Adopting Improved Need-Analysis, Persuasion and Aesthetics for Alleviating Local Product Design Fiasco

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Abstract: **- Nigerian engineers, researchers and industrial or product designers are not short of design outputs and creativity compared to their foreign counterparts, relative to resources and facilities available to them. However, while many of our researches and design outcomes never make it to the open market (as many of them are gathering dusts in engineering and design galleries and shelves), the few that eventually get introduced to the user or consumer in the market place often fair poorly relative to their foreign alternatives. Based on a survey of consumer opinions conducted, this study showed that the utility derived from local products and contents (which have foreign alternatives) is not so different from the utility derived from the foreign alternatives. This paper therefore, based on this result, discussed how improved persuasive drives, consumer need analysis, product persuasiveness and aesthetics may be adopted for the improvement of local Nigerian product designs and research outputs with emphasis on the local product development process.**

Keywords**: - Aesthetics, Need Analysis, Persuasion, Product development, Product design, Utility**

I. INTRODUCTION

Like many other countries of the world, Nigeria is not lacking in the ingenuity, conceptualisation, research and production of new and innovative products. Local researchers, designers, engineers, agriculturists, scientists and manufacturers are not short of creative ideas that beget products and brand extensions that could be economically beneficial to national economic and technological growth. However, many of such products do not perform well in the market place. One major reason for this is the behaviour of consumers, product users and sponsors of design services and products who often prefer foreign alternatives to locally available products.

According to a previous study, this strong preference for foreign products exists despite the availability and high technical quality of some locally produced product alternatives which show a biased perception in favour of the imported product alternatives(Ifediora, Ugwuanyi, &Ifediora, 2017). For example, many electricians gladly rated locally manufactured Denki electrical cables far above their imported alternatives; nonetheless, the ungrounded preference for imported cables is prevailing. Reasons for this negative trend might range over such factors as highlighted below:

I. Country of origin (Parameswaran&Pisharodi, 1994)
II. Poor products or product packing/package designs (Oladumiye, 2018)
III. Poor aesthetic quality of product designs, machines and installations (Odji, 2019)
IV. Product dis-credibility
V. Consumer rational/irrational behaviour based on perception
VI. Negative peer influence and so on

Undoubtedly, existing literatures already established the preference for foreign products by Nigerians. For instance, Nigerian consumers have been reported to perceive foreign made products as more technologically reliable, advanced, fashionable and competitively priced than the local substitutes (Oyeniyi, 2009). This readily may go a long way in justifying consumer preferences for foreign design/product alternatives. However, such preferences may be due to other flimsy reasons such as social status, ego and irrational or affective peer influence which are not objective. While the factors influencing the choices of consumers and product users are personal to them, the resulting effects of their choices tell on the success or failure of the products.

Nigerian designers, engineers and technologists are brilliant, inventive, award-winning and innovative. This allusion is evident in the various inventions and innovative products ranging from consumables, software to high-tech gadget that are generated every now and then. For examples, a Nigerian, IfedioraUgochukwu, was recognized and awarded for developing theiMeter, an intelligent metering system that gives Nigerian users pellucidity and control over their electricity supply(NAU, 2018).NnaemekaChidiebereIkegwuono, another Nigerian, invented the ColdHubs which is a solar-powered walk-in cold room that extends the shelf-life of perishable food products tenfold(NAU, 2018). OmolabakeAdenle, also a Nigerian, invented the Voice Recognition and Speech Synthesis Software for African Languages;a software that could understand and digitize spoken African languages, and synthesize speech from African languages presented as digitized texts(AIF, 2017). The list of pharmaceutical, technological and agro-products, designs, researches and inventions are almost endless. However, this innovative sense

of Nigerian designers, scientists, technologists, inventors and innovators does not seem to be translating into successful products and brand extensions.Achievement and novelties, as indicated above already, donot seem to be reflecting on the Nigerian economy as the Nigerian industrial sector, today, is yet seen to be operating below average capacity due to series of challenges which repudiates the growth and development of the industry(Ifediora et al, 2017). This may be due to low utility derivable from local products as utility derivable from products or design services are major impetus for product purchase (Ramya & Mohamed, 2016). However, if the utility derived from purchased local products do not vary much with that derived from foreign alternatives, then other more extrinsic factors may be responsible for the negative trend which often leads to the fiasco of many locally manufactured and circulated products.

Therefore, this study compared the utility derived from local products with that consumers derive from their foreign alternatives and product substitutes in a bid to decipher if comparatively low utility was the reason for local product fiascos or not and proffer possible ways of alleviating the negative trend hindering economic and technological advancement of the nation with emphasis on the product development and launchprocess. The results and discussions are as presented in the following sections.

1.1 The Product Development Process

Product development has been described as the main factor of economic progress in building the economy of any nation (Silineviča, Igavens, & Amantova-Salmane, 2016). Most often, the competitive hedge the western nations' economies have over the developing ones like Nigeria is keyed in the vibrancy of their product or new-technology developments and manufacturing. The success of the manufacturing industry, in another vein, isstrongly dependent on the success of the products or technologies it rolls out. New products are being developed in and around Nigeria, but they soon suffer major failures. One major challenge the Nigerian manufacturing industry has been facing is product fiasco. Although, this problem may be due to various factors such as level of investment, power supply, availability and affordability of raw materials and low patronage, yet the caricature nature of local manufacturing industry and the manner in which new or innovative products are introduced into the mainstream distribution chain, especially at the cottage level, are major factors responsible for the current Nigerian local product fiascos as many local products, especially at the cottage level, do not pass through proper product development process. This process of product creation may be complex or simple depending on the type of product being created or intended to be developed. It has been described as a dispersed and integrated process (Dahan& Hauser, 2003; Hauser &Dahan, 2007).

Various studies have attempted to simplify the product creation processthrough various models such as the Diamond Model, the Funnel Model (figure 1), the product readiness levels and the product development process, the Innovation Value Chain Model and the NASA model(Silineviča et al, 2016). Perhaps, three of the most prominent models are the product development funnel(Hauser et al, 2007), the product development and launch process (Mahmutllari, 2014)and the 1982 BAH model (figure 2)which unarguably is the foundation on which other models were built(Booz, Allen, & Hamilton, 1982; Bruiyan, 2011).

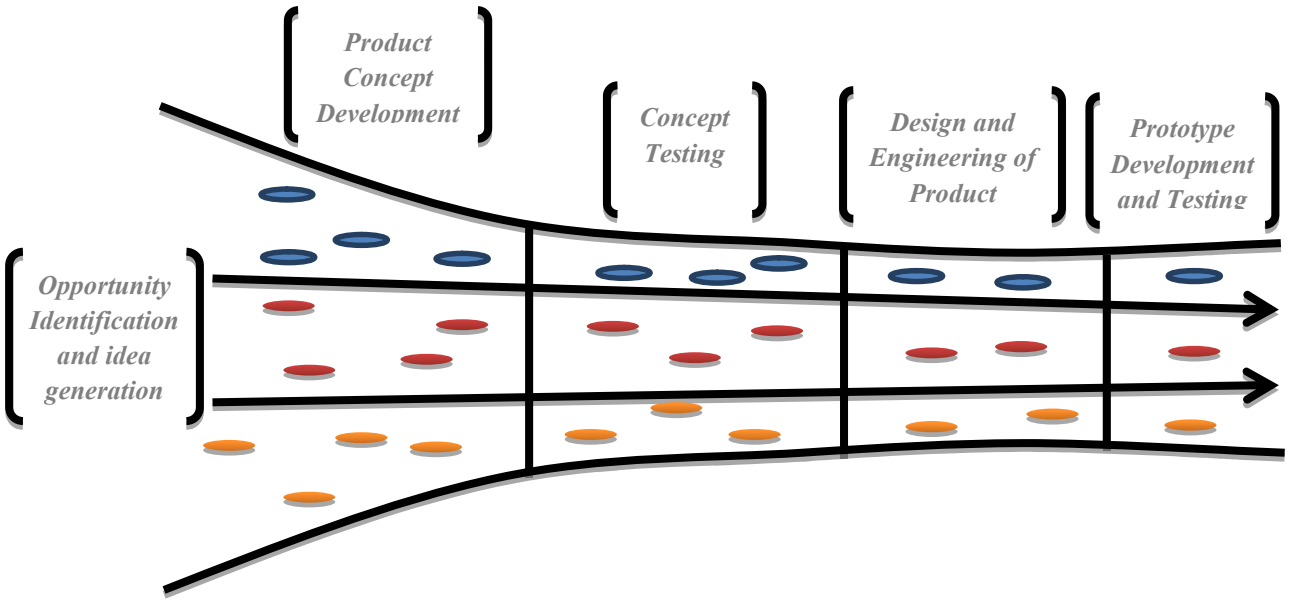

Figure 1: The funnel model

Source: Hauser et al (2007)

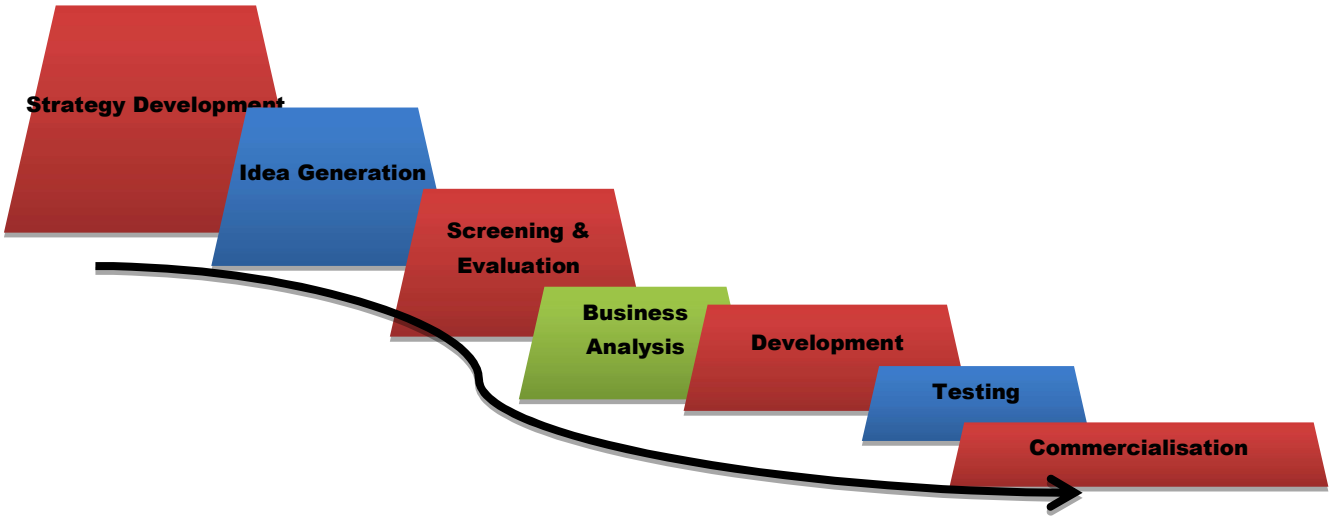

Figure 2: The BAH Model

Source: Booz et al (1982)

A synergy of the enumerated product design models alreadyenumerated above may be summed up under the following stages:

1. Market and consumer need analysis.
2. Generation of product ideas
3. Idea screening
4. Concept testing
5. Business analysis
6. Product development
7. Product implementation
8. Market testing of product performance
9. Actual product commercialisation

Stages 2 to 9 are all dependent on the results of stage 1. From the generation of product ideas, formation of concepts to the actual product implementation and commercialisation, the major obligations of the designers, researchers and or engineers are totally dependent on the identified consumer needs and market forces. One major fault in the Nigerian manufacturing industry, especially at the cottage level, is the lackadaisical attitude of product developers towards consumer needs analysis. Products that meet current consumer needs are the ones that drive the purchase process and the purchase process is strongly dependent on the utility derivable from products.

Therefore, if the utility derivable from local products is relatively too low compared to that derivable from their foreign alternatives, then it proves that consumers' preferences for foreign products are relatively due to the substandard of local products in its entirety. However, if the differences in utility derived or derivable from local products is not relatively too low compared to their foreign alternatives, then something is faulty with the local product development strategies prevalent in practise in the country and may be the reason for the product failures prevalent in the country which is greatly hampering the technological and economic sustainability of the manufacturing sector.In this context, this study proposes an emphasis on effective need analysis, persuasion and product aesthetics in the design process adopted for local product development.

1.2 Purchase Process and Derived Utility

Decision to purchase a product is not a one-whole decision. It is a series of choices leading up to purchase. The product purchase process is a strong determinant of the concluding success of the product development and launch process. If and when consumers do not follow through in the purchase process, then commercialisation of products fails. This process leads up to the eventual success or failure of products and new-technologies and it is dependent on the total utility users or consumers derive from the use or consumption of research outputs.

There are various types of utility which add up to the total utility derivable from the purchase of a product. Three of the major types include:Acquisition utility, Transaction utility and Product utility. Acquisition utility has been described as the pleasure derived from the procurement of a product or design service while transaction utility has been described as the value product users derive from the procurement process itself(Muehlbacher, Kirchler, & Kunz, 2011).A previous study(Sridhar, Rajagopal, & Vijay, 2005) described this purchase process as an off-shoot of three key constructs namely:

1) ***Utility derived from instrumental elements of the purchase process*** which is a precipitate of factors such as the user's economic motivations, quest for convenience and self-affirmation (thrift, which is the trait of seeking to acquire products orservices inexpensively, and the purchaser's self or subjectively perceived expertise), symbolic meaning of the product (i.e. in gift giving or role playing) and personal judgment, etc.

2) ***Utility derived from non-instrumental elements of the purchase process*** which is a precipitate of factors such as social influence,experiential impact, invocation of the script or schema of the channelof purchase, etc.
3) ***Utility derived from the product itself*** including satisfaction, aesthetics and function or performance.

All these have been described as constituting the total utility (sum of utils) derived from the product purchase process(Sridhar et al, 2005).However, measuring the utility derived or derivable from products has been a subject of much controversy as it is more of a subjective quantity (depending mostly on the perception of the consumer) than an objective quantity that can be quantitatively measured from a product in consideration. Nonetheless, product rating has been alluded to by previous studies as an alternative(Yannou, 2015). Therefore, adopting a utility product rating method, this study compared the utility derived from local products with that derived from foreign product alternatives with a view to deciphering the junctures needing improvement in the local product design and development process. Recommendations were then proffered based on the outcome of the comparison and identified junctures.

II. RESEARCH METHOD

Lagos state, Nigeria, is considered one of the major commercial hubs in Africa. Therefore, the study was conducted in Lagos adopting a survey method.Criterion sampling technique was adopted for the study. Respondents were sampled based on their existing product (both foreign and local) usage experience (experiential knowledge) as shown in table 1. Criteria: Respondents must have used both local and foreign (imported) alternatives or substitute products (which are designed to meet the same needs) available in Nigeria. Respondents must have lived in Nigeria for at least 30 years and must be adults that were at least 40years old and above.Therefore, based on the designate criteria, a total of 213 respondents were sampled. The utility of products were rated in Utils (Unit of utility) as recommended by Tomlinson (2019) adopting the cardinal approach. The cardinal approach was adopted since the study involved product general categories and not specific product categories.

Table 1: Showing how respondents were selected

S/N	VARIABLE	YES	NO	GRAND TOTAL
1.	Have you used Nigerian products which had foreign alternatives/substitutes that served the same purpose?	137	114	500
2.	Have you used (within or outside Nigeria) foreign/imported products which had Nigerian alternatives/substitutes that served the same purpose?	76	173	
TOTAL		**213**	**287**	

Respondents were made to rate the utility, based on experientialknowledge, they derived from using, accessing or consuming four broad classes of products. The ratings were carried out as shown in table 2 and adopted for sampling the opinions of respondents as shown in table 3.

Table 2: Showing the adopted utilityrating parameters

S/N	UTILITY VARIABLES	UTILS DERIVED
1.	Very low utility (VLU)	1
2.	Low utility (LU)	2
3.	Average utility (AU)	3
4.	High utility (HU)	4
5.	Very high utility (VHU)	5
The utility ratings for each variable were then summed up under each product category as shown in tables 3 and 4.		

This method of surveying respondent (survey analysis) in measuring product utility was alluded to byYannou(2015). The low side of this method however is that it only applies to existing products, but not to innovative products and respondents are often asked to provide a universal assessment of products which may not necessarily depend on actual product adequacy to possible usage situations, but rather on user perception of the same (Yannou, 2015). This, according to Saqib(2019)is in congruence with the notion of utility been a subjective phenomenon.

III. LIMITATION OF THE STUDY

Although, a more case, product or category specific approach would have sufficed for this study, but not many respondents were willing to participate in the study initially because of the splitting of the products into categories such as electrical/electronics, clothing or cosmetics, confectionary or drinks, computers and such like as adopted in a previous study(Oyeniyi, 2009). However, participatory resistance was lowered when the study adopted a more generalized approach as shown in table 1. This informed the adoption of the chosen approach.

IV. RESULTS AND ANALYSIS

Respondents were made to rate the utility, based on experiential knowledge, they derived from the use, assessment or consumption oflocal and foreign products (table 3). Products were grouped under the following headings: ***Old local products***[locally manufactured products that were once available in the past or are still in production or circulation e.g. Fan Milk (in production since 1963) and Nigerchin cables (in production since 1970s); figures 3 and 4 respectively], ***contemporary local products*** (locally manufactured products that are currently in circulation and have only been introduced not too long ago locally e.g. Denki cables and Dangote sugar; figures 5 and 6 respectively), ***old foreign products*** (e.g. St. Loius Sugar; figure 7) and ***contemporary foreign products***. The utility rating for each category of products is as recorded in tables 3 and 4.

Figure 3: Fan Milk

Source:FanMilkNigeria (2019).

Figure 4: Nigerchin Copper Cable

Source: Energymall (2019)

Figure 5: Denki cable

Source: Odji Ebenezer, 2019.

Figure 6: Dangote Sugar

Source: Dangote Sugar Refinery PLC (2019)

Figure 7: St. Louis Sugar

Source: Odji Ebenezer, 2019.

Table 3: Showing the frequency of utility ratings of local versus foreign products based on how well consumers perceive products as meeting their needs.

VARIABLES	LOCAL PRODUCTS		FOREIGN PRODUCTS		ROW TOTALS
	Old Local Products	**Contemporary Local Products**	**Old Foreign Products**	**Contemporary Foreign Products**	
VLU (1)	17	21	28	10	76
LU (2)	26	25	29	18	98
AU (3)	56	63	61	67	247
HU (4)	38	38	26	41	143
VHU (5)	76	66	69	77	288
Total Frequency	**213**	**213**	**213**	**213**	***Grand Total = 852***

Table 4: Showing the derivation of the actual utility rating values of local versus foreign products based on how well consumers perceive products as meeting their needs, as derived from table 3.

VARIABLES	LOCAL PRODUCTS		FOREIGN PRODUCTS		ROW TOTALS
	Old Local Products	**Contemporary Local Products**	**Old Foreign Products**	**Contemporary Foreign Products**	
VLU (1)	17 x 1 = **17**	21 x 1 = **21**	28 x 1 = **28**	10 x 1 = **10**	**76**
LU(2)	26 x 2 = **52**	25 x 2 = **50**	29 x 2 =**58**	18 x 2 =**36**	**196**
AU(3)	56 x 3 = **163**	63 x 3 = **189**	61 x 3 =**183**	67 x 3 =**201**	**736**
HU(4)	38 x 4 =**152**	38 x 4 = **152**	26 x 4 =**104**	41 x 4 =**164**	**572**
VHU (5)	76 x 5 = **380**	66 x 5 = **330**	69 x 5 =**345**	77 x 5 =**385**	**1440**
Sub-total	**764**	**742**	**718**	**796**	***Grand Total = 3020***
Total Utils	***1506***		***1514***		

Summary of inferences derivable from tables 3 and 4:

(i.) Old local Nigerian products were rated higher than old imported alternatives.

(ii.) Most product users/consumers rated foreign contemporary products higher on utility derived than locally available alternatives/substitutes.

(iii.) Although, foreign products were generally rated higher than local alternatives, the total-utility derived from foreign products/designs (*1514 utils*) was not much different from the total utility derived from their locally available alternatives/substitutes (*1506 utils*).

(iv.) Old local products were generally rated higher than the contemporary local products.

V. DISCUSSION

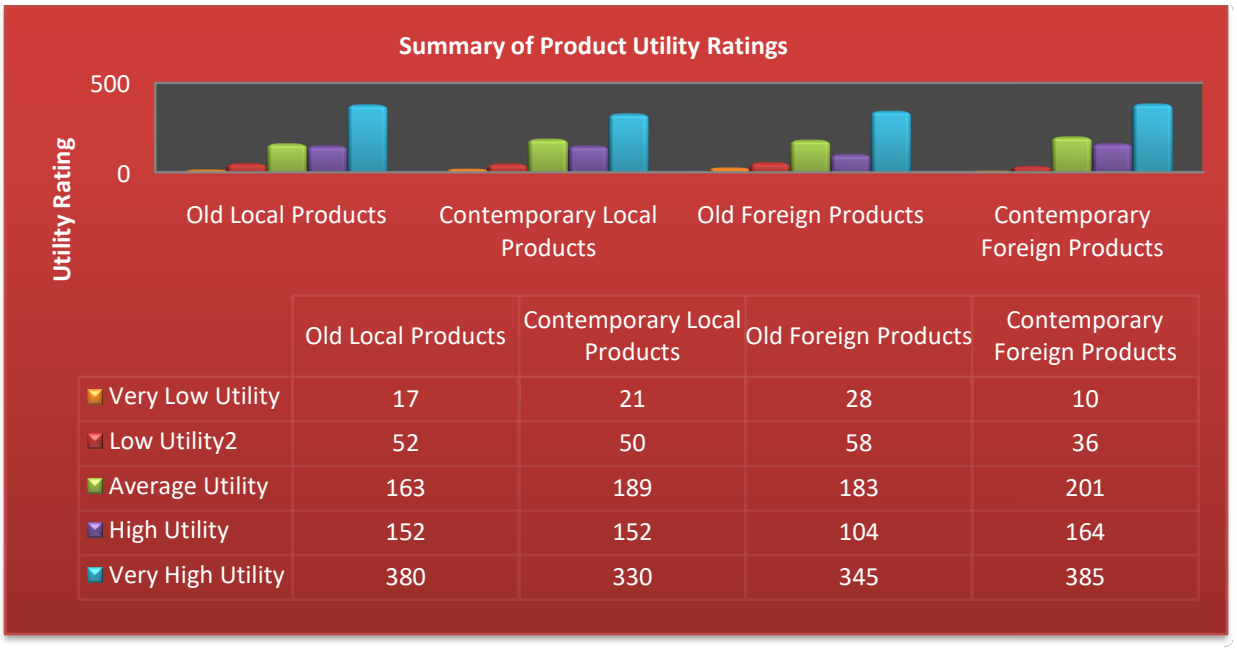

Figure 8: Showing summary of product utility ratings

Source:Odji Ebenezer, 2019

As derived from tables 3 and 4 and summarized in figure 8 for the purpose of clarity, the total utility derived from foreign products was not too higher than that derived from their local alternatives with a total difference of 8utilsonly. With a utility difference less than 10utils, the strong preference for foreign products despite various import control measures and media campaigns aimed at encouraging ethnocentrism, the local products still perform less than their foreign alternatives in commercialisation. This indicates a malady in all or some of the stages in the prevalent local product design and development process.

Rating old Nigerian products higher than their foreign old alternatives with a simultaneous higher rating of contemporary foreign products over their contemporary local equivalents may indicate one or all of the following:

(i.) ***The dwindling confidence level*** of consumers in local products over the years with a simultaneous increasing interest in foreign alternatives.

(ii.) ***Low competitive power of local products***; exposure of users to the existence of 'superior' product/design alternatives which reduced the preference for old local alternatives. In the past, consumers had less number of alternatives to choose from and so, in the absence of the preferred, they settled for the available, no matter how substandard they might have been. However, today, customers are better informed, they have more choices and their expectations or expected utility derivable from products are greater(Waran, Mohammed, &Elangovan, 2019).

(iii.) ***Poor persuasiveness and aesthetics*** of local products when compared to imported alternatives and such like. Persuasion is a conscious attempt by the designer to influence the mind, memory and behaviour of potential consumers in favour of a product through promotional contents, objects or products. It is a major objective of the field of Design.Closely connected to persuasion is aesthetics. Aesthetics is beauty (Odji, 2019). Unfortunately, many research outputs and products of Nigerian origin lack it (e.g. figure 9). This therefore connotes that if the persuasiveness and or aesthetics of local products are improved upon, then they will have relatively improved competitive advantage in the market which will foster improved sustainability.

Figure 9: A functional concentrator dryer researched and designed by Fuwape, a Nigerian female researcher

Source:Odji Ebenezer, 2019

Verifying this opinion, a previous study (Jain, 2001)described some reasons why products fail as summarily highlighted thus:Marketing or promotional failure, Commercial failure or poor return on investment, Product timing/introduction failure, Technical failure, Environmental failure and Organisational failure. Marketing or promotional and technical failures are two of the major reasons for local product fiascos which often lead to poor return on investment which in turn discourages further investments. These identified factors are not unconnected to promotion ineffectiveness, poor product persuasiveness, dwindling aesthetics and product performance, all of which the industrial designer is involved in. This means that if the following are purposefully emphasized and improved upon in the local product development process, then local products will enjoy greater patronage (invigorated by rising ethnocentrism) with improved derivable utilitywhich will induce greater or further investments in product research and manufacturing:

1. Product aestheticsand persuasiveness
2. Promotional contentspersuasiveness and
3. Product function/performance

Improved product persuasiveness and aesthetics will enable the product to market itself at points of purchase (POP) where most consumers/users make their buying decisions in the purchase process. This means that a product will conveniently 'speak for itself' even in the absence of promotional professionals if it is persuasive and aesthetic enough. Nonetheless, potential users will only consider the qualities and performance or persuasiveness of a product whose existence they are aware of. Therefore, promotion of local products is vital for the commercialisation success which completes the product development process. Hence, the persuasiveness of promotion driving tools, media and contents matters for the success of local products. Local Nigerian product designs and research outputs will suffer fewer fiascos if product persuasiveness and aesthetics, persuasiveness of promotional drives and performance/function of local products are improved upon and if products are made to pass through the full process of development.

VI. RECOMMENDATIONS

This study hereby recommends the following:

(1.) Since the utility derived from products is a key factor in the success or failure of any product, whether local or imported, then ***optimizing derivable utility*** should be consciously inculcated into the design process of local Nigerian products. This juncture can be accessed in the design process and improved upon in terms of product persuasiveness, function integrity and aesthetics. The product persuasiveness and aesthetics product requirements may be achieved via proper application of applicable design theories, principles and forms(Odji, 2018; Oladumiye, 2018; Odji, 2019). Further research may be conducted on exactly how the persuasiveness of promotional contents, products and product packages may be further improved.

(2.) Inculcation of the professional application of graphic design principles and theories into the curriculum of pharmacological, agricultural, engineering and other fields that contribute to the generation of conception,designs and manufacturing of local products whether for local consumption/use or for export. A similar recommendation has also been alluded to in previous studies (Odji, 2018).

(3.) Training and regular retraining of Industrial/product designers as well as other design related

professionals involved in the product creation process especially on the practical application of product persuasion and aesthetics. Since the total utility derived from local products is not too low compared to the available foreign product alternatives or substitutes, then, perhaps, improved persuasiveness and aesthetics of products and promotional contents are what is required to encourage greater ethnocentrism in Nigeria.

(4.) Improvement of investment into a healthy synergy of all fields involved in the product development process. 'Cutting cost' (a common practise in the Nigerian design and manufacturing sector) at the product development level is a major reason many local products fail as they do not pass through the proper 'funnel' prior to full commercialisation. However, if appropriate investment is made on each product at each level, with all necessary research, design, marketing and manufacturing professionals contributing their quotas, local products will possess better competitive powers and enjoy greater sustainability. For example, need analysis, if not well invested in and appropriately conducted, may lead to product failure even when packaging is well rendered. An example is the current dwindling welfareof Kokogarri (figures10 and 11)a well packed and packaged local agro-product introduced into the Nigerian market in 2014(Erhiawarien, 2014). Perhaps, sponsors and persuasive content designers of such already existing well packaged products may employ more social strategies like appealing more to the social status and ego of consumers. For instance, when the upper-class consumers accept a product, with time, it may appeal to the ego of the lower-class who may then be willing to pay more for a product from which the utility they derive is not greater than the utility derived from a less priced local product alternative.

Figure10: Koko Garri Pack

Source:Olayinka(2015)

Figure 11: Koko Garri Packages
Source: Vanguard (2015)

(5.) Nigeria seems to be a unique market scene and so what holds in other economies may not necessarily work optimally in Nigeria. Therefore this study recommends the design of a local product development model effectively workable in the Nigerian context. This is proposed for further research as shown in figure 12.

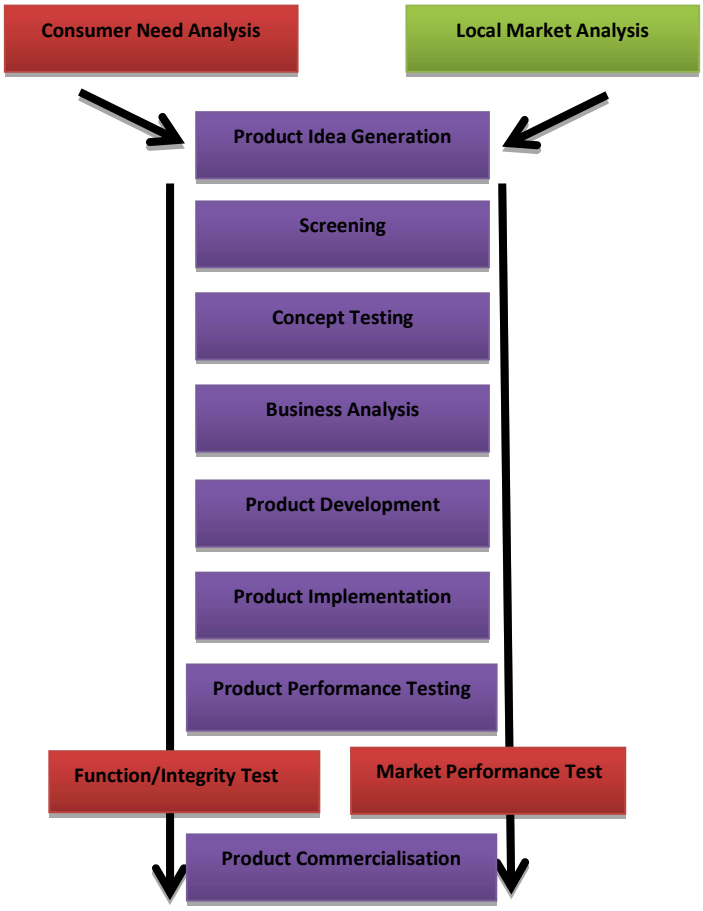

Figure 12: Proposed working model for local product development process

Source:Odji Ebenezer, 2019

Product idea generation, concept screening and product development are the major junctures at which the designer may bring to bear his or her skills, principles and theories for the improvement of product persuasiveness and aesthetics.

VII. CONCLUSION

Engineers, researchers and industrial or product designers of Nigerian origin are not short of design outputs, innovations and creativity compared to their foreign counterparts, relative to resources and facilities available to them. However, many of their designs/research outputs that eventually get introduced to the market often perform poorly (commercially) relative to their foreign alternatives.Although the utility derived from local products did not prove so low relative to foreign products', yet preference for foreign products is still prevalent. This is due significantly to faults in the adopted haphazard product development processes as many local products do not pass through the appropriate development process before commercialisationattempts are made which often lead to major fiascos. Therefore, this study recommends that local products should be made to pass through the complete process of product development with major emphasis on consumer need and market analysis, improved persuasive drives, product persuasiveness and aesthetics. This may demand more investments in the forms of time, skills and funds, consequently raising the cost of productionat the beginning. However, this will help raise the integrity, persuasive power and competitive strength of locally manufactured products in the long-run. One lesson that local manufacturers, investors and designers need to learn and be reminded of at all times is that sustainable profit making in product design and manufacturing is achievable mostly in the long-run than in the short-run.

REFERENCES

[1]. AIF. (2017). *Africa Innovation Foundation*. Retrieved July 25, 2019, from http://africaninnovation.org: http://africaninnovation.org/?persons=omolabake-adenle

[2]. Booz, Allen, & Hamilton. (1982). *Booz, Allen, and Hamilton's New Product New Product Management for the 1980s.* Retrieved July 28, 2019, from samples.jbpub.com: http://samples.jbpub.com/9780763782610/82610_CH02_PASS02.pdf

[3]. Bruiyan, N. (2011). A framework for successful new product development. *Journal of Industrial Engineering and Management, 4*(4), 746–770.

[4]. Dahan, E., & Hauser, J. (2003). Product Management: New Product Development and Launching. In B. W. Wensley (Ed.), *Handbook of Marketing* (pp. 179-222). Sage Press.

[5]. *Dangote Sugar Refinery PLC*. (2019). Retrieved July 30, 2019, from https://dangotesugar.com.ng/

[6]. Energymall. (2019). *energymall.ng/product/nigerchin*. Retrieved July 30, 2019, from Energymall: https://energymall.ng/product/nigerchin-6mm-single-core-pure-copper-cable-100meters/

[7]. Erhiawarien, M. (2014). *D'Banj shares his own brand of Garri at Do Agric launch in Nigeria*. Retrieved July 30, 2019, from One.org: https://www.one.org/africa/blog/dbanj-shares-his-own-brand-of-garri-at-do-agric-launch-in-nigeria/

[8]. FanMilkNigeria. (2019). *Fan Milk Nigeria*. Retrieved July 30, 2019, from fanmilk-nig.net: http://www.fanmilk-nig.net/userfiles/image/dairy_picture.png

[9]. Hauser, J., & Dahan, E. (2007). New Product Development. In R. G. Malhotra (Ed.), *Marketing Management: Essential Marketing Knowledge and Practice.* Columbus Ohio: McGraw Hill, Inc.

[10]. Ifediora, C., Ugwuanyi, C., & Ifediora, R. (2017). Perception and Patronage of Foreign Products by Consumers in Enugu, Nigeria. *International Journal of Technology Management, 5*(12), 842-857.

[11]. Jain, D. (2001). Managing New Product Development for Strategic Competitive Advantage. In D. L. (Ed), *Kellogg on Marketing* (pp. 130-150). New York, NY: John Wiley & Sons, Inc.

[12]. Jakobsen, K., Andreasen, M., & Skanaluminium. (1994). *The Product Development Process; TALAT Lecture 2101.02 Basic Level.* Retrieved July 26, 2019, from core.materials.ac.uk: http://core.materials.ac.uk/repository/eaa/talat/210102.pdf

[13]. Mahmutllari, J. (2014). Developing a new product development & launch process Case: Company X. *Thesis submitted to the Department for a Degree in International Business in the University of Applied Sciences*. (S. b. Vänttinen, Ed.)

[14]. Muehlbacher, S., Kirchler, E., & Kunz, A. (2011). The Impact of Transaction Utility on Consumer Decisions; The Role of Loss Aversion and Acquisition Utility. *Zeitschrift für Psychologie/Journal of Psychology, 219*(4), 217-223.

[15]. NAU. (2018, June 14). *Nigerian wins £10,000 in the Africa Prize for Engineering Innovation*. Retrieved July 25, 2019, from Nnamdi Azikiwe University: https://unizik.edu.ng/page/nigerian-wins-10000-in-the-africa-prize-for-engineering-innovation/

[16]. Odji, E. (2018). Application of Design Principles and Theories for Achieving Optimized Aesthetics in Designs and Electrical Installations. (N. B. Vakada, Ed.) *International Journal of Engineering and Modern Technology, 4*(3), 78-93.

[17]. Odji, E. (2019). Graphic Design Principles and Theories Application in Rendering Aesthetic and Functional Installations for Improved Environmental Sustainability and Development. *International Journal of Engineering and Manufacturing, 9*(1), 21-37.

[18]. Oladumiye, E. (2018). Graphic Design Theory Research and Application in Packaging Technology. *Art and Design Review, 6*, 29-42.

[19]. Olayinka, O. (2015). *D'banj Gets Emotional, Announces Koko Garri Competition*. Retrieved July 30, 2019, from legit.ng: https://www.legit.ng/502509-dbanj-gets-emotional-announces-koko-garri-competition-flag-off.html

[20]. Oyeniyi, O. (2009). Analysis of Nigerian Consumers' Perception of Foreign Products. *Buletinul, LXI*(3/2009), 18 - 26.

[21]. Parameswaran, R., & Pisharodi, P. (1994). Facets of Country of Origin Images: An Empirical Assessment. *Journal of Advertising, 23*(1), 43-56.

[22]. Ramya, N., & Mohamed, S. (2016). Factors affecting consumer buying behaviour. *International Journal of Applied Research, 2*(10), 76-80.

[23]. Saqib, S. (2019). *Utility: Meaning, Characteristics and Types | Economics*. Retrieved 07 18, 2019, from Economics Discussion: http://www.economicsdiscussion.net/utility/utility-meaning-characteristics-and-types-economics/13594

[24]. Silineviča, I., Igavens, M., & Amantova-Salmane, L. (2016). Research of the New Product Development Process. *Latgale National Economy Research*, 116-124.

[25]. Sridhar, B., Rajagopal, R.,& Vijay, M. (2005). Consumers in a Multichannel Environment: Product Utility, Process Utility And Channel Choice. *Journal of Interactive Marketing, 19*(2).

[26]. Tomlinson, S. (2019). *Understanding Utility Theory.* Retrieved July 29, 2019, from college.cengage.com: http://college.cengage.com/economics/0538797274_mceachern/student/lecture/8375.pdf

[27]. Vanguard. (2015, July 25). *Do you want to distribute D'banj's Kokogarri?* Retrieved July 30, 2019, from Vanguardngr.com: https://www.vanguardngr.com/2015/07/do-you-want-to-distribute-dbanjs-kokogarri/

[28]. Waran, P., Mohammed, I., & Elangovan, E. K. (2019). A Study on Brand Loyalty Behaviour Among the Customers Towards Branded Shirts (Brand Loyalty Behaviour). *International Journal of Applied Engineering Research, 10*(28), 21937-21945.

[29]. Yannou, B. (2015). Quantification of utilities of products in usage situations. *In book: Proceedings of EcoSD annual workshop 2014 on "Interdisciplinary approach for the notion of functionality in eco-design"* (pp. 1-3). Ecole Centrale Paris: Presses des Mines.