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# GLOBALIZATION

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Introduction

INTRODUCTION

We cannot deny that we are living in a shrinking world; a world in which advances in communications, speed of travel and the pace of technology bring nations and regions closer and closer together. Since the Second World War, world trading arrangements have been increasingly rearranged with the emergence of Japan and Korea as major industrial traders, and the decline of British Commonwealth trade and US economies.

The trading competitors of the world not only feel intensities of rapid change, they share certain common problems in the products they manufacture and distribute. Three regions of the trading world – the United States, Japan and Western Europe account for 45 percent of the world's gross national product (G.N.P.). Japan and the United States account for 30 per cent. These three groups of countries and their closely bound trading relationships have become known as the 'Traid'<sup>1</sup>.

Changes in the manufacture or trading posture of one area are keenly felt in the other two areas, and in fact in the rest of the trading nations shared conditions and problems affect how they develop and trade. Knowing the conditions and behaviours of the trading nations has become a key issue in the design and manufacture of world products. Products that travel well across national boundaries and improve the competitive posture of the country of origin will obviously help sustain and improve the economic well being of that country.

The challenge of producing well designed, competitively priced products is becoming more difficult among the major trading nations of the Traid. Rising costs, stagnant economies, mounting costs and aging populations all effect the Traid nations, and pressure manufacturers and traders to increase market schemes in other parts of the world, and shift their focus of operation 'to increase their competitive advantage.

Corporations throughout the world have had to redesign their organizations and mode of presentation to meet the new conditions of world markets. Corporations organized around the trading network of colonization of the 1930's -'50's have watched these networks disappear. Many leading corporations have become multinationals - organizing their corporations world wide to serve the regions in which they are situated. But some larger organizations are trying to move toward 'Globalization' by trading products in which the needs of one region are indistinguishable from another, thus cheating the movement of products with global characteristics and ensuring economies of production.

A multinational Company pursues separate strategies in each of its foreign markets while viewing the competitive challenge independently from market to market. Each overseas subsidiary is strategically independent, with essentially autonomous operations. The multinational headquarters will co-ordinate financial controls and marketing policies worldwide and may centralize some R & D and component production. Strategy and operations are decentralized, however, so that local managers do whatever is necessary to succeed in R & D, production, marketing, and distribution. In short, the company competes with other multinationals on a market to market basis.

A Global company puts one multinationals's entire worldwide system of product and market position against anothers. Various country subsidiaries are highly interdependent in terms of operations and strategy. Country profit targets vary, depending on individual impact on the cost position or effectiveness of the entire worldwide system or on the subsidiary's position relative to a key global competitor. Strategy is central and various aspects of operations are centralized or decentralized as economics and effectiveness dictate?

There is ample evidence that the influence at these global markets cannot be ignored and that to design and produce products that do not meet the needs of the Triad can have The concentration of electronic dire consequences. products is an obvious example. The production of computers is dominated by five countries of the Traid, the United States, Japan, the United Kingdom, Germany and France, who produce 85 per cent of the products. The same five countries produce 82 per cent of the electronics consumer market. The growth rate in these goods is double that of most national economies. While national character and regional style and culture remain highly desirable to

each nation, it is clear that these same countries cannot allow national "refinements" to dominate the design and production of these products to the point that they cannot flow smoothly through the world markets of the Traid and beyond. The dilemma for the manufacturers of the Traid is how to meet the demands of Globalization without producing bland undifferentiated products, for what some see already as a homogenized world.

This homogeneity is part of a shrinking world phenomenon. Attitudes and consumer preferences flow across national boundaries at ever increasing speeds, so that groups of global consumers travelling throughout the world listen to Madonna on Sony Walkmans, in Levies and Adidas shoes. Life-styles of the global generations have come closer together, and our curiosity about other lifestyles has become more universal with Coca Cola moving in one direction and Suski in the other.

Some commonalities between major trading nations will increase, making the global issues of design and production ever more important. Consumers across the Traid will have more disposable income, more access to communications through audio-visual networks, more opportunities to travel and consume across cultural boundaries.

While it is evident that consumer commonalities will lead

to product standardization in some markets (e.g. stereos, watches), it is equally clear that highly differentiated products with strong cultural and regional characteristics will prevail in many other markets. Not even Coca Cola or the Mighty McDonalds can "globalize" their products. Rather, the trend towards globalization will be just that - a movement in the direction of more standardization of products. Clearly the appearance of fexible manufacturing systems and novel distribution concepts (e.g. Benetton), with the ability to produce short run, regionally differentitated products will challenge the global strategy even more, since the relevant economies will offset the benefits of standardization.

Designing with world markets in mind will require a very different perspective and outlook on the world than is currently adopted by the world's designers and producers.



Similarities in Life-styles



#### A CASE FOR WORLD PRODUCTS

We live in a world divided by national barriers, which have been erected over the centuries, partly geographical, but also cultural and political. Major force, discovering the possibilities of penetrating these barriers are the worlds Multinational and Global Corporations. In doing so they create global networks, which result in massive financial rewards.

Previous Multinational Corporate philosophies have been to launch products on domestic markets, whereby after careful perference analysis the product can be adapted and expanded to international markets, on a gradual nation by nation basis. Today new innovative technologies have become valuable corporate commodities. With the ever increasing cost of Research and Development (R & D), a technological advantage has become increasingly harder to gain, and indeed maintain.

pressures, and serious economic With these growing competitors, new corporate technological threats from strategies are emerging. "Clobalization", is a concept towards standardized global brands, producing one product, then setting about to produce, distribute, market and advertise it globally. Generally the product is launched in all major countries of the Triad at one time or in quick succession. The advantage of this strategy is massive financial returns, in a very short space of time, but also a limited possibility of losing their technical lead to competitors.

The high costs of developing products can be alleviated by marketing the products worldwide, but also by joining forces with other multinationals in research and development. Rolls Royce, Pratt and Whitney and General Electric are all seeking partners to share these development costs. Japan-based Seiko recently acquired a Swiss watch company to further their own development of expensive luxury watches for sale worldwide. It has become clear that many automobile firms "are just not going to survive". This has led to many co-operative arrangements and joint ventures in recent years. Renault agreed to purchase 10 per cent interest in Volvo's passenger car business, while its own holding in American motors jumped from 5 per cent to 46 per cent. G.M. owns 34 per cent of Japan's Isuzu. The West is clamouring for Japenese factories to offset losses in local markets to Japanese firms. It has been said that each State in the U.S. has officially invited Toyota to consider their State for plants. The thirty automobile companies now competing on an international scale will by the mid 1990's be reduced to as few as seven or eight companies or alliances of companies, perhaps just Volkswagen, Nissian, Toyota, and G.M.!

'Gorbochev' has twice gone on record as saying "that lack of consumer choice is one of the major failings of the U.S.S.R." Trade barriers emerge in a variety of forms, some growing

naturally out of cultural differences and differing life styles, others have been erected to inhibit trade and so protect domestic industries and markets, these latter range from tarriffs on foreign imports and subsidies for domestic products to outright prohibitions on the import of certain products. The past years have witnessed a tendency among companies to transfer their manufacturing operations abroad, due to many reasons including cheap labour and tax incentives offered by host governments, but mainly because "they realised that it doesn't make sesnse to pay people in expensive dollars to make things sold for cheaper pounds, francs and pesos".

Global corporations benefit two-fold from these overseas operations. The first being the economics of production, the second being a physical link as each plant acts as part of a global familiarization program, introducing the corporation, both socially and culturally to its host nation. Essentially laying the foundations of a global network.

General Motors Vauxhall Astra is the realization of the ten year development of the T85. When the T-car concept was first developed it was envisioned as a World Car, a motor manufacturer's dream that could be made and sold in the same form in all markets. Despite their efforts multinational car companies know that it never quite works out that way.

The Vauxhall Astra is a fine example of how international companies can integrate the activities of their far flung subsidiaries to their advantage. Parts for the car, which is

currently sold only in Europe, are manufactured all over the world by G.M. subsidiaries then shipped to Britain for assembly. An Astra assembled in Britain might bring together an engine that has travelled 10,000 miles from Austria, a gearbox made in Japan, and a suspension made in West Germany. Radiators and transmission were from France, and some of the more complex wiring comes from Packard's company near Dublin. Heavy bulky and low cost parts are sourced locally. Although it is assembled and sold locally, in one sense, it is already a World Car.<sup>5</sup>

Mass production is obviously crucial to corporations, the larger the production the greater the financial rewards. To manufacture on a global scale requires massive capital investment, complex distribution and marketing networks, secure sales and after sales services. In order to justify world products, Global Corporations state that we are experiencing greater cultural convergence across the globe, that East and West are both experiencing similar social changes. This convergence has been brought about by new innovations in communications technology. With the advent of satellite broadcasting we can have greater control over the cultural lifestyles and trends we are exposed to. Their ultimate belief is this will create a "common culture" with over-riding similarities in lifestyles, the perfect "consumer culture" who craves only the minimal range of goods.

Global products do make very definite economic sense and one can fully appreciate corporations looking at markets globally but their down-fall is the assumption that their products fulfill everyone's needs, without the flexibility for cultural and social refinements.



This drawing illustrates the widespread sources for the components of G.M.'s Vauxhall Astra.



One of Procter & Gamble's first steps to globalization. Pampers are marketed across the globe under one brand.



#### A CASE AGAINST WORLD PRODUCTS

We have hinted at the power Global Corporations have, the scale of production and the massive distribution operations. Production of this is a sobering thought, as it places hugh demands on marketing, advertising and design of such a product. Should we question the integrity of these "God-like" Corporations as to who they are looking after primarily, is it their own needs? or those of the consumer? As in the words of the noble Lord Acton -

> "Power corrupts, men with power have an extraordinary capacity to convince themselves that what they do happens to coincide with what society needs done for its own good"<sup>6</sup>

Total Globalization is limited at present to a select few products, mainly those with no existing cultural barriers. The threat is that globalists are introducing their over-simplified doctrine into almost every mass produced product. It is important at this stage to define the differences in consumer products. Domestic globalized products, at present tend to be soaps and detergents, which present little problems as global products. with the exception of attention to cultural preferences in packaging. The products which put up greater resistence to globalization are those with closer cultural ties, for example clothing and food stuffs, but also most durable goods such as electric irons, dishwashers and televisions.

Clobal resistance is true for products such as computers, which must put the user first. I.B.M. has recently set up research centres to study the needs of global users, they are aware that technology can be adapted and designed to fit in with peoples needs. This crucial approach to design is encouraging when coming from one of the worlds largest corporations.

There are fewer differences between nations. National barriers which once separated nations are breaking down. We live in a world with new social standards, once we would have inherited our lifestyle, to-day we can choose our own. Globalists believe strongly in "demographic data" to show similarities between countries, but they fail to take into account how different cultures, with their own ethnic customs and backgrounds interpret these new lifestyles.

Modern forms of communications have had major impact on our world, bringing us closer to a global village, but future developments in communications would suggest new problems for the globalists, as there are new trends towards specialized media. Replacing traditional like it or lump it television, largely responsible for homoginizing consumer demands. Video recording, cable and satellite stations are enabling people to customize their viewing. An example of hetrogeneous cultures can be found in America with its massive South American emigrant population, largely resigned only to speaking

Spanish, their native tongue. In certain areas such as New York you find fully self-contained Spanish communities, living in Spanish districts, eating Spanish food, reading Spanish newspapers, and watching Spanish cable television. It would not be true to say that these people are not exposed to the same products as other Americans but the point to remember is that Coca Cola, McDonalds and many others have resigned themseslves to doing so in Spanish. This particular situation is not just common to America but also to many countries in Europe, Asia and Australia.

Successful marketing requires Corporations to learn the needs of these classes, design products to satisfy them and direct their advertising directly at them.

## Consumer Choice

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#### CONSUMER CHOICE

"Global Products", have become established parts of the cultures in the countries where they are sold. Typically they followed empires, Reckett & Colman followed the British, in their colonization, Coca Cola followed the U.S. troops.

Clobalists believe that Corporations can steer consumer choice through mass marketing and advertising, essentially creating a demand, to suit their production aims. This philosophy is obviously tempting to the Global Corporation with its endless capital resources, established brand names, and global distribution and marketing networks.

Marketing experts seem to get carried away with "World Products". Twenty years ago, Theodore Levitt, of Harvard University respected as a leading marketing authority wrote:-

'Selling focuses on the needs of the seller, marketing on the need of the buyer.'

In other words, marketing should be user-centred and allembracing in its approach. But more recently Levitt has said:-"The Globalization of markets is at hand. With that the

Multinational commercial world nears its end, and so does the Multinational Corporation .... Corporations geared to this new reality can decimate competitors that still live in the disabling grip of old assumptions about how the world works."

"The worlds needs and desires have been irrevocable homogenized."<sup>7</sup>

Levitt's writings were published in an article titled 'The Globalization of Marketing which were taken quite literally by many of the leading advertising giants, before Levitts attempts to retract or clarify some of his statements, as being exaggerated. The most significant follow up was on the part of a London based advertising agency 'Saatchi and Saatchi', who placed a double page advertisement in a leading Sunday newspaper, blantantly appealing to manufacturers to market products globally, in order to converge consumer habits and tastes.

Needless to say Levitts initial statement sparked off much controversy and in particular a response from one of Levitts close colleagues, Philip Kotler, who said "that Levitt was setting marketing back by trying to bend consumer demands to suit the product, rather than vice versa".

With world marketing attention directed towards this ongoing debate 'Kotler' expressed his own adamant views and those shared by many other marketing experts. He believes that world markets were showing signs of divergence, that specialized or niche markets were beginning to emerge, these niche markets for example 'working women' could be addressed globally, providing the same product across the globe but with local adaptations. Creating marketing and advertising strategies relating the product to its particular host culture. Creating marketing and

advertising strategies to reach these market segments, required a sensitive understanding of the social and cultural aspects of the consumer. Below are a selection of examples of global marketing and advertising strategies employed by various Corporations.

MATTELS Barbie doll did very poorly in Japan until Mattel gave the manufacturing license to 'Takara' a Japanese toy and doll specialist. Takara conducted market research and found that most Japanese disliked Barbie. Her breasts were far too big and her legs were exaggeratedly long. Takara made the appropriate modifications to Barbie's anatomy, converting her California blue eyes to brown, changed her wardrobe, and found instant success in the market. Two million dolls were sold in just two years. In explaining the preferences that should be obvious to any smart marketer, Takara's plant manager Shusuke Kubata points out; dolls in pan are reflections of what girls want to With the target customer group in Japan 10-14 year old, be. this doll had to look more polished and fashionable than the original." What sells in America and Europe does not necessarily sell in Japan. But a good concept can be transferred with intelligent interpretation, adaptation and translation.9

CANON'S 1984 model 35 mm automatic camera was designed as a global product. The company consulted all its managers on the global and regiional level and encouraged their participation in the product development stages and their

interaction with engineers. Canons management in each region promoted it differently to suit its market. In America, it was marketed as an idiot proof first class camera, while in Japan it was sold as representative of state of the art. Levitt argues that with time, marketing of the camera will increasingly be the same in all markets.<sup>10</sup>

TOYOTA's customized automobile in Saudi Arabia has focused on the use of well-known personalities as a means of direcrting attention to the product. This strategy grew out of an understanding of the importance placed on leaders in different aspects of Saudi life. Toyota chose the easily recognised much-respected Moslem sportsman Muhammad Ali, three times world champion heavyweight boxer, to represent the product. Ali is idolized in Saudi Arabia and "the greatest" made an effective choice for advertising Toyota products.<sup>11</sup>

BRITISH AIRWAYS, the largest airline in the world, is perhaps the best known proponent of global advertising. Its first global commercial (by Saatchi and Saatchi) with the name of "Manhattan Landing" is now considered a legendary spot. Viewers throughout the world saw the island of Manhattan cruising in for a landing at London Heathrow Airport. This commercial was translated into 20 languages for use in 35 countries.<sup>12</sup>

All of these examples stress the importance placed in understanding each consumer society, rather than approaching

them as a global collective. They have all been sympathetically researched and marketed too directly.

Imposing on people a product from abroad is only successful when it has status in its own right in the market place.<sup>73</sup> Cultural differences give different meaning to products. 'Horlicks' is sold in the UK and India. In the UK it is a night time drink but in India it is a health supplement. Relative meanings to products are what people make of them. Their identities are created not by the designers but by their users. Even product function is determined by cultural context. Cooking oil, sold to natives of a South American island, is used to put in their hair to enhance their appearance. The function of these products, can if desired, be reinforced through culturally orientated marketing and advertising.



Saatchi and Saatchi using newspaper advertisement to push for World Brands.



The American version of Barbie on the right, with the Japanese version on the left.





Muhammed Ali's well-known personality is "the greatest" worked well for Toyota's customized advertising campaign, shown here in English, as well as Arabic.





The latest trend in Japan is 'Lifestyle' design. The Be 1 "concept book" explores the meticulously styled details of Nissan's trendiest car, which comes complete with matching fashion accessories, such as tank tops, trainers and socks.

## THE FRENCH CLAIM OVALTINE RESTORES ENERGY. IS THAT WHY THEY DRINK IT FOR BREAKFAST?

After a très fatiguant night on the town, what have this French couple headed straight for?

Hair of the dog, perhaps? Or black coffee? No . . . a cup of Ovaltine. Yet with the old joie de vivre obviously exhausted, why do they drink something to help them sleep?

Thing is, they don't. They drink it to wake up. Because your Continentals believe that the malt extract, barley and eggs in Ovaltine are a real boost to a flagging body.

Malt extract for instance, is well known as an instant and long lasting source of energy.

Eggs are an excellent source of protein. And Ovaltine provides calcium in abundance, through both the milk powder already in it and the fresh milk it's made with.

What's more, thanks to a generous helping of cocoa, Ovaltine has a delicious chocolatey taste.

Yet Ovaltine contains no added sugar, no artificial flavour, colour or preservatives.

So the moral of the story is this, girls. If a Frenchman offers you a mug of ( Ovaltine, beware.



He actually means next morning.

------ ISN'T IT TIME YOU WOKE UP TO OVALTINE?----

Ovaltine like Horlicks is marketed to meet different consumer perceptions in each country.

# Global Ergonomics

#### GLOBAL ERGONOMICS

A fundamental problem with Globalization is a conflict of interests, between those of the manufacturer and the consumer. The consumer has deeply rooted intrinsic needs, physical physiological and phychological, which he or she will require of a product, these consumer characteristics come from a very complex matrix of human behaviour, based on social and cultural values, environmental conditioning and life styles.

Ergonomic or human factors engineering requirements are profoundly affected by the demands of a global market, take Japanese cars as a case in point. It was not realised that, while Japanese and Western torso's are about the same size, Western legs are longer. Westeners considered the cars cramped and car sales took off only after they remedied this defect. Certainly the range of physical sizes among various cultures is a critical factor in the design of products for world markets. A German study conducted in 1978 on work stations with display terminals has lead to a much disputed German standard. From observational data the researchers had concluded that: "keyboards should be built as flat as possible. If they exceed a height of 30 mm they should be lowered into the table top". This conclusion was incorporated in a yet to be adopted German standard and later become the basis of a German safety Wide publicity led it to be considered as regulation. a possible keyboard standard by various Governments and the 30

millimeter keyboard was manufactured and marketed. However, in

1982 a study carried out by the Human Factors Center of IBM Corporation compared the relative productivity of IBM keyboards with home row heights of 30, 38 and 45 millimeters. The result pointed to the significently higher productivity and comfort of the higher keyboard. Questionnaire data also indicated a marked preference for the higher keyboard by operators. These conflicting standards have become the basis for debate between American and European human factors specialists.<sup>14</sup>

Physiological variations between populations is a more complex and less well documented area of common concern. It is true that all humans have the same basic physiological functions. We expand energy based on our need to go about our daily lives. But one factor dramatically effects the efficiency of that basic process; the environment in which we live and to which we have adapted. Its heat, humidity, light, sound and general hygiene affect us. People living in a specific climate adopt to it, both physiologically and behaviourally. The overall tempo and behaviour patterns of their lives differ from those in other climates. But when people first encounter a climate or when the climate changes rapidly cutting the time for adaption many of their functions are affected.

In a hot humid environment, people will expend more energy and be less accurate in their work than people working in a temperate one. Not only does the environment affect the operator but also the product. For example, a personal

computer designed for the U.S. market and exported to the third world may be in constant need of repair due to the high temperatures, humidity and dust levels. This this operating environment dictates a much better heat dissipating design, through wider component spacing, a new exterior case and probably new keyboard design for these countries.

In areas with high ambient light levels, users may need brighter displays. For instance, it was found that industrial vehicle operators in the South-western United States had a hard time reading some of the dashboard displays because of the high solar ambient illumination levels. Products designed for temperate climates and then exported to colder ones also may encounter environmental conditions they are not designed to work under. Sometimes these products cannot be operated properly or safely by operators who have to wear gloves, SO control knobs, levels and such have to be designed larger for In addition human response time slows and those areas. our ability to undertake physical labour is reduced in colder climates.

#### LANGUAGE AND SYMBOLISM

Although all humans share a common basic nature, we differ from place to place and from time to time. The most obvious differences are cultural and perhaps the most evident of cultural differences is language. Language divides us. Placing labels, graphics, instructions and such on products remains a problem by using symbols and by instituting international symbol codes, but it turns out that we can convey
a very limited amount of information through symbols. Only a small, restricted set of graphic symbols have meaning for most people. There are no "universal symbols" with the same meaning for everyone, because symbolic meanings are learned not innate, and the learning exposure varies by culture. Culture therefore, tends to be specific and local first and universal second, if at all. We are a long way yet from the global village.

In the 1920's the Coca Cola Company wanted to introduce its product in China with the English pronounciation of "Coca Cola". A translator developed a group of characters which, when pronounced, sounded like the product name. The markings were put on the bottles and the product made available, but was met with a less than enthusiastic response. The characters actually translated to mean "bite the wax pole". Since the product was new to the consumers sound was unimportant where meaning was vital. Today, Coca Cola is again marketed in China. The new characters used on the bottle translate to "happiness in the mouth". The austere "Rolls Royce" company narrowly escaped similar embarrassment. Shortly before introducing the Silver Mist model in Germany, the company discovered that "mist" sounds like the German word for "excrement". Realising this would not present the desired image, the company changed the name for that market.<sup>15</sup>

Kodak is probably the most famous example of a company that

deliberately considered its name with world use in mind. A research team arrived at the name after extensive search for a world that was pronouncable in all languages, but had no specific meaning in any of them. To accommodate the difference between the 18 countries with 400 million people Kodak altered language keys on the control panels of the products, for each country. They have also created a service language consisting of 1,200 words which are frequently found in technical information manuals around the globe.

Close examination of foreign markets and language differences is necessary before a product's domestically successful name is introduced abroad. Unfortunately this simple warning is sometimes neglected in a company's enthusiasm to plunge into overseas marketing operations.

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Coca Cola might have a single brand around the globe but they are intrinsically different from market to market.



International Graphic Symbols (British Standards B.S 3939)

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## DESIGN FOR WORLD MARKETS

Until recent years little has been written, said or done by designers about the critical world design issues. In the last two years designers have joined in the debate started a quarter of a century ago by Levitt and others, on the pros and cons of globalization and regionalization. Designers have restricted themselves to pursuing a course occasionally influenced by new technology, style and fads. However, new opportunities are being created by the recent emerging capability to produce short run highly customized products, made possible by flexible manufacturing systems.

Mounting interest, both in Europe and abroad, in what is called "design management" or "management by design" has so far failed to address directly the problem of how corporations can use effective designing to enter world markets and alternatively how to protect home markets from the advances of overseas products.

Designing means translating diverse user needs, ideas, and technical possibilities into effective products, environments or services that meet the needs of particular markets and their customers. Therefore design is at the center of strategic planning when it comes to production for world markets. The basic question asked of any product designed to function in foreign markets is - can a domestic product range developed to

meet domestic markets be successfully marketed abroad? And which is the more appropriate design strategy, standardization or customization?

Standardization implies offering a common product on a national, regional or worldwide basis. It has obvious advantages, including cost saving, achieving better marketing performance, and developing worldwide products. It ends duplication of R & D, product design and packaging and leads to economies of scale. Finally, it results in consistency in dealing with customers and in product design, thus establishing a common image of the product world wide.

Customization implies making changes in a product to suit local perspectives. It takes advantage of cultural market differences between nations, and provides the multinational corporation with its competitive advantage. Proponents of customization claim that standardization leads to substantial opportunity loss.<sup>16</sup>

What are the economic gains to be made by standardization, or how much in common are the global markets and user needs with those at the domestic market and user? On the other hand what is to be gained by playing on the differences between regional offerings and providing for these differences with emerging capabilities for customization?

The evidence shows that companies frequently overlook the importance of design to this issue and frequently make mistakes

in product design, manufactureing and marketing by not understanding the potentials of either standardization or customization. While Volkswagen and Sony have successfully "globalized" certain products, some furniture manufacturers for example have found it initially difficult to overcome barriers to their products created by national lifestyles.

Italian clothing manufacturer Benetton represents a healthy balance between standardization and customization. Using a special form of franchising in its simple looking shops Benetton sells clothes with up to the minute designs and reported revenues of \$330m in 1985. Some 200 regional firms are used as suppliers of its knitwear clothes, many of them in neutral grey, ready to be dyed at the last minute according to the colour of the moment in a particular country. Benettons secret seems to be the application of marketing flair and instant stock control information to the traditional Italian pattern of using small workshops to produce goods in a flexible framework.

Products in the marketplace compete on the basis of a number of factors which include price quality, value to the user at a particular point in time, and the stage that the product is in its life cycle. If two products are discovered to be the same in quality but one less expensive than the other, the less expensive will be preferred by most customers. If two products are the same price but of different quality then the same rationale will apply. This basic formula can be elaborated by such factors as added value to the product due to such factors

as status enhancing qualities, exclusivity, availability and so on. If a product is in a more mature stage of development than products in an overseas market then adaptations may have to be made to the product system and service before it can match the needs of the country.

The physical and socioeconomic conditions within any specific market are of critical importance in the design of global products. The style of work leisure and entertainment differ from country to country. This in turn affects the configuration of daily life and therefore the design of office, kitchens, factory, work space and furnishing. Many products are sized for domestic consumption and do not meet cultural requirements abroad. Habits dictate that in one country office workers operate behind closed doors, while in other countries most workers are in open plan and more fluid environments. Access to consumer products differs from country to country depending on the standard of living enjoyed by the citizens. The more affluent countries of the Traid consume more consumer products, own a wider range of durable and non-durable goods and generally have more disposable incomes to spend on new products and services. Products must be designed to meet the needs of the individual market to which they are being directed and not merely the needs of the consumer in the country of the corporate headquarters.

Japenese companies such as Seiko, Sony and Canon, now develop products which were conceived with a global perspective.

Instead of communicating indirectly with users and distributers, product designers personally spend time abroad directly talking with their customers and dealers. When they return, another half of their time is spent in designing and synthesizing the global product directly out of their personal impressions.

When Sony tried to enter the West European market in 1974 with consumer electronics products they realized their "baroque" Trinitron designs which had been successful in both North America and Japan, were unacceptable to Europeans. To overcome this problem, Sony acquired 'Wega' (Koln, West Germany) thus gaining an already established European high-end electronic line, a modern factory and access to German design. Sony's technology were incorporated into the design of Wega Products. The result was a product line which was successful not only in the targeted West European market but also worldwide.

It is said that small new firms are the main innovators in the business world today. Based on their size and flexibility of operations. It is in this context that globalization presents its greatest threat in the event that it may swallow up its smaller competitors in its wake. In August 1986, technophone introduced a highly successful product line. The first truly pocket-size radio phone. Its inventor, Nils Martensson, a Swedish radio engineer, had previously worked for the Swedish multinational Ericsson, a world leader in telecommunications. In 1978 he left to start his own consulting business and in

1984 had established the British firm Technophone solely to develop and make the pocketphone. The company won a 1.5 million innovation grant from the Government and accumulated 75 million in orders within six months. Maartensson stresses that most radio companies have captive markets and are slow to change. Due to the interdepartmental bureaucracy it could take large corporartions five to six years before applying the latest technology, while a smaller company can take advantage of the design possibilities within months.<sup>17</sup>







The international flavour of Benetton's advertisements reinforce the idea that their clothing can supercede cultural style barriers.



Technophones scale and flexibility of operations, allowed them develop and produce one of the pioneering portable hand-held phones, subsequently securing £75m. orders in six months.



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## ADAPTIVE PRODUCTS AND TECHNOLOGY

The threat of Globalization is based purely on economic equations, configured around fixed constants, those of 'production costs'. If these constants were to be replaced with "Flexible Manufacturing Systems" (F.M.S.) true globalization may no longer poise such a threat.

Flexible Manufacturing systems with the ability to produce short run, highly customized products, has challenged Levitts theories since it achieves almost the same economics of scale as standardization. Benettons flexibility of operations is a good example of adaptive technologies resulting in adaptive products, feasible on a global scale.

With new developments and advances daily in Computer aided Design new flexible manufacturing systems are beginning to emerge, these systems in essence make it possible to have greater control of product development and production, which also provide an opportunity to customize various products on the production line, by changing various elements, colours, graphics and some features, so as to address each product to its intended market.

This system demands a new approach on behalf of the designer, as he is no longer designing one product for all, but

considering adaptation at a "basic model" or "concept product". For this system to operate successfully much greater communication between engineer, marketing and design departments is called for.

Adaptive technology which is a new concept to product design, is employed in many non-durable products such as by soft drinks companies. Coca Cola is considered a global product. Although it is sold under a single brand worldwide, Coca Cola differs in flavour and content from one country to the next. The difference results from a desire to satisfy the regional customers varying tastes and from the fact that the product is usually manufactured locally. The company also markets a variety of products that also respond to local consumer demands, including caffeine free coke in Germany, Thailand's Mello Yello, Fanta Peach in Columbia, Japan's Georgia Coffee, and Spain's non-carbonate Fanta Orange. The shape of the coke bottle also varies frequently and sometimes the name itself even changes. Diet Coke is now sold as Coke light in Japan because "diet" is considered an improper word there. As a result of changing the name, and additional customized advertising campaign Coke light can claim 68 per cent share of low calorie soft drink market in Japan.

Product adaptation of this nature is in many cases not directly tangible with durable consumer goods, but is an approach to customization which has many benefits to both the manufacturer and the consumer. With the advent of truely adaptive product

technology many global corporations may look to Coca Colas customized approach for inspiration.

The Swiss watchmakers 'Etna', turned to innovation to try and regain market shares lost to the Japanese digital watch industry. The result was Swatch a low priced quartz watch whose unique concept coupled with advanced design and adaptive technology have made it a world success. The low price is made possible by simplifying the watch to 51 components and designing them so that they can be assembled automatically. Swatch is marketed as a fashion accessory not just as a functional possession. Every six months a new Swatch 'collection' is launched. The company divides its world market up not geographically but by lifestyles. The rate of innovation and marketing segmentation is made possible by the use of graphics and industrial design on the Swatch face and hands, all the working parts, the mechanism and so on, remain Due to its adaptive technology Swatch can be constant. produced to meet fashion trends as they occur in different countries; a new product can be brought out in six weeks from design.<sup>18</sup>

So called Black Box technology has lead to a different approach to product design, many high technology components, such as electronic chips and super conductors are being produced by single corporations in massive volumes. An example of black box technology is the Ross radio which is imported as a complete electrons package already assembled in the Far East.

When it arrives in Britain it is housed in its distinctive modern casing, which is designed to appeal to a particular niche market. In essence this also creates the possibility of housing the electronics in a variation of asthetic form, so by adapting the product to other niche markets on a possible global scale.

A similar two tier design approach can be seen in other industries. The Panther Solo 2 sportscar was launched in September '87 it is manufactured in Britain by Panther. They use independent components from various other car manufacturers, the engine is a standard Ford XR3i 'cosworth' engine and the transmission comes from a Ford subsidiary trading under Ferguson. Panthers Korean born Chairman and Chief Executive, Young C Kim, believes "Panthers real future lies in its ability to bring advanced technology to the low volume specialised car market".<sup>19</sup>

This strategic approach may suggest that specialized components which require high-investments could be left to individual corporations to develop and produce. For instance refrigerator components could be produced on a global scale, then sold or distributed to independent assembly plants, positioned across the globe. This would mean that each plant would design its own products taking into account the social, cultural and environmental needs of its consumer.

A recently published document by the London Business School compared the profitability of multinationals with that of nationally oriented companies have discovered that

multinationals Philips and Electrolux reaped a return of 4.5 and 10 per cent respectively on their capital while the U.K. based Hotpoint got a healthy 34.7 per cent return. Similarly other companies that serve small niche markets often get higher returns.<sup>20</sup>



mello

FANTA

GEORG

Coca Cola's customized product and packaging to suit different cultures. On the left, "Diet Coke" becomes "Coke Light" in Japan, where diet is an impolite word.



The many faces of Swatch watches.



Award winning "Ross Radio"



Panther Solo 2 sportscar: advanced technology at low volume production.

. Conclusion

## CONCLUSION

The Global issues of production and distribution are now more important than ever. Since World War II, national economies have become increasingly dependent upon one another in a rapidly shrinking world. International traders now face competition for fewer markets. A large percentage of production and consumption is currently concentrated in three groups of countries referred to as the Triad. Although cultural differences exist, young affluent consumers show similar tastes in these three regions. It has been calculated that they number some 600 million.

Progressive companies discover the need to reorganise themselves for international operations. This requires the company to be polycultural in organization and outlook, integrating the workforce of one global region with R & D in another using materials from a third and entering the market at a fourth. The decision to "go Global" is a strategy a company chooses and must therefore be incorporated at all organization levels. In other words, the concept of globalization must become part of corporate culture. Whether a company decides to become global or multinational, product value must be of the utmost importance.

Unfortunately, many companies frequently overlook designs impact and relationship to manufacture and distribution, and so mistakes are made in integrating production with the demands of

international business. Although "management by design" is supposedly strived for by some businesses, it has so far failed to address how design can benefit corporations entering the world market.

The primary function of design is 'translating', therefore, designing is the only means by which an organization can continually convert technical, production, ergonomic and market needs into successful products. Making design a central factor enables a company to achieve economics of standardization while retaining product differentiation, high value and uniqueness in the market place. Design can play a vital role in various aspects of international business, from shortening the product development cycle to choosing between standardization and customization strategies when approaching world market.

Thedore Levitts arguments that cultural commonalities in the shrinking world make larger markets for standardized products is adamantly disputed in the manufacturing and market trade press. The dilemna is how to meet the demands of Globalization without producing bland, indifferentiated products. Flexible manufacturing systems with their ability to produce short runs, highly customized products have strongly challenged Levitt's theories.

The decision which is now presented to many Global Corporations is whether to standardize or customize a product. The level of customization depends on many factors. While some products lend themsleves to a simple form of globalization, the nature

of other products might suggest a slight change in product design and advertising when crossing borders. Still other products might breed a completely customized product design and marketing approach. It is wrong to assume that one strategy can be used in all cases.

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