

Accessible Packaging Design in the Beauty Industry

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ABSTRACT

Packaging design in the beauty industry is considered as one of the factors that contribute to the marketability of a product. The integration of accessible design in beauty product packaging provides people with disabilities easier access to these products. By using design thinking methods and current tactile-based communication systems, packaging designers have the tools necessary to produce accessible product packaging. This study aims to investigate why it is necessary for beauty companies to provide packaging that accommodates people with visual impairments.

In this study, an online survey was conducted where participants were asked a number of questions pertaining to consumer experiences with accessible beauty products, testing knowledge of accessible beauty brands, and overall opinions on the integration of packaging design. The results of this survey were examined using a thematic analysis, highlighting common trends and patterns throughout the participants' responses.

The results of this study showcase how consumers strongly believe that beauty brands should have the ability to incorporate accessible design within their packaging. In doing so, companies may expect positive results from pursuing a wider target demographic and benefiting economically. Additionally, consumers with visual impairments will find that there will be a broader selection of beauty products that are accessible to them, which will provide a sense of independence in their daily lives.

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INTRODUCTION

Background

What is Packaging Design?

Packaging design is the use of design elements such as materials, colours, images and typography to enhance the look of a product to increase its marketability (Klimchuk & Krasovec, 2013). The main objective of packaging design is to “create a vehicle that serves to contain, protect, transport, dispense, store, identify, and distinguish a product” (Klimchuk & Krasovec, 2013).

The utmost importance of packaging design is to effectively communicate the functions of the product to potential consumers (Klimchuk & Krasovec, 2013). This ensures that consumers understand the purpose of the product, what it may contain, and how to use it. Packaging design is also closely related to the branding of a company. Consumer perceptions of a brand are partially defined by how products are marketed (Krasovec & Klimchuk, 2013). An example of this would be Apple. Apple’s product branding is identified by its minimally designed packaging. The clean and aesthetically pleasing design helps to create a sensory experience for the consumer (Ruggeri, 2017). Part of what establishes this sensory experience is how the product is presented inside the packaging (Ruggeri, 2017). Packaging design in the beauty industry is regarded as one of the most vital components (Lu, 2020). The market for beauty products is highly saturated, and packaging design is one of the most effective ways to attract consumers’ attention (Lu, 2020). Some common design elements that are considered for packaging design include unique forms and shapes, bold colours, and decorative finishings (Lu, 2020).

Accessible Packaging Design

Accessible packaging design is a means of utilizing accessible design concepts to produce product packaging and communicate information to people with disabilities. In order to successfully achieve accessible packaging design, designers require a good understanding of different disabilities, and how to effectively make the appropriate accommodations (Goodman-Deane et al, 2016). People who are visually impaired rely on touch systems such as braille text and tactile symbols that assist them with reading skills.

Purpose

The objective of this thesis is to research accessible packaging design within beauty products. In this study, beauty products will refer to makeup, skincare products, body care products, and hair care products. This thesis aims to answer the following question: what is the importance of brands within the beauty industry integrating disability-friendly packaging options for people with visual impairments? This study will examine the importance of beauty brands integrating accessible packaging design features for people with visual impairments.

The purpose of this thesis is to provide an insight into the benefits of providing accessible packaging options for beauty-related products. The focus of this study is to explore current systems developed to assist people with visual impairments in terms of accessible packaging. The objective of this study is to discuss the importance of being more accessibility motivated in packaging design.

LITERATURE REVIEW

Accessible Packaging & Standards

Consumer packaging is an essential component of product advertising as there are many elements including graphic design and decorative finishings that assist in the product's marketability. However, an issue with packaging today is the level at which product packaging is accessible to consumers. Visual impairment is a term used to describe any type of vision loss (Salvin, 2016). One of the key benefits of accessible product packaging for the visually impaired is that it allows the functions of a product to be easily accessed. Accessible packaging design in general is gaining widespread attention and acceptance as it is regarded as an inclusive option that allows people with disabilities to experience independence in their everyday lives.

The International Organization for Standardization

The International Organization for Standardization (ISO), is an organization that works to establish proprietary, industrial and commercial standards worldwide (ISO, 2017). The purpose of these standards is to ensure that any products and services result in being "safe, reliable, and of good quality" for end-users (Kenton, 2020). In 2017, ISO developed standards in relation to accessible consumer packaging titled ISO 19809 and ISO 17351. ISO19809 states actionable

requirements and recommendations for packaging design in order to be in compliance with accessible packaging (ISO, 2017). ISO 17351 outlines standards for the use of braille text on medicine bottles (ISO, 2013). With the creation of these standards, ISO recognizes if companies choose to employ packaging designs that accommodate visual impairments, there should be standards that ensure the ease of interaction with the packaging. In relation to visual impairments, a variety of suitable proposals are outlined within the document.

ISO 19809 & ISO 17351

ISO 19809, Section 4.2.8 recognizes tactile markings as a type of indicator for accessible packaging to convey information to consumers with visual disabilities (ISO, 2017). Tactile markings should be utilized to identify products that are similar in shape but contain different contents (ISO, 2017). When adopting tactile markings, simplified indicators should be used at a considerable size in order to be legible using touch (ISO, 2013). Other considerations to using tactile markings may also include appropriate positioning. The importance of positioning ensures that tactile markings are placed in an area where users will frequently create contact with the product, easily locate the marking, and to generate differentiation from other tactile markings (ISO, 2017).

In ISO 19809, Section 4.2.9 illustrates the use requirements of braille signage in packaging design. This standard states that braille signage should be used to convey information in a non-visual manner for consumers with visual impairments (ISO, 2017). The requirements outlined in this section of the standard imply that the technical aspects of braille signage can be referred to the technical aspects defined in ISO 17351, a standard developed in 2013 that provides a framework for the use of braille packaging on medicinal products (ISO, 2017). ISO 17351 states general requirements of braille text including braille text placement, braille spacing conventions, and braille character sets (ISO, 2013). The legibility of Braille text is determined by considering the following: must be in compliance with the Principles of Braille and must meet a certain braille dot height (ISO, 2013)

Accessible Packaging Design Systems

The Braille System

Braille is a text that was developed specifically for people with visual impairments that is composed of a series of raised dots. Charles Barbier is credited as the inventor of the first dot-based reading system that was originally designed for military and secretive purposes (Jimenez et al, 2009). Louis Braille is recognized as the inventor of the braille system. At a young age, Braille sustained injuries to his eye due to an accident, which eventually led to developing complete blindness in both eyes by the age of five (Jimenez et al, 2009). Louis's development of braille adapted Barbier's dot-based reading system, creating a highly simplified version that would be easily legible for blind people (Jimenez et al, 2009). These modifications eventually led to the creation of the "braille system" (Figure 3.1). The current braille system is composed of an arrangement of 6 dots divided into two columns of three dots. With this configuration, there are 64 possible combinations of dots that create the braille alphabet, numbers, and special characters (Jimenez et al, 2009). Following the invention of this system, braille text was accepted as a universal reading system for European languages in 1878 (Jimenez et al, 2009). Braille is in the process of becoming modified for character-based languages, such as Japanese, Chinese, and non-European tribal languages originating from Africa (Jimenez et al, 2009). The developments of the Braille system has allowed blind people to redefine the skill of reading. Braille is able to overcome the limitations of traditional reading. The braille system has been integrated into many aspects, including consumer packaging.

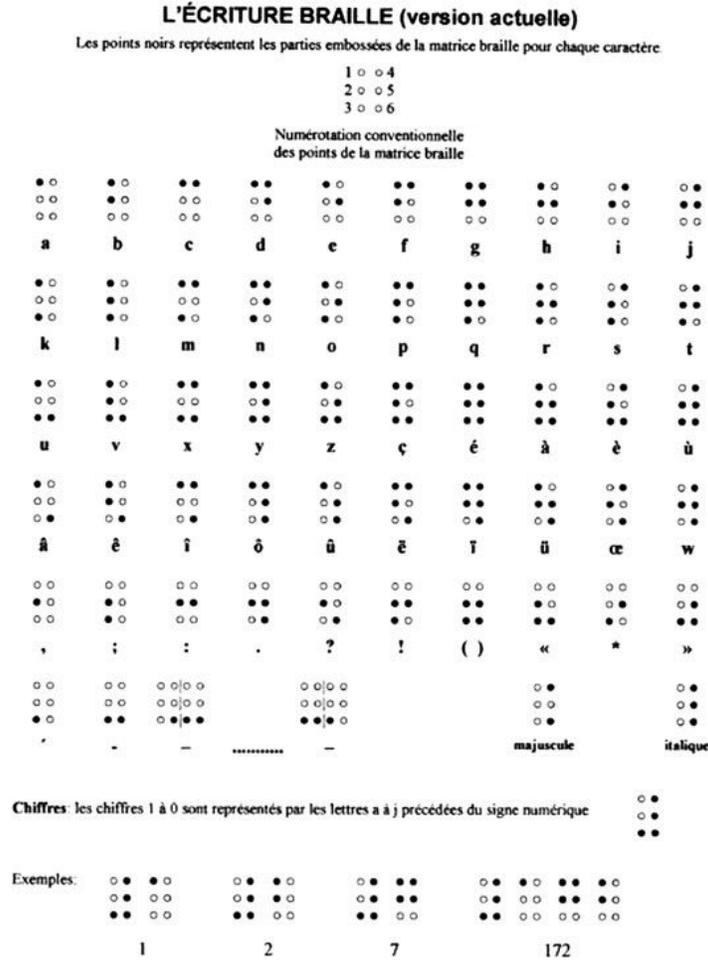


Figure 3.1: Braille's Finalized version of the braille system

Source: (Jimenez et al, 2009)

The CyR.U.S System

The CyR.U.S. System of Raised Universal Symbols was developed by Victoria Watts, the founder of Victorialand Beauty. This newly developed system is described as “a proprietary tactile recognition system comprised of a set of raised trademark symbols” (Utroske, 2020). It was created when Watts discovered that her youngest son was born with a rare disease, familial exudative vitreoretinopathy (FEVR). This is a disease that directly impacts the loss of vision (Ustroke, 2020). The CyR.U.S. System was created as an approach that grants people who are visually impaired the capabilities to easily identify the contents of the products (Victorialand Beauty, N.d.). Watts believed that a suitable substitution for homemade tactile systems is for beauty brands to adopt tactile systems within their packaging, similar to the CyR.U.S. System, so

that people with visual impairments can easily navigate through a visually favoured world (Victoriland Beauty, N.d). The CyR.U.S System is currently implemented within four of Victoriland Beauty's products: night cream, face oil, eye/lip cream, and facial moisturizer (Ustroke, 2020). Each product contains a tactile symbol that differentiates the products from each other. (Figure 3.1). For instance, the symbol for a night cream is characterized by a crescent moon (Figure 3.2).



Figure 3.2: Victoriland Beauty product packaging

Source: (Brown, 2019)



Figure 3.3: CyR.U.S System tactile symbol for Victoriland Beauty's night cream

Source: (Victoriland Beauty, N.d.)

Disadvantages

The use of braille systems and the newly developed CyR.U.S. System poses many benefits for accessible approaches to packaging. However, there are specific drawbacks to integrating these systems. These tactile systems will only appeal to a select group of consumers. In an article written by Stein Lyftingsmo, it was revealed that in the UK, out of a population of 62 million people, only 20,000 people were able to read braille (2013). With this ratio, braille text serves as ineffective to the remainder of the population that does not rely on this dot-based system. Integrating tactile systems in product packaging is a costly feature. Additional costs are allocated towards creating the artwork, utilizing necessary tools, and production costs for extra materials (Lyftingsmo, 2013). With advancements in technology, people with visual impairments are able to refer to their personal devices for assistance with daily tasks (Lyftingsmo, 2013). Users of

Apple devices may find a use for the integrated accessibility features. For example, speech to text allows users with visual impairments to communicate with others by vocalizing the intended message, which is then converted to text (Lyftingsmo, 2013). With technology that is easily accessible and reliant, there may not be a high demand to integrate accessible design with product packaging.

Accessible Design & Concepts

Designing product packaging for accessibility requires careful consideration for the intended consumers. Packaging designers need to be mindful of who the potential users are, as each consumer will possess different attributes. There are many design thinking approaches that can be considered when designing for accessibility.

The Medical/Social Model of Disability

In her book, *Inclusive Design for a Digital World*, Regine Gilbert introduces the idea of the Medical/Social Model of Disability. This model describes two approaches to how disabilities are observed in society. The Medical Model of Disability claims that impairments are to be “fixed” with medical treatments, even if they are not considered life-threatening (Gilbert, 2019). The Social Model of Disability states that disability is caused by the way society is organized (Gilbert, 2019). The level to which disabilities are perceived is based on how visually-abled people determine them. In order to combat limitations for people with visual impairments, designers must conceive suitable methods and accommodations. Packaging designers hold importance in relation to product packaging, as they need to consider many aspects. For instance, people with visual impairments may have a certain degree of blindness that varies from complete blindness, low vision, or colour blindness (Gilbert, 2019). A packaging designer must be able to develop solutions that allow people with visual impairments to naturally engage with the product. With the principles of the Social Model of Disability, it should be easy to understand that although people with disabilities may need alternative methods of accessing their essential belongings, there are always non-medical solutions that allow for these things to be accessible to them.

Barrier-Free Design

Barrier-free design was initially developed by a collective of organizations such as the US President's Committee on Employment of the Handicapped and the Veterans Administration (Perssons et al, 2014). Their goals were to progress policies and design practices in order to accommodate war veterans who sustained major injuries (Perssons et al, 2014). These changes ultimately led to positive advancements that allowed people with disabilities to easily participate in daily activities (Perssons et al, 2014).

Universal Design

Universal design is a term coined by Ronald L. Mace (Persson et al, 2014). This term describes the act of designing products and environments for the needs of people, regardless of age, ability or status. It is defined as “the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design” (Persson et al, 2014). Universal design can be further referenced using the seven principles: equitable use, flexibility in use, simple and intuitive use, perceptible information, tolerance for error, low physical effort, and size and space for approach and use (Persson et al, 2014).

Accessible Design

Accessible design is described as a set of design principles that outline methods for developing products resulting in the dissolution of limitations set by disabilities (Persson et al, 2014). Accessible design can be achieved through designing readily accessible products, services, or environments with limited modifications, the adaptation of products and services to specific users, and the standardization of interfaces that are compatible for people with disabilities (Perssons et al, 2014). The overall message of accessible design is that every individual deserves the right to access products and services without being discriminated against (Persson et al, 2014).

METHODOLOGY

This chapter aims to outline the research methodology for this study. For the research, an online survey will act as the primary research method. The aim of the online survey is to gather information from a consumer perspective and analyze different patterns and themes based on the participants' responses.

Research Design

The primary methodology used for this research was through conducting an online survey consisting of seven questions. The survey was designed using Google Forms and contained a diversity of questions. The goal was to gain insight from a consumer perspective and gather their opinions on whether accessible packaging should be required for beauty product packaging. Participants were asked questions that tested their level of awareness with accessible design, their knowledge of beauty brands and products, and overall opinions on accessible packaging in beauty products. The survey was conducted between November 9, 2020, to November 16, 2020, and was completed by seven participants.

This survey was designed in order to gain a better understanding of a consumer perspective on accessible packaging design using qualitative data. The first question in the survey asked participants what their age was. It was formatted in a drop-down menu style, dividing age groups into the following categories: 17 or younger, 18 to 24, 25 to 29, 30 to 39, 40+, and prefer not to say. The second question in the survey asked participants to rate on a scale of 1 to 5, how often they purchase beauty products in a given month. The third question asked participants to select the features that appeal to them in a checkbox style, with each checkbox serving as one feature. The fourth question presented participants with two images of skincare products with each labelled Option A and Option B. They were asked to select the option that they were more likely to purchase. The fifth question was designed for participants to select options that applied to them, with options presented in the form of checkboxes. The sixth question provided an image of a short statement from an article. Participants were asked to rate on a scale from 1 to 5 how strongly they agreed or disagreed with the statement. The final question in the survey was

designed as a short answer response that asked participants to express their opinions on accessible packaging.

Participants

The aim of this research was to gain a consumer perspective on integrating accessible packaging design with beauty products. The participants targeted for this survey were participants between the ages of 15 to 25 who were enthusiasts of beauty brands and products. During the data collection, it was ensured that the participants of the survey had a previous amount of knowledge of the beauty industry. This is important because participants will have a better understanding of product packaging design, be able to learn about accessible features and form an opinion on integrating these two ideas together. The way that this was approached was by sharing this with people who had this understanding of the beauty industry.

Analysis

Upon receiving the results of the online survey, a thematic analysis was conducted. This process involved reviewing the results under a statistical breakdown and summary of responses provided by Google Forms. Using this data, different themes and patterns were identified and provided a strong sense of participant responses. Participant responses will be used to conclude overall anticipations towards thoughts and opinions on accessible packaging design in the beauty industry.

Reasoning & Limitations

The primary research methodology selected was to conduct online surveys due to the ease of creating a survey and the effectiveness of the results. One key benefit of conducting online surveys is that it was an efficient method of collecting data. On average, participants took five minutes to complete the survey. Another benefit of online surveys is that they can be used to target a specific demographic. Access to the survey could be given to people that it was shared within a particular age group. Given that there are many benefits to conducting online surveys, there are also limitations to performing this method of research. With online surveys, there can be complications concerning biases. This may impact the outcome of the results, which can diminish the validity of the responses and heavily impact the results. However, this was resolved

as participants were encouraged to complete the survey at their own pace and provide personal opinions without the assistance of external resources. Another issue with online surveys is the level of quality of the answers provided by the participants. There are possibilities that participants may have resorted to using other resources such as online search engines or referring to a colleague for assistance. This may impact results as the quality of answers rely on the participants' personal opinions as opposed to justifications from external resources. Lastly, an issue with surveys is the total number of participants who completed the survey. Without a sufficient amount of participants to complete the survey, there can be inaccuracies of the data. The limited responses may provide a misrepresentation of the group, affecting the results of the survey.

RESULTS

The first two questions of the online survey were to define the demographics of the participants. The first question asked how old they were, with all of the participants selecting the 18-24 age group (Figure 5.1). The second question asked participants to rate on a scale of 1-5, how often they purchase beauty products in a month with 1 being 'not often' and 5 being 'very often.' Based on the results, four participants rated themselves as 1 or 2, with the remainder of participants rating themselves a 3, 4, or 5 (Figure 5.2).

How old are you?
7 responses

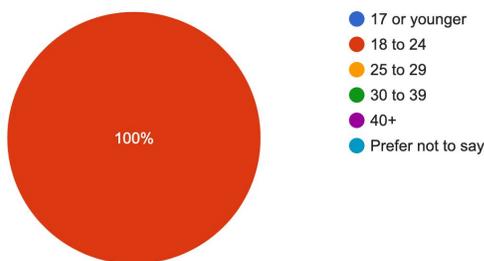


Figure 5.1: Results of Question 1

On a scale of 1-5, how often do you purchase beauty products in a month?
7 responses

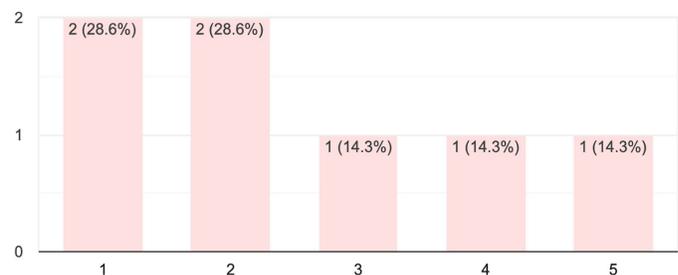


Figure 5.2: Results of Question 2

In the third question of the survey, participants were asked to select out of the eight options, the features that held the most importance to them regarding packaging design. As the answers varied between aesthetic preferences and accessible design features, the highest-rated selections mainly dealt with aesthetics design. The ‘Minimalist design’ option was the most popular selection with 85.7%. The accessible design features ‘Textile design’ and ‘Braille text’ were met with 14.3%, and 0% respectively (Figure 5.3).

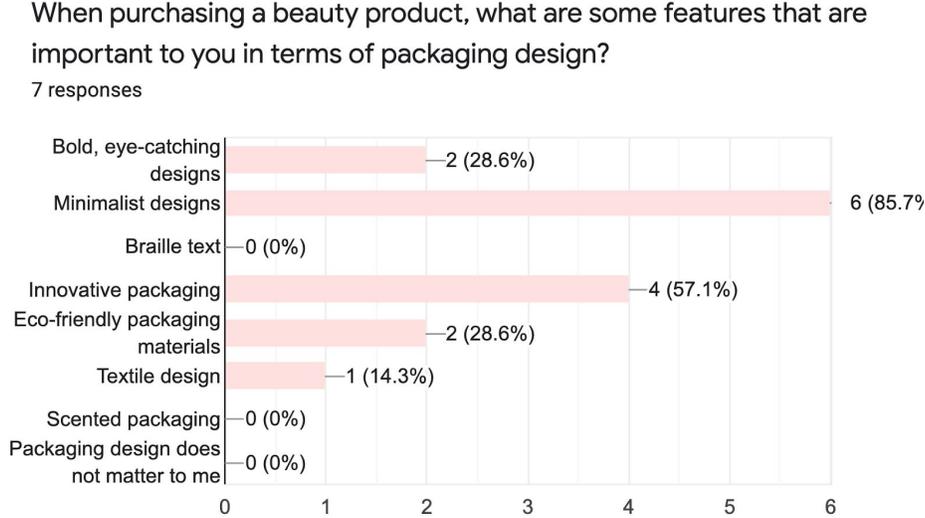


Figure 5.3: Results of Question 3

In the fourth question of the survey, participants were presented with two options of product packaging. They were asked to assume these products contained the same formulas of lotion, and select which option they felt more inclined to purchase. As outlined in Figure 5.5, Option A received 42.9% of the vote, with Option B receiving the remaining 57.1%.



Option A



Option B

Assume that these two products contain the same formula. Between the two options, which ... you more inclined to purchase?
7 responses

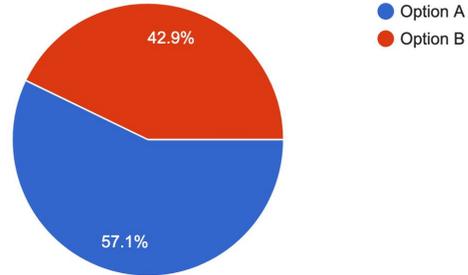


Figure 5.4: Options A & B provided for Question 4

Figure 5.5: Results of Question 4

The fifth question of the survey asked participants what accessible brand and/or products they were familiar with. Based on the results, many referred to Herbal Essences and Dr. Jart packaging the most. The remainder of the brands received 14.3% each. Additionally, the ‘N/A’ option received 14.3% of the vote, meaning that this participant was not aware of any of the options listed (Figure 5.4).

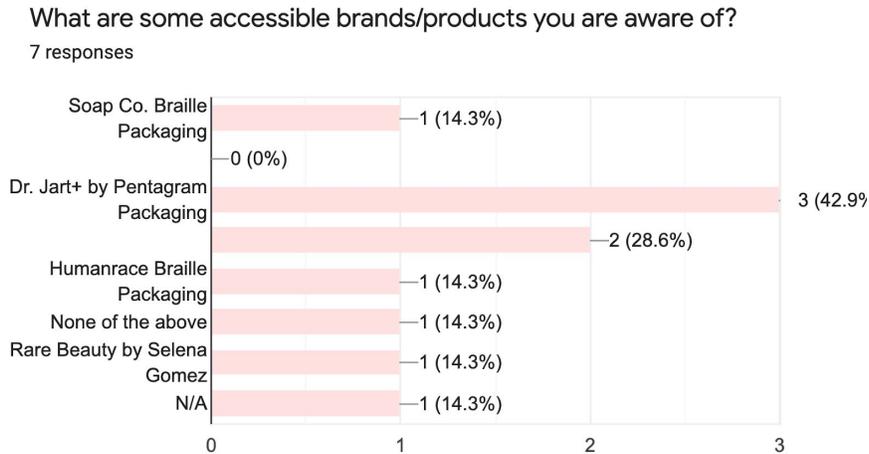


Figure 5.6: Results of Question 5

In the sixth question, participants were asked to rate on a scale of 1-5 the level at which they agreed with the statement provided (Figure 5.7). The responses were met with a 42.9% for 4-5

rating, with an additional 14.3% that provided a text-based answer for this question. This answer states they agree with the statement, which in this case will be counted for a 5 scale rating (Figure 5.8).

“This blind population of 300 million is expected to double in the next 20 years, that’s a really big thing. Change needs to happen now so that we can support this community.”

Figure 5.7: Statement provided for Question 6

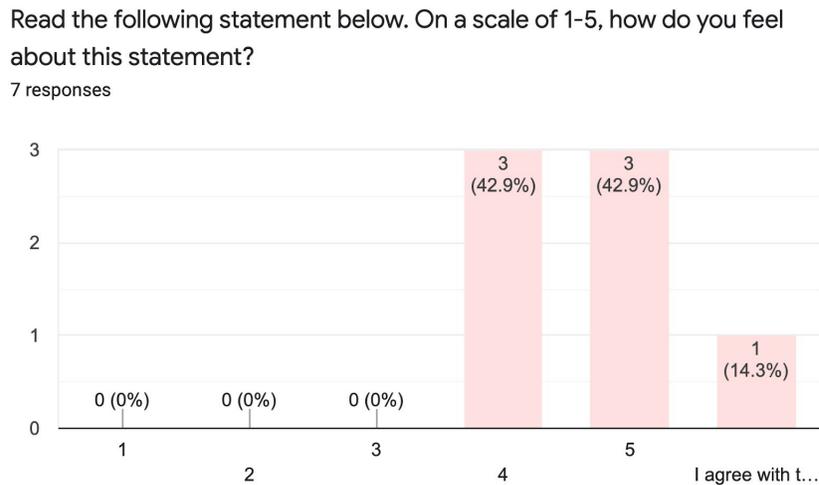


Figure 5.8: Results for Question 6

The final question asked in the online survey was an opinion-based question, where participants were asked whether they thought beauty brands should integrate future packaging designs to be more accessibility friendly. Nearly all respondents positively agreed to the notion that brands should produce accessible packaging design, with varying reasonings for their answers. Many of the responses believed that creating accessible packaging designs allows for a brand to become a more inclusive brand, making it accessible to everyone. Another reason mentioned that accessible packaging will positively affect the company’s overall brand image and sales. Lastly, the most interesting response received for this question agreed with that yes, accessible consumer packaging should be made accessible. However, this decision should be based on the opinions of consumers who are visually impaired.

DISCUSSION

This chapter will outline the results based on the online survey that was conducted for this study. Subsequently reviewing the survey and the results, it was determined that question 4 of the online survey did not provide substantial evidence in order to support this study. Therefore, the results from this particular question will not be discussed in this section.

Interpretations

Based on the results of the survey, it can be concluded that most consumers would prefer for beauty companies to begin integrating the current systems created for visual impairments within product packaging. As all the participants responded with 'yes' to the final question in the survey, there were many reasons that were provided to support their answers. Participants believed if brands introduced accessible design features in product packaging, these brands would be regarded as inclusive to a wider range of consumers. Furthermore, consumers who depend on tactile based systems would be able to easily access these products in their everyday lives. An example of this would be Herbal Essences's newly introduced 'sensory enhanced' bottles (Figure 6.1). This packaging design utilizes tactile markings (Figure 6.2) to differentiate their shampoo with vertical stripes and conditioners with dots (Culliney, 2019). This concept was met with positive feedback from the company which further motivated P&G to advance with the developments in packaging design. Additionally, this project was led by P&G's accessibility leader, Sumaira Latif, who is also blind herself (Culliney, 2019). She states that as a blind woman, she finds that this type of change impacts her daily life immensely, helping her to navigate easily and more independently (Culliney, 2019).



Figure 6.1: Layout of Herbal Essences’s sensory enhanced bottles

Source: (Herbal Essences, 2019)

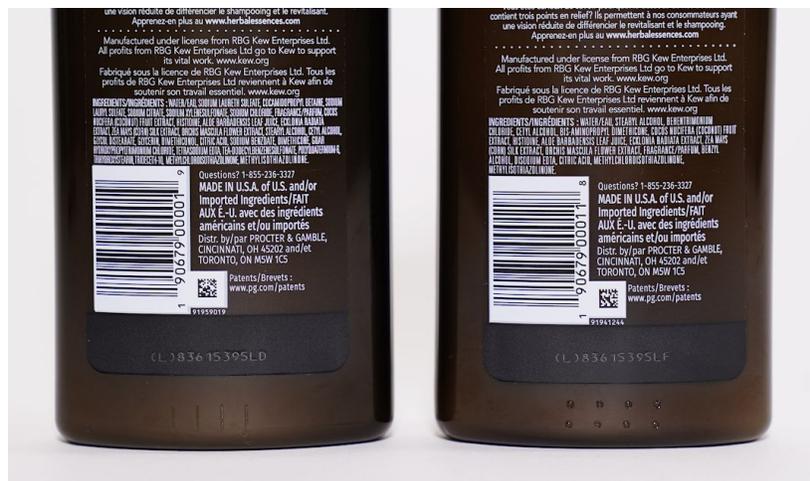


Figure 6.1: Herbal Essences’s tactile markings for shampoo (left) and conditioner (right)

Source: (Herbal Essences, 2019)

Consumers living in Ontario may also find that they may be in favour of the integration of accessible packaging design with product packaging, especially with the Accessibility for Ontarians with Disabilities Act (AODA) coming into effect. AODA is a law that mandates for

businesses in Ontario to follow standards in order to reach the eventual goal of making the province accessible by 2025 (Thomson, 2018). When considering the progressions of this law, more companies, including beauty brands, should begin working towards this goal. According to AODA, there are five standards that must be met, with one including the Information and Communications Standards (Thomson, 2018). In this standard, it outlines Braille as one of the accessible communications formats (Thomson, 2018).

Implications

Based on the research gathered for this study, it can be identified that using design thinking skills and current tactile systems assisting visually impaired readers can become integrated to create accessible product packaging. Using design thinking concepts and practices for accessible design generates ideas that will result in barrier-free solutions. For people with visual impairments, the sense of touch is vital when reading braille text and tactile markings. When brands incorporate these tactile systems into product packaging, it encourages the ease of navigation in their daily lives. For instance, ISO developed standards pertaining to accessible packaging design. Although it is not a requirement for companies to integrate tactile systems into their packaging, it is reassuring to know that if brands make the decision to pursue accessible packaging designs, there are standards and guidelines to assist in the execution.

The results of the survey also indicate that integrating accessible design systems into product packaging would gain a positive reaction by being inclusive to everyone, and generate an awareness of packaging products. As examined from the results of question five in the survey, many people were not fully aware of the brands and products that were designed specifically for visual accessibility. With companies bringing attention to accessible design features, it will inform consumers of accessible design and indicate the reasons why this is important for visually impaired consumers. For example, singer Pharrell Williams launched a skincare line entitled Humanrace. This brand is focused on providing a unique skincare experience while emphasizing the message of inclusivity in skincare (Regan, 2020). In Figure 6.3, it can be identified that the product packaging adopts braille text which is accessible to people who have visual impairments (Regan, 2020). From a consumer perspective, the additions of braille text on product packaging

indicate that the Humanrace brand is truly focused on embracing the idea of an inclusive experience for all consumers.



Figure 6.3: Product packaging for Humanrace skincare brand

Source: (Humanrace, 2020)

Limitations

There are limitations within this method of research design. The utilization of online surveys for primary data collection poses issues concerning the inaccuracy of data due to the insufficient number of responses, the demographics of the participants, and motivation of personal biases. During the data collection period, the online survey only gathered responses from a total of seven participants. This may have caused inaccuracies within the study, as the results of the online survey may have differed if additional participants contributed to the survey. The participant demographic between the ages of 18-24 is considered as members of the Millennial generation. As 100% of the participants were members of this age group, this may have been advantageous in that they were more knowledgeable or socially aware of this topic in comparison to other distinct age groups. Lastly, the issue of biased responses may be due to the topic of the study

resonating with participants' morals and social values. However, participants were encouraged to respond based on their interpretations of the questions in the online survey.

CONCLUSION

The aim of this thesis was to investigate the importance of disability-friendly packaging for people with visual impairments. Based on the results of this study, it can be concluded that consumer inclusivity was the most significant factor as to why utilizing tactile systems in product packaging is important. Beauty brands will have the ability to cater to a wider range of consumers, providing economic benefits for the company. Furthermore, visually impaired consumers will be provided with a wider array of beauty products that can be used independently and with ease on a daily basis. The research provided within this thesis is also able to show how current tactile systems created for visually impaired people are able to coincide with design thinking approaches in order to create accessible product packaging.

Based on this information in this thesis, the reader can further understand the importance of why tactile communication systems are important to people who are visually impaired. The information can be used by packaging designers to understand the types of tactile systems that currently exist, different design thinking methods in relation to designing for accessibility, and current ISO standards and guidelines for accessible design features. This information also shows that select members of the Millennial generation are in support of the integration of accessible packaging design in beauty products.

The use of online surveys as a primary research method is proven to be effective in many aspects such as being an efficient method for data collection. However, with this study, there are some limitations that can be considered. First, one of the limitations is that responses can derive from an inaccurate participant group. The total number of participants who completed the online survey was seven participants. Also, the participant demographics were solely limited to the 18-24 age group. With these limitations, the study gained minimal information from the survey and did not provide an accurate representation of beauty product consumers. Secondly, when analyzing the results of the survey, some results were not able to support the study. As mentioned in the discussion section, the results of question four of the survey were shown to be

invalid for this study. Lastly, participant opinions do not provide the most accurate results. As this was a study based on accessible packaging design for consumers with visual impairments, the participants provided insights from the perspective of an able-bodied person. With the ability to use visual reading skills, braille text and tactile markings are not mandatory methods of reading. For instance, in question three of the survey, environmentally sustainable packaging materials may have been a more important design feature to participants as opposed to the use of braille text on product packaging.

Lastly, based on the results of this study, there are many areas that can still be explored within this topic. In terms of future research, there are several points that could still be made as to why accessible design methods should be integrated into product packaging. The newly developed CyR.U.S. System of Raised Universal Symbols was examined in the literature review of this thesis. However, as this system has yet to be further developed, there can be more information to weigh the advantages and disadvantages of this system. Additionally, Victoriand Beauty founder, Victoria Watts, has stated that the company is currently in the process of developing trademarks so that the CyR.U.S. System can be adopted by other beauty brands (Ustroke, 2020). As defined in the introduction of this thesis, visual impairments are not limited to blindness. As there are different types and levels of visual impairments, different design approaches could be considered in a similar study, to consider other visual impairments, such as low vision or colour blindness. A more interesting approach to studies regarding this area of research can be conducted by visually impaired researchers. By providing a standpoint from the perspective of a visually impaired person, the research will be able to investigate more practical implications as opposed to generating conclusions using textbook theories and concepts.

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APPENDIX

Survey Results – *Accessible Cosmetics Packaging Survey*

How old are you? *

1. 17 or younger
2. 18 to 24
3. 25 to 29
4. 30 to 39
5. 40+
6. Prefer not to say

Question 1

On a scale of 1-5, how often do you purchase beauty products in a month? *

(ex. makeup, skincare products , body care products, hair care products, etc.)

	1	2	3	4	5	
Not often	<input type="radio"/>	Very often				

Question 2

When purchasing a beauty product, what are some features that are important to you in terms of packaging design? *

- Bold, eye-catching designs
- Minimalist designs
- Braille text
- Innovative packaging
- Eco-friendly packaging materials
- Textile design
- Scented packaging
- Packaging design does not matter to me
- Other...

Question 3

Assume that these two products contain the same formula. Between the two options, which one are you more inclined to purchase? *



Option A



Option B

- Option A
- Option B

Question 4

Do you think beauty brands should require future packaging designs to be more accessibility-friendly? Explain your reasoning. *

Long answer text

Question 5

What are some accessible brands/products you are aware of? *

- Soap Co. Braille Packaging
- Victorialand Beauty CyR.U.S System Packaging
- Dr. Jart+ by Pentagram Packaging
- Herbal Essences Tactical Packaging
- Humanrace Braille Packaging
- Other...

Question 6

Read the following statement below. On a scale of 1-5, how do you feel about this statement? *

“This blind population of 300 million is expected to double in the next 20 years, that’s a really big thing. Change needs to happen now so that we can support this community.”

Strongly disagree 1 2 3 4 5 Strongly agree

○ ○ ○ ○ ○

Question 7