

TYPOGRAPHICAL ELEMENTS USAGE ON BILLBOARD DESIGN AND HOW IT AFFECTS READABILITY

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Abstract

Poor legibility of most typographical elements on billboards across Kaduna indicates that they lack conformity to standard principles and elements of typographic use, thereby, affecting the qualities of billboard design in terms of legibility, readability, kerning, leading and suitability as affected by the space, height and baseline. The basic objectives of this study are to determine the typographical problems associated with legibility and readability of selected billboards in Kaduna metropolis and examine the standard use of typography on billboard design. Survey research design was utilized with a sample size of 384 who responded to our research instrument. Data was analyzed descriptively and content analysis. The study revealed that the general public perceive the elements of redesigned billboard advertisements as effective. The legibility of typography is crucial not only for graphic designers but also for the audiences targeted by these advertisements. However, some of the texts on the billboard are not legible enough for people to read while on transit as indicated by 45.6% response. This indicates that careful font choice is an important standard for effective billboard typography, ensuring readability and impact from a distance through clear, bold, and well-sized fonts. It was recommended that Advertising Practitioner Council of Nigeria (APCON) should urgently make it mandatory for designs elements to be certified before any outdoor advertisement is put out and also that advertising agencies should employ only registered and certified designers with professional bodies to check quality control of their products to that sanity is maintained in the design industry.

Key words: advertising, legibility, billboard, typography and readability.

Introduction and Background

Advertising as a promotional activity is a complex system with many interacting elements. Creative design and visual communication play one of the most important roles in the process of advertising. Typography is an essential part of design and visual communication, because many advertisers see typography and use type as just a means of transmission, without looking at the importance of typographical elements in the advertising messages. Often, various adverts presented in different types of media contain rich visuals but have poor usage of typography, which make the advert look inefficient. Effective communication becomes an absolute as opined by Sanchez (2000). He further stated that communication accounts for the difference between success and failure or profit and loss in any given organisation. The advent of computers has made many people to go into the business of graphic design, which has given rise to the emergence of both professional and non-professional infiltrating the field.

The concept of billboard as a form of advertising media through which products, services and messages are being exposed to wider audience was not new in Nigeria as it has once gained ground prior to independence. Even after independence, Nigeria like any other nation had developed various forms of billboard designs for various communication and commercial purposes which is regarded as one of the major infrastructure characteristics of an urban

environment. (Godin, 2014) Most urban environments were adorned with various forms of billboards and signposts to make life more meaningful to the dwellers.

According to Stewart (2013) billboards came into being as a result of the evolution of signs, which were initially associated with gesture or motion. However, it gained significance in the 1390s when merchants were required to label their premises with their own signs. In the 16th century, the use of signs gained a wider acceptance as it was seen as any writings, including letter; pictorial presentations, illustrations and decorations banners, flags or any other figure of similar characteristics. Signs could be made into a structure and painted with the aim to announce, direct, caution or advertise a business, commodity or provide information.

According to Kayode (2018), the first billboards in Nigeria were erected in the 1920s at Lagos (Iddo and Apapa). The earlier advertising companies such as; West African Publicity Companies, U.A.C, later Afromedia began to propagate the use of billboards for highway advertising, and manufacturing industries. After independence, petty trading became another form of business in Nigeria. Petty traders eventually grasped the importance of billboards, which they used maximally to boost their trade. With the economic downturn of the late 90s which made it impossible for the government to pay salaries regularly, many workers with the aim of making ends meet embraced trading so as to improve their revenue base. Small shops and supermarkets raised considerably in all streets. Signs and billboards were grossly abused and resulted in making cities crowded with signs and posters.

The use of billboards to create awareness for products and services, its ideas are spreading astonishingly in Nigerian's developed cities. Earlier than now, Hodgson and Berman (2017) had foreseen and foretold that billboards are an efficient and effective way of conveying advertising messages to the public and will be best suited for the structure of our cities and our transportation networks.

Problem of the Study

Kaduna state is one of the major industrial centres in Northern Nigeria, where one can come in contact with many installed billboards across different areas of the state. Many of the text on the billboards are not in conformity with the elements legibility on the billboard thereby affecting the effectiveness of the billboard in terms of legibility on the target audience.

An average person is exposed to over 2,500 outdoor advertisements per day, as opined by Godin (2014). The researcher also noted that most billboards in Kaduna and its environs, do not adopt the usage of simple fonts, this makes writings and designs complex for the audience to comprehend easily.

The problem of this research is lack of legibility of most typographical elements on billboards they do not conform to the standard principles and elements of typographic use thereby, affecting the qualities of billboard design in terms of legibility, readability, kerning, leading and suitability as affected by the space, height and baseline.

This research also observed that most billboards in Kaduna and its environs, do not adopt the usage of simple fonts, this makes writings and designs complex for the audience to comprehend easily. A good billboard design is meant to be read within five to six seconds while on transit as summarized by Khan (2016). "Some font styles are not appropriate for some kind of adverts and usage of such fonts create complications and the aim of advertisement using billboards gets defeated".

Aim and objectives of the study

The aim of this research is to analyze typographical elements on billboard advertisement as means of enhancing the legibility of billboard adverts in Kaduna metropolis. In view of the aim the objectives of the study are to:

- i. Determine the typographical problems associated with legibility and readability of selected billboards in Kaduna metropolis.
- ii. Examine the standard use of typography on billboard design.

Research Questions

Based on the above stated objectives the research seeks to find answers to the following questions;

- i. What are the typographical problems associated with legibility and readability of selected billboards in Kaduna metropolis?
- ii. What are the standard use of typography on billboard design?

Basic Assumptions

This research is based on the assumption that a number of outdoor advertisements installed in some area of Kaduna metropolis have problems with legibility and readability of typographical elements. The study also assumes that those billboards mounted at the stated area of the study were produced by non-trained professional in the field.

Scope of the Study

This study analyses the problems of typographical elements usage on billboard design and how it affects readability, legibility. This study covers Kaduna metropolis; to make in-depth analysis of billboards design in Kaduna metropolis and focus on specific issues of typographical and visual elements which affect principles of aesthetic, legibility, readability, colour, size relative to space and other elements of design on billboard. Also, preliminary studio work was done in the Department of Industrial Design, Ahmadu Bello University where all the practical work was done on the billboards.

Justification of the Study

The study is justified on the basis that research of this nature is of paramount importance to the practitioners and theorist of the field of design. Furthermore, a study of this nature has been largely ignored by researchers; it enlightens and expand the frontiers of knowledge on typographical elements on billboards. If research of this nature is ignored, the problems of typographical elements on billboards legibility and readability linger on and will not be addressed. A print advertisement is designed to be seen up at close range or at rest while outdoor is not. It is typically seen from a moving vehicle at a great distance. So the message must be registered in a matter of seconds. The viewer cannot sit and ponder its meaning.

Literature Review

Typography

Typography has been referred to as the craft of composing type and printing, further, Logosix (2021) defines typography as an art and technique of arranging letters and text to make written work readable, legible and appealing to the eyes when displayed. Every font has its own use

and meaning that help the reader to convey the emotion of the content. Typography originates from the Greek word of “typos” (form) and “graphia” (writing), typography means to write in accordance with form. Yadav (2014) states that Typography usually comprises of typefaces, type size, line length, spacing, visual, functional and artful arrangement of the other elements relevant with the letter and literary-visual communication and also a design language. He further stated that to make the message convincing, typography is an essential element of written communication. Today typography is considered to be an art and is defined as visual and functional arrangements to make communication legible by others. Solomon (2015) elucidated typography “Typography is the art of mechanically producing letters, numbers, symbols, and shapes through an understanding of the basic elements, principles, and attributes of design.” Warde (2016) too considers typography as an effective tool in both art and communicating.

Design/Type Eras

- i. **Pre-Gutenberg** (1455) Hand produced
- ii. **Gutenberg** (1456–1760) Blossoming of printing, Increased literacy and Roman fonts replace Blackletter
- iii. **Industrial** (1761–1890); Mechanics controlled design, Efficiency over aesthetics, Disproportionate ads emphasis, Typeface effects, not integrated
- iv. **Artistic** (1891–1983); Type design improved, respected, Words and images combined well, Type integral to design
- v. **Digital** (1984–present); Computer-generated type, Personal and digital printers, Ubiquitous hardware/software.

Anatomy of Type

Over the centuries, a nomenclature has evolved that identifies the various components of individual letterforms. By learning this vocabulary, designers and typographers can develop a greater understanding of type and sensitivity to the visual harmony and complexity of the alphabet. The horizontal guidelines were drawn to contain and align each line of lettering together. Letterforms and their parts are drawn on imaginary guidelines to bring uniformity to typography. All characters align optically on the baseline. The body height of lowercase characters aligns optically at the x-height, and the tops of capitals align optically along the cap line. To achieve precise alignments, the typeface designer makes optical adjustments in the anatomy of typefaces as shown blow.

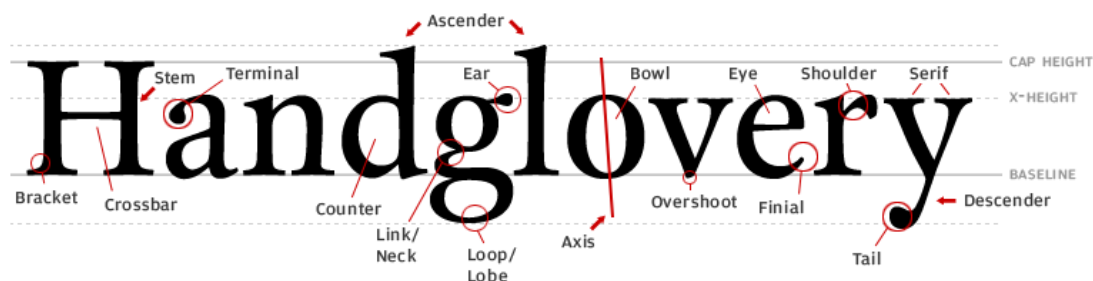


Figure1: Anatomy of Type

Source: <http://www.typographydeconstructed.com/category/anatomy-of-type/>

Use of Elements and principles of Design in Typography

Successful visual communication relies on some key principles of design, according to Martin, (2008) state that principles and elements are simplicity, clarity, distinctiveness, emphasis, colour, principles and readability. In addition, simplicity mean as non-obstructive as conceivable, clarity as explicit, distinctiveness as being easy to distinguishable, while emphasis means to easily perceive critical information. According to Mashood (2011) the importance of clarity and readability that typography must be capable of expressing the value of the composition that is tend to show readability.

Though elements of design have been placed in different perspectives by both researchers and authors, Ogunwole (1996) gives the elements of design as; line, form, colour, texture and space, while Nelson (1977) further stressed the list of elements of designs as; line, shape, colour, texture, tone, direction and size.

Typography Layout

Ideas of something mentally combining all typographic elements in creating an interesting design, the element that are used include headline and visual. Typography and picture element need each other to make the design meaningful and gives realistic picture of what headline is saying. In concordance with Ogunwole (1996) pictures interpret originally what the copy says and the combined effort of maintaining headline and copy is referred to as total concept.

Before any designer can begin a design layout, he or she has to consider the proper layout such as; layout format, size, text to be use, type of visual, colour, position of caption and so on. He proceeds to make series of sketches called thumbnails and one is developed into rough sketches that bring out the details of the design, then finally proceeds to computer generate design were colour and text are modified to a finished product.

Readability, Legibility and Comprehension of Typography

Typographic studies also have explored areas such as readability, legibility and comprehension of type. Readability, as defined by Tinker and Paterson (2016) is based on and measured by the speed of reading. Legibility, as defined in Tinker and Paterson (2016) is a combination of ease and speed of reading a passage. Comprehension, in a typographic sense, looks at the effects of typographic variations on reading comprehension.

Type and Expression of ideas

Typography Choice of fonts for expressive purposes

Typography has a central role in kinetic typography that is relevant to time. A full understanding of typography applications will serve to direct the designer in choosing suitable typeface with which to express and communicate a message Yadav (2014), stated that each typeface has its own aesthetic, expressive qualities, as evidenced by visual attributes of its letterforms. It is important for students and practitioners to know the basic classifications of typefaces; type category has distinct, functional qualities. Within any category, each typeface has its own individual identity because of different proportions and a variety of line weights, widths, directional slants and so on. These individual qualities clearly determine that each typeface demonstrates a different use and purpose for expression. A well-combined variety of

typefaces bring variations of expression and harmony to the design. Awareness of these classifications is an essential tool in developing a designer's ability to select an appropriate typeface that enhances the expressive message in typography (Yadav 2014).

Form

The use of typography is the primary means of presenting ideas and messages for expressive communication in typography. Yadav (2014) argues further that in this case, typography has a dual role; to represent a concept, and to do so in a visual form. This interplay of meaning and form brings a balanced harmony into the stage both in terms of function and expression. Displaying type as a form provides a sense of a letterform's unique characteristics and abstract presentation. When a typeface is perceived as form, it no longer reads as a letter because it has been manipulated by distortion, texture, enlargement, and has been extruded into a space. Space becomes an active live stage and brings a new dimension to our visual environment Solomon (2019).

Expressive

To Solomon (2019), it means it is important to hold on to the purpose of type itself. Its physical form has its own expressive personality as well as being able to interpret meaning and guide stories. He further stated that the physical qualities of type, such as light or bold, round or square, short or long, wide or narrow, slim or heavy, make their own personal impression. Some of them look beautiful, delightful, fresh, ugly, angry, formal, casual, loose or stiff. It is as though each typeface has its own purpose for existence. Type also serves to represent the expression of various actions. Letterforms can appear to walk, run, jump, hide, climb, dance, fly, stand, rise, hang, float, sink, or crash. They can be quiet or loud, surprised, or appear to be shouting or crying. Each typeface represents its own expressive meaning through its strong personality. Letters separate from type; have meaning as soon as they are combined as words or sentences. Sometimes they are used subjectively, while at other times they support their neighboring letters. It is important to use an appropriate character to express the meaning of a concept, a meaning that is consistent with the typeface, its case, size, position, weight, color and space (Yadav 2014).

Style-Content Harmony

The presentation style of a script directly affects how the constructed message is perceived in the brain. The characters that make up the writing are powerful communication tools because the cognitive figures contain enables to have meaning in very different dimensions than visual elements. Cognitive perception comprises all we perceive, learn and think about. A graphic designer should consider both cognitive and visual values when presenting the data in a written environment. The empty and non-used area surrounding the graphical and script elements in a design is called the white zone. Defended as a modern design value by the Swiss typographer Jan Tschichold, the white zone provides the space that helps different design elements to breathe and is defined to be "the lungs of good design". In style content harmony, the white zone balance should be kept well Wong, (2011). The two basic functions of typography are:

a. Readability

It is basically about getting and keeping the interest of the reader, more about appeal and how the typography of a text will engage your reader and encourage them to read more. When dealing with the readability of your text you will consider: paragraphs, headings, graphics, or bullet points. This is the function where you have more freedom in unleashing your creativity and being flashy. Below is some Billboard.

b. Legibility

Legibility refers to the clarity and distinctness of visual text that enables easy perception and recognition. According to Dictionary Online (2018), it is the quality that makes written content readily discernible, while Yadav (2014) emphasizes that legibility is closely tied to typeface design and the natural preferences of the human eye. In essence, highly legible typography reduces reading effort, whereas poorly chosen fonts can lead to fatigue, frustration, and ultimately the loss of audience engagement.

In practical design application, especially in communication design, it is advisable to use typefaces that do not draw unnecessary attention to themselves. When readers become overly conscious of the font, their focus shifts away from the intended message. Therefore, effective typography should function almost invisibly, allowing the content to take precedence.

There is also a hierarchical relationship between readability and legibility across different levels of text. As one moves from higher to lower levels of visual hierarchy, readability tends to decrease while legibility increases. Yadav (2014) illustrates this with a typical content structure: at the highest level, such as titles, designers have greater freedom to experiment with expressive or less legible fonts in order to capture attention and evoke curiosity. At the intermediate level—headings, captions, and quotes—typography should still engage the reader while maintaining a balance between style and clarity. At the lowest level, which includes the main body text, the priority shifts entirely to legibility, ensuring that readers can comfortably process and understand the message without distraction.

The figures below further illustrate how legibility directly influences the effectiveness and assimilation of billboard messages, where quick comprehension is critical due to limited viewing time.



Plate I: Mr. Chef billboard, River Kaduna on Stadium Road
(Original (Yusuf, 2022).



Figure 1: Redesigned Bill board, (Yusuf, 2024)



Plate II: Crown Pasta Billboard, Kawo Kaduna (Yusuf, 2022)



Figure II: Redesigned Billboard (Yusuf, 2024)

Process for choosing type

White (2015) identified steps for choosing type as follows;

a. Identify your purpose

Before a designer does anything else, first identify the purpose of the design. Here, the designer will need to know what information to be conveyed and what is the

medium for your design. He stressed that a good design aligns its typography with its purpose simply because typography is key to setting mood, tone, and style in designs.

b. Identify your target audience

He argues here that after determining the purpose of your design, there is strong need to identify the target audience. This step is crucial because age, interest and other factors will influence the font options.

c. Look for inspiration

He also argues here that a designer need to look at the work of other designers. Try understanding how they made their decisions for type.

d. Pairing Inspiration

Beyond just fonts, also look at font pairing inspiration. Font pairing is just as important as the fonts themselves. Good font pairing helps establish visual hierarchy and improve the readability of designs (White 2015).

e. Choose your fonts

When it comes to choosing type, keep the following principles in mind; readability, legibility, and purpose.

Choose fonts that are conventional and easy to read. Avoid highly decorative fonts in favor of simple and practical fonts. Also, be mindful of the purpose of a font.

Methodology

The research methodology adopted for this study is descriptive survey and exploratory research design. This was employed to investigate problems in a realistic view or setting as observe by the researcher. The population of the study consists of variables from Kaduna metropolis that are important to this research, therefore the target population of (1,158,000) which includes: professional designers, self-taught designers practicing in Kaduna metropolis, and selected billboards design. Purposive sampling technique was used for this study. The sample size for the study is 384 which is obtained from the Krajcie and Morgan (1970) Sample size table. Self-administered structured questionnaire was used. Some sampled billboards were collected around Kaduna metropolis, critiqued, content analysis was carried out based on some of the basics on typography standard and principles which serve as a benchmark for the analysis.

Data Presentation and Analysis

The analysis is based on 364 copies of the questionnaire that were filled, returned and found fit for use out of the 384 copies distributed to the general public, professionals and self-taught designers.

Research Question One: What are the typographical problems associated with legibility and readability of selected billboards in Kaduna metropolis?

Familiarity with Billboard Advertisement

Table 1: Familiarity with Billboard Advertisement

Familiarity	Frequency	Percentage
Very Familiar	136	37.4
Familiar	101	27.7
Partially Familiar	85	23.4
Not Familiar	42	11.5
Total	364	100.0

Table 1 sought to find out whether or not respondents are familiar with billboard advertisement. The Table and Figure revealed that 136(37.4%) of the respondents are very familiar with billboard advertisement while 42(11.5%) are not familiar with billboards advertisement. The first findings reveal that there is an indication that majority of the respondents are familiar with billboard adverts in the study area.

Use of Colour on Billboard Advertisement

Table 2 presents the response on whether or not the colours on billboard advertisements are good.

Table 2: Use of Colour on Billboard Advertisements

Use of Colour	Frequency	Percentage
Very Good	75	20.6
Good	124	34.1
Partially Good	100	27.5
Not at all	65	17.9
Total	364	100.0

Table 2 revealed that 124(34.1%) of the respondents indicated that the use of colours on billboard advertisements are good while 65(17.9%) indicated that the use of colours on billboards are not good. From their response the second findings reveal that from the general point of view, respondents are ok with the use of colour on the billboard advertisements.

Struggling to Read Messages on Billboard Advertisement while on Transit

Response on whether respondents struggle to read messages on billboard advertisements while on transit is presented in Table 3.

Table 3: Struggling to Read Messages on Billboard Advertisement while on Transit

Struggling to Read Messages	Frequency	Percentage
Struggle	86	23.6
Partially Struggle	166	45.6
Not at all	112	30.8
Total	364	100.0

Table 3 revealed that 166(45.6%) of the respondents partially struggle to read messages on billboard advertisements while on transit while 86(23.6%) indicated that they struggle to read messages on billboards while on transit. This an indication revealing thirdly that some of the write-ups or texts on the billboard are not legible enough for people to read while on transit as indicated by 45.6% response.

Arrangement of Layout and General Design Elements

Response on whether the arrangement of layout and general design elements like colour, text, shape, form and others in relation to each other on billboard advertisement is presented in Table 4.

Table 4: Arrangement of Layout and General Design Elements

Arrangement of Layouts	Frequency	Percentage
Very Effective	67	18.4
Effective	159	43.7
Partially Effective	101	27.7
Not Effective	37	10.2
Total	364	100.0

Table 4. revealed that the arrangement of layout and general design elements of colour, text, shape, form and others in relation to each other on billboard advertisement is effective as indicated by 159(43.7%) response. On the other hand, 37(10.2%) of the respondents indicated that the elements of design in relations to each other on billboard advertisement is not effective. Fourthly, the above is an indication that the general public see the elements of design in relation to one other on billboard advertisements as effective.

Familiarity with Words “Text Selection” in Billboard Advertisement

Table 5 sought to find out whether respondents are familiar with the text selection in billboard advertisement.

Table 5: Familiarity with Text Selection in Billboard Advertisement

Familiarity with Text Selection	Frequency	Percentage
Very Familiar	85	23.4
Familiar	74	20.3
Partially Familiar	146	40.1
Not familiar	59	16.2
Total	364	100.0

Table 5. showed that 146(40.1%) of the respondents are partially familiar with text selection in billboard advertisement while 59(16.2%) are not familiar with text selection in billboard advertisement. Fifthly, majority of the respondents are partially familiar with text selection in billboard advertisement as indicated by over 40% response.

Usefulness of Legibility of Typographical Elements on Billboard Advertisement

Table 6 sought to find out the level of agreement with legibility of typography elements on billboard as useful to only graphic designers.

Table 6: Usefulness of Legibility of Typographical Elements on Billboard Advertisements

Usefulness of Legibility of Typographical Elements	Frequency	Percentage
Strongly Agree	32	8.8
Agree	69	19.0
Undecided	63	17.3
Disagree	157	43.1
Strongly Disagree	43	11.8
Total	364	100.0

Table 6 revealed that 157(43.1%) of the respondents disagreed that legibility of typography elements on billboard is useful to only graphic designers while 32(8.8%) strongly agreed that legibility of typography elements on billboard advertisements is only useful to graphic designers. This implies further that the sixth findings aid us in believing that legibility of typography is not just important to graphic designers only but also to those to whom the advertisements are being made for.

Research Question Two: What is the standard use of typography on billboard design?

Table 7: Standard use of Typography Usage on Billboard Design

S/N	Items on Legibility	VA	A	FA	NA	Mean	Std. Dev.	Remark
1	Font selection is an important standard use of typography	25	8	4	3	3.38	0.95	A
2	Font sizes is an important standard use of typography	3	26	10	1	2.78	0.62	A
3	Line spacing is an important standard use of typography	5	24	10	1	2.83	0.68	A
4	Alignment is an important standard use of typography	10	17	8	5	2.80	0.97	A
5	Contrast is an important standard use of typography	5	14	14	7	2.43	0.93	NA
6	Hierarchy is an important standard use of typography	9	7	15	9	2.40	1.08	NA
7	Kerning and tracking is an important standard use of typography	22	6	8	4	3.15	1.08	A
8	White space is an important standard use of typography	13	9	14	4	2.78	1.03	A
9	Consistency is an important standard use of typography	13	13	11	3	2.90	0.96	A
10	Readability is an important standard use of typography	12	14	12	2	2.90	0.90	A
Cumulative						2.84	0.92	

Benchmark: Mean ≥ 2.50 = Appropriate (A); Mean < 2.50 = Not Appropriate (NA)

Table 7 showed the response on determining standard use of typographic usage on billboard design. The table revealed mean responses ranging between 2.40 to 3.38. The cumulative mean response of 2.84 was obtained implying that their response is significant. Particularly, respondents indicated that font selection is an important standard use of typography as this item

attracted the highest mean response of 3.38. On the other hand, hierarchy is an important standard use of typography received the least response of 2.40 which is less than the benchmark mean of 2.50 set for acceptance of an item as being appropriate or rejection of item being not appropriate. The cumulative mean response of 2.84 is an indication that standard use of typography in billboard design in the study area is appropriate.

Summary of Finding

The findings of the study are summarized thus:

- i. The general public perceives the elements of redesigned billboard advertisements in relation to one another as effective. A majority of respondents are partially familiar with the importance of text selection in billboard ads, with over 40% indicating this awareness. Moreover, the legibility of typography is crucial not only for graphic designers but also for the audiences targeted by these advertisements.
- ii. It was revealed that some of the write-ups or texts on the billboard are not legible enough for people to read while on transit as indicated by 45.6% response.
- iii. The standard use of typography in billboard redesigns in the study area is appropriate, with font selection recognized as a key element, reflected by a mean response of 3.38. This indicates that careful font choice is an important standard for effective billboard typography, ensuring readability and impact from a distance through clear, bold, and well-sized fonts.

Conclusion and Recommendations

This study investigates the typographical problems associated with legibility and readability of selected billboards in Kaduna metropolis and finally, examine the standard use of typography on billboard design. Literatures were reviewed which aid extensive exploration. Based on the administration of the questionnaire, and interviews conducted, the results obtained from the responses of the respondents were systematically and statistically analyzed which gives a positive result and the need for developing, brainstorming, determining the font size/font style, analyzing, thumb nail sketches development from the existing billboard, implementation, evaluation and finally the advance stage termed as mechanical, so that messages can be legible and readable by the target audience .

Recommendations

From the findings of the study, the below are being recommended.

- a. The Advertising Registration Council of Nigeria (ARCON) should as a matter of urgency make it mandatory for designs elements to be certified before any outdoor advertisement is put out.
- b. Advertising agencies should employ only certified and registered designers with professional bodies to check quality control of their activity so that sanity is maintained in the design industry.

References

Aleksandar and Donev, Aleksandar and Krstev, Dejan (2011) Information technology in logistics: advantages, challenges and opportunity for efficiency from problem decision in different activities. Natural resources and technologies, 5 (5). ISSN 185-6966

- Aleksandar and Donev (2015) *Typography in advertising*, Published by: Tomas Bata University in Zlín, nám. T. G. Masaryka 5555, 760 01 Zlín.
- Ahuwan, A.M. (2018). *Research Methodology, Lecture Notes*, M.A Course INDE 803. Department of Industrial Design, ABU. Zaria.
- Amedu N. (2018) *Evaluation of the Processes of Encoding and Decoding Graphic Communication Messages on Outdoor Advertisement in Zaria, Kaduna State Nigeria*. Unpublished M.A. Thesis, Department of Industrial Design ABU Zaria. pp. 35
- Godin, S. (2014). *Permission Marketing: Turning Strangers into Friends and Friends into Customers*, New York: Simon and Schuster.
- George, D. & Mallery, P. (2003). *SPSS for Windows Step by Step: A Simple Guide and Reference*. 11.0 Update (4th Ed.). Boston: Allyn & Bacon.
- Hodgson, J. M. & Berman, O. (2017) A billboard location model. In *Geographical and Environmental Modelling*, vol. 1 (1), 25-45
- Kayode, F. (2015). Phenomenological enquiry into the public misconceptions of billboard design concepts in Lagos, Nigeria: The factor analytic approach. *International Journal of Economic Behaviour and Organisation*. Vol. 3(3), 47-54.
- Logosix (2021), *typography tips*. Lanot designs.
- Martin, S. (2008), *Effective Visual Communication for Graphical User Interfaces*, <http://wed.cs.wpi.edu/mat/courses>.
- McCarthy, M. S., & Mothersbaugh, D. L. (2009). Effects of typographic factors in advertising based persuasion: A general model and initial empirical tests. *Psychology & Marketing*,
- Meggs, P. (2012). *A history of graphic design* (2nd Ed.). New York: Van Nostrand Reinhold.
- Mashood (2011) *Assessing the problem of Typographic usage in selected Posters Designed and Printed in Zaria*, Unpublished M.A. Thesis, Department of Industrial Design ABU Zaria. P.P. 25
- Morris, J. D., & Waive, C. (Eds.). (1993). *Proceedings from the 1993 Conference of the American Academy of Advertising '93: Managing the creative effort: pre-production and post-production measures of emotional response*. MO: School of Journalism, University of Missouri-Columbia.
- Morris, J., Woo, C., Geason, J., & Kim, J. (2002). The Power of Affect: Predicting Intention. *Journal of Advertising Research*, 42, 7-17.
- Nelson, R.P. (1977), *The Design of W.M.C. brown company publishers*, DubugueIOWA, U.S.A.
- Ogunwole, S.O. (1996), *the Effect of the Use of Reference Materials on Graphic Design in Advertisement*, Unpublished MA. Thesis Department of Industrial Design ABU, Zaria.
- Outdoor Advertising Association of America. (2024). *Consumer trust in advertising media 2024*. <https://oaaa.org/research/consumer-trust-advertising-2024/>

- Solomon, M (2019), *The Art of Typography: An Introduction to Typoicon-ography*. Art Direction Book Company. ISBN 0881081191.
- Solomon, M. (2015). *Art of Typography*. New York: Art Direction Book Co.
- Splendor (2015), effect of typographic factors in advertising based persuasion; a general model and initial empirical test. *Psychology and marketing*.
- Stewart, B. (2013). *Sign Work, USA: Blackwell Scientific Publications*, (Chapter 10).
- Sanchez, N. (2018). *Communication Process*. Retrieved May 2018 352comproc/ comproc.htm>.<<http://web.njit.edu/~lipuma/>
- Tinker, M., & Paterson, D. (2016). Reader preferences and typography. *Journal of Applied Psychology*, 26, 38-40.
- Tinker, M., & Paterson, D. (2016). Readability of mixed type forms. *Journal of Applied Psychology*, 30, 631-637.
- Villing T. (2016): Why is there so much bad design in outdoor advertising? Villing & Co. Retrieved in June, 2019 from <http://villing.com/articles/bad-design-in-outdoor-advertising/>
- White, A.W. (2005) *Thinking in Type: The Practical Philosophy of Typography*, New York: Allworth Press
- White, A. W. (2013), *Advertising Design and Typography*. Allworth Press. ISBN 1581158203
- Wong, B. (2011), Points of view: Typography. *Nature Methods* [online]. 30 April 2011. Vol. 8, no. 4, p. 277–277. [Accessed 9 September 2014]. DOI 10.1038/nmeth0411-277. Available from: <http://www.nature.com/nmeth/journal/v8/n4/full/nmeth0>
- Yadav P. (2014) *Typography as a statement of Design*, Indian Institute of Technology, Guwahati, India