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Keywords: website, culture contexts, e-governance.

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Culture Context Profiles: A Case of Institutional Websites in Nigeria

Ikechukwu Umeh ^a & Chukwunonso Nwokoye ^o

Abstract- Criticisms owing to rigidity and obsoleteness has been directed to the hallowed positions (and often cited) cultural models proposed by Hall and Hofstede. This is largely because globalization and culture are verily fluid, amorphous and always in transition; and not defined by geographical borders existing between countries. In this paper we consider the cultural contexts of several websites owned by commissions/agencies of the Nigerian Government, using recent improvements of Hall's and Hofstede's model because their dimensions did not include Africa. Specifically, we evaluated we evaluate websites of the Cooperate Affairs Commission of Nigeria, Federal Inland Revenue Service of Nigeria, National Agency for Food and Drug Administration Commission of Nigeria, National Pension Commission of Nigeria, Nigeria Export Promotion Commission, Nigerian Tourism Development Corporation, National Emergency Management Agency of Nigeria so as to determine their cultural context profiles. In order to actualize these we employed the online survey methodology by distributing questionnaires to different groups of experts drawn from the various regions of Nigeria. Finally, the results showed that, most website designers in Nigeria follow the high context style in terms of animation, promotion of values, level of transparency, navigation, multiple use of links, color, search and polite/direct approach in actualizing their websites.

Keywords: website, culture contexts, e-governance.

I. INTRODUCTION

he proliferation of internet use coupled with the increasing number of web designers has positively affected institutions in showcasing and achieving their dreams on the World Wide Web through their websites. The marketing industries mostly, were quick to adopt this approach since it provided a batter platform for showcasing their goods and services to both local and foreign customers. Recently, websites have gone beyond simple static and text-based styles to dynamic and interactive styles with multimedia possibilities like; the addition of flash, sound and video. There by, setting a higher level of quality for better communication through the web. However, in order to create a crosscultural satisfactorily website from a marketing perspective, designers must deal with issues that surround "culture-specific color connotations, preferences in layout, animation, sounds, and other effects that are characteristic of today's generation of Web sites" [7]. This stand point is maintained to a large

Author α σ: Nnamdi Azikiwe University, Awka, Nigeria. e-mails: lkumeh1@gmail.com, explode2kg@yahoo.com extent for e-government websites which basically strive to provide a citizen-centric tool for effective and efficient service delivery by government agencies. Studying user dispositions to design elements elicits, some of the clues a designer should exploit to ensure that "values and behavior indoctrinated through cultural influences may be reflected in design practices" [7].

Criticisms on the rigidity and obsoleteness of some designs has been directed to the hallowed positions of cultural models proposed by Hall [2] and Hofstede^[4]. This is largely because globalization and culture are verily fluid, amorphous and always in transition[5]; and not defined by geographical borders existing between countries. Despite these criticisms, qualitative studies on websites designs still border on the propositions of Hall and Hofstede. Hall proposed some variable that aids the situating of cultures along a dimension spanning from high-content/low-content to the low-context/high-content. These variables include Nonverbal communication, Directness vs Indirectness, Time perception (monochronic vs polychronic) and Message speed. On the other hand Hofstede also proposed variables for culture which include Collectivism versus Individualism dimension.

II. Related Empirical Studies

Using Hall's dimensions, Wurtz [7] performed a cross-cultural qualitative analysis in order to explore and explain the differences between website samples of both High Context (HC) and Low Context (LC) cultures. To aid his analysis, different countries were first classified as either HC or LC. Specifically, Japan, China, and Korea were classified under HC while Germany, Denmark, Sweden, Norway, Finland, and the United States were classified as LC. The design parameters with which the analyses were conducted include visual communication and navigation. In the study, while visual communication was based on the analytical model of Thorlacius [6] and dealt with the featured product on the site using layout, images, photographs, and animation. The navigation dealt with the features of the website being considered.

Taking a different perspective from egovernance websites, Gygi and Spyridakis [1] developed a cultural model based on extant demographic data and values in order to analyze a school's website in Uzbek with the assumption that "Web sites designed by local producers for local users would embody and exhibit identifiable cultural markers". More so they evaluated the effect of language (Russian/English) in the Uzbek school website.

Yeratziotis and Greunen [8], employed Hall's cultural model of cultural context to determine the culture context profile of the South Africa (SA) government website and it ascertained whether it followed the standard e-government guidelines of the UK government for its design and implementation. Using a table they presented an assessment of the SA government's website on a three point scale compliancy level. However, they discovered that the SA government website did not follow the U.K. guidelines for government website development. Therefore, the website just provided a basic level of satisfaction for service delivery.

In order to aid governments in ensuring that their websites cater for actual needs of local users, Herselman and Greunen [3], performed a global survey on culture differences and contexts. They argued that their contribution will add to the websites effectiveness and usability. The study focused its questionnaire on selected populations; therein ten participants were identified through purposive sampling and divided into two groups (5) in low-context culture and (5) in highcontext culture. Results of the study were contrary to literature and have it that high-context participants preferred more low-context styles when using government websites.

It is noteworthy that the analyses on the contexts of culture in websites in Yeratziotis and Greunen [8] and Herselman and Greunen [3] were done using parameters gleaned from Table 1 and Table 2 below. While, Table 1 present the observations of the characteristics of high and low cultures websites, Table 2 present the other perspectives for values and features that are necessary when designing software products for high and low-context societies.

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Parameter	HC Cultures	LC Cultures		
Animation	High use of animation, especially in connection with images of moving people.	Lower use of animation, mainly reserved for highlighting effects (e.g., of text, active links, logos)		
Promotion of Values	Images promote values Characteristic of collectivist societies (e.g., being in good physical shape, spending time with family and friends)	Images promote values characteristic of individualistic societies (e.g. individuals are portrayed being in a more relaxed situations, such as holiday or listening to music – value personal time)		
Individuals separate or together with the product	Featured images depict products and merchandise in use by individuals	Images portray lifestyles of individuals, with or without a direct emphasis on the use of products or merchandise		
Level of transparency	Links promote an exploratory approach to navigation on the website; process-oriented	Clear and redundant cues in connection with navigation on a website; goal- oriented		
Linear vs. parallel navigation on the Web site	More of a montage/layer-upon- layer approach. Many sidebars and menus, opening of new browser windows for each new page	Few sidebars and menus, constant opening in same browser window		

Table 1: Observations for High/Low Contexts in Web Design [7]

Table 2: High- and Low-context features [3]

High-context features	Low-context features
Polychronic aspects of time	Monochronic aspects of time
Multiple use of images and/or banners	Less use of images and/or banners
Multiple use of links (external links promote a collectivist nature, working together)	Less use of links
Use of Flash features Being polite and indirect	Little use of Flash features Being direct and even confrontational
Create a friendly relationship with the customer (soft-sell approach)	Sales orientation (hard-sell approach)
Use of aesthetics to elicit emotion (harmony, beauty, nature, art, designs)	Direct communication (focus on rank and prestige, superlatives, terms and conditions)

III. METHODOLOGY

To generate requisite information for the study, three major sources were explored. Firstly, a literature review was carried out on the fields of culture, culturecontext dimensions, e-government and government websites design. Apart from analyzing these concepts individually, analyses of one concept in relation to the other were also done. The aim of the analysis was to generate an online questionnaire survey to enable the evaluation of the e-government websites in Nigeria. A sample size drawn from the six geopolitical regions of Nigeria contributed to the survey findings. The questionnaire was designed to mirror the parameters shown in Table 1 and Table 2 respectively. The selected websites for the survey are presented in Table 3.

Table 3: Nigerian Institutions and their Web Links

Institutions	Web links
Corporate Affairs Commission	http://new.cac.gov.ng
Federal Inland Revenue Service	http://www.firs.gov.ng
National Agency for Food and Drug Administration Control	http://www.nafdac.gov.ng/
National Pension Commission	http://www.pencom.gov.ng/
Nigeria Export Promotion Council	http://www.nepc.gov.ng/
Nigeria Tourism Development Corporation	https://cdnetng.org/
National Emergency Management Agency	http://nema.gov.ng/

IV. Results Yielded by the Study

The considered some of the basic factors listed in tables 1 and 2. The design parameters gleaned from the tables included animation, promotion of values, individuals separate or together with the product, level of transparency, linear vs parallel navigation on the web site, multiple use of links, creating friendly relationship with the website visitor, use of aesthetics, color and use of search engines.

A four point method was employed to analyze the above-listed heuristics. These include;

- a. YES: when one concurs with a statement
- b. NO: when one disagrees with a statement
- c. UNDECIDED: when one cannot seem to make up his/her mind on an accurate answer to a statement
- d. NOT APPLICABLE (N/A): when one feels that the statement does not apply to the web site.

The questionnaire also included a section for open ended answers with respect to Table 1 and Table 2. Therefore, we solicited for the rationale for response to the questions using any of the four points listed above. In addition, the respondents were instructed to judge the use of more than one image/banner as high and to judge the use of more than three colors as high. The implication of this is that, one image alone is judged as low while the use of less than three colors is judged as low. Eventually, the entire questionnaires were collated and analyzed according to whether a particular design parameter is either high or low-context.

a) Corporate Affairs Commission (CAC)

This commission/agency is an independent body whose function is to regulate the creation as well as the management of companies in Nigeria. Specifically, their functions include registration of new companies, registration of business names and the registration of incorporated trustees. They are able to achieve all these through accredited members of some associations within the country. The commission's website is depicted in Figure 1 while the analyses of its culture context profile are presented in Table 4.



Figure 1: Welcome page for Corporate Affairs Commission

S/N	Design Parameter	Culture Context Status		
1.	Animation (Multiple use of images/banners)	High		
2.	Promotion of values	Low		
З.	Individuals separate or together with the product	Low		
4.	Level of transparency	Low		
5.	Linear vs parallel navigation on the web site	High/Low		
6.	Multiple use of links	High		
7.	Sell approach	High		
8.	Use of aesthetics	Low		
9.	Color	Low		
10.	Searching	High		
11.	Polite/Direct	Low		

b) Federal Inland Revenue Service (FIRS)

The FIRS is a government institution that is charged with collating and collection of federal government taxes across Nigeria. Their other functions include ensuring tax payment compliance by companies, enterprises and individuals, giving taxpayers the moral and legal right to demand for the culture of accountability and providing sustainable finance and funding for governance, public and social services and economic development. The commission's website is depicted in Figure 2 while the analyses of its culture context profile are presented in Table 5.



Figure 2: Welcome page for Federal Inland Revenue Service

Table 5: Summary of Cultural-Context Results for FIRS

S/N	Design Parameter	Culture Context Status
1.	Animation (Multiple use of images/banners)	High
2.	Promotion of values	Low
З.	Individuals separate or together with the product	N/A
4.	Level of transparency	Low
5.	Linear vs parallel navigation on the web site	High/Low
6.	Multiple use of links	High
7.	Sell approach	Low
8.	Use of aesthetics	Low
9.	Color	High
10.	Searching	High
11.	Polite/Direct	Low

c) National Agency for Food and Drug Administration Control (NAFDAC)

NAFDAC is another federal government agency in Nigeria whose responsibilities include the regulation and control of the manufacture, importation, exportation, advertisement, distribution, sale and use of every type of food, drugs, cosmetics, medical devices, chemicals and packaged water. The organization also performs tests, inspection of the items mentioned above and ensures that there is a total compliance with stipulated and acceptable standards and quality. The agency's website is depicted in Figure 3 while the analyses of its culture context profile are presented in Table 6.



Figure 3: Welcome page for National Agency for Food and Drug Administration Control

Table 6: Summary of Cultural-Context Results for NAFDAC

S/N	Design Parameter	Culture Context Status
1.	Animation (Multiple use of images/banners)	High
2.	Promotion of values	High
З.	Individuals separate or together with the product	N/A
4.	Level of transparency	Low
5.	Linear vs parallel navigation on the web site	High
6.	Multiple use of links	High
7.	Sell approach	Low
8.	Use of aesthetics	Low
9.	Color	High
10.	Searching	High
11.	Polite/Direct	High

d) National Pension Commission (NPC)

The National Pension Commission fondly called PenCom, is the Nigerian federal government commission charged with the supervision and regulation of the contributory pension scheme (CPS) and the old defined benefits (DB) scheme as well as the pension translational arrangement directorate (PTAD). In summary, the organization's duty is to ensure that retirement benefits are paid to retirees as and when due. The commission's website is depicted in Figure 4 while the analyses of its culture context profile are presented in Table 7.



Figure 4: Welcome page for National Pension Commission

S/N	Design Parameter	Culture Context Status
1.	Animation (Multiple use of images/banners)	High
2.	Promotion of values	High
З.	Individuals separate or together with the product	Low
4.	Level of transparency	High/Low
5.	Linear vs parallel navigation on the web site	High
6.	Multiple use of links	High
7.	Sell approach	Low
8.	Use of aesthetics	Low
9.	Color	High
10.	Searching	High
11.	Polite/Direct	High

Table 7: Summary of Cultural-Context Results for NPC
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Nigeria Export Promotion Council (NEPC)

This Council in Nigeria, is the leading Federal Government agency charged with the responsibility of promoting non-oil export in Nigeria to diversify away from oil and build a formidable economy. The agency is also saddled with the responsibility of promoting development of export trade, maintaining adequate representation in other countries and to administer grants and benefits related to export promotion and development. The council's website is depicted in Figure 5 while the analyses of its culture context profile are presented in Table 8.



Figure 5: Welcome page for Nigeria Export Promotion Commission

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S/N	Design Parameter	Culture Context Status
1.	Animation (Multiple use of images/banners)	High
2.	Promotion of values	High
З.	Individuals separate or together with the product	Low
4.	Level of transparency	High
5.	Linear vs parallel navigation on the web site	High
6.	Multiple use of links	High
7.	Sell approach	Low
8.	Use of aesthetics	Low
9.	Color	High
10.	Searching	High
11.	Polite/Direct	Low

e)

f) Nigerian Tourism Development Corporation (NTDC)

NTDC is the Nigerian agency to the federal government which is responsible for the overall development of the country's tourism. The agency promotes the country as a domestic and international tourist destination for leisure, business, religion, festivals and commerce. The commission's website is depicted in Figure 6 while the analyses of its culture context profile are presented in Table 9.

HOME * SECONDARY SCHOOL	POST SECONDARY	SCHOOL LEAVERS	CAREER CHANGERS	ENTREPRENEURS
earch Job Types	Home			
Title: * Enter a job life here Search	Abuja Garki Regulatory	y Agency Government Agen	ed in 1992 under the Ministry	
Find A Resource	Category: Regulatory Agency Government Agency			
Category: * Bookshop * Search	Sub-sector (If Applicable	Cinemas, Clubs & Gami Events Management Hotel & Accomodation S	ng	
Search		Sport & Fitness Travel & Tourism		
El Courses Straining Providers El Job Types Bi Sectors El Career Resources Articles Copofumities Copofumities Porums Varien	Primary Contact Address : Touriam Village, Area 1, City: Garki State: Abuja E-malt: tourishej@touriam.gov. Phone : +234 9 234 2764 Wobsite: www.touriam.gov.ng			

Figure 6: Welcome page for Nigerian Tourism Development Corporation

S/N	Design Parameter	Culture Context Status		
1.	Animation (Multiple use of images/banners)	Low		
2.	Promotion of values	Low		
З.	Individuals separate or together with the product	Low		
4.	Level of transparency	High		
5.	Linear vs parallel navigation on the web site	High/Low		
6.	Multiple use of links	High		
7.	Sell approach	N/A		
8.	Use of aesthetics	Low		
9.	Color	Low		
10.	Searching	High		
11.	Polite/Direct	N/A		

Table 9: Summary of Cultural-Context Results for NTDC

g) National Emergency Management Agency (NEMA)

The National Emergency Management Agency (NEMA) is a federal government agency in Nigeria, created with the sole purpose of managing all types of disasters. Their functions include the coordination of resources towards efficient and effective disaster prevention, preparation, mitigation and response in Nigeria. The agency's website is depicted in Figure 7 while the analyses of its culture context profile are presented in Table 10.

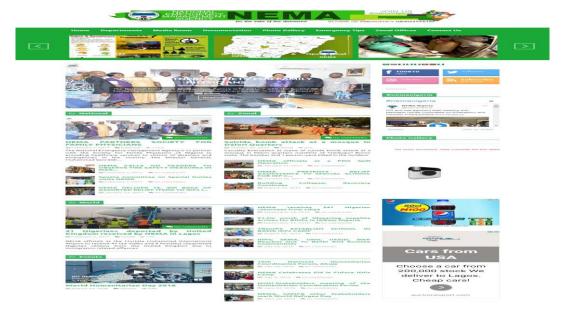


Figure 7: Welcome page for National Emergency Management Agency

S/N	Design Parameter	Culture Context Status		
1.	Animation (Multiple use of images/banners)	High		
2.	Promotion of values	High		
З.	Individuals separate or together with the product	Low		
4.	Level of transparency	High/Low		
5.	Linear vs parallel navigation on the web site	High		
6.	Multiple use of links	High		
7.	Sell approach	High		
8.	Use of aesthetics	High		
9.	Color	High		
10.	Searching	High		
11.	Polite/Direct	High		

Table 10: Summary of Cultural-Context Results for NEW	ΛA
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V. Conclusion

This study employed the online survey method in order to determine the culture context profile of some prominent Nigerian institution's websites. The guestionnaires were distributed to a group of experts in the field of website design and their responses were collated and analyzed and presented in Table 11. According to the answers derived from the respondents' to the questionnaire based on the reasons for the choice of their answers, the following conclusions were derived; That the following four agencies which include; CAC, NAFDAC, NEPC, NEMA out the seven websites understudied, used green and white for their design. These are the colors that make up the Nigerian flag. Also, the websites involved the use of lots of images and banners. As an example, the NEMA homepage in two separate sections has 9 banners and 5 images. The banners and images alternatively appear on the homepage. There were also cases where respondents

answered both YES and NO to questionnaire items with respect to the design parameters and gave their reasons for doing so. The implication of these is that such websites exhibited both high and low context tendencies in that design parameter. Table 11 shows that Nigerian web designs are predominantly high context culture because 42 out of 77 expected statuses favored high context.

Institution	High	Low	High/Low	N/A	
CAC	4	6	1	-	
FIRS	4	5	1	1	
NAFDAC	7	3	-	1	
NPC	7	3	1	-	
NEPC	8	3	-	-	
NTDC	3	5	1	2	
NEMA	9	1	1	-	
Total	42	26	5	4	= 77

Table 11: Grand Summary of Cultural-Context Results

S/N.	Design Parameter	High	Low	High/Low	N/A	
1.	Animation (Multiple use of images/banners)	6	1	-	-	
2.	Promotion of values	4	3	-	-	
З.	Individuals separate or together with the product	-	5	-	2	
4.	Level of transparency	2	3	2	-	
5.	Linear vs parallel navigation on the web site	4	-	3	-	
6.	Multiple use of links	7	-	-	-	
7.	Sell approach	2	4	-	1	
8.	Use of aesthetics	2	5	-	-	
9.	Color	5	2	-	-	
10.	Searching	7	-	-	-	
11.	Polite/Direct	3	3	-	1	
	Total	42	26	5	4	= 77

Table 12: Grand Summary for Design Parameters

Table 12 depicts the profile of institutions' website in Nigeria in terms of actual design parameter. Apart from parameters 3 in the table 12. individual/separate and together with product, 7 (sell approach) and 8 (use of aesthetics), other parameters was high-context style. The implication is that, Nigerian agencies' website designers follow high context style in terms of animation, promotion of values, level of transparency, navigation, multiple use of links, color, search and polite/direct approach. But for aesthetics, the responses for high were for harmony and beauty which is evident in some of the websites and not for art, designs and nature. Furthermore, we would perform a more holistic study to determine the culture-context profiles of other websites in Nigeria. This is verily necessary if we are to posit Nigeria (and Africa) in Hall's culture continuum.

References References

- Kathleen F Gygi and Jan H Spyridakis. 2007. Developing a Cultural Model to Support Web Site Localization: A Case Study of Uzbek School Web Sites. Annual Conference Society for Technical Communication, 1. Retrieved from http://faculty. washington.edu/jansp/Publications/Cultural_Model_ Web_Site_Localization.pdf
- 2. Edward T Hall. 1976. beyond culture. Contemporary Sociology 7, 298. http://doi.org/10.2307/2064404
- Marlien Herselman and Darelle Greunen. 2010. Global Survey on Culture Differences and Context in Using E-Government Systems : A Pilot Study.

Second International ICST Conference, AFRICOM 2010, Cape Town, South Africa, 46–68. http://doi.org/10.1007/978-3-642-23828-4

- 4. Geert Hofstede. 1984. Culture's consequences: International differences in work-related values. sage.
- David Morley and Kevin Robins. 1995. Spaces of Identity: Global Media, Electronic Landscapes and Cultural Boundaries. http://doi.org/10.4324/97802 03422977
- L Thorlacius. 2002. Visuel Kommunikation pa° Web sites. In Model til analyse af lexi-visuel, æstetisk kommunikation pa Web sites. Retrieved from http://www.kommunikationsforum.dk/%0Adefault.as p?articleid= 10728
- Elizabeth Wurtz. 2006. Intercultural Communication on Web sites: A Cross-Cultural Analysis of Web sites from High-Context Cultures and Low-Context Cultures. Journal of Computer-Mediated Communication 11: 274–299. http://doi.org/10. 1111/j.1083-6101.2006.00013.x
- Alexis Yeratziotis and Darelle V A N Greunen. 2009.
 e-Government Putting Service at Your Fingertips. Most: 1–15.

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