



# **DESIGN THINKING AS A CONSUMER-CENTRIC APPROACH IN A SEGMENTED MARKET**

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## DESIGN THINKING AS A CONSUMER-CENTRIC APPROACH IN A SEGMENTED MARKET

### ABSTRACT

According to Peppers and Rogers (1993), the evolution in the art of marketing over time is glaring. Today, marketing focuses on the consumer, as they tend to buy the experience of a product more than what the product (or service) offers. This is possible as the market is not generalized but is segmented enabling consumer cohorts to think about and expect different results from a single product. It is therefore imperative that to sell, producers must understand the needs and expectations of their target consumers. This approach is called *consumer-centrism*. It is similar to Design Thinking, a process that demands re-thinking the creative process to incorporate co-creation and end-user engagement. Some brands, however, are ignorant of this process, which eventually has a negative impact on their market success and the brand loyalty of their target consumers (Shute & Becker, 2010). The objective of this paper is therefore to demonstrate a methodological presentation of the *Visual design thinking process*, a type of consumer-centric approach in a segmented market. A case study design was used in the study, which employed qualitative research methods. The study was carried out in the Department of Fine Art, Kenyatta University, Nairobi, Kenya. The subjects of the study are two segmented groups: millennials (born 1979-1995) and centennials (born 1996-2010). The results were presented in four phases of the Design Thinking process, which were applied to re-designing the publicity materials of the Kenya National Library Service, a State department of the Kenya government, based on the needs of the target consumers. With a thorough application of design thinking in marketing, it is expected that the brand equity and loyalty of the redesigned publicity materials will enable the millennials and centennials to be more responsive to the institution and the services it offers.

**Keywords:** Consumer-centrism, Marketing, Market segmentation, Visual Design Thinking process

## INTRODUCTION

Marketing has significantly changed over the years. There has been a significant transition shift from the use of traditional media marketing tools, like the use of flyers, billboards, newspapers, pole posters, and television, to the use of new digital media marketing tools, such as digital billboards, social media, and Google ads. As a result of this, the reach of a larger and more diverse market has been made simpler and faster. Furthermore, there has been a change in what today's consumers look for: they not only buy a product or service but the experience brought about by the product or service. Consequently, the focus of marketing has changed from consumer-based specific purchasing to consumer-based brand equity and brand loyalty. Vaid (2003) further adds that strong brand equity influences consumer choices, fosters customer loyalty, and ultimately raises a brand's perceived worth. Brand loyalty is therefore achieved when the brand markets its goods and services while targeting the specific needs of its consumers.

Modern marketing strategies cannot be effectively implemented without consumer segmentation of the potential market. Market segmentation is the practice of dividing the target market into smaller groups called cohorts, which are based on comparable factors including age, personality traits, personal preferences, and hobbies (Green, 1991). All these consumer cohorts think and expect different results from any one product. It is therefore imperative that for any product to sell in the market, the producers should understand the needs and expectations of their target consumers. This approach is referred to as *consumer-centrism*. Segmentation, therefore, enables brands to develop branding

strategies for *consumer-centrism*.

*Reverse consumer-centrism* can also be achieved when the marketability of a product in the market is built by understanding the needs of the consumer. Design thinking focuses on the understanding of the needs of the consumer. It is as a rigorous, creative, and analytical process that subjects a firm or a designer to exploration, model creation, and prototyping, acquiring feedback, and redesigning (Bell, 2008). Braha and Reich, (2003) write that the process of design thinking is very thorough and is said to be non-linear, iterative and exploratory. Literature further explains design thinking as a human-centered other than a problem-based problem-solving approach. In the field of design, Pridmore & Hämäläinen (2017) aver that to ensure that brands understand precisely their consumer demands and provide an upgraded customer experience, they are increasingly committed to design thinking. This necessitates re-thinking the innovation process to include co-creation and end-user interaction. In addition, Rotherham & Willingham, (2009) explain that business executives, legislators, and educators are joining forces to advance the notion that children need "21st-century skills" like design thinking which are necessary for both collective and individual prosperity in light of changes to our global economy and society. It also encourages them to be critical while reading and logical while thinking in order to solve complex problems. Design Thinking has four phases: Empathy Phase, Definition Phase, Ideation Phase, and Prototyping phase (Bell, 2008).

This paper demonstrates a methodological presentation of the *Visual design thinking process*, a type of consumer-centric approach in a segmented

market. The four phases of Design Thinking are applied when re-designing a product in the market, publicity materials of the Kenya National Library Service, a State department of the Kenya government, to the expectations of two segmented groups of society, the mil-

lennials, and centennials. It is expected that the brand equity and loyalty of the re-designed publicity materials will enable the millennials and centennials to be more responsive to the institution and the services it offers.

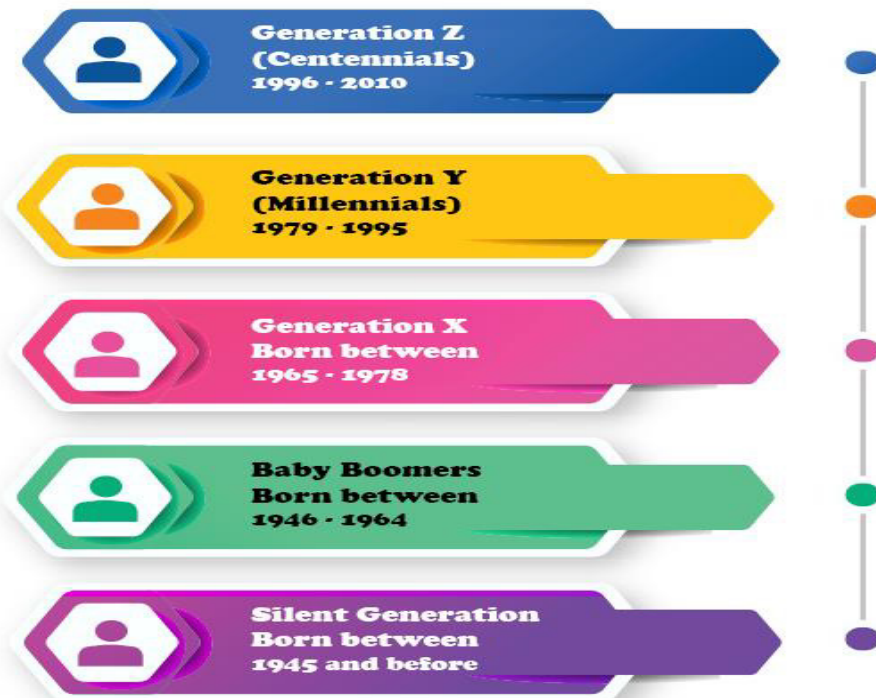
## THEORY

### Evolution of Marketing

The aspect of marketing is fast changing. Our current economic, technological, and social surroundings are changing in ways that affect the choices marketing managers make (Goldsmith, 2004). Globalization, technology, and consumer demands are the three main areas of change in the modern world. Marketing theory, marketing research, and marketing management are all impacted by these shifts. With the development of technology and easy access to the internet, consumers now have the opportunity to demand that they be treated as unique individuals rather than as segments or “targets.” Gilmore and Pine (2000) opine that it is therefore inevitable for customers to anticipate businesses to provide tailored experiences based on their unique needs and circumstances. In that connection, marketing is entering the era of “per-

sonalization”, which Peppers and Rogers (1993) argue is the most significant concept in the marketing industry since the emergence of formalized theories of positioning and branding. There is need for new design strategies like Design Thinking that is discussed in this paper, to be used in marketing

**Consumer segmentation** Ramos’ (2021) description of consumer segmentation is that it is a diverse marketing strategy that is entirely dependent on the marketing goal, and as a result, resource allocation is based on consumer needs. One of the approaches to grouping a consumer population is based on the behavioral factors of the said population. This study’s consumers were grouped according to their year of birth, which is generally termed generational cohorts. Figure 1 in Table 1 shows a summary of the generational cohorts as described by From and Read (2018).



**Table 1: List of generational cohorts/**Figure 1: Source: Researcher's own design

Consumers are made up of cohorts that are heterogeneous in nature. An example is a generational cohort. Ramos (2021) classifies this particular cohort into Traditionalists or silent generation (born 1945 and before), Baby Boomers (born between 1946- 1964), Genera-

tion X (born between 1965- 1978), Millennials or Generation Y (born between 1979- 1995) and Centennials or Generation Z (born between 1996- 2010). This study focused on Millennials and Centennials only.

## RESEARCH METHODS

This study's methodology was qualitative in nature as it involved interacting with the subjects and collecting primary data that was interactive. It also applied the case study research design. The kind of data collected is explained at every stage in the latter sections of this paper.

### Sampling of the Target Population

The target population of the study were undergraduate students of the Department of Fine Art and Design, Kenyatta

University, Nairobi, Kenya and who were born between 1988-1995 (Millennials) and postgraduate students born between 1996-2004 (Centennials). A total number of one hundred and seventy-seven (177) of three hundred (300) students were used for this study. 168 were centennials from the undergraduate study group and 9 were millennials from the postgraduate study group.

Three different sampling techniques were administered. Purposive sampling was used to select the students born between the years 1988 and 2004. Cluster sampling was then applied to

cluster the students those postgraduate students born between the years 1988-1995 (Millennials) and undergraduate students between the years 1996-2004

(Centennials). Finally, a random sampling technique was administered while selecting the required sample size from each cluster.

## RESULTS

The following section presents and explains the results of the four stages of Design Thinking an approach applied to re-designing a product in the market, publicity materials of the Kenya National Library Service, a State department in the Kenya government.

### Stage 1: Empathy Phase

Empathy is the initial phase of the visual design thinking process. Empathy is crucial to solving a human-centered design process and it often at times involves a one-on-one interaction with the subjects. In empathizing with the situation, the study sought to determine

what the design problem was and why there was a need to redesign the Kenya National Library Service logo to make it more responsive to millennials and centennials.

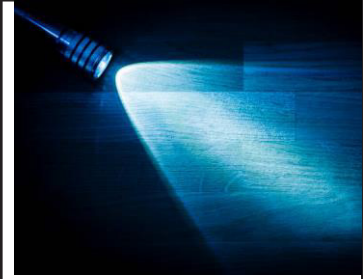





A checklist was used to collect primary and secondary data that identified the functions of the state department under study. Next, questionnaires were used to collect information on what elements of design resonated with the personality traits of the millennials and centennials. These elements of design were categorized and coded as A and B (see Table 2.)

Elements of Designs Coded A	Elements of Designs Coded B
Use of Thick lines, Diagonal and curved lines, Circular shapes, and warm colors in designs	Use of Thin lines, Vertical lines, squared shapes, and Cool colors in designs
<b>Table 2: Elements of art and design resonating with the personalities of millennials and centennials</b>	

## Stage 2: Definition Phase

The second stage of the Visual Design thinking process entailed evaluating data to determine the root cause of an issue from the perspective of the end user, in this case, the millennials and centennials. The study sought to establish concepts based on the primary function of the Kenya National Library Service

which is to ‘promote information literacy and reading among Kenyans.’ The concepts were used as a basis for the logo re-design. For the purpose of this paper, the concept of enlightenment is used for illustrative purposes for the re-design of the logo. Table 3 indicates sample inspirations drawn from existing pictorials on that concept.

		
<p>SOURCE:  <a href="https://www.istockphoto.com/photos/flashlight-dark">https://www.istockphoto.com/photos/flashlight-dark</a></p>	<p>SOURCE: <a href="https://www.pinterest.com/pin/AZlhz6slreiBpLkRhKH_XlMCmtsE4LlleePq0mi_jxapY1aoUQgy0P4c/">https://www.pinterest.com/pin/AZlhz6slreiBpLkRhKH_XlMCmtsE4LlleePq0mi_jxapY1aoUQgy0P4c/</a></p>	<p>SOURCE:  <a href="https://www.istockphoto.com/photo/book-and-glowing-letters-gm522513933-51399092">https://www.istockphoto.com/photo/book-and-glowing-letters-gm522513933-51399092</a></p>
		
<p>SOURCE:  <a href="https://www.istockphoto.com/photo/open-white-door-on-orange-wall-gm504739809-44455106">https://www.istockphoto.com/photo/open-white-door-on-orange-wall-gm504739809-44455106</a></p>	<p>SOURCE: <a href="https://www.shutterstock.com/image-photo/rays-light-shining-through-dark-clouds-8518222">https://www.shutterstock.com/image-photo/rays-light-shining-through-dark-clouds-8518222</a></p>	<p>SOURCE:  <a href="https://www.psychologytoday.com/intl/blog/emotional-freedom/202206/how-the-brains-mirror-neurons-affect-empathy">https://www.psychologytoday.com/intl/blog/emotional-freedom/202206/how-the-brains-mirror-neurons-affect-empathy</a></p>
<p><b>Table 3: Sample Inspiration drawn from existing pictorials on the concept of enlightenment®</b></p>		

Out of the above inspirations, a triangular shape that represents the sense of movement from a closed-up space to an open-up space was identified (Table 3.) The elements of design, identified by the millennials and centen-

nials (Thin lines, Vertical lines, squared shapes, Cool colors) as shown in Table 1 together with the application of ‘dominance’ as a principle of design were used in refining the kind of triangular shape seen in the below Table 4.






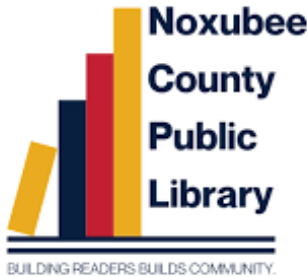
<p>Process of development of a triangular shape from existing enlightenment inspirations</p>	<p>Detail of the triangular shape derived from existing enlightenment inspirations</p>
<p><b>Table 4: Illustration of the development of the triangular shape from existing inspirations on enlightenment</b></p>	

Source: Researcher’s own design



Next, research is done on existing library logo designs that have incorporated the elements of design that show the personality of the millennials and centennials (Thin lines, Vertical lines, squared shapes, Cool colors) and others that utilize ‘dominance’ as a principle










of design were sought. The purpose of this was to reuse concepts from these designs in idea development when re-designing the new Kenya National Library Service logo. Some of the selected existing designs are shown in Table 5.

 <p>SOURCE: <a href="https://www.pinterest.com/pin/322500023290521281/">https://www.pinterest.com/pin/322500023290521281/</a></p>	 <p>SOURCE: <a href="https://www.memphispbl.org/site/s/dplorg/files/2021/07/DPL_horiz3_2color20%20(2).jpg">https://www.memphispbl.org/site/s/dplorg/files/2021/07/DPL_horiz3_2color20%20(2).jpg</a></p>	 <p>SOURCE: <a href="https://basicsdekalbcounty.org/about/">https://basicsdekalbcounty.org/about/</a></p>
 <p>SOURCE: <a href="https://www.conradlibrary.com/foundation">https://www.conradlibrary.com/foundation</a></p>	 <p>SOURCE: <a href="https://schools.scsk12.org/Page/10102">https://schools.scsk12.org/Page/10102</a></p>	 <p>SOURCE: <a href="https://www.noxubee.lib.ms.us/testing-tools/">https://www.noxubee.lib.ms.us/testing-tools/</a></p>
<p><b>Table 5: Existing library logo designs that have incorporated ‘Code B elements of design’ and Dominance in their designs</b></p>		

### Stage 3: Ideation Phase

In the third phase of the visual design thinking process, the designer generated ideas for creative concepts to solve the challenge. This stage was divided into two parts. The first part involved experimentation using photography to develop the best image ideas that illustrate the notion of movement from a closed-up space to an open-up space

(enlightenment concept). For illustrative purposes, photographic images of a small, thick novel and a big notebook were photographed respectively in both a lit and dark room that had an existing source of light. Some of the images that were obtained and had a good potential for manipulation into ideas are seen in Table 6.

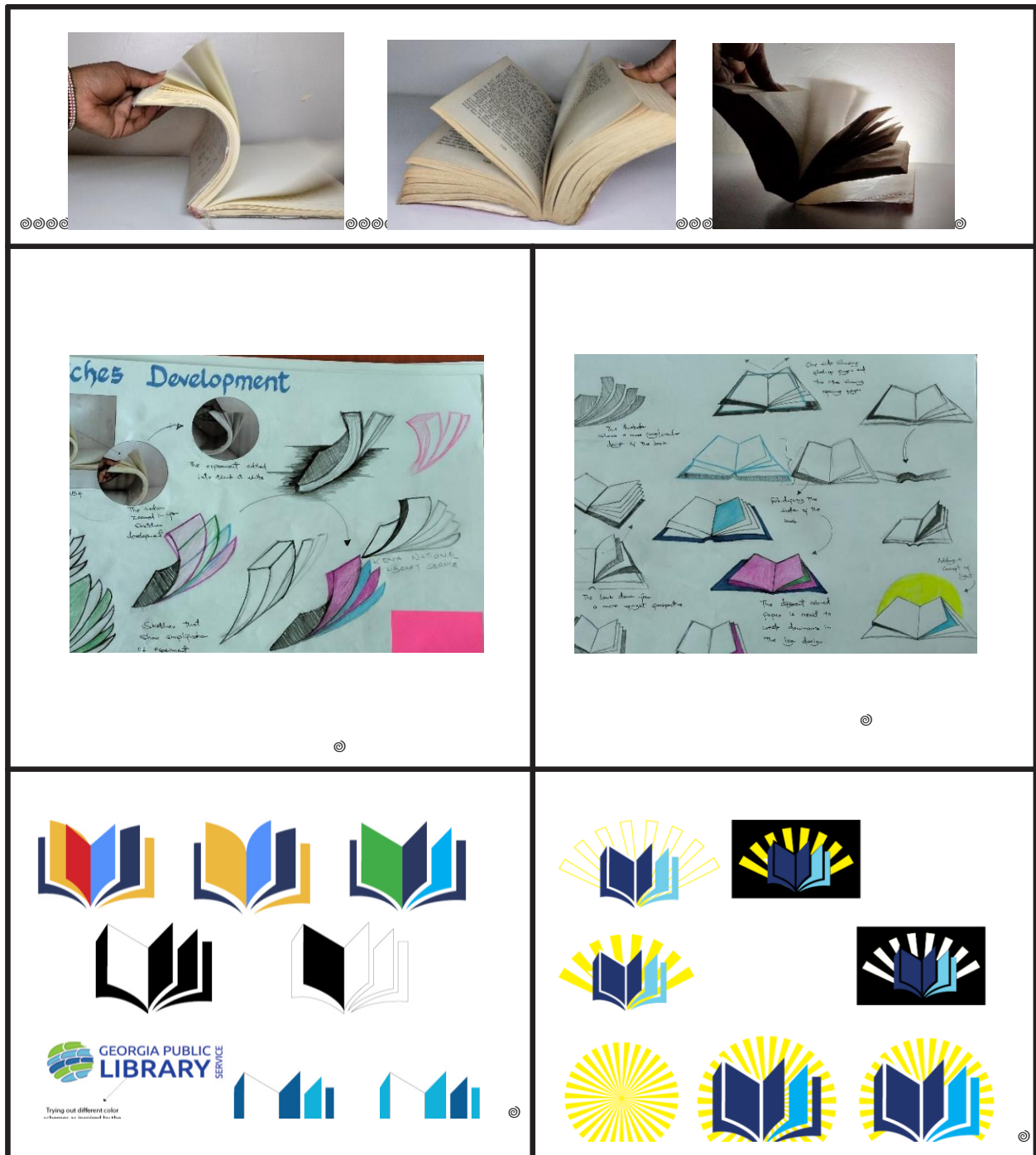
 <p><b>Test Code:</b> A884  <b>Test Done:</b> Opening by flipping a big book.  <b>Observation:</b> Pages take different curves.  <b>Comment:</b> The top curve can be manipulated into a logo for the KHLS</p>	 <p><b>Test Code:</b> A8817  <b>Test Done:</b> Opening by flipping a big book.  <b>Observation:</b> Pages take different curves.  <b>Comment:</b> Can be manipulated into a graphic images for a logo for the KHLS</p>	 <p><b>Test Code:</b> C586  <b>Test Done:</b> Opening by flipping a small book.  <b>Observation:</b> Pages are forming a V shape.  <b>Comment:</b> Can be manipulated into a graphic images for a logo for the KHLS</p>
 <p><b>Test Code:</b> C5812  <b>Test Done:</b> Opening by flipping a small book.  <b>Observation:</b> Pages spread out evenly.  <b>Comment:</b> Can be manipulated into a graphic images for a logo for the KHLS</p>	 <p><b>Test Code:</b> C5815  <b>Test Done:</b> Opening by flipping a small book.  <b>Observation:</b> Pages spread out evenly.  <b>Comment:</b> Can be manipulated into a graphic images for a logo for the KHLS</p>	 <p><b>Test Code:</b> E585  <b>Test Done:</b> Opening by flipping a big book.  <b>Observation:</b> Pages are forming a V shape.  <b>Comment:</b> Can be manipulated into a graphic images for a logo for the KHLS</p>
 <p><b>Test Code:</b> F286  <b>Test Done:</b> Opening by flipping a big book.  <b>Observation:</b> Pages gradually form a V shape.  <b>Comment:</b> Can be manipulated into a graphic images for a logo for the KHLS</p>	 <p><b>Test Code:</b> F2810  <b>Test Done:</b> Opening by flipping a big book.  <b>Observation:</b> Blurred image.  <b>Comment:</b> Can be manipulated into a graphic images for a logo for the KHLS</p>	 <p><b>Test Code:</b> F2813  <b>Test Done:</b> Opening by flipping a small book.  <b>Observation:</b> Blurred image.  <b>Comment:</b> Can be manipulated into a graphic images for a logo for the KHLS</p>

**Table 6: Sample photographic images of experiments on the concept of enlightenment, Source: Researcher's own design®**

The second part of the ideation phase involved the designer developing sketches based on the outcome of the experiments shown in Table 6. The following Tables 7 and 8 show the manipulation of the elements of design as identified by the millennials and centennials (Thin lines, Vertical lines, squared shapes, Cool col-

ors) shown in Table 2, together with the application of 'dominance' as a principle of design. They were used in developing ideas from the illustrations in Table 6 so as to develop suitable logos suitable for the millennials and centennials as separate consumer groups..

**Table 7: Sample Sketches development for a new logo suited for Millennials**

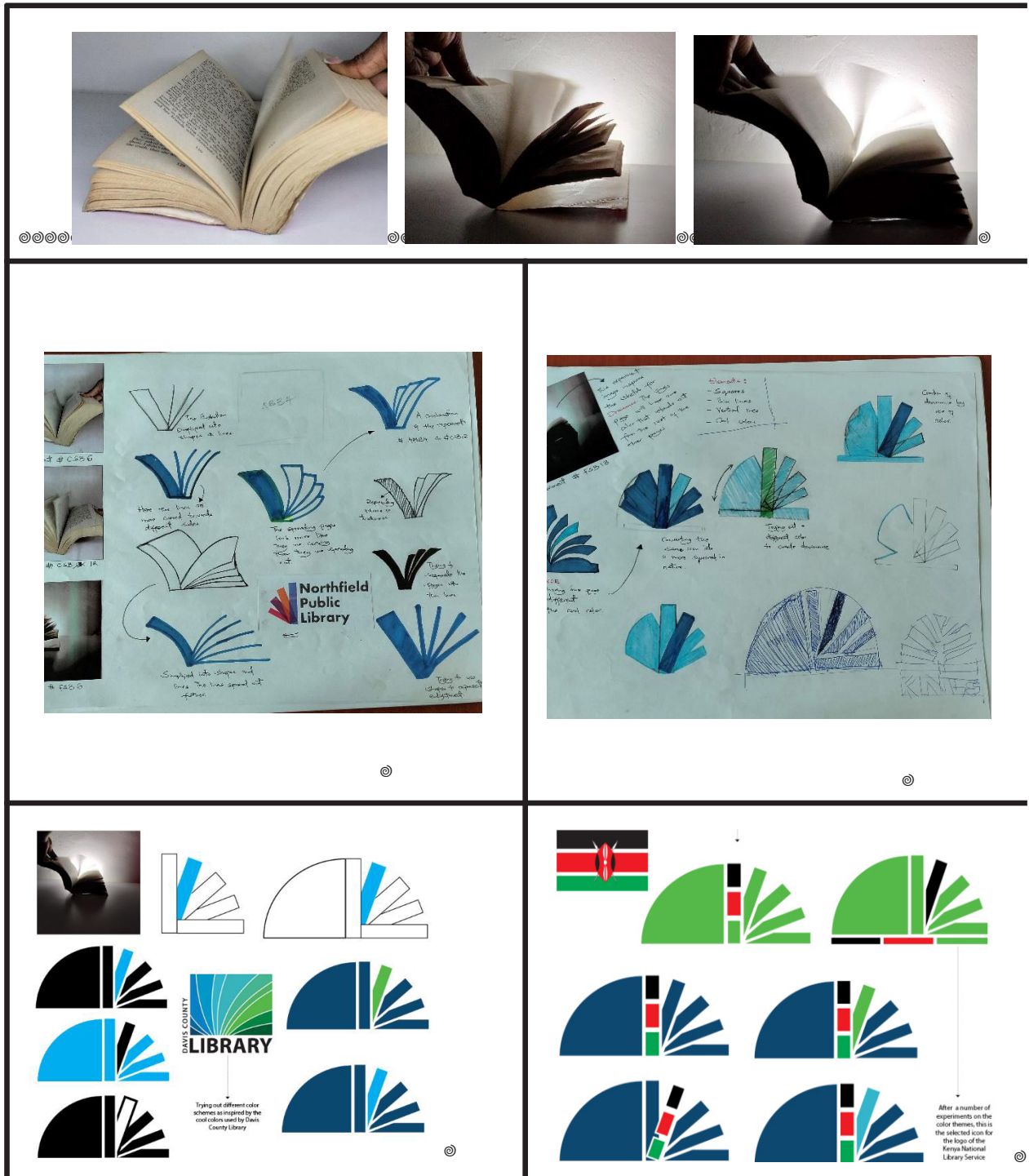


Source: Researcher's own design

Below is an illustrative process for redesign of the logo development for the

Kenya National Library Service using relevant concepts in Tables 2 and 6.

Table 8: Sample Sketches development for new logo suited for Centennials



Source: Researcher’s own design

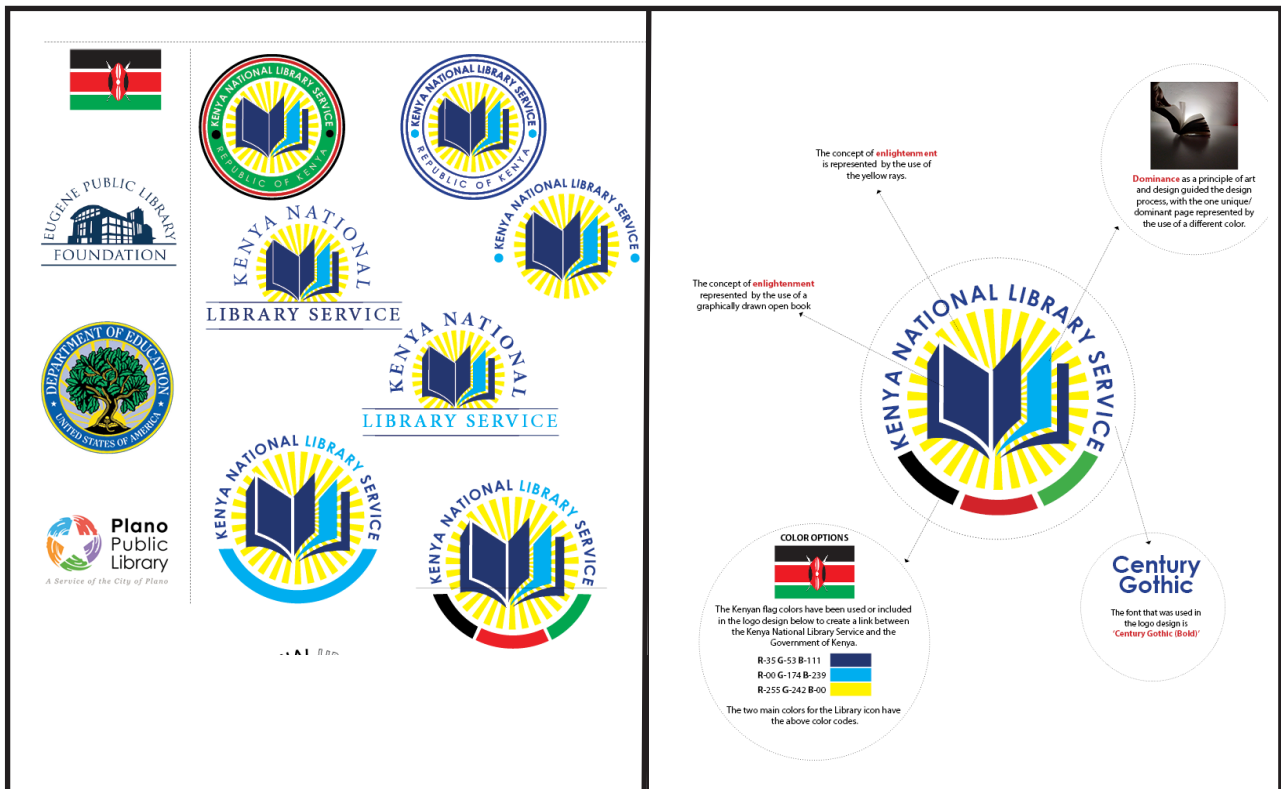
### Stage 4: Prototyping Phase

During this last stage for the visual design thinking process, the designer in the study created a number variations to the designs produced in Tables 7 and 8. This was in attempt to investigate the important ideas developed during the previous ideation process. This final stage was fully experimental and aimed at developing the best potential solution for each of the challenges identified in the previous three stages. This final phase

is also iterative: designers frequently use the outcomes to redefine one or more problems. They may go back to prior phases to make further iterations, changes, and improvements. It is also at this stage that the final prototype was tested for relevance.

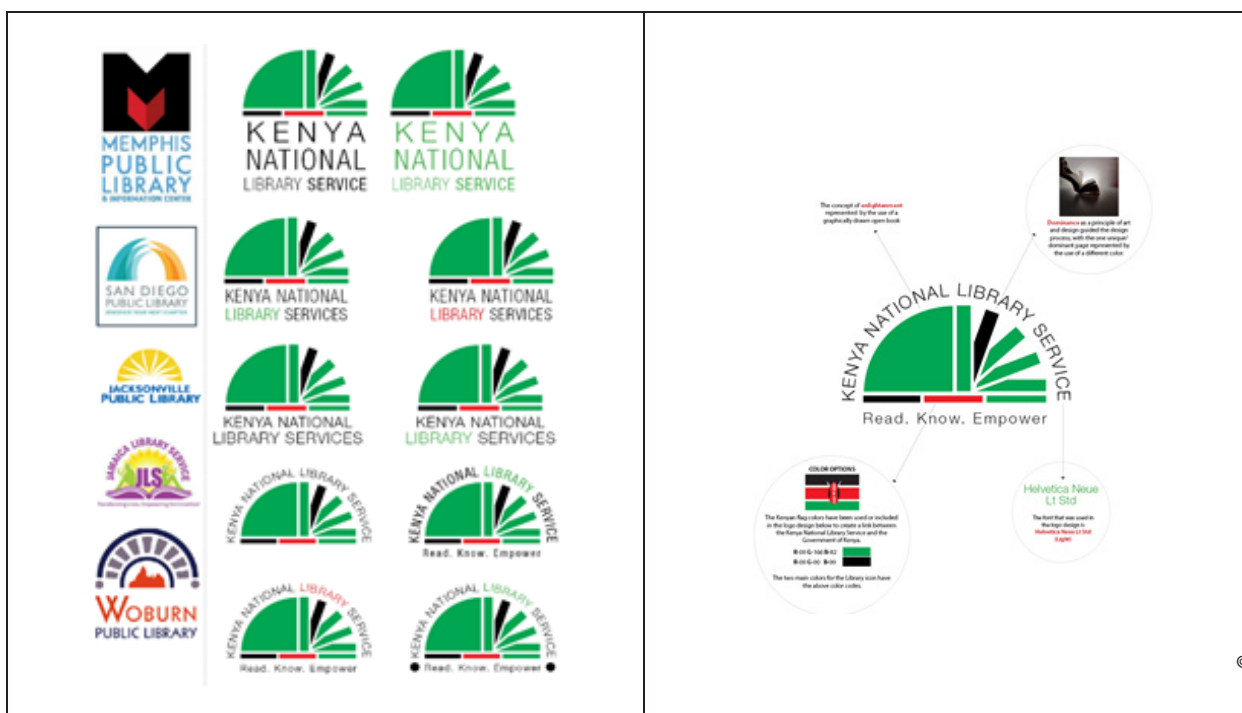
Tables 9 and 10 show further development of suitable prototype logos suitable for the millennials and centennials as separate consumer groups.

**Table 9: Sample Sketches development for a prototype logo design for millennials**



Source: Researcher’s own design®

Table 10: Sample Sketches development for prototype logo design for centennials



Source: Researcher’s own design

From the forgoing, the below Table 11 shows comparisons of the existing Kenya National Library Service logo and the re-designed state

department logo that is suited for the segmented millennials and centennial groups of the society.

Table 11: Comparison of the current and redesigned Kenya National Library Service logos

<p>The current logo of Kenya National Library Service</p>	<p>Re-designed Kenya National Library Service Logo targeting millennials</p>	<p>Re-designed Kenya National Library Service Logo targeting centennials</p>

Source: Researcher’s own design

## DISCUSSION OF FINDINGS

A systematic four-phase, consumer-centric approach known as Visual Design thinking process was applied to re-designing the publicity materials of existing brand material in a segmented market. The expectation was that brand equity and/or brand loyalty to the re-designed publicity materials by the targeted consumer groups will be enhanced as they are more responsive to the new designs, the government institution, and the services it offers.

Out of the four stages employed in the design thinking process, the most signif-

icant was the empathy stage. Here, the designer not only dug deeply to comprehend the precise needs of the consumers but also gained a profound understanding of the nature of the design challenge. The “what” question, which served as the study’s backbone, was posed at this point. Throughout the design thinking process, all the other stages—important though they were—repeatedly made reference to the empathy stage. Therefore, it is crucial for the empathy stage to be covered in detail in order to have a successful design thinking process.

## CONCLUSION

Markets are made up of a diverse spectrum of consumers, each with its own set of desires and tastes. For brands to successfully market their goods and services, they must focus on a specific group of consumers. Consumers, on the other hand, are attracted to the brand on the market if the brand understands

and empathizes with their needs, which results in brand equity and loyalty. The notion that Design Thinking can be used during the re-designing of new products in a consumer-centric approach to marketing to specific groups of the target market was affirmed in this paper.

## REFERENCES

- Bell, S. J (2008). Design Thinking. American <http://www.jstor.org/stable/27771442>
- Braha, D., & Reich, Y. (2003). Topological structures for modeling engineering design process
- Dunne, D., & Martin. R. (2006). Design thinking and how it will change management education: An interview and discussion. *Academy of Management Learning & Education*, 5, 512-523. doi: 10.5465/AMLE.2006.23473212
- Gilmore, James H. and B. Joseph II Pine (2000), *Markets of One: Creating Customer-Unique Value through Mass Customization*. Boston, MA: Harvard Business Review
- Goldsmith, R. E. (2004). Current and Future Trends in Marketing and Their Implications for the Discipline. *Journal of Marketing Theory and Practice*, 12(4), 10–17. <http://www.jstor.org/stable/40470173>
- Green, P. & Krieger, A. (1991). Segmenting Markets with Conjoint Analysis, *Journal of Marketing*, 55(4): 20-31.
- Peppers, Don and Martha Rogers (1993), *The One-to-One Future: Building Relationships One Customer at a Time*. New York: Currency Doubleday.
- Pridmore, J., & Hämäläinen, L. E. (2017). Market Segmentation in (In)Action: Marketing and “Yet to Be Installed” Role of Big and Social Media Data. *Historical Social Research / Historische Sozialforschung*, 42(1 (159)), 103–122.
- Ramos, R.G. (2021). *Marketing in Times of Crisis: Millennials & Centennials*. Retrieved on June 8, 2022 from
- Rotherham, A. J., & Willingham, D. (2009). To work, the 21st-century skills movement will require keen attention to curriculum, teacher quality, and assessment. *Educational Leadership*, 9, 1
- Shute, V. J., & Becker, B. J. (2010). *Innovative assessment for the 21st century*. New York, NY: Springer-V
- Vaid, H. (2003). Branding defined. In H. Vaid, Ed., *Branding: Brand strategy, design and implementation of corporate and product identity* (pp. 22-45). New York: Watson-Guption Pubns.
- Wedel, M. and Kamakura, W.A. (2000) *Market Segmentation: Conceptual and Methodological Foundations*. 2nd edn. Boston, MA: Kluwer