When you buy second-hand, no signal is sent to anyone. Perfectly good items are recycled instead of landing in the landfill, and you save money” (pg. 54, 2010). Lastly, less energy is used by manufacturers, which helps lessen effects of climate change when consumers buy second-hand (Ballantine et al., 2010). Products that consumers can buy as second-hand are automobiles, clothes, furniture, appliances, shoes, electronics, books, accessories, gear, equipment, and tools.

7. Buy Eco-Friendly

Chen and Hung define eco-friendly or green products as products made from recyclable or recycled materials and manufactured with reduced water, energy, and toxic materials (2015). “Green products and service industries can be used to measure, prevent, limit, reduce or repair environmental damages to water, air and soil” (Chen & Hung, 2015). Also, businesses can create green products with net-zero energy, reduced environmental risk and pollution, and using fewer resources (Chen & Hung, 2015). Two company leaders in providing eco-friendly products are Patagonia and Prana. Prana has six initiatives that make a product eco-friendly, they are products made from recycled materials, the product made from organic materials, the product used Bluesign (a process that prevents chemicals from polluting water and air with harsh chemicals, made from Hemp, made Fluorine free or made PFOA free (Prana). Patagonia additionally makes products from a plant-based polymer, a plant-based lyocell fiber, and plant-based dyes.

In the food category, eco-friendly can mean buying organic food. Farmers grow organic food without using pesticides which contain toxic chemicals that cause soil erosion (Magdoff, 2011). Paul Hawken mentions explicitly the detriment of purchasing and using pesticides in the following quotation. “ ‘We the people’ are being asked again to subordinate our conscience, our common sense, and our collective will to a higher authority - in this case, one that would convince us that spending hundreds of millions of dollars to place chlorinated hydrocarbons on our lawns - chemicals that are toxic, mutagenic, and carcinogenic, chemicals that seep into the water table, chemicals that have caused irreversible endocrine damage in wildlife and humans - is good for us” (Hawken, page 115). Consumers can demand eco-friendly products by voting with their dollar. They can spend their dollar on products that cause harm to nature and people, or on products that take care of nature and people.

8. Buy Local

The next step on the purchasing ladder of least environmental harm is buying local. The author of *The Small-Mart Revolution*, Michael Shuman, states “it may turn out to be one of the keys to containing global warming” (page x, 2007). When business manufacture a product and ship it locally, there is a smaller distance in travel, which decreases carbon emissions and fossil fuel energy intake. Products and services that a consumer can localize are food, drink, entertainment, banking, healthcare, car services, and energy. An individual may feel as if her actions do not make a difference or do not matter in the total amount of carbon emissions. However, Shuman writes, “The small steps we take as individuals matter, both because others pay attention to our exemplary behavior and because modest changes made by many people can quickly add up to significant shifts in the entire economy” (page 97, 2007). As previously noted

by Prothero et al., individual consumer choices add up to collective impact because as social proof describes, people follow what others do.

9. Zero Waste

The last behavior change may be the hardest one to incorporate thoroughly. Living with zero waste is the goal. Paul Hawken observes, if there is no waste in the natural world because nature is cyclical, should not our world also operate cyclically and generate zero waste? (1994). To live in a world with no waste, we need to operate in a circular economy (Giardet, 2014). A circular economy is a closed-loop system where there is zero waste through reuse, recycling, and down-cycling. As consumers, we can close the loop on food waste by composting. Also, reducing food waste is the number 3rd solution out of 100 solutions for reducing carbon emissions in Drawdown (Hawken, 2017). Consumers can also close the loop on fashion by recycling their clothes instead of throwing them into the landfill. H&M currently accepts any clothing material. Another common practice in most areas of the U.S. is recycling. However, we have so much recycling that China has stopped accepting it (Minter, 2013). The problem is not in the correct disposing of waste; the problem is in the creation of waste. To indeed live in a zero-waste, circular economy, we must refuse and take less. The more people consume, the more waste people generate. Waste is a massive contributor to global warming because landfills emit the greenhouse gas methane, which is 25 times more potent than carbon dioxide (citation). Even though living with zero waste is difficult, it is not impossible. Some individual consumers are demanding zero waste packaging and bulk food purchasing. Through their demand, there is an increase in bulk food grocery stores that sell food without plastic packaging. There is a zero waste movement starting.

Case Studies

In the next section, I will describe two case studies of how researchers effectively used social proof to change consumer behavior to become more eco-friendly. The researchers found social proof to be a stronger influence on behavior than knowledge. The first case study is from Noah Goldstein, Robert Cialdini, and Vidas Griskevicius, titled, “A Room with a Viewpoint: Using Social Norms to Motivate Environmental Conservation in Hotels.” The researchers conducted two experiments: the first tested which messaging prompted the highest towel re-use rate, and the second experiment tested whose social norms we follow the most. The first messaging read, “HELP SAVE THE ENVIRONMENT. You can show your respect for nature and help save the environment by reusing your towels during your stay” (Goldstein, 2008). The first message was a standard environmental message that focused guests’ attention on the importance of environmental protection (Goldstein, 2008). The second message used a descriptive norm message to inform guests that a majority of other guests reused their towel. “JOIN YOUR FELLOW GUESTS IN HELPING TO SAVE THE ENVIRONMENT. Almost 75% of guests who are asked to participate in our new resource savings program do help by using their towels more than once. You can join your fellow guests in this program to help save the environment by reusing your towels during your stay” (Goldstein, 2008). The researcher’s chi-square test revealed that the descriptive norm (second message) yielded a significantly higher towel reuse rate at 44.1% than the environmental protection message, which was at about 35% (Goldstein, 2008). Once the researchers found that respondents are influenced more by descriptive norms, they studied whose social norms they are most likely to follow. In the second experiment, they created five different messages. The first message was a standard environmental message that read “HELP SAVE THE ENVIRONMENT. You can show your respect for nature

and help save the environment by reusing your towels during your stay” (Goldstein, 2008). The second message was a guest identity descriptive norm message that read, “JOIN YOUR FELLOW GUESTS IN HELPING TO SAVE THE ENVIRONMENT. In a study conducted in Fall 2003, 75% of the guests participated in our new resource savings program by using their towels more than once. You can join your fellow guests in this program to help save the environment by reusing your towels during your stay.” The third message was a same room identity descriptive norm message that read “JOIN YOUR FELLOW GUESTS IN HELPING TO SAVE THE ENVIRONMENT. In a study conducted in Fall 2003, 75% of the guests who stayed in this room (#xxx) participated in our new resource savings program by using their towels more than once. You can join your fellow guests in this program to help save the environment by reusing your towels during your stay” (Goldstein et al., 2008). The fourth message was a citizen identity descriptive norm message that read “JOIN YOUR FELLOW CITIZENS IN HELPING TO SAVE THE ENVIRONMENT. In a study conducted in Fall 2003, 75% of the guests participated in our new resource savings program by using their towels more than once. You can join your fellow citizens in this program to help save the environment by reusing your towels during your stay.” The last message was a gender identity descriptive norm that read “In a study conducted in Fall 2003, 76% of the women and 74% of the men participated in our new resource savings program by using their towels more than once. You can join the other men and women in this program to help save the environment by reusing your towels during your stay.” The results revealed that the same room identity descriptive norm yielded a significantly higher towel reuse rate at 49.3%. Guest identity descriptive norm towel reuse rate was 44%, citizens identity descriptive norm at 43.5%, and the gender identity descriptive norm was at 40.9% (Goldstein, 2008). Even more interestingly, surveyors responded that guests of a

particular room were the least important of the five descriptions when asked to rate the importance of each. However, the same room identity descriptive norm yielded the highest towel reuse rate. From the study, we conclude that consumers are more likely to follow descriptive norms of a group of individuals with whom they share the same setting, rather than sharing other social identities.

The next case study also experimented with the use of descriptive norms on lowering thermostats to conserve energy. Researchers Jessica Nolan, Wesley Schultz, Robert Cialdini, Noah Goldstein, and Vidas Griskevicius also conducted two studies. Their first study analyzed the reasons participants saved energy in their homes. Then, in their second study, they used the non-normative reasons for messaging. These were to protect the environment, to benefit society, or to save money. The researchers included a fourth, normative messaging about their neighbors conserving energy. The last message was information control. In conclusion, the researchers found that the normative social influence had a higher impact on resident's conservation behavior. Meter readings that showed a descriptive normative message about the conservation behavior of the majority of one's neighbors influenced people to conserve more energy than environmental protection, social responsibility, self-interest, or information control messages. In combination with the first study, one can conclude that individuals do not believe they are influenced by normative messaging; however, social norms are the strongest influencer in behavior change.

The two case studies are examples of how social norms are the most potent influences in changing consumer behavior to be more environmentally friendly. Therefore, we can apply the strong motivator of social proof to changing consumer behavior towards mindful consumption to decrease environmental harm.

Suggested Approaches for Applying Social Proof to Mindful Consumption

Next, I will provide suggested approaches for how organizations can apply social proof towards each consumer behavior change I have outlined to help create mindful consumption.

1. Buy less

Buying less is the opposite goal of what most businesses want to achieve. However, Patagonia's campaign of "Do Not Buy This Jacket" in 2011 is an example of a business telling their consumers to buy less. REI's "#OptOutside" campaign is also another example of business telling their consumers not to shop. The campaigns were launched before Black Friday for the companies to demonstrate their real values. Both businesses released risky campaigns for their bottom line. However, the risk paid off. The following year Patagonia saw an increase in revenue by 30 percent (Thangavelu, Investopedia). Furthermore, the documentary *Minimalism*, released in 2015, started a movement of living simply with less. Organizations can take advantage of this movement and implement one of the minimalism challenges for their audience to adopt together. As individuals join the movement to become a part of something bigger than themselves, organizations can survey what percentage of their audience identifies with minimalism. Then, the organization can share the results to inform new members what percentage of the existing members live in the same community or shop in the same store. The higher the percentage in an individual's physical proximity, the more likely he will join the movement.

2. Cutting out repetitive purchases

An example of how an organization can use social norms to cut out repetitive purchases is including "bring your own cup" messaging in their marketing. Creating a culture where consumers bring a reusable cup instead of using a disposable cup with their purchase will establish a norm of bringing your own cup, which will influence newcomers to bring their own

cup as well. Furthermore, companies who sell reusable items can include statistics about the number of consumers who own the specific reusable item. For example, Lunette can state on their website, “53% of women use a menstrual cup for their periods.” Alternatively, PSU Eats can state “75% of student commuters bring food in reusable containers” at the dining tables and then provide reusable containers to sell. Similarly, a grocery store can state “90% of our customers use a reusable water bottle” and then sell reusable water bottles with a station to fill up the bottles.

3. Downsizing

Realtors selling small living spaces such as studios, accessory dwelling units, or communal living spaces have the opportunity to use social proof to attract customers. First, they can share the proportion of the neighborhood population living in smaller spaces. Realtors can receive the information from acquiring the total population number of a neighborhood from their local government census. Next, they can count how many 700 square feet and smaller units there are and how many of them residents occupy. Then, they can share the statistic of what percentage of the neighborhood lives in smaller spaces to new movers. For example, Pearl District realtors in Portland can share what population of the Pearl District live in spaces 700 square feet or smaller. If the proportion is high, then it may sway the decision of movers to downsize if they are undecided. Realtors and leasing offices can share the information on their websites and inside their office. The best time to share the information is when customers are looking for new housing. Furthermore, through conducting a survey, they can compare happiness levels of those living in small spaces to those living in big spaces.

4. Go Vegan

Since the majority of the population is not vegan, vegan cafés can attract more customers by sharing which percentage of one's neighbors eat a vegan/vegetarian meal a day. They can survey their customers' geographic information since physical proximity is the strongest identity influencer in social proof. Then, the café can display the neighborhoods with the highest vegan population inside their store so new customers can become influenced. If the new customer is from the same high vegan eating population neighborhood, then the likelihood of her coming back will be higher. In addition, the café can share the survey results on their social media to influence new customers who are in the searching stage of decision making. It's important to note, with the transition to becoming a cashless society, restaurants and business owners may already have their customer's geographic information on data from their credit card.

5. Collective Ownership

Public transportation services, bike companies, and ride services can state the percentage of the local population who do not own a car. Also, public transportation services and bike companies can state what percentage of the commuter population commutes by bike or public transport. Ride services can influence consumers to not own a car by sharing the percentage of local residents who use Uber or Lyft. Furthermore, new startup companies providing the use of products as a service instead of ownership can let new members know how big their community of users is.

6. Buy second-hand

Second-hand stores can provide a percentage of how much of their target market in the neighborhood shops at the store so new customers will be more willing to come back. The stores can acquire the percentage through credit card transactions of the customer's zip code. If the

same place identity does not produce a high number, then the store can use gender identity or age identity. For example, if their highest age of customers are millennials, then they can state “61% of our customers are millennials,” to attract more millennials to buy second-hand. Stores can collect customer information through big data or surveys. Then, the stores would implement the messaging inside their store and online marketing. To attract customers, customers must view buying second-hand as normal. Therefore, a description about the customer’s neighbors will influence the customer to come back because the customer wants to feel like he is a part of the community.

7. Buy Eco-Friendly

Since location is the strongest influencer of social proof, companies and industries can state what percentage of their consumers, split up by geographic statistics, that buy products made from 100% recycled material, organic cotton, hemp, or Bluesign technology. Furthermore, since Patagonia and Prana are leading companies in creating eco-friendly apparel, the athletic and outdoor industry can state the percentage of consumers who buy from either company segmented by a city. The closer the physical location, the stronger the influence as well (Goldstein, 2008). In the food category, grocery stores can state what percentage of the neighborhood buys organic or local food. The stores can retrieve the percentages from credit card transactions since zip codes are stored and match the corresponding organic food purchases. Then, grocery stores can share the message inside their stores on a display print near the cash registers, so new and existing customers see the message.

8. Buy Local

Existing B corps can have social proof messaging in their store and online channels on what percentage of a neighborhood shops at their local store. Each B Corp can access their

customers' zip codes from credit card transactions and then use census data from their local government for the total population to find the percentage. In the category of food purchasing, grocery stores can state what percentage of customers buy produce within a 150 miles radius. New Seasons states the origin on various products. Through acquiring data from credit card transactions, the store can state what percentage of their customers buy the product with local origin next to the product. When making a purchase decision, the descriptive norm will influence future shoppers to be more likely to purchase products with local origin.

9. Zero Waste

For zero waste, grocery stores can state what percentage of shoppers based on neighborhood segmentation use reusable bags and reusable containers. The store can also retrieve the zip codes from credit card transactions. The grocery stores can display the message next to the reusable bags and food dispensers to encourage positive behavior instead of shame negative behavior. Since waste collection services already have the data, they can let residents know what percentage of their neighbors recycle or compost. The message can be shared on their customers' online accounts and with a request of joining a compost program or joining a recycling program if not already a part of it.

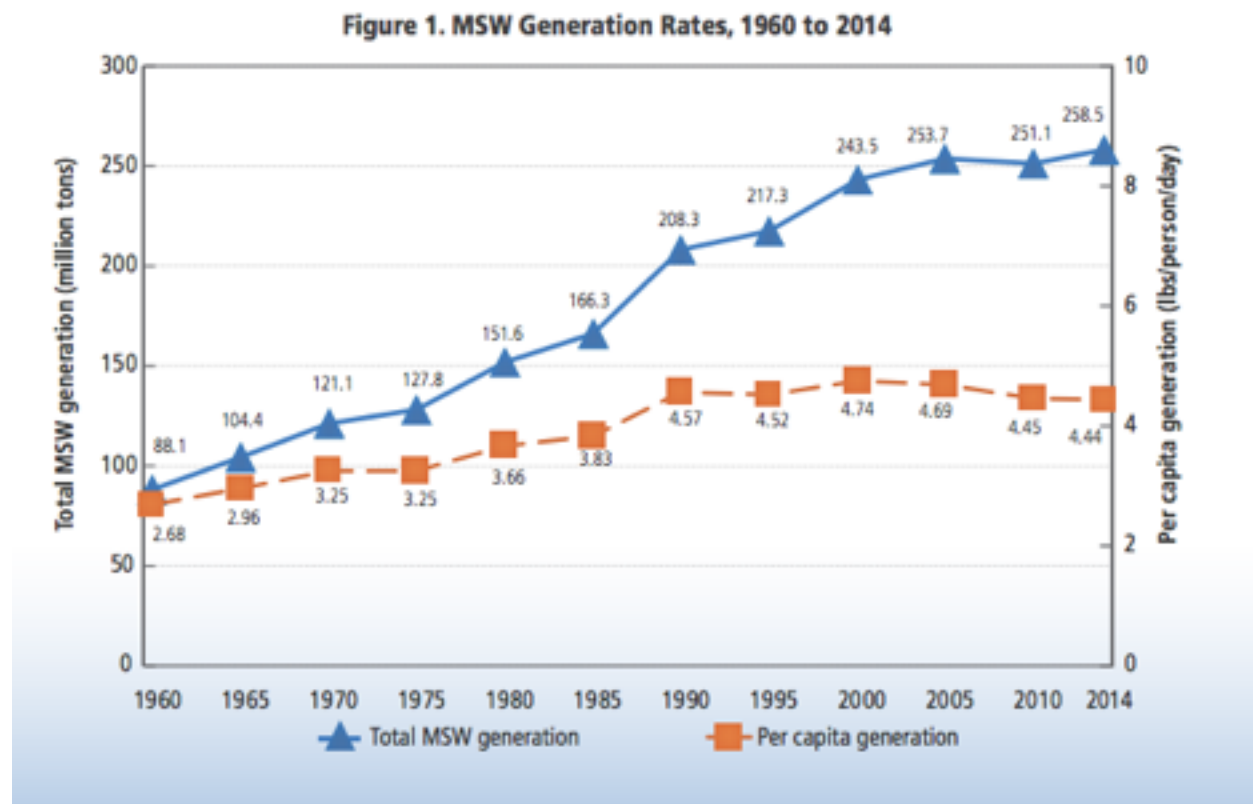
These suggestions are intended to be used to spark inspiration for an organization. Overall, using social proof means creating a norm for a particular behavior to influence others to perform the behavior. Organizations are appealing to the consumer's need for social being and wellness, which is a benefit for the consumer (Ramirez, 2010). At the individual level, individuals have the most considerable influence on their friends by their actions. Individuals would not necessarily share statistics with their social circles but instead, share norms of new

behavior. Social proof is the phenomenon the people follow behaviors of the crowd (Cialdini, 2011). Therefore, individuals can adopt the mindful consumption practices and do them around their circles of influence. The individual may seem small and significant, but the collective impact multiplies.

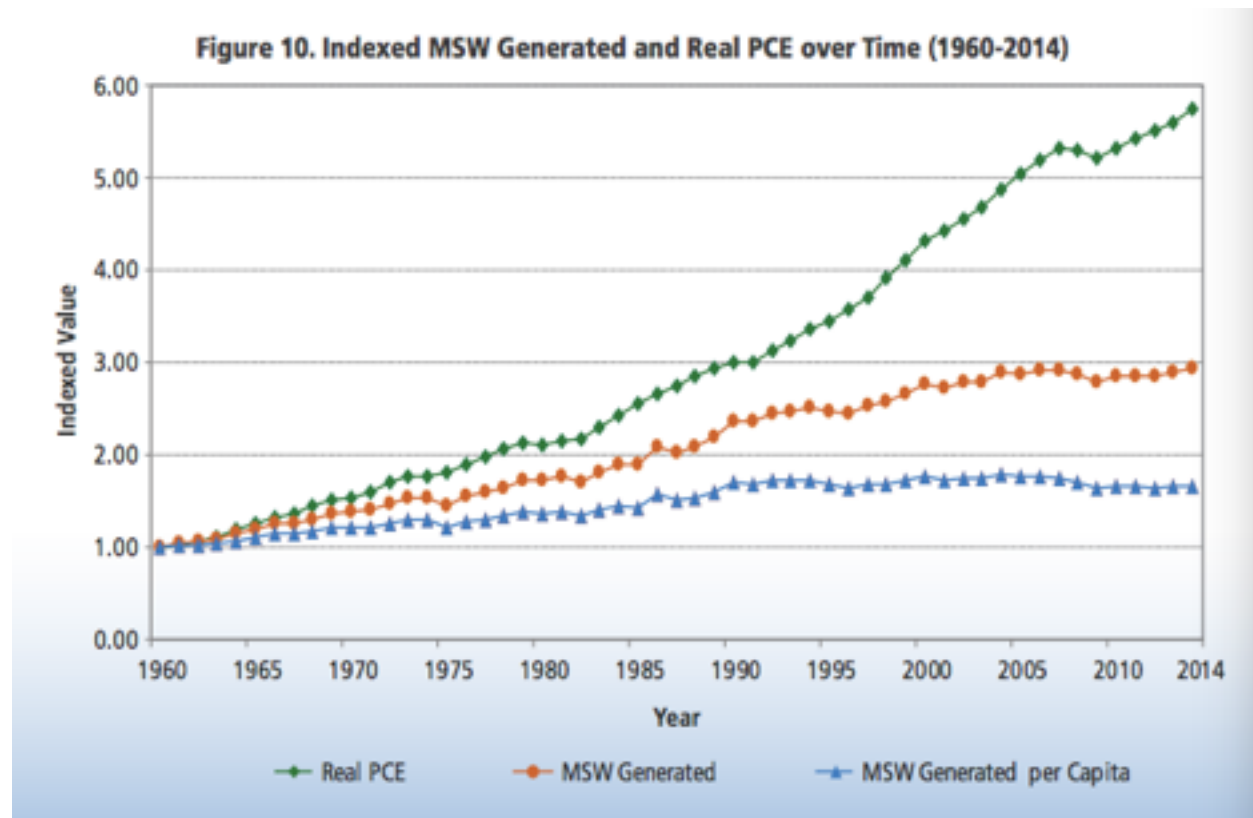
Impacts of Changing Consumption Behavior

The direct impact of changing consumer behavior is the personal benefit for the consumer. Ramirez et al. include four personal consumer benefits of mindful consumption. They are: saving money, increasing one's well being, fulfilling the social need to be a part of a community, and personal transformation (2013). An example of saving money through the adoption of sustainable consumption is buying a hybrid car that allows the driver to spend less money on gas. Eating organic food free from chemicals and toxins found in pesticides is an example of increasing one's well-being through sustainable consumption. Mindful consumption can benefit one's social needs by providing a community of people with similar lifestyles and similar values. Lastly, the benefit of personal transformation is being a part of something bigger than oneself and "answering a higher calling" (Ramirez, 2013). Transformation is the connection with responsibility, a higher power, or a greater good (Ramirez, 2013).

The indirect change of consumer behavior towards mindful consumption is a decrease in waste generation which reduces methane emissions and overall energy use and harmful exploitation of resources. Since 2000, the per capita generation of total municipal waste has been slowly decreasing, from 4.74 lbs per person/day to 4.44 lbs (Figure 1, EPA, 2014). However, the total municipal waste has been increasing since 1960. Population increase can be one attributable reason for the opposing trends since 2000. As population increases, the average generation of



waste per person levels out. Next, the percent recycled and composted from the total waste generation has been increasing since 1960 (EPA). The recycling and composting percentages were at 34.6% in 2014 (Figure 2, EPA, 2014). 12.8% of the municipal solid waste (MSW) was combusted with energy recovery (EPA). The rest of the 52.5% was thrown into the landfill (EPA). The benefit of recycling and composting 34.6% of the municipal solid waste (89 million tons) is equal to “removing the emissions from over 38 million passenger vehicles from the road in one year” (EPA, 2014). Also, “recycling and composting over 89 million tons of MSW saved over 1.1 quadrillion BTU of energy in 2014. That’s the same amount of energy consumed by over 25 million U.S. households per year” (EPA, 2014). Another positive trend in consumer behavior is although personal consumption expenditures have been increasing (adjusted for inflation), MSW waste generation has become stagnant (Figure 10, EPA, 2014). The trend



reveals consumers are generating less waste even though they are spending more money on goods and services. The previous statistics are positive and hopeful trends in consumer behavior. The direct and indirect impacts of changing consumer towards mindful consumption are personal benefits and environmental benefits.

Conclusion & Implications

Using social proof to change consumer behavior towards mindful consumption to decrease environmental harm is the most powerful tool of influence. Social proof also has the potential to reach a new group of consumers who may not have environmental and social reasons to change their consumption practices. Businesses and organizations who have a sustainability mission can use descriptive norms in their marketing messaging to increase their audiences' environmentally-friendly behavior. The nine behaviors of mindful consumption are: buying less,

cutting out repetitive purchases, downsizing, eating vegan, collectivizing ownership, buying second-hand, buying locally, buying eco-friendly, and living zero waste. Consumers will see a personal benefit in saving money, increasing their well-being, fulfilling their social needs, and a personal transformation. Consumers will have a positive indirect impact on the environment by reducing their carbon and ecological footprint in a time of ecological crisis through mindful consumption. Further studies can test which mediums are best to use for normative messaging to consumers and the indirect impacts of each mindful consumption behavior on the environment.

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