

The Sustainability Movement and Its Effects on the Trends of Beauty Product Packaging

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Abstract

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The purpose of this study is to examine industry professionals' standpoints along with consumer demands and expectations pertaining to sustainable packaging, materials currently used in beauty product packaging, and advances in emerging trends within this sector. Using the information derived from these examinations, this study will predict the industry's future direction and identify how the industry leaders should change in order to adapt their business practices to remain competitive and profitable within the industry.

This study made use of several research methods to gain insight on the impacts that the sustainability movement has had on the beauty and health packaging sector in order to predict where it will take the industry in future years. Through the use of historical research, elite and specialized interviews and content analysis, this study was able to draw various significant conclusions pertaining to the current trends of implementing environmental strategies into companies' long-term business plans, reducing the overall amount of packaging and materials used, evolutions in plastic sciences, and the integration of virtual and interactive media into product packaging to communicate a company's sustainability efforts.

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Chapter 1: Introduction and Purpose of Study

Over past years, trends in emerging human practices, technologies and lifestyles have given rise to a number of revolutions, solutions, and universal changes that have altered the communities, industries and overall world that supports human life. Meanwhile, the state of health in which the Earth exists has suffered detrimental side effects, such as global warming, depletion of natural resources, energy consumption, climate changes, and an increased demand for landfill space, as a result of the major changes of this generation. With rising knowledge of the Earth's current state, which requires serious human lifestyle changes in order to remain a safe environment for human life in the future, attempts to reverse these detriments to the greatest degree possible while simultaneously making ground for a safer, more secure future for the planet have been made. This revolution, described by Dr. Robert C. Gilman, Ph.D. (2000) as the "Sustainability Movement" includes, "a number of researchers, innovators and activists who have taken a whole-systems approach to the challenge of developing human systems, technologies and ways of life that can provide high quality and environmentally benign lifestyles for all humankind, now and for all generations into the future" (p.1).

Along with the Sustainability Movement has come increased awareness of the effects that a multitude of human lifestyles, practices and behaviors have had on the Earth, resulting in a global concern with the future of its sustainability. While there are several valid definitions of the word "sustainability" and all that it entails, the United States Environmental Protection Agency's description encompasses a comprehensive meaning noted as (EPA,

2011), “Sustainability creates and maintains the conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations” (p. 1). With the goal to increase sustainable responsibility and reduce environmental harm, people have made efforts to change their lifestyles and practices to better the state of the Earth’s health, whether their actions be industry-related or for personal purposes. A recent example of this can be seen in the health and beauty consumer products industry’s movement toward embracing sustainable packaging practices.

According to *Natural Cosmetic News*, health and beauty products have long been burdened with the reputation of using non-environmentally friendly business practices. However, with the growing impact of the Sustainability Movement, this industry has become increasingly aware of the urgent need for change. With a focus on the evolutions that have already been noted in this area, such as reducing packaging waste, using recyclable materials in product packaging, eliminating the use of harmful chemicals in product packaging, becoming United States Department of Agriculture organic certified, and constructing packaging out of 100 percent post-consumer waste materials, this study asks the question: What are the Sustainability Movement’s impacts on the trends of the health and beauty products industry’s packaging sector?

The growing trend of environmental awareness within beauty and health products has given rise to a new niche in beauty product manufacturing, as well as its packaging. Organic and natural beauty products are unquestionably on the rise as the beauty industry continues

to focus on sustainability by developing clear and effective environmental policies for their products. This trend, however, has led to an entirely new phenomenon known as “Greenwashing,” where, as noted by Jorge Izquierdo, Vice President of Market Development, PMMI (Packaging Machinery Manufacturers Institute), “in an attempt to appeal to the growing audience interested in sustainably produced products, brands make vague or misleading ‘green’ claims about their products” (Falk, 2010, p. 3). This tendency has in turn lead to the need for beauty product companies to prove their dedication to environmentally friendly practices by committing to sustainable sourcing throughout their product’s entire life cycle – which ultimately includes the product’s packaging. In order to overcome the trend of greenwashing and keep up with the sustainability movement, the beauty product packaging industry is discovering and implementing deeper efforts to maintain environmental responsibility, allowing them ensure that their sustainability efforts are secure and free of greenwashing.

By monitoring the current trends of beauty product packaging in conjunction with the efforts of the sustainable movement and its impact on consumers, manufacturers and brand owners, this study will identify the direction in which the state of sustainable beauty product packaging is moving. The purpose of this study is to examine industry professionals’ standpoints along with consumer demands and expectations pertaining to sustainable packaging, materials currently used in beauty product packaging, and advances in emerging trends. Using the information derived from these examinations, this study will predict the

industry's future direction and identify how the industry leaders should change in order to adapt their business practices to remain competitive and profitable within the industry.

Chapter 2: Literature Review

There has been an increased awareness of the negative environmental impacts that product packaging has had. Energy consumption, greenhouse gas emissions, natural resource depletion, pollution of waterways, climate changes as a resultant of manufacturing and incineration of plastics, increased demand for landfill space for packaging wastes, depletion of raw materials, and crude oil consumption are the focus of these impacts (Hwang, 2007, p. 1-16). The cosmetic industry's packaging's relationship with these issues is becoming more evident as the production, composition and distribution of its products continue to contribute directly to a multitude of these negative environmental impacts. The cosmetic industry is known for using excessive amounts of materials in its packaging, resulting in an increased amount of landfill space needed for its waste. Furthermore, a significant amount of energy input is required in the production, manufacturing and transportation of packaging materials, leading to a large amount of energy and natural resource consumption, as well as the emission of harmful pollutants and greenhouse gases into the atmosphere (Hwang, 2007, p. 1-16). These issues increase the demand for more environmentally conscious business practices within the cosmetic industry's packaging sector.

With the struggle that brands have had to prove their commitment to sustainable practices, industry leaders are beginning to understand the extent to which their efforts for environmental responsibility must be made. The revelation of greenwashing has led to the need for brands to prove their commitment to sustainable practices throughout their products' entire lifecycle, which ultimately includes the products' packaging. As noted by

Nina Lewis, head consultant for the beauty division of data researcher Mintel, “We will see beauty companies placing increased importance on the environment, and a renewed emphasis on repackaging to minimize waste will also be a factor” (Doyle, 2011, p. 1). Dennis Bacchetta further notes that, “a growing number of companies have addressed the sustainability movement by reviewing their product packaging – including graphics, structures, and choice of materials. Many consumer product companies have become educated on sustainability and have refined their packaging to become more eco-friendly without significantly altering the brand image. Rather, they have adapted their positioning to become more ‘eco-conscious’ or responsible” (Falk, 2009, p. 2).

Leaders of the beauty product packaging industry are beginning to make the standards for quality equal to their standards of environmental responsibility, prompting a major shift within the industry. Viewing sustainable packaging as a long-term opportunity, cosmetic packaging industry leaders are also increasingly incorporating sustainability initiatives into their long-term business plans, ensuring that their sustainability efforts will continue to grow over time. Furthermore, in order to prove their sustainability efforts as genuine, cosmetic packaging industry leaders are moving away from simply displaying their environmental responsibility with visual elements and gravitating toward quantifying results of their efforts to provide concrete evidence of their positive environmental impacts (Falk, 2010, p. 1-3).

When asked to describe the primary global trends across industries, markets and sectors that have impacted how and what packaging companies have created, Tom DiPietro, vice president, Research & Development, DayGlo notes, “sustainability has become less of a

trend and is now an integral way of conducting business” (Falk, 2010, p.3). Answering the same question, Sandy Nagel, co-owner and vice president, Library and Materials Research, Material ConneXion notes, “We expect this issue [sustainability] to become increasingly important as advances in plastics science helps our industry become greener and cleaner” (Falk, 2010, p. 2).

Evolutions in plastic science have introduced several innovations for sustainable cosmetic packaging, including the use of recycled PET (polyethylene terephthalate) materials, bio-based PCR (post-consumer recycled) packaging methods, PLA (polylactic acid) materials, PCR HDPE (post-consumer recycled and high density polyethylene) packaging methods, and recyclable aluminum materials. According to *Premium Beauty News*, a new thermoplastic resin entitled Gaïalène, which is obtained from starch and biosourced at a minimum rate of 50 percent, contains no GMO (Genetically Modified Organism), recycles well and has a lower carbon footprint than various other plastics, will be introduced to the cosmetic packaging industry this year. Gaïalène resin is able to be used for extrusion blow molded bottles and injected parts and also allows for the manufacturing of 40 micron thin shrink films for multi-packaging solutions (Premium Beauty News, 2011, p. 1).

Because Gaïalène plant-based resin is produced using a starch grafting process, it has unique properties including low density, low melting temperature, and natural antistatic characteristics. These resins are derived from plants that are annually renewable, produced locally in Europe, and are GMO free. The resins fix and store carbon dioxide from the atmosphere, reduce carbon dioxide emissions, and have a carbon footprint of at least 40

percent less than fossil polymers commonly used in packaging materials. Furthermore, Gaïalène films and packaging's solutions help conserve scarce oil resources and are able to be recycled into a new raw material or green fuel ("Bioplastics - thermoplastic," 2011). As advances and innovations such as these continue to be introduced to the cosmetic product packaging industry, a growing number of alternatives are being presented to incorporate environmental responsibility into packaging design.

Rebecca Holland, marketing director, Kaufman Container Company, gives insight to the demand for environmental alternatives in the packaging design process noting, “sustainability is a large factor in terms of packaging selection. We want to offer many options for our customer on this front – from PCR (post-consumer recycled) to lighter gram weight to decorating techniques or helping with logistics – and we are always willing to explore ways to make their packaging more environmentally conscious” (Falk, 2010, p. 3). Taking these factors into serious consideration, leaders of the packaging industry have embraced the practice of incorporating sustainable alternatives in the materials going into the packaging design, such as papers, plastics, inks, coatings, and foils.

An example of a company that effectively implements environmentally cautious alternatives into their packaging processes can be seen in Diamond Packaging's “Diamond's Greenbox Initiative.” This program provides sustainable packaging solutions to the product packaging industry by making use of guaranteed environmentally friendly paperboard materials, a variety of standard and specialty inks and coatings made specifically for

environmental considerations, and several innovative solutions for sustainable decorations that maintain the high quality aesthetics demanded by the packaging industry.

Diamond's Greenbox Initiative's Mirafoil is an example of a solution that delivers high quality sustainable packaging decoration through its economical, in-line alternatives to film and foil laminates. Environmental benefits of this product include the replacement of film and foil laminates that are difficult to recycle with environmentally-friendly coating that uses no heavy metals, resulting in the use of less material and energy and higher recyclability. Mirafoil also provides full recyclability through de-inking processes, as well as reduced waste through spot-applied metallic effects. To create the metallic look in a more environmentally friendly process, Diamond uses inline processes that create high-gloss, holographic finishes through the use of ultra violet coatings and specialty film. Furthermore, because there is no transfer of film onto the substrate, the film can be used multiple times before needing to be replaced ("Diamond's Greenbox Initiative," 2011).

The use of Mirafoil also has economic benefits, including elimination of difficulties with off-line lamination or foil stamping such as additional transportation and warehousing, as well as reduced converting steps. According to a case study overviewing the use of Mirafoil in the packaging for Gillette Fusion Proglide men's razor blades, the conversion from the use of foil-laminated board to the use of Mirafoil resulted in shorter lead times and reduced costs overall ("Diamond's Greenbox Initiative," 2011).

While incorporating sustainable practices into the materials and design of product packaging is important, other factors pertaining to the manufacturing process are be

considered as well. Johnson & Johnson, one of America's leading consumer packaged goods manufacturers that produces some of today's most popular cosmetic and personal health product packages, has set an excellent example of how to transform into a more ethical and environmentally conscious business through its Health Planet 2010 Goals. Johnson and Johnson's Health Planet 2010 Goals are a set of manufacturing targets focused on carbon reduction, water use, paper and packaging, waste reduction, and compliance and external manufacturing (Casey, 2011, p.1). Introduced in 2006 by Johnson & Johnson, the Health Planet 2010 Goals set out to protect the environment and natural resources through the use of more environmentally responsible business practices, and the company has since been evaluated on its performance on its paper and packaging goals.

As noted by Linda Casey (2011), "Johnson & Johnson has achieved significant polyvinyl chloride (PVC) reductions, 100 percent reduction in secondary and tertiary PVC packaging in Medical Devices and Diagnostics (MD&D), 78 percent reduction in secondary and tertiary PVC packaging in pharmaceuticals, and 87 percent reduction in primary, secondary, and tertiary PVC packaging in consumer products, while 99.6 percent of all consumer product packaging is now PVC-free" (p.1). Furthermore, Casey notes (2011), "97 percent of packaging and 92 percent of office paper contain more than 30 percent PCR content or fiber from certified forests" (p.1).

Johnson & Johnson's efforts for PVC reduction are significant because, although it is one of the most widely used plastics in consumer products, it is also one of the most controversial. As noted by Michael Belliveau, and Stephen Lester in their report, *Bad News*

Comes in Threes - The Poison Plastic, Health Hazards and the Looming Waste Crisis, “PVC disposal is the largest source of dioxin-forming chlorine and hazardous phthalates in solid waste, as well as a major source of lead, cadmium and organotins” (p. 9). Dioxins are defined by Belliveau and Lester as, “a family of highly toxic chemicals that are known to cause cancer, reproductive, developmental and immune problems” (p. 9). Furthermore, there are several problems associated with PVC and landfills, as well as complications in recycling caused by PVC materials. For example, when placed in landfills, many PVC additives, such as heavy metals and phthalates, leach out of PVC over time, leading to the contamination of ground and surface water. In addition, due to the use of toxic additives incompatibility with other recyclable plastics, products made of PVC material are not only very difficult to recycle, but also make the process of recycling other materials a challenge. As industry leaders such as Johnson & Johnson, as well as these companies’ consumer bases, become more aware of the threats that toxic materials such as PVC pose to the sustainability of the earth, serious plans of action to eliminate the use of these materials are being devised and put into play.

With the acknowledgement of the changes that the sustainability movement demands from the cosmetic industry, leaders of the industry have made the effort to understand the ways in which this change of direction will impact consumers’ buying patterns in order to optimize consumer growth. Discussing the emphasis that is currently being placed on environmental awareness across several industries, Jeff Falk, writer for *Global Cosmetic Industry Magazine* notes (2009), “Brands found that packaging fitting this criteria had broader appeal to a wider consumer base, and at the same time, it is also a competitive proposition as

more natural and organic products can be found on shelves at mass retailers and are drawing the attention of a growing number of consumers” (p. 1). Falk also notes that according to the article, “Retails Natural Revolution” Aveda, a widely known skin care, hair product, cosmetics and perfume manufacturing company, found that 68 percent of consumers would remain loyal to a company that has a social and environmental commitment (Falk, 2009, p. 1). Dennis Bacchetta, Director of Marketing, Diamond Packaging, further notes that, “As consumers become more aware of the term ‘sustainability’ and what it means to them, they will likely expect their favorite brands to adopt an environmentally friendly approach with regard to their product and its packaging” (Falk, 2009, p. 2).

With a greater understanding of the value that consumers hold in environmentally friendly products and business practices, industry leaders are beginning to emphasize the importance of conveying a message that represents a brand’s commitment to sustainable practices in order to generate a larger consumer base and maintain consumers’ loyalty. When asked to explain which consumer demands or expectations from packaging are anticipated to continue to impact packaging, Tom Dipietro notes, “Consumers will absolutely continue to seek environmentally responsible packaging, and that means in increased use of recycled or compostable materials, decreased packaging sizes, and a greater accountability of suppliers to cosmetic and personal care product manufacturers,” (Falk, 2010, p. 4). Marny Bielefeldt, marketing director, Alpha Packaging, further notes, “Smart brand owners will incorporate environmental messages in their packaging and marketing materials so consumers can

understand why their bottle or decorating method is better for the environment than other packaging” (Falk, 2010, p. 5).

While several cosmetic brands are following the trend of incorporating environmentally friendly messages into their packaging and marketing, it is not to say that each brand’s commitment to sustainable practices is necessarily credible. This leads to the issue of greenwashing, which has become a serious concern in sustainable packaging. With an overwhelming amount of brands’ eco-friendly claims about their products, lines between true sustainable practices and mere pronouncements of environmental responsibility are becoming blurred, leading to increased consumer confusion and skepticism about these brands’ claims. According to *PR Newswire* (2011), 51 percent of American consumers are overwhelmed by the amount of environmental messages in the marketplace, and 57 percent of American consumers are distrustful of companies’ environmental claims. Furthermore, 59 percent of American consumers say it is only acceptable for marketers to use general environmental claims when they are backed with additional detail and explanation, while 79 percent of these consumers want detailed information readily accessible on product packaging (p. 1). With the current circumstances of greenwashing and consumer criticism, brands are beginning to strengthen their environmental policies to prove their commitment to sustainable practices.

An example of a major initiative to reach consumers through displaying their genuine commitment to sustainable practices can be seen in Wal-Mart’s implementation of its worldwide sustainability index. With a goal to develop a system that ranks the sustainability of all products sold in Wal-Mart stores, the plan requires that all product labels include a

sustainability ranking, which will ultimately help customers standardize their determination of how environmentally friendly a product is. Wal-Mart's sustainability index will require suppliers to provide details around four areas, including energy and climate, material efficiency, natural resources, and people and community (Harrington, 2009, p. 1). Encompassing the entire lifecycle of the products, including packaging, the sustainability index is a corporation-wide effort to eliminate greenwashing and establish a permanent environmental responsibility within the company (Kwok, 2009, p. 1).

Wal-Mart's sustainability index will not only transform the ways in which suppliers manufacture their products to become more environmentally responsible, but also the ways in which these products are viewed by consumers as they decide which products they want to buy. The sustainability index will provide consumers with a simple process to understand which products are more environmentally friendly, allowing them to make choices based on their personal goals for protecting the environment. Consumers who are taking an active role in the sustainability movement will be led to purchasing products that rank highly in the sustainability index, which will motivate industry leaders to actively increase environmental responsibility, especially in the packaging of their products.

Wal-Mart's sustainability index serves as an excellent example of how and why industry leaders are changing to adapt to the evolutions brought on by the sustainability movement. Quoting a report done by Marc Gunther, Brian Merchant notes that the index (2009), "has the potential to transform retailing by requiring manufacturers of consumer products to dig deep into their supply chains, measure their environmental impact, and

compete on those terms for favorable treatment from the world's most powerful retailer" (p. 1). Wal-Mart's sustainability index addresses the needs of several areas, including not only the planet's environmental health and the need to preserve it through reducing waste, energy consumption, and depletion of resources, but also the areas of competition within the cosmetic packaging industry, as well as consumer preferences and needs. Introducing an entirely new area to compete under, the index provides motivation for brands to produce truly environmentally friendly products with sustainable packaging, as the index requires each product to undergo an intense life cycle analysis in order for the product to be sold at Wal-Mart (Merchant, 2009, p. 1).

As industry leaders continue to research upcoming trends and innovations in the realm of sustainable packaging, the necessity of a greater effort to join the sustainability movement becomes clearer. Leaders of the cosmetic industry are now aware of the shift toward sustainable packaging and are preparing to adjust their practices to adapt to these changes. Noting that sustainable packaging is not only an opportunity for growth, but also a chance to improve the overall social responsibility of their businesses, industry leaders are becoming increasingly willing to contribute to the sustainability movement's efforts by incorporating sustainable methods into the packaging processes of their products. With the insight on this issue given by several industry leaders noted in this chapter, it is evident that the sustainability movement has had a major impact on the packaging sector of the cosmetic industry, and will continue to significantly shape the way in which it evolves in the future.

Chapter 3: Research Methods

The purpose of this study is to examine industry professionals' standpoints as well as consumer demands and expectations pertaining to sustainable packaging, materials currently used in beauty product packaging, and advances in emerging trends. Using the information derived from these examinations, this study will predict the ways in which the beauty product packaging industry will interpret these elements in conjunction with the trends of the sustainability movement to be successful in future endeavors. To explore these issues, a combination of elite and specialized interviewing, historical research, and content analysis was used.

Elite and specialized interviewing is a research method that involves asking open-ended questions to industry leaders who are driving the perception of technology. As noted by Harvy Levenson in his account, *Some Ideas about Doing Research in Graphic Communication* (2001), studies conducted with elite and specialized interviewing should include, "precise, open-ended questions, but questions that are open to refinement as the research and interview continues" (p. 26). Levenson notes that Lewis A. Dexter, a famous communication theorist who developed the elite and specialized interviewing method, made the focus of his premise, "that people who perceive themselves to be important must be interviewed differently than the 'average person on the street' in maximizing the collection of useful information in applied research" (p. 26). In other words, when questioning industry leaders, the interviewer should treat each interviewee specially with the assumption that they are a distinctive and important

individual who should be set aside in a different category from the average person in order to optimize research results (Levenson, 2001).

Historical research is defined by Levenson as (2001), “an attempt to establish facts and arrive at a conclusion concerning past events” (p. 28). In order to perform effective historical research, the researcher must gather, evaluate and interpret evidence in a systematic and objective manner. Levenson notes that from this evidence, the researcher should be able to display how past experience can help contribute to a further understanding of present situations, as well as what may occur in the future (Levenson, 2001, p. 28).

Content analysis is noted by Levenson as (2001), “a method for quantifying qualitative information gathered from elite and specialized interviewing, historical research, and descriptive research” (p. 32). The purpose of this research method, therefore, is to use it in combination with other research mentions to develop results and draw conclusions from these results. Using this method allows researchers to take their qualitative evidence and transform it into a measurable result (Levenson, 2001. p. 33).

Elite and specialized interviewing was the first research method used. I gained interviews from professionals within the beauty and health products and packaging industries. To conduct this portion of my research, the professionals that I interviewed included Ron Sasine (Senior Director of Packaging, Wal-Mart), Chet Rutledge (Director of Packaging, Wal-Mart Private Brands), Kevin Karstedt (Research, Consulting & Results, Karstedt Partners, LLC.), Dr. Jay Singh (Professor and Packaging Program Director, California Polytechnic State University, San Luis Obispo), Mike Ferrari, (Retired P&G Global Printing and Decorating

Director, current Consultant, HP Indigo), and Danielle Jerschefske (North American Editor, *Labels & Labeling*).

The questions that I asked during the elite and specialized interviewing process were based around concepts including global trends in the cosmetic packaging industry, consumer demands, expectations, purchasing behavior and loyalty, future evolution of the cosmetic packaging industry, and emerging technologies in the packaging industry. Through these interviews, I was able to obtain important information to validate my research question. In each interview, I asked broad and open-ended questions related to my research question, including:

- What are the global trends that influence your products' packaging/packaging solutions?
- How do you monitor/realize consumer demands and expectations? Do you expect these to continue to affect beauty and health product packaging in the future?
- What are the most recent and popular techniques used in product packaging to intrigue customers, keep their attention and maintain brand loyalty?
- How do your products/packaging solutions impact purchasing behavior? How is this reflected in sales numbers?
- How has greenwashing affected the cosmetic packaging industry?
- How do you define environmental responsibility?

- What emerging trends have you noticed in the cosmetic packaging industry?
What about fading trends?
- What do brand owners view as most important to consider in cosmetic product packaging?
- What are some prominent emerging technologies in the packaging industry?
How are these technologies being applied to the cosmetic packaging industry specifically?
- What messages are brands trying to convey through packaging?
- How do the contents of your products affect the packaging decisions?

The second method employed was historical research. This method allowed me to extract facts from the past, as well as information from current affairs, that helped me gain insight and perspective on trends within the cosmetic packaging industry.

The articles that I used for this portion of my study include, “State of Packaging” and “Sustainable Packaging – a Value Proposition” by Jeff Falk, “A Deeper Shade of Green” by Lisa Doyle, “Johnson & Johnson Reports on Sustainable Packaging Progress” by Linda Casey, “Wal-Mart Sustainability Index to Put Suppliers Under Spotlight” by Rory Harrington, “Wal-Mart’s sustainability index: The greenest thing ever to happen to retail?” by Brian Merchant, “Cosmetic packaging: Natural Plastic Resins are Emerging” by William Hitchon, “Unpacking the Packaging Problem: An International Solution for the Environmental Impacts of Packaging Waste” by Billy Hwang, “Opening lines: Who’s the Greenest of Them All?” by Jennifer Kwok, “Green Products” from *Cosmetic and Personal Care Packaging Magazine*, and

“Americans Value Honesty Over Perfection in Environmental Marketing” from *PR Newswire*.

From these sources, I was able to gain solid information on the present and predicted future trends of the cosmetic product packaging industry and how the sustainability movement will come into play with these trends.

Specific information that I researched research regarding the present trends of the cosmetic packaging industry include current global and marketing trends within the cosmetic packaging industry, current concerns for environmental protection, recent innovations being introduced to the cosmetic packaging industry, present consumer demands related to cosmetic product packaging, and emerging organic beauty product companies. With this information, I was able to relate current trends within the cosmetic packaging industry to past occurrences in order to determine the effects that the sustainability movement has had on the trends in cosmetic packaging, and how these effects have led to changes that shape the industry today.

After collecting information pertaining present trends within the cosmetic product packaging industry, I then moved on to searching for information on predicted future trends of the industry. For this section, I searched for data and information pertaining to forecasted developments, emergences in technologies, detriments to the environment, and potential methods to protect the environment and maintain environmental responsibility as related to the cosmetic packaging industry. With this information, I was able to gauge the predicted impact that the sustainability movement will have on the future of the cosmetic packaging industry.

The final method that I used for my study was content analysis. This research method helped me to quantify the qualitative information that I derived from the elite and specialized interviewing and historical research in order to draw conclusions. In order to express the qualitative results gathered from my elite and specialized interviews numerically, I asked questions during the elite and specialized interviews that prompted responses that could be categorized in separated sections so that I could classify each answer and tally the results in order to define which areas are most prominent. A complete list of the categories that the answers fell under can be seen in Appendix A.

Chapter 4: Results

With the rise of the Sustainability Movement, there has been a growing concern for upholding sustainable business practices in the health and beauty products industry, which includes ensuring the environmental friendliness of packaging used for these products. The purpose of this study is to examine industry professionals' viewpoints along with consumer demands and expectations pertaining to sustainable packaging, materials currently used in beauty product packaging, and emerging trends within the beauty products' packaging sector. Using the information derived from these examinations, this study will predict the ways in which the beauty product packaging industry will interpret these elements and join the sustainability movement to stay up-to-date with current industry changes in order to be successful in future endeavors.

The research methods used to gain this information included an analysis of historical research taken from several professional publications, as well as the process of interviewing multiple industry professionals within the fields of packaging, printing and decorating, labeling, and health and beauty. Following my historical research and elite and specialized interviewing, I performed a detailed content analysis on the information gained, which allowed me to quantify the results from these stages. Throughout the research process, I was able to attain ample support to my hypothesis that in order to overcome the trend of greenwashing and keep up with the Sustainability Movement, the beauty product packaging industry is discovering and implementing deeper efforts to maintain environmental responsibility through the use of innovation, new technologies, and adjusted business models.

The results derived from the content analysis highlight five specific areas related to packaging for beauty and health products that were most highly agreed upon by the article contents and interview subjects. These areas include the following trends:

- A. Implementing environmental strategies into companies' long-term business plans
- B. Reducing the overall amount of packaging and/or materials used in packaging
- C. Evolutions in plastic science and exotic materials used in packaging
- D. Recyclability of packaging
- E. The integration of virtual and interactive media into product packaging

While these are the areas most commonly referred to throughout my research, other topics pertaining to the trends of sustainable packaging for beauty and health products were also thoroughly discussed and analyzed. The graphical representations of the data derived from my content analysis are shown in Appendix A-H.

The most universal concept derived from my research and content analysis was that the Sustainability Movement has without doubt pushed companies within the health and beauty product packaging industry to adopt and implement deeper environmental initiatives within their long-term business plans. It is apparent that companies are doing so in an effort to strengthen the environmental ethic embedded in their missions, visions and overall business models in order to avoid greenwashing and appeal to a wider consumer base in a competitive market.

Leaders within the beauty and health packaging industry are searching for innovative ways to incorporate environmental responsibility into their packaging, and they are finding

that starting the process by embedding sustainable initiatives into their core business models is an effective and necessary step. In her article “Evolution of Innovation”, featured in *Global Cosmetic Industry Magazine*, Sara Mason (2011) notes that, “sustainable packaging initiatives represent the most obvious focus for innovation in recent years. Eco-conscious companies are driven by consumers who are becoming increasingly aware of the need to care for the world,” (p. 56).

To gain further insight on this concept, I focused on what each industry professional that I interviewed thought about the trends of implementing sustainability initiatives into companies’ business plans. Kevin Karstedt, who works as a consultant in the packaging industry at Karstedt Partners, LLC. stated his opinion that, “It is clear that most brand owners are very conscious of what’s going on with sustainability and planning it into their design and production plans to make sure that their products are more sustainable in their packaging.” Adding to the conversation, Dr. Jay Singh, Professor and Packaging Program Director at the California Polytechnic State University of San Luis Obispo expressed that almost all major brand owners have a special group handling the sustainability initiatives of the company, stating that, “the bottom line is that if they are not in the race right now in looking at sustainability, they will fall behind.” Danielle Jerschefske, North American Editor of *Labels & Labeling* added more insight to the discussion, stating that, “What the world must come to understand first – before we feel the true effects of sustainable innovation – is that sustainability is something that must be deeply embedded in the values of a business.”

Demonstrating the implementation of a deeply thought-out and detailed sustainability initiative, Mike Ferrari, a retired head of the Global Printing and Decoration Department and Procter & Gamble discussed the company's environmental goals, stating, "P&G has a thirty-year sustainability strategy. With a thirty-year strategy, there's an ideal state identified of where they want to be, and it is very complete. They have broken down everything from product, to manufacturing, to scrap, and they have covered all aspects." Continuing to detail the prospects of Procter & Gamble's sustainability initiatives, Ferrari pointed out that by setting large goals and mapping out a year-by-year timeline to meet these goals while making use of self-regulation, the corporation will be able to make a significant impact on bettering the state of the environment.

Another main point derived from my research is that the trend of companies implementing sustainability initiatives into their long-term business plans is partially a result of an effort to avoid the effects of greenwashing, which is described by Jorge Izquierdo, Vice President of Market Development, PMMI (Packaging Machinery Manufacturers Institute) as, "in an attempt to appeal to the growing audience interested in sustainably produced products, brands make vague or misleading 'green' claims about their products" (Falk, 2010, p. 3). As both industry leaders and consumers continue to acknowledge the presence of greenwashing and its negative impact, efforts are being made to take action in eliminating greenwashing from the packaging of health and beauty products completely. During my interview with Ron Sasine, Senior Director of Packaging at Wal-Mart, I asked how greenwashing has affected the beauty and health packaging industry in general, and what Wal-Mart is doing in order to

defend themselves from the negative impact of greenwashing. He responded to the question stating, “We’re really careful about that. The last thing I want is false claims being made about packaging in our stores. All of our packaging suppliers get a once-a-year opportunity to hear the latest on avoiding greenwashing, complying with the Federal Trade Commission regulations, and complying with Wal-Mart’s own internal regulations. We keep a fairly strict hold on what we want our suppliers to say about their packaging.”

Chet Rutledge, Wal-Mart’s Private Brands Director of Packaging further stated that, “I think greenwashing is one of the biggest risks that we face from a sustainable packaging standpoint. I think a lot of the claims and marketing materials tend to be embellished or blatantly wrong. We want to make sure that any claims that we make are validated – we have to be able to substantiate.” Dr. Jay Singh gave his insight on the issue stating that, “Greenwashing is a very big issue. If a package ceases to perform its function, which primarily is protection, it’s not going to work. So people are trying to take advantage of greenwashing by putting a green symbol that is not certified, putting in language which is not controlled, or changing the package to green, which is not controlled.”

Although greenwashing has been established as a major concern within the health and beauty packaging industry, it is evident that industry leaders are taking active steps in fighting against its negative impacts on both their businesses and consumers. Discussing this topic during her interview, Danielle Jerschefske stated, “The biggest thing with greenwashing is that it confuses the consumer. One thing that brands don’t want to do is confuse their buyers.” Jerschefske continued to discuss the fact that as consumers continue to educate themselves on

the matter, it will become more and more difficult for brands to take advantage of greenwashing, stating that the truth behind their false claims will, “start coming out as we continue seeing consumers be more aware, more conscious, wanting to actively participate in making the world a sustainable place.” Kevin Karstedt’s perspective matched that of Jerschefske’s as he stated that, “I honestly don’t think that greenwashing is as prevalent now as it was two years ago, partly because I think that the consumer is more educated now.”

Jerschefske and Karstedt’s perspectives lead to the next main point derived from my research. Through the articles I read and interviews I conducted, I discovered that consumer knowledge and awareness of issues pertaining to sustainable beauty and health product packaging is without doubt increasing. In addition to the insight that Jerschefske and Karstedt gave pertaining to increased consumer awareness, Sara Mason (2010) notes in her article, “Sustainable Innovation” featured in *Global Cosmetic Industry Magazine*, “Consumers are becoming more educated on sustainability and its role in packaging. They are looking closely at what is really sustainable and holding brands more accountable for making sure that they’re staying true to their message,” (p. 1).

Lisa Doyle (2012) provides a strong example of this in her article, “From Biodegradable to Recyclable: Packaging Choices for Beauty Brands,” also featured in *Global Cosmetic Industry Magazine*, noting that, “It’s a given that today’s consumers have grown to expect eco-friendly packaging to envelop their sustainably sourced beauty products. And, in an increasing amount of countries, it’s becoming a requirement...Moreover, many European

counties have eco-conscious behavior deeply rooted into their culture, and consumers expect the disposability of their products to be simple and environmentally responsible,” (p. 1).

While it is clear that with this increased knowledge, consumers are interested in understanding companies’ environmental efforts, the data derived from my research suggests that consumers prefer not to be presented with the environmental facts about a product through the medium of its packaging. This is a result of consumers’ preference for aesthetics, performance, and price, which are elements that are often compromised for the incorporation of an “eco-friendly” design concept. In her article “Sustainable Innovation” Sara Mason (2010) quotes a representative of Procter & Gamble who states that, “P&G research has shown us that around 70 percent of consumers around the world want more environmentally friendly products, but they’re not willing to compromise on performance, aesthetics or value,” (p. 3).

Abby Penning (2012) expands on this topic in her article “NMI Study Shows Consumer Preference for Less Packaging” featured in *Global Cosmetic Industry Magazine*, noting that, “brands implementing eco-friendly designs and initiatives shouldn’t do so at the expense of the products or consumers’ experience with said products. It is important to let the eco-friendliness of a package contribute to a product’s story, as opposed to detracting from other benefits of the item or being the only talking point a product offers,” (p. 1).

In her article “Evolution of Innovation” Sara Mason (2011) uses EvolutionMan to outline an example of a brand that successfully implements a sustainable production plan into its packaging without diminishing the brand’s appearance. Mason notes that the brand finds

ways to reuse rather than reproduce its packages, and all of the brand's recyclable tubes are made with postconsumer recycled materials, while its boxes also use paper generated from the Sustainable Forestry Initiative (whose forest certification standard is based on principles that promote sustainable forest management, including measures to protect water quality, biodiversity, wildlife habitat, and species at risk) ("Who is SFI,"). However, the brand's founder and CEO, "didn't sacrifice aesthetics to do it." Mason notes that the CEO founded the brand with, "the desire to combine aesthetics with eco-consciousness...the colors are modern and aesthetically pleasing, and he avoided a traditional eco-friendly palette in order not to distract from the brand and attract consumers with an aesthetic sensibility," (p. 58). Mason notes that EvolutionMan's target market prefers packaging that reaffirms their masculinity, and incorporating an "eco-friendly" design scheme would hinder the brand's ability to reach this market (p. 58).

Ron Sasine confirmed this consumer preference during his interview when he stated, "We have not seen a significant change in the behavior of our consumers in favor of sustainable packaging. Very few of them are being swayed in their purchasing decision by a sustainability message that is part of the package." Mike Ferrari gave further insight on the topic during his interview, stating that, "I don't see people yet saying, 'I will only purchase if I see a green emblem, or if I know this is a low carbon footprint. I don't think it's reached that point yet. There might be that .5 percent that are extreme green and are that sensitive, but it's really not hit anywhere toward mainstream."

With knowledge that consumers demand sustainability but do not want to see the message on the products' packaging, industry professionals are beginning to develop innovative methods to feed the consumers' knowledge and make them aware of the brands' environmental efforts while simultaneously maintaining the consistency of the brand and its appearance. In order to do so, industry leaders are beginning to examine the trends of new, younger generation buyers.

This new approach leads to the next main point derived from my research, which is that in order to communicate with a new generation of consumers and increase interaction with these consumers, brands are beginning to incorporate the use of virtual media to promote the environmental efforts of a company into their marketing campaigns, including the connection of virtual media into product packaging. In her article "Innovation, Education to Move US Labels Forward" featured in *Labels & Labeling*, Danielle Jerschefske (2012) describes the important relationships between innovation, social media, sustainability, labels and packaging, noting that, "it is evident that long-term success in the converting world will require a comprehensive understanding of social media channels, their use and value to consumers and brands, and the ability to link labels with modern marketing tactics required to reach the new generation of shoppers," (p. 1). Jerschefske further notes in her article that, "the message is clear: labels and packaging are the ideal ticket for brands to link the physical and virtual world together for today's consumers," (p.1).

In his article "Time for Advertising to Steer Consumers Toward Sustainable Choices" Jo Confino (2011) quotes David Jones, Chief Executive of the global advertising and

communications group Havas, stating, “there is now the opportunity for companies to play an important role in encouraging consumers to make more sustainable choices,” (p. 1). Confino notes that Jones believes that rather than weaning people off their identification with brands, a more effective strategy is to, “transform those relationships to help deliver more responsible behavior,” (p. 1). Confino also notes that, “the key reason why Jones believes the time to act now is because the younger generation recognizes the need for change and the digital revolution has put the power into their hands,” (p. 1). Confino further quotes Jones’ insight, “what we are seeing today is that social media has created access to more information about the consequences of our actions, and we are waking up to the fact that we can no longer carry on business as usual,” (p. 1).

During his interview, Kevin Karstedt elaborated on the new trends that the digital revolution is introducing to the beauty and health packaging industry. When I asked him what are the most recent techniques used in product packaging to intrigue customers, keep their attention and maintain brand loyalty, Karstedt brought up the recent trend of using QR codes on packaging, which has rapidly expanded over the past two years. Karstedt stated that, “when you drill down to it, you find that the reason for all of that is the whole new media, social media directing and making things happen in a different way, meaning that brand owners are forced to interact and to develop relationships more directly with their consumers more than they ever have in the past. Today they’re talking directly with their consumers on a day-to-day basis through social media – Facebook, Twitter, all of these other new components – and they’re forced to react more quickly and interact in a more personal way with their

consumers and end users. That's forcing the packaging to change not only in looks and feel, but also how it functions – that's one of the major trends that is beginning to have an impact on things.”

During her interview, Danielle Jerschefske answered the same question stating that, “interactive packaging, implementing campaigns around QR codes and Augmented Reality,” are among the most recent and popular techniques used in product packaging to intrigue customers and maintain brand loyalty. When I asked her what changes she predicts in the future pertaining to trends in sustainable beauty and health packaging, she included in her answer that, “through mobile applications, social media sites and better advertising geared at educating consumers on what life-cycle means, what a carbon footprint is and how they can participate together with their brands to reduce harm to the environment, consumers will be very knowledgeable about packaging, where it came from, the recovery opportunity between various materials.”

When I asked her about the prospects of QR codes on beauty and health product packaging incorporating sustainability campaigns, she answered, “The smart ones will. They'll understand that it can be used as a tool to educate consumers on their stance. We haven't seen it too much yet with the QR codes, but eventually it will happen, especially as more legislation is put into place for more details to be put on the packaging. Using something like a QR code is going to be very beneficial to educate the consumer on a multitude of levels.”

In order to understand and quantify the responses gained from both the articles and interviews included in my research, I performed a content analysis using a table that displays

the most common responses (See Appendix A-D). I also created several graphics that display the number of responses in each category (See Appendix E-H). According to the frequency of responses, I was able to identify the trends mentioned in this chapter. The conclusions drawn from the information derived from my historical research, elite and specialized interviews, and content analysis will be further discussed in Chapter Five.

Chapter 5: Conclusion

With the progression of society and evolution of technology moving at a rapid pace, trends in human practices and lifestyles have reached a major shifting point. While technologies and human practices have evolved drastically over past years, the state of health in which the Earth exists has suffered detrimental side effects, including global warming, depletion of natural resources, energy consumption, climate changes, and an increased demand for landfill space. As the general knowledge of the Earth's alarming current state becomes increasingly acknowledged by society, attempts are being made to reverse the detriments caused by human practice in order to make ground for a safer, more secure future for the planet. This shifting point of human practice, lifestyle and overall outlook, described by Robert C. Gilman, Ph.D. (2000) as the "Sustainability Movement" includes, "a number of researchers, innovators and activists who have taken a whole-systems approach to the challenge of developing human systems, technologies, and ways of life that can provide high quality and environmentally benign lifestyles for all humankind, now and for all generations into the future" (p.1).

Along with the Sustainability Movement has come expanded awareness of the effects that various human lifestyles, practices and behaviors have had on the Earth, resulting in a universal concern with the future of its sustainability. Aspiring to increase environmental responsibility and reduce the detriments to the planet, society has begun to make efforts to change their lifestyles and practices to better the state of the Earth's health through both personal life changes, as well as industry-wide adjustments. A significant example of this can

be seen in the health and beauty consumer products industry's movement toward embracing sustainable packaging practices.

In conducting this study, the goal was to determine the ways in which the Sustainability Movement has and will continue to affect the trends of packaging for health and beauty products. This study used a combination of historical research, elite and specialized interviewing, and a comprehensive content analysis. By gaining an understanding of industry professionals' current viewpoints pertaining to sustainable packaging, materials currently used in beauty product packaging, and the evolution of business practices to adhere to environmentally responsible conduct, I was able to define the ways in which the industry is evolving to remain competitive and successful in future endeavors.

Through historical research, several articles show that there is without doubt an industry-wide increase in the adjustment of business plans to implement deeper sustainability initiatives to improve environmental responsibility for the future. The data derived from the articles used in the historical research portion of my study highlights four areas on which businesses are focusing to implement more sustainable practices. The first trend that industry leaders are following is the reduction of packaging and materials used for beauty product packaging, which includes reducing the weight of packaging, reducing composite layers, and eliminating unnecessary elements of product packaging. The next trend highlighted in my historical research is the evolution and innovation of plastic sciences currently taking place within the beauty and health product packaging industry, which includes the use of PET, PLA, PCR HDPE and bio-based plastics. This evolution currently taking place leads to the third

trend highlighted in my historical research, which is the overall increase in the recyclability of beauty product packaging. The final trend highlighted in my historical research is the use of virtual media, rather than designs included on beauty product packaging, to convey environmentally friendly messages to consumers.

Through elite and specialized interviewing, direct conversations with professionals in the fields of packaging, printing and decorating, labeling, and health and beauty also displayed the dominating trend of the adjustment of business plans to implement deeper sustainability initiatives within the health and beauty product packaging industry. The data derived from the interviews emphasizes an increasing consumer awareness of environmental issues, a growing need evolve in order to meet the needs of both consumers and the environment simultaneously, and utilizing the digital revolution to intrigue and educate consumers on the sustainability initiatives implemented into a company's business model. By conducting these interviews, I was able to come to the conclusion that the prominent trend of adjusting business models to become more sustainable is becoming universal, and that industry leaders will continue to use the rise of the digital revolution to expand their sustainable initiatives and reach a wide consumer base.

As trends in emerging human practices, technologies and lifestyles continue to evolve, changes will constantly occur and society will adjust accordingly. The Sustainability Movement is at a high point, and will continue play a large role in the way society evolves over future years. As members of society become increasingly educated on the current state of the Earth's health, industry leaders will continue to make an effort to reverse detriments made

and set an example of the practices and behaviors required to maintain a safe environment for future years. The Sustainability Movement has had a significant impact on the business practices of the health and beauty products' packaging sector and will continue to influence the decisions made by industry leaders, ultimately resulting in a major shift within the industry. In order to remain competitive and successful in future endeavors, leaders of the industry will continue to implement environmentally friendly practices within their business models as evolutions continue to occur, and the environmental impact of beauty and health packaging will be closely examined throughout the future.

Appendix

Appendix A: Blank Chart Used in Content Analysis for Articles & Interviews

Interview with:	
Category	Number of Mentions
Overall, sustainability in packaging for beauty and health products is a major concern. (General sense)	
Reduction in the impact of environment (overall – ex. Carbon footprint)	
Implementation of sustainability into long-term business plans	
Increased consumer awareness of sustainability issues	
Reduction of packaging/materials (reducing weight, reducing composite layers, etc.)	
Elimination of packaging overall	
Evolutions/Innovations/use of plastic sciences (PET, bio-based, PLA, PCR HDPE, etc.)	
Recyclability (Recyclable materials, Post-consumer recycled materials)	
Renewable Resources	
Design: Integration of “Green” Elements into package design	
Design: Avoiding integration of “Green Elements” – keeping aesthetics and sustainability separate	
Ease of use is of high importance	
Cost is of high importance	
Shape and color recognition is an important element	
Greenwashing is a major concern in the packaging of beauty and health products	
Greenwashing is not a major concern in the packaging of beauty and health products	
Efficiency in manufacturing package (plant costs, energy, emissions, municipalities, etc.)	
Efficiency in transportation	
There has been a change in consumer purchasing behavior due to “sustainable messages” included in packaging	
There has not been a change in consumer purchasing behavior due to “sustainable messages” included in packaging	
Intriguing Consumers: Sustainability	
Intriguing Consumers: Other	
Message to Consumers on Packaging: Sustainability	
Message to Consumers on Packaging: Other	
Virtual Media (Internet, social media, QR Codes, etc.	

Appendix B: Completed Chart Used in Content Analysis for Interviews (Cumulative)

Category	Number of Mentions
Overall, sustainability in packaging for beauty and health products is a major concern. (General sense)	11
Reduction in the impact of environment (overall – ex. Carbon footprint)	12
Implementation of sustainability into long-term business plans	18
Increased consumer awareness of sustainability issues	11
Reduction of packaging/materials (reducing weight, reducing composite layers, etc.)	13
Elimination of packaging overall	0
Evolutions/Innovations/use of plastic sciences (PET, bio-based, PLA, PCR HDPE, etc.)	4
Recyclability (Recyclable materials, Post-consumer recycled materials)	9
Renewable Resources	2
Design: Integration of “Green” Elements into package design	1
Design: Avoiding integration of “Green Elements” – keeping aesthetics and sustainability separate	0
Ease of use is of high importance	2
Cost is of high importance	12
Shape and color recognition is an important element	3
Greenwashing is a major concern in the packaging of beauty and health products	6
Greenwashing is not a major concern in the packaging of beauty and health products	1
Efficiency in manufacturing package (plant costs, energy, emissions, municipalities, etc.)	8
Efficiency in transportation	5
There has been a change in consumer purchasing behavior due to “sustainable messages” included in packaging	3
There has not been a change in consumer purchasing behavior due to “sustainable messages” included in packaging	5
Intriguing Consumers: Sustainability	0
Intriguing Consumers: Other	9
Message to Consumers on Packaging: Sustainability	3
Message to Consumers on Packaging: Other	4
Virtual Media (Internet, social media, QR Codes, etc.	14

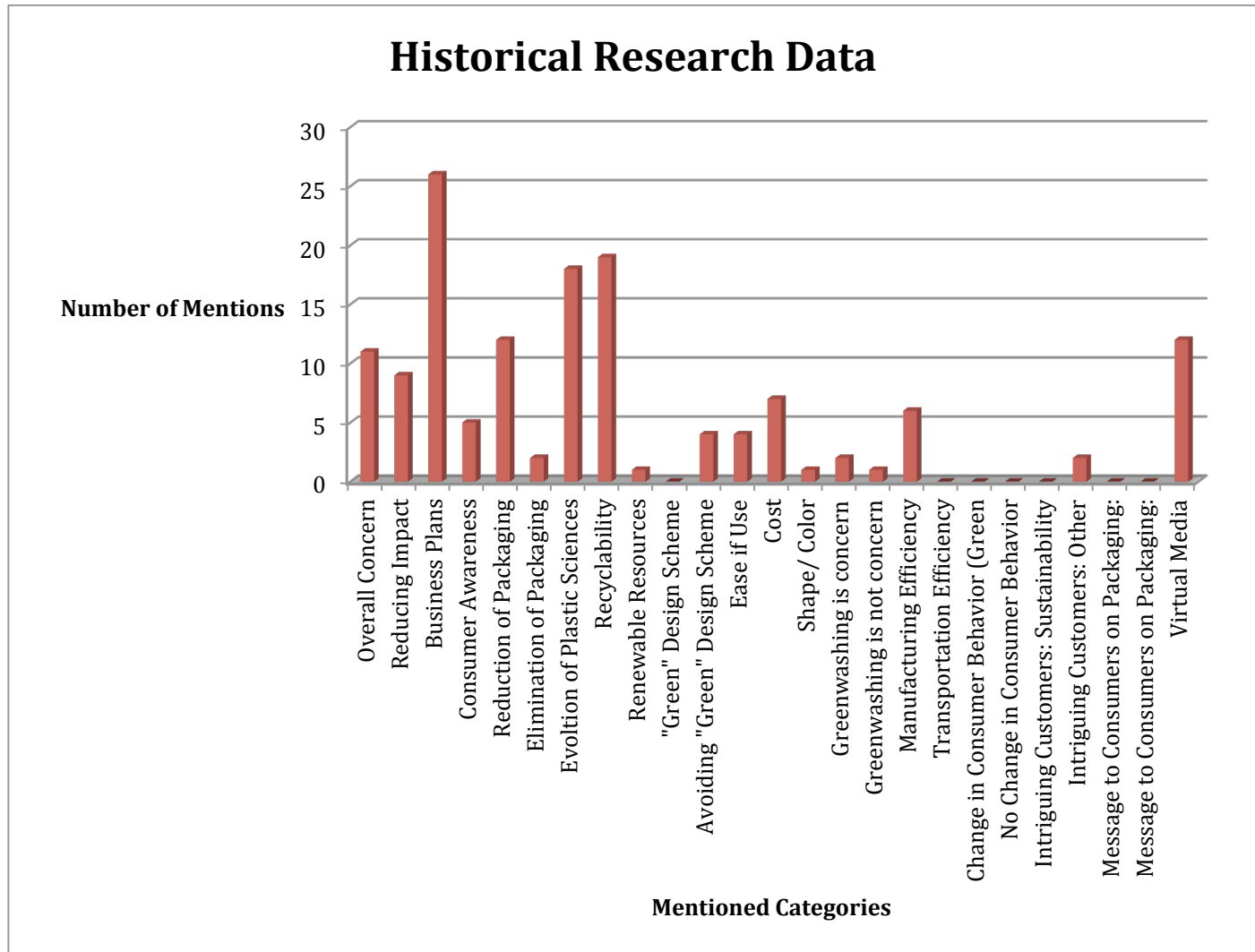
Appendix C: Completed Chart Used in Content Analysis for Articles (Cumulative)

Category	Number of Mentions
Overall, sustainability in packaging for beauty and health products is a major concern. (General sense)	11
Reduction in the impact of environment (overall – ex. Carbon footprint)	9
Implementation of sustainability into long-term business plans	16
Increased consumer awareness of sustainability issues	5
Reduction of packaging/materials (reducing weight, reducing composite layers, etc.)	12
Elimination of packaging overall	2
Evolutions/Innovations/use of plastic sciences (PET, bio-based, PLA, PCR HDPE, etc.)	18
Recyclability (Recyclable materials, Post-consumer recycled materials)	19
Renewable Resources	1
Design: Integration of “Green” Elements into package design	0
Design: Avoiding integration of “Green Elements” – keeping aesthetics and sustainability separate	4
Ease of use is of high importance	4
Cost is of high importance	7
Shape and color recognition is an important element	1
Greenwashing is a major concern in the packaging of beauty and health products	2
Greenwashing is not a major concern in the packaging of beauty and health products	1
Efficiency in manufacturing package (plant costs, energy, emissions, municipalities, etc.)	6
Efficiency in transportation	0
There has been a change in consumer purchasing behavior due to “sustainable messages” included in packaging	0
There has not been a change in consumer purchasing behavior due to “sustainable messages” included in packaging	0
Intriguing Consumers: Sustainability	0
Intriguing Consumers: Other	2
Message to Consumers on Packaging: Sustainability	0
Message to Consumers on Packaging: Other	0
Virtual Media (Internet, social media, QR Codes, etc.)	12

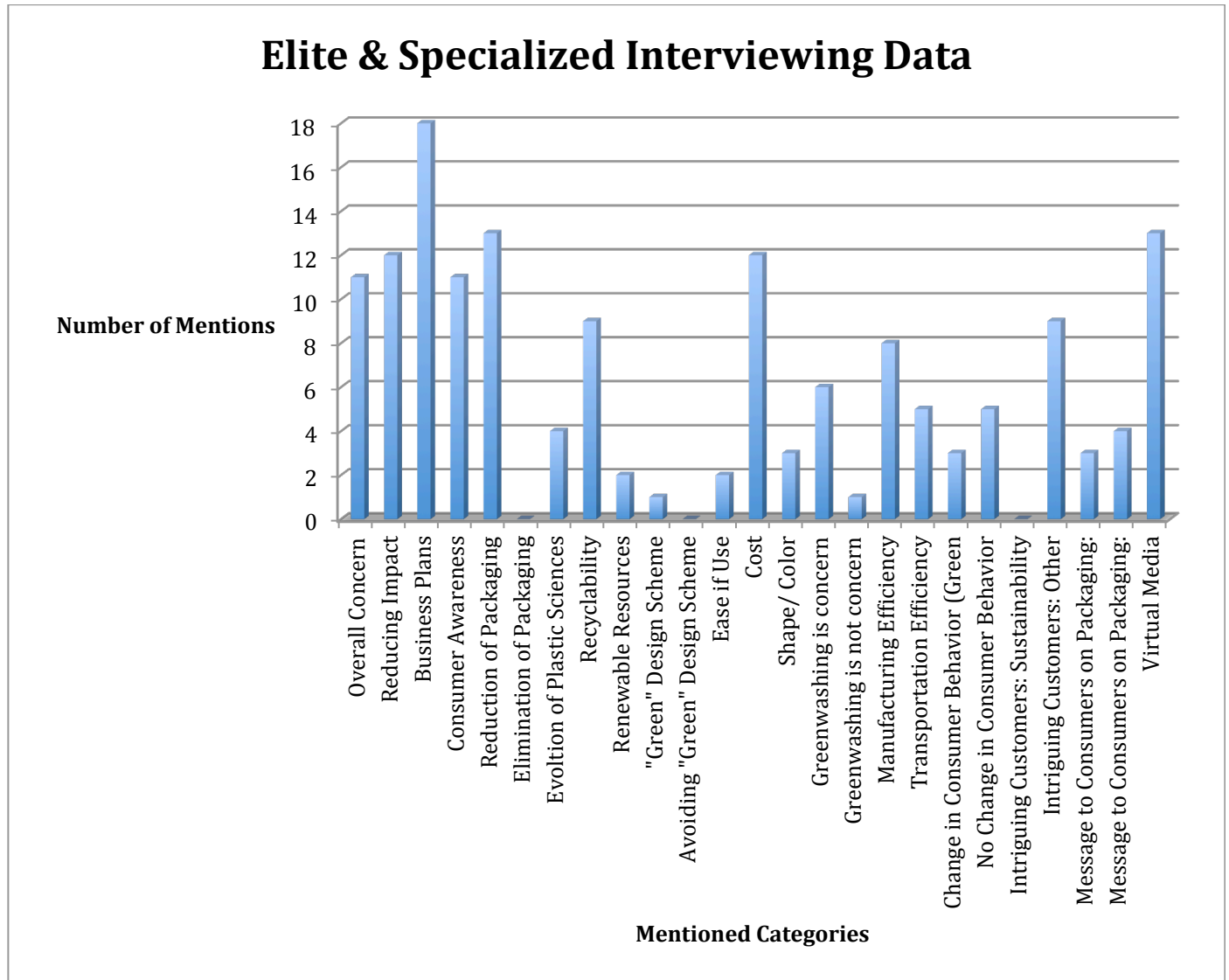
Appendix D: Completed Chart Used in Content Analysis for Interviews & Articles (Cumulative)

Category	Number of Mentions
Overall, sustainability in packaging for beauty and health products is a major concern. (General sense)	22
Reduction in the impact of environment (overall – ex. Carbon footprint)	21
Implementation of sustainability into long-term business plans	34
Increased consumer awareness of sustainability issues	16
Reduction of packaging/materials (reducing weight, reducing composite layers, etc.)	25
Elimination of packaging overall	2
Evolutions/Innovations/use of plastic sciences (PET, bio-based, PLA, PCR HDPE, etc.)	22
Recyclability (Recyclable materials, Post-consumer recycled materials)	28
Renewable Resources	3
Design: Integration of “Green” Elements into package design	2
Design: Avoiding integration of “Green Elements” – keeping aesthetics and sustainability separate	4
Ease of use is of high importance	6
Cost is of high importance	19
Shape and color recognition is an important element	4
Greenwashing is a major concern in the packaging of beauty and health products	8
Greenwashing is not a major concern in the packaging of beauty and health products	2
Efficiency in manufacturing package (plant costs, energy, emissions, municipalities, etc.)	14
Efficiency in transportation	5
There has been a change in consumer purchasing behavior due to “sustainable messages” included in packaging	3
There has not been a change in consumer purchasing behavior due to “sustainable messages” included in packaging	5
Intriguing Consumers: Sustainability	0
Intriguing Consumers: Other	11
Message to Consumers on Packaging: Sustainability	3
Message to Consumers on Packaging: Other	4
Virtual Media (Internet, social media, QR Codes, etc.	25

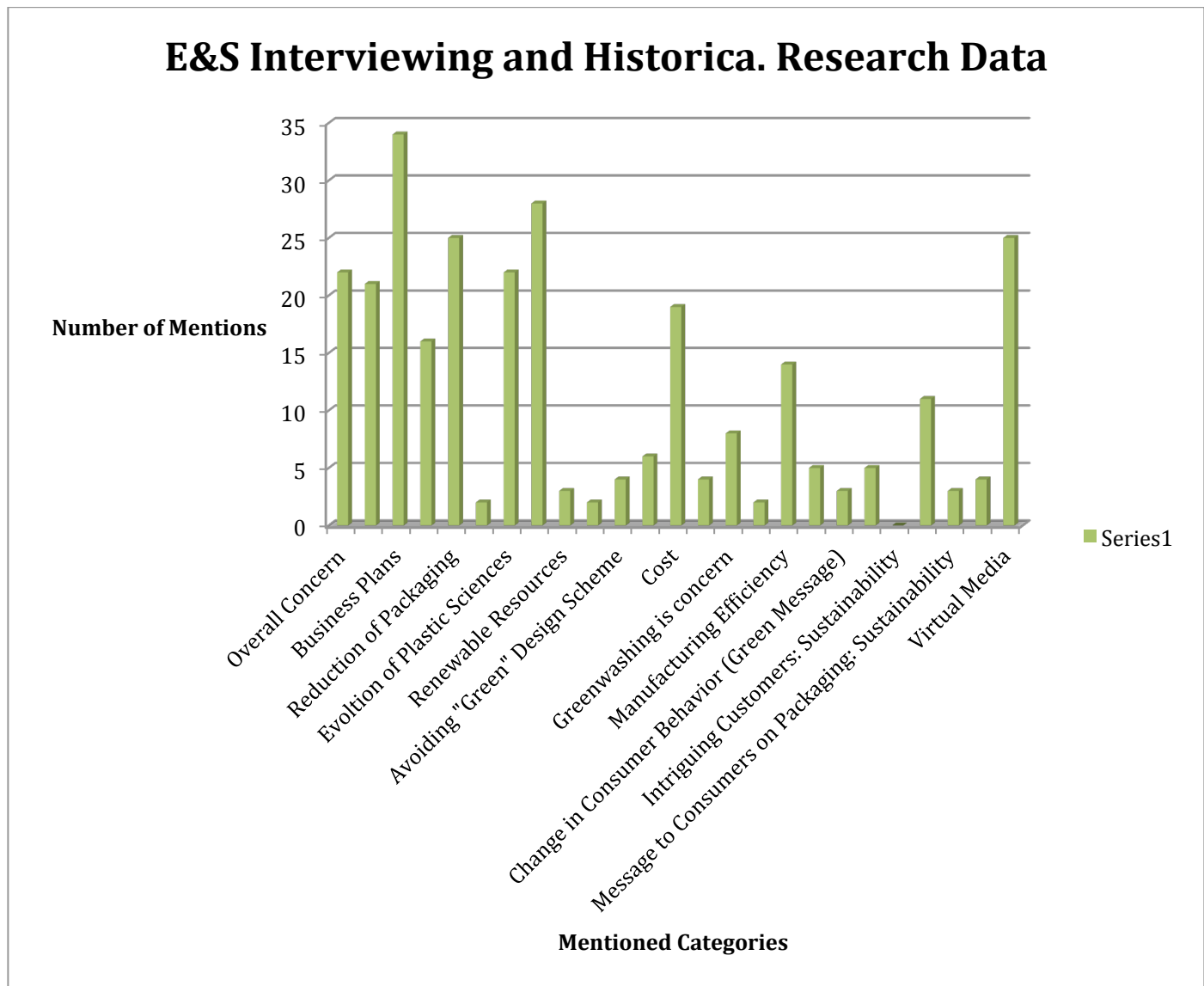
E.



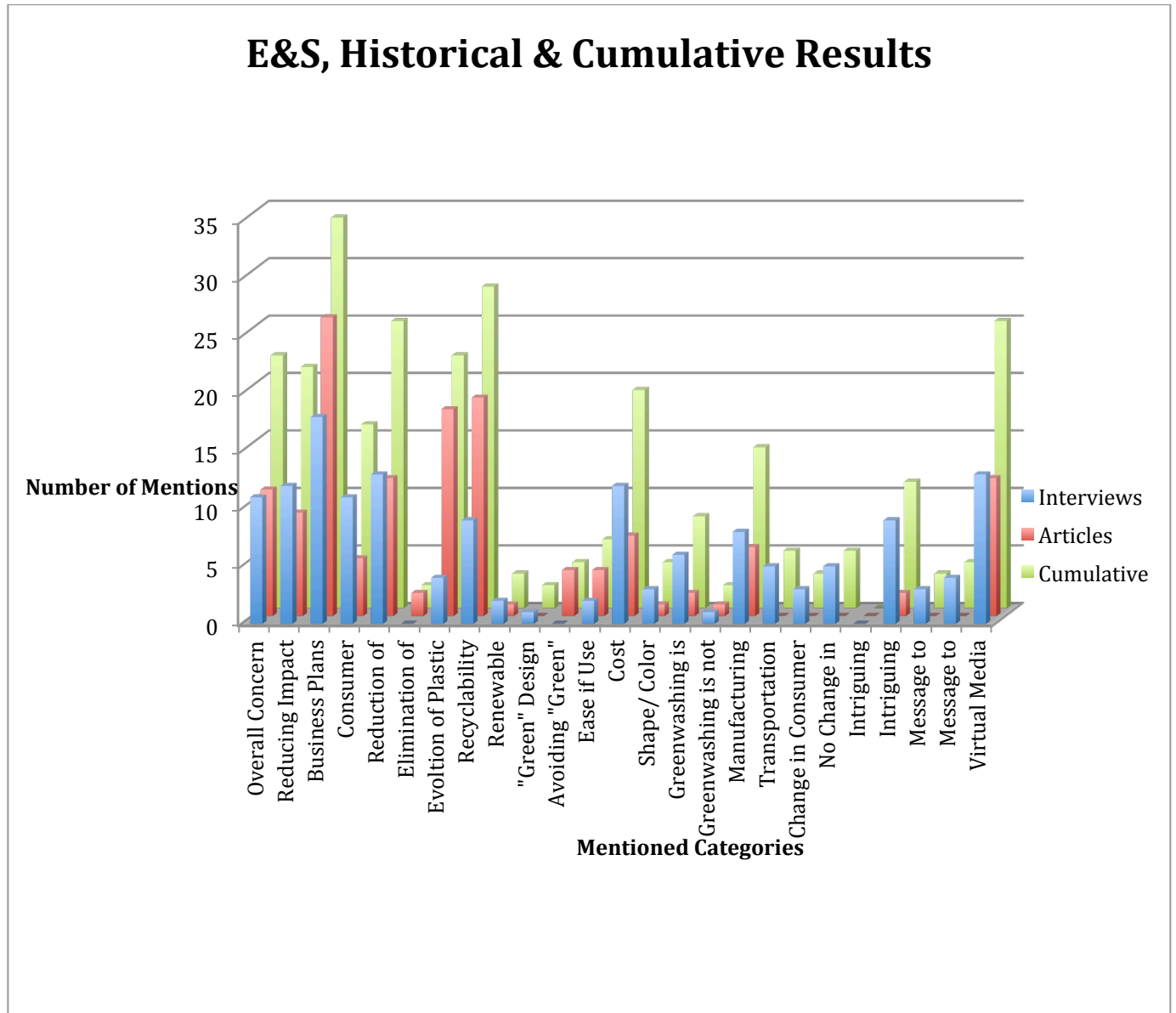
F.



G.



H.



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