Product Design: A Categorical Imperative In Engineering Trend. A Nigeria Pilot Study

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Abstract - Eight contemporary trends- likely to have a major influence between 2011 and 2015 – are described. Not all of the trends will affect all of society- indeed some of the trends run counter to one another. Nevertheless, it is expected that each will affect enough people to be significant. The trends have been identified on the basis of professional judgment and cross-referenced against the prediction of others trends specialists1. Possible consequences of each these trends for design are described in the context of their wider implications for commerce, manufacturing and society as a whole.

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GJRE-G Classification : FOR Code: 091099

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I. FEMINIZATION

It is predicated that by the end of the year 2015 four out of ten Nigeria business will be run by women. This is indicating of the increasing influence that women are having in all areas of life from business to politics, from sport to entertainment- a 'feminization' of society. In the workplace this trend emphasized co-operation and good relationships between colleagues. Firms which promote a relaxed informal way of working will flourish, whilst those which work according to strict hierarchical command structures will find it increasingly difficult to hold on to their most capable employees.

This tend is having a strong effect on male lifestyles. Increasingly, men are rejecting the stereotype male role. In the early days of the contemporary feminist movement much lip-service was paid to the idea of men sharing in child rearing and homemaking. Now this is becoming a reality, with many major Western firms offering paternity leave to their male employees. Men are also starting to pay a lot more attention to their bodies. This is reflected in the success of cosmetics designed especially for men and in the sharp reflected in appearance of traditionally "female" illnesses, such as anorexia and bulimia, amongst young men.

And early example of a design whose success reflects the feminization trend is the Phillips 'Billy' bar blender. The styling of this product brings postmodern irony to a product which is designed to be used in a traditionally 'feminine' domain-the kitchen. The fun styling has proved popular with a new generation of men and women who enjoy working in the kitchen but don't take their homemaking tasks too seriously. The product aesthetics are humorous challenges to the idea of the housewife salving away using kitchen tools.

II. HEDONISM

The hedonism trend is appearing partly as a backlash to the health conscious and 'correctness' trends of the 1990s. Many people are getting fed up with being told what they can and can't eat, what they can and can't say, and about the sort of entertainment that they can and can't enjoy. Nevertheless, people have also understood much of the positive benefits that the health and correctness trends brought with them. Hedonism is about guilt free indulgence-not necessarily as a whole way of life, but as a treat-a special movement of self pampering. So, whilst people may understanding the benefit of a healthy diet, they may also enjoy special treats, such as rich chocolates, fine cigars or a good bottle of wine.

Another reflection of this trend's growing old disgracefully'. Many of the baby boomer generation-now in their sixties- have retired and are spending their (often considerable) savings on having a good time. For example, sales of sports cars and motorbikes have increased sharply amongst this age group.

Aesthetic aspects of products may become increasingly important as a result of this trend. People will want designs that radiate quality through and through. In particular, this is likely to have an influence on the materials used in design. For example, there may be a move away from plastics towards 'noble' materials such as woods and metals. The compact and beautifully designed Canon Elph photo-camera is a good early example of a design in tune with this trend.

III. SPIRITUALITY

Spirituality is a post-materialist trend. It reflects a desire to rise above merely Consuming to experiencing. During the materialistic 1980s many people thoroughly enjoyed conspicuous consumption. Being the envy of the neighbours quite the thing. Spirituality is more about loving your neighbour. The consumer boom may have brought prosperity into people's lives, but it hasn't necessarily brought meaning. Spirituality is a search for that meaning.

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Perhaps the most obvious reflection of this trend is the increasing influence of religion, both in the West and the East. Nine out of ten Nigerians regard religion as important and seven out of ten pray every day. People are also looking beyond the Judeo-Christian traditions to the mystical religions of the East.

However, this search for meaning is also reflected in other ways. Increasingly, when making purchase choices, people are considering not only the quality, but also the ethics and behavior of the company supplying the product or service. People are becoming increasingly sophisticated in their approach to purchase choices and companies which continue to feed their potential customers on a diet of mealy-mouthed hyperbole will soon find that their customers starts to look elsewhere.

In terms of consequences for design, products that carry 'meaning' or onto which meaning can be projected will be appreciated. Loud aesthetics- those which 'scream out' about the product's functionality or monetary value will give way to quieter more restful aesthetics, helping to make the home a peaceful visual landscape. Spirituality is also about doing things well and doing them simply. Single function products which perform this function excellently will be appreciated. People will be prepared to pay a lot for a product provided that they an be sure that it will perform well for a long time.

Global knives are a contemporary example of single function products which have the weight of the handle balancing the blade. The surface of the handle has been textured to give a good grip and the blade has been hardened and is very sharp. A simple, high quality product which performs one functions excellently.

IV. Downsizing

People have been getting busier and busier… and people are growing sick and tried of it! Stress levels are increasing and people are starting to turn their backs on the rat-race. When asked whether they would rather have more money or more free time over half of Nigerians say that they would choose the free time. People are increasingly choosing to work at home; taking advantage of the opportunities provided by information technology- in particular the internet.

Another reflection of this trend is the move out of the cities and into the countryside. Over three million Nigerians have left the cities for the countryside in the last four years and the trend. As people make more free time for themselves, they will look for exciting, fun or relaxing things to do alone or with their friends and families.

An aspect of downsizing which has implications for design is the blurring of the distinction between the home and the workplace- increasingly the workplace is in the home. Even when people do go to another place to work, people may enjoy workplaces that are more than merely professional environments. Creating a cozy or fun atmosphere is appreciated.

A result of this may be a blurring of the distinctions between the aesthetics of 'professional' products and the aesthetics of 'household' products. The use of colors and materials on the Mac computer is an early example of a professional product with a fun aesthetic.

V. Tribalism

It is often said that we are living in a 'global' village'. The internet and cheap air travel are the prime moves behind this trend. So are military and political developments which have led to the increasing Nigerianization of the world and the increased integration of Europe, arguably at the expense of national identify. The main symptom of tribalism is the search for membership of groups that give a feeling of collective identify. For some this search for identify takes the form of joining groups of like minded people- for example, through groups dedicated to common interests, such as sport, music, culture of politics. Increasingly, such groups are being facilitated by the internet. For others the search has taken the form of a reassertion of national identifies. An example of this within popular culture can be seen within music. A few years ago, the European music charts were totally dominated by songs sung in English. Recently, however, there has been an upsurge in the fortunes of bands who sing in their own national language, many of whom are scoring hits in their national charts.

Another side of tribalism is fusion. Fusion is about understanding other cultures and mixing and matching the best of these with the best of the domestic culture. This trend has already been noticeable for a number of years in Eastern culture. In countries such as Hong Kong and Singapore, people will dress in the Western style and fill their houses with the latest Western gadgetry. However, many will eat in retirements serving superb Asian food and work in companies which embody the values and practices of the Asian work ethic.

The increasing importance of branding may be seen as a reflection of tribalism. If a company is strongly branded, then buying a product from this company can indicate a sense of belonging – an identification of the values promoted by the brand image.

Design can play a major role in establishing a brand identify. For example, the apple Macintosh range of computers have a number of common design elements- notably the look and feel of the interface and the use of sound-that help to create a amongst people in 'creative' professions, such as design. For many years such people have associated Macintosh with fun, creativity and user-friendliness. They may see being a

Mac user as reinforcing their own regard for these values.

VI. Fear

There is an increasing mistrust of governments and large corporations. One area in which this trend shows up is in the food industry. For example, the British government's handling of the 'mad cow disease' epidemic sowed the seeds of mistrust amongst many British consumers. People felt betrayed and misled. This is now having an influence in the context of scares over genetically modified foods. Once again, the government-albeit of a different political hue-is trying to convince people that there is nothing to worry about but now these reassurances are falling on deaf ears- a case of once bitten twine shy.

A more extreme symptom of this trend- one that is particularly prevalent in the USA- is the rise of anti-government militia groups. Many of these groups fear that the believe that it is important to be ready for armed struggle against their own national leaders. The Waco tragedy and the Atlanta bombing are two examples of the potentially horrific consequences of this trend.

Techno fear is also on the rise. For example, as the new millennium approached many people became worried about he effects of the millennium bug, believing that it could be potentially catastrophic. One reflection of this was the huge increase in the sale of tinned foods during 1999. People were concerned that potential difficulties which might arise in the transportation and storage of food might lead to severe food shortages and insured against this by stockpiling tinned foods in their homes.

A consequence of this trend is the need for manufactures to create products that are honest and reasonable-and which are seen to be honest and responsible- in order to win back trust from their customers. This means, for example, that the product aesthetics should be straightforward-revealing how the product is constructed, with it does and how it works. Environmental responsibility and sustainability, both in terms of materials and manufacturing processes, are also important here.

An example of a product whose deign fits with many of these criteria is the Dyson vacuum cleaner. The Dyson Vacuum cleaner has a design which reveals the way in which the product works, thus enhancing people's understanding of the product. Because no dust bag is required, the product is seen as being environmentally friendly. Because Dyson is a relatively small manufacturer it may avoid some of the mistrust sometimes associated with some of its multinational competitors.

VII. Staying Alive

Whilst the hedonism trend represents something of a backlash against the health concerns of the 1990s, the staying alive trend might be seen as a legacy of these concerns. This trend reflects people's desires to live long and healthy lives and the belief that particular ways of living can help in achieving this. People are paying more and more attention to what they eat and drink. One manifestation on food labeling.

People are also exercising more, particularly the middle-aged. Health clubs and fitness centers have reaped the benefits of this trend with membership of fitness clubs increasing by 64% for middle-aged Americans. Use of alternative medicines is another manifestation of this trend, with a sharp rise in the sale of homeopathic remedies over the last five or six years.

VIII. Individuality

This is about people's desire to assert their individuality in an increasingly impersonal would. The relentless drive towards computerization of services over the last few years has left many people with the impression of being just a number-processed rather than serviced. Service institutions that show an understanding of their customers' individual needs will flourish in the coming years.

One way in which people are asserting their individuality is through fashion. People are increasingly mixing and matching in order to develop their own style. People may wear an expensive Rolex watch along with a cheap pair of sneakers and, more and more, are refusing to be dictated to by designers and fashion gurus.

This suggests that manufactures will have to offer customers a wider range of styles more sharply focused on the testes and lifestyle of different people or groups. Manufacturing technology is making it increasingly feasible to produce products in comparatively small runs at a reasonable cost. Another possible response to the trend is to give people the chance to personalize products. For many years motorists have been offered a series of optional extras, color choices etc., when choosing a new car. However, Mercedes and Swatch have taken this a step further with the Smart Car. For example, owners can alter the appearance of the car by swapping the external panels.