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PERTH WESTERN AUSTRALIA



# INTERNATIONAL MARKETING EDUCATORS CONFERENCE

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Presented by  
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## Keynote Address

### CULTURAL INCLUSION AND EXCLUSION THROUGH FOOD CONSUMPTION

Melanie Wallendorf

Effective marketing depends on understanding commonalities in the behavior of consumers, and this interest has produced the specialization within marketing that focuses on consumer behavior. In studying consumer behavior, we are not so interested in the uniqueness of each consumer, although we certainly acknowledge and even celebrate this variety in our personal lives. Instead, in studying consumer behavior we attempt to identify similarities among large numbers of consumers. In studying food consumption across cultures, the focus of my talk today, we find many similarities among consumers.

Now this perspective that there are many similarities across cultures in food consumption is quite different from the perspective of the tourist, who is fascinated with the differences in foods consumed in different regions and cultures. The tourist notes that kiwi is abundant in one country but uncommon in another; beef is the central course in many evening meals in one country, but considered morally objectionable in another; peanut sauce served over millet is a staple food in one country, but unknown and unavailable in another. So how can I claim that there are many similarities across cultures in food consumption?

The notion that I will discuss today, namely that food is used in similar ways by many consumers, does not focus on what people eat, but rather on the cultural meanings of the foods consumed. My central assertion is that food is used in similar ways in numerous cultures, despite the fact that the particular foods used vary. Across the world, food is used

not only to respond to physiological needs, but also to communicate meanings about social connection. Foods chosen for service and consumption communicate and even nonverbally negotiate desired social meanings, such as inclusion or exclusion from cultural groups and social systems.

In order to examine this premise, I will be talking about culture, but I will be moving away from the way culture has been treated in most of the consumer behavior literature. At the front of almost any marketing or consumer behavior textbook, we find a drawing in which culture is shown as an external influence on consumer behavior. Put in language that may be more familiar to some, consumption is often studied as a dependent variable that results from culture. Consumers are predicted to vary based on differences in their cultures, but no attempt is made to describe how culture changes or how consumers may actively respond to this influence. Instead, culture is studied in terms of how it acts on consumers who are somewhat passive targets of this force which treated as being external to them.

In my analysis of food consumption today, I will not be discussing how an external force called culture influences consumer behavior. Instead, I will be looking at consumption as essential to the process of constructing culture. I will be discussing how consumption is used by consumers as a means of not only expressing culture, but of negotiating and constructing culture. Put in more familiar language, I will be focusing on consumer behavior as an independent variable used to explain how culture is built and changed through simple everyday actions such as food consumption. In doing so, I hope to remind us of the way marketing efforts, particularly international marketing efforts, not only impact food consumption, but also participate in the process of constructing culture.



Years of doing consumer behavior research on food consumption has taught me that it is both complex and fascinating; everyone does it, and everyone is willing to talk about it, sometimes at great length. From my discussions with and observations of consumers, I see that humans impose on foods a number of cultural categories of meaning, such as those concerning status, morality, group inclusion, and aging.

By representing abstract cultural meanings in tangible foods, humans find it easier to work with these meanings, discuss them, and sometimes even alter cultural meanings. Culture is sufficiently abstract that it is not a topic of conversation with which most of the world's citizens feel articulate. Instead, discussions about cultural meanings are carried out in a simpler fashion by discussing, for example, who should eat a particular food or reminding children who should be served first. Through such actions and their accompanying conversations, inclusion and exclusion from a culturally-defined group are negotiated. The active construction of culture is a largely unconscious process, since culture is difficult for humans to articulate and negotiate verbally. My interest today is in making this cultural layer in the thickness of everyday life more explicit.

I have relied on data from a number of cultures to articulate how food consumption is used to communicate and negotiate the bases of inclusion and exclusion in cultural groups. Rather than being a study of one culture, I will be drawing data, and slides that you will see, from a number of different cultures as a means of suggesting ideas that are more broadly applicable than those that we might come to if we studied only one culture. At times, the slides will come from the culture I am describing, and at times, the discussion and slides will focus on a similar cultural process in different cultures, to remind us to focus on the similarities in cultural process rather than the differences in particular foods being served.

I will discuss the ways food consumption is used to define social inclusion in eight different social systems. The social systems or groups I will discuss are: 1) families, 2) gender groups, 3) age strata, 4) ethnic and racial groups, 5) regional groups, 6) income or social classes, 7) national identification, and 8) world system sectors.

### **Families**

Because family is the locus of much eating, particularly in the early years of life, food consumption is a common means of marking inclusion and exclusion from particular family systems. The close connection between mothering children and providing food for them means that children who are fed by the same woman are typically considered part of the same family. Even in the fluctuating family structures that have become more widespread in the contemporary United States, half-siblings from the same mother are more likely to be reared in the same household and regarded as part of the same family than are half-siblings from the same father but different mothers. What anthropologists call the "milk tie" persists in other countries as well, including male and female Arab children fed from the same wet nurse who are therefore prohibited from marrying (Farb and Armelagos 1980). Being fed by the same woman binds children into what is regarded as a family, even when successive divorces and household relocations challenge this definition.

Eating together as a family unit builds a form of social cohesion not only because of the communal connection, but also because of the coordination it requires. Meals structure a daily pattern for members of a family and have consequences for the amount of time a family allocates to various endeavors. A higher status adult's desire to read the morning newspaper before going to work may mean a greater amount of time spent at breakfast and

therefore a greater likelihood that the children in the family will grow up eating something for breakfast. Preference for food cooked from fresh ingredients means adults in the family who prepare food will be accessible to children for a larger amount of time than will be adults who simply reheat frozen prepared foods in a microwave oven after returning home from their own activities. In South India, women from an extended family household spend large amounts of time together grinding rice into flour or preparing chapatis, just as West African women from a household or family compound do in pounding millet to prepare it for cooking; in so doing, they build and maintain connections to each other. In parts of west Africa, these ties have been challenged by the adoption of imported rice that binds women instead to their own individual hearths. As has been found in other regions of the world when household laundry washing machines replaced washing clothes in a nearby stream and mechanized dryers replaced hanging clothes out to dry, women may actually have less time to spend interacting with other women than they did previously because they are now more closely bound to the home rather than communal spaces while doing their work (Leto 1988). Therefore, the kinds of foods a family chooses to consume impact the amount of time allocated to household tasks and the amount of time adults are accessible to children and to each other.

Within a family, different dishes are regarded as appropriate for different situations. Typically those foods chosen for guests are more elaborated, and include ingredients that are not so commonly used or available; those chosen for service to family members are permitted to be simpler and less elaborately prepared. A Midwestern American woman eating alone prepares herself a peanut butter and jelly sandwich to be eaten while standing and putting away groceries, but she would certainly not eat this way if guests were invited.

A Nigerien family has millet with one simple vegetable sauce for an ordinary family meal, but not for company. A Mauritanian family slaughters a precious goat to prepare for visitors to their village. This distinction between food appropriate for self, for family, and for guests mirrors the cultural meaning of there being greater honesty in presentation of self to family than in the managed persona presented to outsiders. The assurance that simple food is acceptable for "just family" is a deeper assurance of the acceptability of simplicity and honesty of presentation of self among family members.

Nonetheless, on ritual occasions, special or stylized foods may be prepared just for family members. For instance, in the harvest celebration of Thanksgiving Day in the contemporary United States, common ritual foods such as stuffed turkey, mashed potatoes, and pumpkin pie are served at almost all feasts. However, each family devises its own specialized inclusion to mark its uniqueness and separation from other families. A jelled sweet cherry side dish serves this function in one family, while tomato aspic salad serves as a family marker for another family. In other families, additions to the stuffing such as oysters, pine nuts, chestnuts, or apples, serve as family markers. The foods used as family markers vary, but their importance in delineating familial inclusion does not.

Yet gradually, families the world over are relinquishing aspects of food production and preparation to a manufacturing process. The household is becoming less a locus of production and more the locus of consumption. As noted by feminist economist Charlotte Perkins Gilman at the turn of the century, families in industrialized countries had at that time already relinquished the tasks of baking bread, spinning yarn, and weaving cloth to the industries created in the Industrial Revolution (Gilman 1966/1898; Tanahill 1988). In the time since, most families in industrialized countries have relinquished the task of sewing of

garments. Examining these countries' food supply indicates that they are in the process of relinquishing the task of cooking food in favor of eating out at restaurants (where the food may be cooked, or where reheating of purchased dishes may occur) or engaging in food preparation at home that involves reheating previously-prepared foods in microwaves, using an electric mixer to whip cream to put on a reheated frozen pie, or assembling dishes from prepared ingredients, such as canned sauces.

One wonders how the negotiation of cultural meanings and categories will take place when the homogenizing force of commodity food consumption replaces family food production and preparation. Particularly as food manufacturers participate in this cultural swing, this will be a ripe area for consumer behavior research. Industrial technology brings new conveniences to contemporary families, but also brings with them cultural shifts as well as shifts in consumer welfare. The consequence of these conveniences and freedoms for families may be a lowered nutritional level for the urban poor in industrial regions. More broadly, the consequences of changes in food preparation for familial inclusion and boundary drawing are open for exploration by creative consumer researchers.

### **Gender**

Food is an arena of consumption in which gender differences are expressed and constructed. In the preparation, service, ingestion, and cleanup from food consumption, we see in all cultures, the integral role of gender.

In many cultures, women's role of laboring to serve men is constructed on a daily basis through food preparation. In rural areas of India, a wife's duty is to stand and serve her husband and other male relatives first; after they are finished, she may eat (Tannahill 1988). In the contemporary United States this pattern is less strictly enacted, although

women still prepare and serve most food. However, on ritual occasions, such as Thanksgiving Day, we note through participant observation that women are the last to sit down to the table, unconsciously replicating the primacy of the task of seeing that all others are taken care of first. In begging the female head of household to come sit down, the rest of the family asserts its desire for her to be included in the group rather than relegated to the role of server. However, other patterns also exist. On ritual occasions in India, women do not prepare the food as they are not regarded as being sufficiently pure to engage in this task. For religious feasts, then, men prepare the food, and thereby assert the primacy of their ritual position.

In affluent cultures with abundant food, women get mixed messages about food: they are expected to prepare delicious food for others, but are expected to restrain their own consumption in order to stay slim. Sometimes these mixed messages result in disorders, such as anorexia nervosa, in which the woman literally starves herself to attain a corpse-like state of thinness, or bulimia, in which the woman alternately binges on food and then induces purging (Spignesi 1983). More pervasively, weight reduction dieting by women constructs the relative cultural power ascribed to genders.

At the other end of the spectrum are cultures in which the food supply is insufficient. In such situations, the two genders are often granted different levels of access to food as food is used to construct cultural definitions of gender difference in power. In Nigeria in the 1970 war over Biafra, young girls were more likely to experience malnutrition than young boys, because families gave preference to boys in serving food. Among the Gurage of Ethiopia, young boys are fed before their sisters, getting better food and more of it. The

hegemony of gender positions emerges through the self-fulfilling prophecy that boys "need" and therefore are given more food to get strong.

Development assistance in such countries may unwittingly reify such disparities by focusing on cash crops. Boosting men's involvement in the production of cash crops may leave women with less space or resources for food production for family consumption. Increasing men's access to money does not always result in better food for women and children.

Thus, food consumption not only reflects the different positions of the two genders in a culture, it also constructs those differences by providing different access to food resources. Food consumption serves as an empowering resource in the construction of culture.

#### **Age Strata**

Cultures mark age strata by expecting that the types and amounts of foods consumed at different ages will vary. In addition, people's responsibilities and rights in terms of food acquisition, preparation, and service typically vary by age. Children learn about kinship distinctions by observing food patterns, even before they are able to use words to mark these distinctions. Among some Bantu tribes in Zimbabwe, children may take food without asking in the hut of a matrilineal aunt, but must ask politely in the hut of a patrilineal aunt; among patrilineal tribes in southern Bantu, these patterns are reversed. By teaching children about kinship through eating patterns, these kinship relations require no explanation, and are open to no verbal negotiation. Bantu children learn about their status position when they learn that they cannot take food directly from the pot in the presence of elders. As is common in many other parts of the world including India, after a certain age (often around age eight

or ten), Bantu boys no longer eat with their mother and sisters, but must eat with other males of about same age, eventually eating with the men.

This segregation of children's eating from that of adults is evident in many other cultural contexts. Often very young children are fed whenever they are hungry, and are not expected to conform to the coordinated time schedule of the rest of the household. In development assistance projects, feeding centers for children may be set up. In cultures where children are institutionalized for education, food may be provided for them. In such settings they are weaned from the cooking patterns of their households, and socialized to accept food that is equivalent to that served to all of the other children. Weaning children from household food service subjects them to the homogenizing forces of institutional food consumption, and may bind them closer to their age cohort than to their households in terms of food preferences. In such cultures, food preferences and household structures may change more rapidly than in cultures where children are fed exclusively within the household.

On occasions when all ages are to eat together and the purpose of the meal is to demonstrate community, food preparation focuses on that which can be consumed by everyone. In such situations, food will be soft in texture, mild in flavor, and served as simple unities rather than complex blends. Such is the case with celebrations of Thanksgiving Day in the United States, where the menu of roasted turkey, bread stuffing, mashed potatoes, gravy, candied sweet potatoes or yams, jellied cranberry sauce, rolls made of white flour, and pumpkin pies resemble a form of baby food that can be consumed by all.

By contrast the celebration of New Year's Eve in the United States is meant to connect romantic partners of similar ages rather than connecting whole families. As a result this holiday involves the service of champagne whose opening and service imitates romantic



excitement (Farb and Armelagos 1980), and whose toasts both simulate and stimulate kisses with a romantic partner. Champagne excludes those who are too young for such romantic connections since children are legally forbidden from drinking alcohol. Champagne is similarly used to connect bride and groom at American weddings.

Thus, food is used to mark one's inclusion in particular age groups and to connote the meaning of that age. As cultures negotiate norms about age-associations and food, such as the appropriate age to wean a child from the breast, or the appropriate age to allow alcoholic beverage consumption, and whether to feed the children separately or include them with the rest of the family, they negotiate in broader terms the cultural meaning of aging and the relative status of various age groups.

### **Ethnic and Racial Groups**

On a broader scale, cultural groups living in close proximity often refer to each other in terms of the foods they consume, sometimes in a disparaging way. For instance, in the United States during the waves of immigration from Europe in the late 1800s when these ethnic differences were more salient, German-Americans were disparagingly referred to by others as "krauts" and Italians as "macaronis". In Chad, four tribes living near each other have different patterns of consuming the locally produced beans, rice, millet, and meat products. Each refers to the other groups disparagingly by describing their proclivity for particular foods (Farb and Armelagos 1980). Thus, food comes to represent ethnic groups.

Eating food representative of another group is to become, to incorporate for the moment, the other group. Being able to choose to eat the food of another group is to have sufficient freedom to participate in "the good life" (Tuan 1986) and represents mobility as an option; to be confined to eating the foods of one's own group is lack of choice, and lack

of potential mobility. Voluntary immigrants to a new culture undergo adjustment in what foods they eat; their children are likely to want to leave the "old ways" behind and consume foods characteristic of their new culture. For instance, in the contemporary US, whole grain bread is regarded as being higher status than packaged sliced white bread, but not exotic imports such as brioche, croissant, or sourdough (Przybyla 1983; Semling 1983). Therefore, we find that Anglos eat more dark bread. On the other hand, per person consumption of white bread by Mexican-Americans is roughly twice that of Anglos (Wallendorf and Reilly 1983).

Anglos are reducing their sugar intake by consuming more unsweetened dry cereal and diet soft drinks, while Mexican-Americans eat more high-sugar dry cereal. Anglos are reducing their fat intake, while Mexican-Americans eat larger amounts of red meat and cook with animal fat. Assimilation is not a simple linear process of moving from culture of origin to culture of destination. Instead, an ethnic group that has voluntarily immigrated forms ideas about the culture of destination and, may shift their consumption patterns toward their internalized idea rather than the actual patterns characteristic of members of that culture. The immigrant's idea of what it means to be a native is different from what it really takes to be included.

Alternately, the food restrictions enforced in ethnic or racial groups embedded in a larger culture serve to prevent unwanted assimilation or mixing with the surrounding community. For instance, keeping Jewish kosher dietary rules binds Jews to the religious community in order to obtain meat that was properly slaughtered and other kosher foods.

Ethnic or racial groups living in areas that have been colonized or invaded can mark their unwillingness to accede to the patterns of the conquerors by maintaining their previous

food consumption patterns. Vegetarianism existed among Hindus long before British colonization of India; however, it took on another meaning when the British moved into India to colonize it. By refusing all meat products, Hindus further differentiated themselves from the British who are known as beef eaters (Tannahill 1988).

This is reminiscent of the refusal of dairy products and the cultivation of intensive agriculture by the Chinese near the Yellow River to mark their distinction from the heavy dairy product consumption of the western nomadic pastoralists who periodically invaded (Tannahill 1988). Food then is used by ethnic and racial groups not only to represent inclusion in their own group, but also to actively mark their distinction from adjacent groups or to express their hope for structural assimilation into the larger culture.

### **Regional Groups**

Because food ties consumers to the land, even if this tie is mediated by global marketing channels, regional differences are constructed and embodied through food consumption. The most obvious regional difference is that whatever is locally grown or caught is consumed in greater quantity by locals than by others. However, regional differences are not always this obvious. There are regions of the world that produce particular food crops almost exclusively for export. Apart from regional differences in what is eaten, there are recurring ways that regions construct attachment to the local area and fascination with other areas through food consumption.

Farmers' markets throughout the world offer local produce for sale to local residents. Such markets provide visual indicators to residents of the current supply of various foods and the current level of plenitude in the region. These, in turn, foster varying levels of consumer selectivity and may then facilitate the development of judgement and preference. In

addition, markets serve as a social venue connecting village residents and vendors in social as well as economic interaction.

The resurgence of local farmers' markets in industrialized urban cities is testimony to the fascination consumers have with local production. Simultaneously tourist attraction, civic event, and market arena, farmers' markets in urban areas demonstrate, celebrate, and even reinstate the productive potential of the local area (Heisley, McGrath, and Sherry 1991). Discussions with urban shoppers and rural sellers at farmers' markets reveals the oft-noted differences between urban and rural people's notions of nature: urban consumers describe the wholesomeness of locally grown produce, while rural vendors at these markets highlight their subjectivity to fate and tenuous relationship with nature in the production of crops (Tuan 1986). Although the buyers and sellers live in the same region, their experiences differ in ways that construct alternate cultural notions of the meaning of "nature".

As if to partake of the region, tourists seek restaurants that serve authentic local cuisine. They eschew restaurants regarded as being designed only for tourists; instead they seek experiences that convince them that, for a moment, they too were natives of the region. They may return home with packets of seasonings or recipes to help them replicate and thereby recapture their tourist experience; the dishes they prepare when they return home allow them once again to be travelers, although on this later consumption occasion they imaginatively travel backward in time as well as across geographic space. Locally produced foods may be so captivating for tourists that ingesting the food is not sufficient; decorative items made from locally produced food materials may be taken home and displayed as souvenir reminders of local food production. Food becomes so sacred that it cannot be

eaten; it is appropriated from its original consumption context to fulfill other consumption desires (Belk, Wallendorf and Sherry 1989).

### **Income and Class**

As far back as imperial Roman times, class was indicated by food quantity, food quality, and also the variety of food served. Those at the lowest level of income or status have less food, lower quality food, and less variety of food. Across time periods and regions of the world, class distinction has been marked by foods that are not locally grown or widely available. The Romans imported pickles from Spain, ham from Gaul, oysters from Britain, and spices from Indonesia (Tannahill 1988). Being a conquering nation typically enhances the variety of foods in the food supply, as in the Age of Exploration when Europe got tomatoes from South America.

Across the world, as they gain exposure to variety of foods, consumers in higher income groups often reject the more wholesome whole grain flours they grind at home and strive to afford the milled white flour and refined sugar they associate with greater status. They reject the raw sugar products and simple grains that are locally produced. This preference has widespread implications not only for agricultural planning and economic development, but also for the possibilities of nutritional self-sufficiency.

But income operates differently in different cultural settings (Reilly and Wallendorf 1987). In the United States, higher income consumers eat less red meat and more fish than do lower income consumers. In Mexico these patterns are reversed; those with higher income eat more red meat than those with lower income. Looking across different cultures and expressions of income, we can conclude that higher income consumers choose that which seems cosmopolitan when compared with their cultural base. This accounts for the

preference by high income consumers for prepared baby food in Mexico, and exotic coffees and imported cheeses by consumers living in Marin County in northern California. For those whose high incomes enable pervasive access to elaborated and sophisticated food preparations, fascination with imported simplicity, what Sid Levy (1981) has called "transcendental or self-conscious rawness" takes over. This accounts for high income consumers in highly developed urban settings flocking to Thai, Moroccan, or Ethiopian restaurants, savoring the experience of rejecting utensils and eating with their hands. This use of food to mark class distinctions explains the international market in which upper income consumers in northern hemisphere countries pay high prices for produce (such as strawberries or raspberries) from Chile, Brazil, New Zealand, and Australia during the months when it is locally out-of-season, and seek consumption locations where they can experience their version of nature.

Not only the foods, but also its service marks class distinctions. By the Tang dynasty in China (AD 618-907), tea drinking had class differentiations, with higher classes preferring porcelain over pottery cups, and water drawn from a particular spot near the mouth of the Yangtze or from the springs near certain monasteries (Tannahill 1988). In contemporary India, class is marked by the types of vessels used for food service, and by the types of cooking facilities the household can afford. Similarly, even on ritual occasions, higher class households in the contemporary United States differ from lower class households in the greater attention they devote to striving for pattern and color matching of food service vessels and utensils.

Food service both marks and constructs class differences. Some middle class consumers in the United States volunteer to serve charitable meals to homeless persons on

ritual occasions such as Thanksgiving Day. In doing so, they not only meet the momentary needs of this growing population, but also prove their own position in a class hierarchy that has enough to give away.

Thus, despite the universal need to eat, class hierarchies are reflected and even constructed through food quantity, quality, variety, and service.

### **National Identification**

Nationalism is inculcated from one's first few years through participation in collective consumption of national cuisine. In this way, national patriotism is developed and embodied through consumption. Particularly at ritual occasions that celebrate patriotic events, as with Thanksgiving Day in the United States, dishes that resonate with national metaphors are eaten. Values that are to be celebrated are made tangible through foods served. The momentary abundance of the harvest (and by extension, the enduring abundance of contemporary consumer culture) is made tangible through the stuffing of the turkey and the huge quantity of food prepared (Wallendorf and Arnould 1991). Jewish holidays celebrate and commemorate both religious and national aspects of Jewish identity: on Rosh Hashana, Jewish New Year, the eating of honey cake and fruit dipped in honey embodies wishes that God will grant Jews a new year that is good and sweet; on Passover, Jews eat matzah to commemorate the need to flee before bread could rise, bitter herbs or horseradish to recall the bitterness of Jewish servitude in Egypt, and crushed nuts and apples that are reminiscent of the mortar the slaves had to produce for their Egyptian masters (Telushkin 1991). Each of these foods makes tangible values that are otherwise difficult to discuss. However, by making them tangible, these values are open to discussion and renegotiation as to their contemporary importance and the persistence of their inclusion.

The larger the nation, the more likely it is that elements of national identification will be secondary to regional affiliation in terms of accounting for food consumption practices (Reilly and Wallendorf 1987). As we are reminded by our presence in Indonesia, land of Unity in Diversity, nations are not monolithic, but instead include pluralistic lifestyles.

National identification as reflected in food consumption is a cumulative history of the colonialist and exploration efforts of each nation. What is imported during one time period can become part of national identification during a later time period. During the first millennium AD, India imported nutmeg, mace, and cloves from Indonesia, and coriander and cumin from the Arab world, but today regards them as part of national cuisine. Thus political divisions become reconstituted in food.

By these means, nationalism is built into our understanding of life from our earliest experiences with national cuisine.

### **World System Sectors**

Food consumption assists in the construction and maintenance of a nation's position in a sector of the world system. Sources and levels of food supply are major determinants of whether a nation is considered part of the First, Second, or Third World, or in other terms, whether it is considered part of the world system core or periphery (Wallerstein 1974).

At the present time, some nations are experiencing long-term drought of such proportions that they must import food to combat widespread hunger. Other nations, experiencing agricultural surplus, become food exporters to meet these subsistence needs, as well as to meet desires for variety in other countries not currently subject to shortages.



Industries that participate in these large-scale food export-import efforts are growing in both economic and cultural importance.

Apart from meeting short-term physiological needs, global export and import of non-locally produced foods alters consumption patterns in ways that ultimately bring about cultural change, both of the importing country and of the exporting country. Global food marketing efforts diminish the ways regional and national identification are constructed through food. In their place, economic divisions and cross-national identification are constructed through food. For instance, consumption of indigenous Philippine drinks such as kalamasi made from lime juice, buko from coconut water, and gulaman based on seaweed have been reduced with the introduction of American soft drinks such as Coke and Pepsi (Wells and Sim 1987).

Imported foods, particularly food relief which provides the same food to all who are fed, diminishes the group differences previously enacted through consumption of local foods. In some cases this may be viewed as admirable, such as in providing both male and female infants equivalent access to food. In other cases, imported food may diminish food consumption differences that have served to sustain a large and diverse population, as with the previously mentioned ethnic group differences in foods consumed in Chad.

International provision of food relief and global marketing of food products not only can help meet the physiological needs for food of a large number of people. Such efforts also support the hegemonic position in the world system of those nations that provide or export the food. Global marketing of food products may alter food preferences away from that which is able to be grown locally. At the extreme, we must recognize that creating world-wide longing for the same market basket of food products has the potential to lead

to ecological disaster (Tuan 1986). Just as the growing environmental or green movement has demonstrated the ecological need to preserve biological diversity in plant and animal populations, so the marketing community must begin to explore whether and when there is a need to preserve consumption diversity in food. As academics who subscribe to the concept that marketing should respond both to the long-term profit needs of firms, and to the long-term needs for satisfaction of consumers, we must begin to discuss these issues while global marketing is in its developmental stages.

### **Discussion and Conclusion**

In conclusion, I have discussed eight different cultural groups or social systems that are constructed in part through food consumption. I have attempted to demonstrate that family, gender, age, ethnicity and race, regional identification, class, nationalism, and participation in the world system are not static entities that merely influence consumer behavior. Instead, they are cultural divisions that are created through everyday actions such as food consumption. But then we might ask, why is this important for us to know in the field of marketing?

Marketing practice does not just respond to culture, it participates in its construction. By providing the consumption opportunities from which consumers choose, marketing participates in building culture. As a result, especially as firms participate in an international marketplace, it seems appropriate that the field of marketing develop sensitive means of ascertaining the kinds of cultures it is assisting in constructing. Developing such systems through careful research is the task that lies ahead for those marketing academics interested in international marketing, strategic planning, and cross-cultural consumer behavior.

For instance, market research must consider as one component of the new product launch decision the impacts of new product introduction on culture, and whether these impacts are supportive in the long-run of sustainable structures. Not just short run sales, but also long run sustainability must be a criterion in international marketing. Only by understanding the meanings and structures that are produced by consumption can we assess the viability of new product introductions. By understanding what cultural groups and social systems are being created and maintained through food, marketing practice can better meet the challenge of the marketing concept, of satisfying the full range of consumer needs at a long run profit to the firm.

Although each of us must determine for ourselves what research tasks we want to take on, I hope my talk today and the slides I have presented have awakened in a few of you the desire to participate in research in marketing that will better insure the global satisfaction of consumer needs for food while simultaneously opening opportunities for firms that acknowledge and address their role in the construction of culture. I look forward to talking informally with many of you over the next two days about this topic.

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**Anton Partono**  
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**Aerowisata**  
**Indonesia**

For many years, hotels have been designed and operated primarily by the Hoteliers' standards. Fortunately, it worked well. Many managers tend to be product oriented and good at operating hotels. What the hotelman had, the public enjoyed and patronised. Entering the nineties, many top executives of various hotels change the whole concept. They became market oriented, rather than product oriented. Times are changing, and so are the people. The current business comes from a new group of people, and the hotels must cater to their needs, desires and tastes.

Today's hotels and services are based on requirement of the guests and not on the decision of the hotelier.

A number of factors influenced this change. Perhaps the most important one is competition.

Unlike the Eighties, the Nineties gave rise to a boom in building major hotels particularly to five-star hotels. The expansion of major international management companies such as Hilton, Hyatt, Sheraton and Intercontinental do create more competitive environment for the five-star independent hotels, like Aerowisata Hotels group. Generally travellers have reacted to a "brand name" or "brand identification symbol". The chains have a ready-made brand name or symbol which they promoted with great success. A hotel chain is easily recognised by the facilities which are standardised and universalised throughout the world.

The chain operations have a better networking system and referral business due to more sister hotels and sales office coverage.

Because of this competitive pressure by the chains, we are facing double challenges. The efficiency of chain operations and the current world recession, which have already changed the general spending and buying patterns to a more price conscious. Travellers are looking for, more value for money product. The clientele for deluxe category hotels tend to maintain rather than growing.

We all realise and understand fully that times in Bali have also changed, hotel supply now exceeds actual demand. In the released results of the study, survey confirmed that Bali has an oversupply of hotel rooms. It inventoried at 21,000 rooms from 904 hotels up till early 1992.

By 1995, Bali's projected room count will rise by 109 per cent to reach 43,935 while the growth in room night demand will rise by approximately 10 percent only. In the meantime, the total of rooms for 4 and 5 star hotels up to the end of

1992 were 8,064 rooms, a growth of 11.24% more. There will be an additional 2 hotels in the 5 star category that will be completed by mid 1993.

Competition becomes very fierce amongst five-star hotels in Bali. With the presence of major international management companies such as the Hilton, Inter-Continental, Sheraton, Four Season in addition to the Hyatt and Melia Sol, have created a very unhealthy situation. The average rates are lowered and collateral revenue suffers.

To adjust to this new situation, we must develop a systematic and dynamic sales approach action plan.

There are series of marketing aspects where special thoughts and attention will have to be directed throughout the 1990's.

### **A look into the future**

Although planning has always been an integral part of hotel industry, but many hotel operators have never spent sufficient time thinking about the future, except for the annual budget and their next year's projection. A look into the future becomes more of a business necessity, and this involves a degree of prediction. To predict the future in these uncertain times is no easier than it was in the past. It is almost impossible to predict ahead accurately. However, in order to plan for the future, it is necessary to make certain assumption. For instance, we have to assume certain future developments that will or will not happen:

- Asia-Pacific's current prosperity is set to continue throughout the decade. As a result, out bound tourism is predicted to grow strongly in the 1990's, with an increasing experienced traveller from the Asian.
- The Asia-Pacific business travel market within the region will continue to expand throughout the 1990's, with strong demand in service standards, and likely more demanding in the future.
- The European business travel will increase marginally in the 1990's, depending on how fast the European countries pulling out of recession. There is an emerging social trend towards the preference for long haul holiday travel.
- The US dollar will remain strong against other major currencies over the next 12 months.
- There will be more foreign carriers servicing Asia-Pacific destinations.

If we believe that any of the above are likely to happen then a plan must be developed to ensure that the hotel's business is going to benefit from a positive or a negative trend. The more we look into the future, the more we can anticipate problems, discovering a new market and maximise profits.

## **MARKETING**

Marketing involves continuously defining and redefining markets and sources of business. It involves choosing the most profitable markets which provides travellers into the hotel's location, and the type of individuals coming into the area. We have to consider what really motivates people to travel or spend money in our hotel.

**Let's take the subject of Asian market:**

Business travel will continue to expand strongly, especially Japan, Taiwan, Korea and Singapore as well as Indonesia. The target markets in Asia for travel to Asia-Pacific region has two demographic segments: under 35 year old and up-market wealthy travellers. There are also two main segments in types of travellers: adventures/honeymooners and travellers and sunseekers (expatriates).

Travellers from Asian countries usually seek fully packaged holidays to safe destinations with good tourism infrastructures. However, all inclusive tours are declining, with the growth in air tickets and hotel packages only.

Main motivations for visiting other regions are for culture and history, status, short break trips, soft adventure and active, and also looking for good resorts, souvenirs and luxurious hotels.

There is a trend towards seeking something new, exotic and totally different and visiting their relatives also.

There are several sources of business which are considered main producers. I would like to mention a few as follows:

**1. CORPORATE/COMMERCIAL**

As more hotels come on stream, we can see an increase in discounting in this segment and stiffer competition in what a truly buyer's market. We can attract corporate accounts by offering a respective discounts level on the basis of the different scale of corporation.

**2. TRAVEL AGENT-AD HOC BUSINESS**

This market is continuously available. The growths predicted are in Taiwanese, Singaporean, Japanese, and Indonesian arrivals. We have to maintain a tight control on the number of tour groups in order to achieve a well balanced mix.

**3. WHOLESALER**

We have to maintain good relationships in this segment. Continued attention is required in delivering the quality of services and promises, so as to safeguard the volume in this segment.



4. **FIT RACK RATE**

The trend in this segment is one of declining segment for the following reasons:

- The customers prefer to book through travel agents because of much cheaper rates than if they book directly with the hotel at a discounted rate.
- Increased hotels with competitive reservation system (chain operations).
- Tight travel budgets.

5. **CONVENTION AND INCENTIVE**

We are predicting a gradual growth in this segment. This type of business is high in yield with special Food and Beverage requirements and tied into the commercial accounts.

6. **SPECIAL PROMOTION AND PACKAGE BUSINESS**

This segment will continue to grow and will ensure additional business during low periods and holiday season.

7. **AIRLINES AND AIR CREW**

We have to attract airlines by offering a special rate during low season to secure additional business.

Following this, we must prepare an action plan on how to maximise sales and profits. In a five star hotel, the action plan covers maximising sales for every source of business and market segments.

It is divided into two parts:

1. The first deals with an overall strategies and targets.  
We must compile a Marketing Plan which gives an assessment of the overall hotel situation and is an audit of its market resources, competition, strengths, weaknesses and performance goals for the following year.
2. The second covers how to reach the potential customers.  
There are various techniques in reaching the targets, such as:
  - Personal selling
  - Display advertising
  - Internal selling
  - General advertising
  - Direct mail
  - Publicity
  - Telephone calls, facsimiles and telexes

## ADVERTISING

There are many ways of highlighting the hotel's facilities to the notice of potential buyers. The best way is personal selling, the next is through telephone sales where we can communicate in two ways. Others are by letter writing or direct mail and advertising. Advertising has many advantages and with exception in certain situations, many disadvantages. Like it is expensive and difficult to measure its success. However, there are various situations where an advertisement is the most effective method of reaching to a market. for an example a newly renovated or brand new hotel or restaurant. Probably the best way to reach a large number of people and getting these facts known is through advertising. Also during a low period, a specific package arrangement to fill this low period, then advertising may be required.

## PRICING STRATEGY

The task of determining the price for hotel services is a very complex matter. We must look at several factors: current charges prior to a review, estimated inflationary effect on unprising costs, general economic situation affecting the costs, currency exchange rates, number of competitions prising.

The hotel industry revises many known marketing rules in fixing prices for the product. In most consumer industries, sales can be increased by reducing prices. This does not always happen with hotels and restaurants, even though hotels sell a product in food and drinks, and it has a combination of product and service. In fact, it could be a marketing mistake to reduce prices too low with many hotels, because at a certain level of lowering prices, the prospective customer gets suspicious ie. something must be really wrong!

Perhaps bulk purchasers like tour operators and wholesalers will not agree. To a significant extent they are correct as they must hold down the total pricing of holiday in order to sell their allocations.

Lastly, the hotel must put the strategy into action. All the components must work together. Coordination now becomes imperative. Monitor and control the strategy in order to guide an adjust the program and to evaluate its effectiveness. The major difference in marketing hotels as against other consumer products is that after a customer has spent money in hotels, he has nothing physically to show for his money worth, as compared to buying an object like a television or camera. Effective marketing and dynamic selling are more important with hotels, because when a sales person did not sell a room in a hotel, that income is lost forever (like perishable goods).

In the case of selling consumer products, if a sales person does not sell the product today, he might sell it tomorrow or any other day. Personal selling is effective but an expensive form of promoting a product/service. As you can see personal selling is only one aspect of marketing mix.

Selling and marketing are not the same. As you know, marketing is basically seeking out a demand first and then making the product or supplying the

service to satisfy that demand. Selling is the other way round-creating a product or service and then trying to find a market for it.

One common problem, most of the hotels face is, in understanding what "selling" really means. Most people think that it is "telling the buyer about your product and the amount he'll have to pay for it". Unfortunately, this is the general practice of many hotel salesmen.

If the salesmen focuses his attention on the product only, then the buyer will play tricks from one salesman against the other. The salesman who is unable to defend himself will fall into the old price reduction trap. This will be true if the buyer has a difficult time distinguishing between various hotels.

Sales technique is always changing and there is no way any person involved in selling can ever have a perfect sales technique. Every set of circumstances is different. Every place we sell can be different too.

The salesman today must be a diagnostician of a customer's needs as well as a consultant who makes recommendations ... an order maker, and not an order taker!

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TITLE OF THE PAPER

"CONSUMERISM - PROBLEMS AND PROSPECTS IN INDIA"

(focusing on consumer education)

Abstract

Consumerism is a social phenomenon, which has come into existence to protect the consumers' interest in the market place. In india, the movement is yet to gain mementum. There are sufficient efforts taken by the Government, Consumer Organisations and Business Organisations, to help the consumer to establish his rights and also protect him from being unduly exploited. In spite of that still the consumers are to make full use of the protection programmes. They are unaware, indifferent, ignorant, apathetic, passive by nature.

In this paper, attempts are made to describe the Indian Consumers, his characteristics and complain behaviour in a limited way, and suggestions are given as to how the consumers can be emancipated. They should get the basic foundation of knowledge to appreciate, seek and make use of the information to improve their standard of living, to make a better choice of products/service or for seeking redress when faced with exploitation.

Introduction

Consumerism is a social phenomenon which has come into existence to protect the consumers from being unduly exploited in the market place. In India the growth of the consumer movement is very slow, compared to the western countries. The Government has enacted about 30 laws to protect the consumers from various hardships. There are about 250 Consumer Organisations to help the consumers fight for their rights. Still it is commonly felt that the awareness amidst the consumers about the consumer programmes are very minimal. An average consumer in India is ignorant, apathetic and indifferent. He needs emancipation. Consumer Education is a must to get him the basic knowledge, to seek and use information to make intelligent purchase, to seek redress when exploited and overall to improve his quality of life and standard of living.

In this paper attempts are made to describe the characteristics of the Indian Consumers and Indian market place in a limited way so that suitable consumer programmes can be designed accordingly. This will ensure successful implementation of Consumer Programmes.

Consumer rights

The Consumers have certain rights to be established in the market place. The enumerated rights are as follows :-

- a) Right to be protected against the marketing of goods which are hazardous to life and property;
- b) Right to be informed about the quality, potency, purity, standard and price of the goods to protect the consumer against unfair trade practices;
- c) Right to be assured wherever possible, access to variety of goods at competitive prices;
- d) Right to be heard will receive due consideration at appropriate forums;
- e) Right to seek redress;
- f) Right to Consumer Education.

Consumer protection in India

The Government had enacted quite a number of Consumer laws to protect the consumers. But the implementation was not easy. It was time-consuming because of the elaborate procedures adopted in filing cases in regular Court of Law. Some of the Acts are :-

- a) Monopolies & Restrictive Trade Practices Act - 1984  
- to protect the consumers against unfair trade practices, including misleading advertisements, artificial shortages, etc.

- b) Essential Commodities Act - 1955;
- c) Packaged Commodities Act - 1975;
- d) Standards of Weights & Measures Act - 1956;
- e) I.S.I. Certification Marks Act - 1952;
- f) Agricultural Produce (Grading & Marking) Act - 1937;
- g) Display of Prices Order - 1963;
- h) Prevention of Black Marketing Act - 1980.

The latest addition is the comprehensive enactment "The Consumer Protection Act of 1986". The Act is a simple piece of legislation, enacted to provide speedy and simple redressal to Consumer disputes. A quasi judicial machinery (redressal forums) is sought to be set up at the District, State and Central levels. They were empowered to give reliefs of a specific nature and to award whenever appropriate, compensation to consumers. Penalties for non-compliance of the Orders given by these forums have also been provided. The District forums will handle complaints upto the value of Rs.1 lac. The State forums will handle complaints of value between Rs.1 lac and Rs.10 lacs. National forums will handle complaints whose value is more than Rs.10 lacs.

Another indispensable requirement in a consumer protection strategy is the establishment and growth of consumer groups. In recent years about 250 consumer organisations have come into existence in various parts of

India, mostly confined to metropolitan and urban areas. To name a few, Consumer Education & Research Centre (Ahmedabad), Voluntary Organisations in the interest of Consumer Education, Consumer Guidance Society of India, Consumer Action Forum - Calcutta, Consumer Protection Council - Madras, S M N Consumer Protection Council - Madras. These Groups aid to solve consumer problems in various fields like public distribution systems, medical services, housing, education etc.

With all this support, the consumers still suffer the hardships without coming forward to fight for their rights. The reasons are mainly total lack of awareness of these facilities, the apathetic and indifferent attitude of the consumers. Without the active participation of the consumer no amount of laws and information can help him to establish his rights. He will continue to be exploited.

### The Profile of the Indian Consumers

#### indian population

The Indian population works out to 800 Million. 80% to belong to rural areas (Study by National Council for Applied Economic Research, 1987-88) and the Gross National Product per capita is Rs,250/-. The consumers as a group is a heterogenous one characterised by multiplicity of languages, custom and traditions.



rural consumers

Majority of the rural population is illiterate, ignorant and they are below the poverty line, their per capita consumption being Rs.200/- per month.

The condition of their living is characterised by under-nutrition, bad housing, over-crowding, poor conditions of hygiene, public health and sanitation and inadequate education. Large proportion of their expenditure goes on food and necessities.

Their behaviour will be characterised by lack of ambition, apathy, submissiveness, unwillingness to bear risk and to venture. In their purchase, the attention given to quality and choice is minimal. They accept exploitation without any resistance, at the most with a grumble.

The type of problems those consumers face are non-availability of stocks, adulteration, shortage of weight and measurement, inadequate civic facilities.

In short, their necessity is to become aware of their right to basic needs, right to safety and right to consumer education.

urban consumers

They are characterised as literate, economically better off. Their basic objective is to improve the standard of living. They are not only interested in price advantage but also insists on quality and better choice. Provided they are given the information regarding product choice, he will make

a skilful purchase.

The type of problems they encounter are deceptive advertisements, misinformed product claims, unsatisfactory services from public utilities like telephones, electricity, civil supplies etc., the indiffernt attitude when approached to resolve their dissatisfaction.

In a survey conducted in the city of Madras, the following were inferred :-

80% of the sample felt that the consumers lack proper information to make intelligent purchase. They did not know how to complain if dissatisfied and where to complain.

Coming to taking action for their dissatisfaction, almost all in the sample were dissatisfied at one time or other. Out of the sample, 55% did not take any action. One of the top most reasons for that is, they felt that it is not worth the time and effort. About 50% felt, they could not get anyone to do anything about it. About 30% felt that other will think badly of those who complain.

Out of the 45% who took action, majority of them had quit using the product or quit shopping at the store. About 50% of them warned their family and friends about this unsatisfactory product. About 30% took action by way of complaining to the shop and asking for replacement, refund or rectification. About 20% of them complained in a letter to

Amma T.S.R

the editor of new papers or reported to Consumer Protection Group.

About 60% of them are unaware of the Laws or the Consumer Protection Programmes.

From the above we could categorise the consumers into three groups.

- i) Those who are fully aware of their rights and eager to get their rights realised but do not know what to do;
- ii) Those who are partly aware of their rights but are not very eager to act but they take things as they are because of the cost of complaint which is higher than the benefit;
- iii) Those who are not at all aware of their rights and live a passive life because of their ignorance;

In the Indian context the percentage of the population falling in categories two and three is very high. The consumers falling in categories one and three can be helped by mass and aggressive education programmes. The consumers in the second category can be induced to come out to express their problems, by easing out the complaining procedures. For example, to make the complaining easy, a complaining slip/coupon can be attached along with the product, so that if product is unsatisfactory the slip/coupon can be parted to the manufacturer for action. Also the warranty/guarantee rules can be simplified.

Based on the above categorisation the complaint behaviour can be tabulated as in Fig. 1

Fig.1 : CONSUMER COMPLAINT BEHAVIOUR \*\*

A C T I O N S

		Public/Formal	Private/Informal
To Seek redress	Dyadic	1. Voice Complaints to relatives or Manufacturers	2. No Action
	3rd Party	3. Legal action through intervention by Public/ Govt. Agencies	4. Seek help of friends and relatives
To change future behaviour	Dyadic	5. Seek better service from relatives	6. 'Exit' or change partonage
	3rd Party	7. Complain to Consumer Agencies	8. Word of Mouth Communication to friends /relatives

\*\* Jagdip Singh and Robert Westbrook (1984)

The Indian Consumers mostly fall under Cells 2, 6 and 8, as per the study. They are potentially explosive groups. The marketers should find out why they are not complaining. Accordingly, the segmenting can be done to design communication systems to make them voice their complaints. The marketers should design the complaining procedure to make it easy and less time consuming for the consumers to seek redress.

From the above we can infer that there is a need for consumer education and information which can make the

consumer knowledgeable to make the right choice and seek redress when dissatisfied. The consumer can be emancipated only by education makes him an informed consumer and probably provides much incentive for more sophisticated information seeking and usage. It will speed up the learning process in short.

### How to educate the consumers

#### to educate the passive group

It is well known that the consumer policy cannot solely rely on consumer information. It should be complemented with consumer education. Even well informed, educated consumers may fail to effectively articulate their grievances due to non-assertiveness and lack of confidence. For much segments, causes can be offered in educational institutions in "assertive training" as extension programmes. We can also provide them "do it yourself" manuals. These manuals can enlighten the consumers as to how to detect the adulteration, for example, the water content in the milk can be detected by using lactometer. If the reading shows below 1.206, it is clear that water is added to milk.

Similar manuals can be prepared to detect the malpractices adopted while weighing and measuring, to rectify some small electrical problems etc.

This sort of manuals and buying guides will instil confidence in the consumers mind since they learn it by themselves.

to educate the heterogenous group

Indian population varies by multiplicity of languages, traditions and customs.

The first step in the planning of any information material is the identification of the user and the measurement of his needs. This is done by preparing a model profile of the user by studying existing records, interviewing or using questionnaires. For example, Manufacturers of electrical appliances need to provide their customers with clear instructions regarding the use and care of their products. Taking into consideration the multiplicity of languages in India, the instructions should be written in all the languages spoken by the respective segment in the respective States (Hindi/Malayalam/Tamil/Gujarati etc.)

The consumer test information also can be disseminated in newspapers in regional languages.

to educate the mass population

Consumer education through Seminars, Conferences and Publications can be effective.

Courses regarding various facts about consumer protection should be conducted as part of the curriculum in the schools. The students can be educated in simple matters like how to skilfully choose the best choice in items like School Bags, Shoes, Clothes etc.

The support of mass media is needed. Newspapers and magazines which run the Complaints Columns can be of great

help in mass education.

Community Education Programmes can be given as to how to use the informations available through comparative testing, informative labelling and quality certification.

Television has proved to be an active media to educate the mass illiterate segments also. They have brought out programmes like 'Jan Vani' where they had question-answers session with a Minister in the Central Government. They had offered programme 'Rajani' where a lady consumer activist championed the causes like fighting adulteration, misinformation, sub-standard goods, delayed gas supply, excess billing of telephones etc. with guts and glamour. This appealed to the mass because it is 'slice of life' programme where it projected a common housewife solving here problems so tactfully. They have broadcasted over Radio some programmes where the general public was invited to question the bureaucrats. Some more programmes on consumer protection had been telecasted frequently to catch the attention of the masses and educate them as to how they are being exploited in the market and how they can overcome it. These audio-visual programmes are very useful to educate the illiterate mass.

to educate the mass rural population

The Programmes should mainly concentrate in making them aware of their basic rights (health, family welfare, saving habits etc). To convey the message, the most suitable media are Radio, Television, Folk Songs, Puppet Shows and

Dance/Drama. The formats to be used in Radio can be news, talks, discussions, interviews and plays preferably in vernacular. The format to be used in TV media can be demonstration, documentaries, puppet shows, interviews and plays. The message through audio-visual media proves to be more effective to convince the illiterate population.

other suggestions

The educational institutions can offer extension programmes in consumer education. The curriculum can include topics like good buymanship, money management, nutrition, savings and investments, consumer protection laws and the like. Apart from lectures, instructors can make frequent use of outside speakers, field trips, role playing, case-studies and research projects.

Business Organisations can sponsor programmes on socially relevant topics through public service spots in TV. Topics can be like Eye-donation, Dental-care, Fund-saving, Family-planning, Adult-education etc.

Consumer education can also be achieved by periodicals or publications brought out by Consumer Organisations where they enlighten upon comparative testing, quality certification, etc.

The education can also be imparted through brochures, leaflets where information is given for limited problems like how to detect adulteration, what should be observed in the purchase of electrical goods, what should be observed in the purchase of drugs etc.



Conclusion

Without the active participation of the learner no transfer of knowledge or skills can occur. A consumer education movement provides the knowledge foundation necessary to develop intelligent and informed consumers resulting in consumer emancipation. This will, in turn, change the apathetic attitude, make them conscious of his rights. The consumer education programmes should be designed keeping the above factors in mind, to suit the Indian context.

The Marketing educators as academicians can help in research studies, imparting consumer awareness or training programmes, preparing manuals and the like. They can also enlighten upon the public issues by conducting Seminars and Symposiums in areas of consumerism and forwarding the proceedings to the public policy makers.

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## **Mind Maps: A Tool For Clarifying Sales Force Management Concepts in Lectures**

Marketing educators need to constantly monitor the way students go about their learning and how teachers can facilitate this learning. A technique successfully introduced in a Sales Force Management course was the use of *Mind Maps* to introduce and summarise course material presented during lectures. Most students found mind maps useful in helping to understand lecture material and links within lectures. This paper will present the results of an empirical study examining the attitudes of 2nd Year Marketing students exposed to *Mind Maps*. In addition, the paper will discuss how educators can use *Mind Maps* as an effective teaching technique.

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## **Introduction**

A body of educational research deals with how students construct their own learning and develop new knowledge. A range of metacognitive tools such as *concept maps* (Novak, 1980), *vee diagrams* (Novak and Gowin, 1984), *networking* or *knowledge maps* (Dansereau, 1978), *mind maps* or *pattern notes* (Buzan, 1974; 1982) have been developed which allow mental thought patterns to be represented visually.

Typically, studies using metacognitive tools tend to measure text recall (eg. Alvermann, 1981; Mayer and Bromage, 1980; Kloster and Winne, 1989; Rewey et al, 1989) or monitor the quality and organisation of knowledge (eg. Hegarty-Hazel and Prosser, 1991a & 1991b; West and Pines, 1985; Ross and Munby, 1991) by evaluating *student generated* cognitive maps.

An area of inquiry that has received scant attention within the education literature has been the application of metacognitive tools such as mind maps and concept maps as an organising, structuring and presentation device for lecturers. Organised, precise and well-structured presentations help students to make *more sense* of a lecture's discourse by minimising confusion, frustration and diminished attention span (Chilcoat, 1989). In their book *Learning How to Learn*, Novak and Gowin (1984) devoted an entire chapter to new strategies for designing curriculum and instructional activities using metacognitive tools such as concept maps. Despite the potential for the use of these tools, there is very little published research on their application in management education.

This study examines student attitudes to teacher generated mind maps as an instructional device during lectures and as a study revision tool.

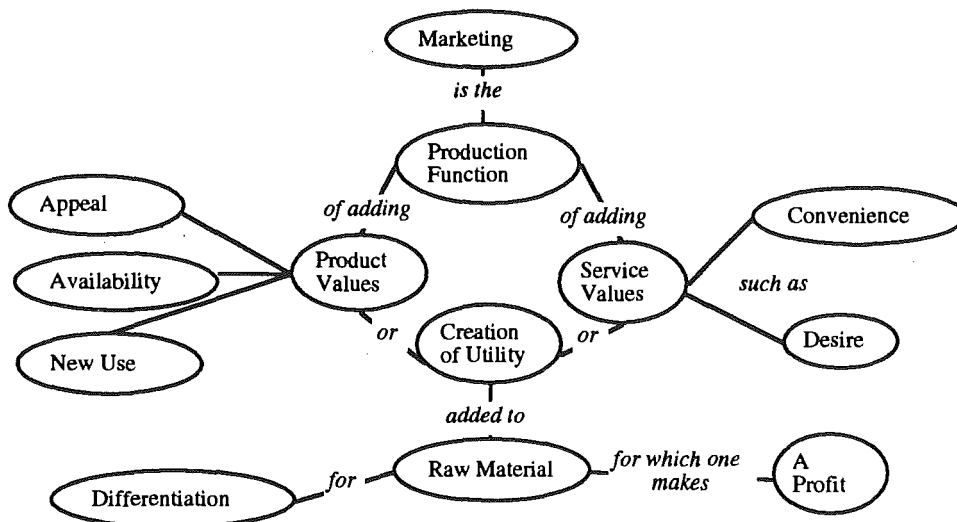
**Literature Review**

The growth of interest in various forms of metacognitive tools can be traced to the theoretical work undertaken by David Ausubel (1963, 1968, 1978). Coming from the perspective of cognitive psychology, Ausubel proposed an assimilation theory of learning. Central to this theory is the concept of *meaningful learning*. To learn meaningfully, the learner must incorporate new knowledge into their own internal representation of knowledge. The formation of linkages and associations with existing knowledge allows the learner to reflect upon new knowledge and create new meaning.

In 1972 faced with the problem of measuring meaningful learning, a group of researchers led by Novak initially developed concept mapping as a research tool. Concept maps were used to represent students' knowledge structure before and after instruction (Novak, 1990).

Concept maps are hierarchical diagrams that indicate the linkages and associations among different concepts within a specific domain of knowledge. Two or more concepts are linked by words or symbols to form propositions (Novak, 1990). Figure 1 displays a sample concept map.

**Figure 1: Sample concept map**



Source: Geri Gay, personal communications as cited in Novak and Gowin, 1984).

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Concept maps provide a personal representation of an individual's cognitive structure specific to a domain of knowledge. These maps indicate how various ideas are organised and connected in the learner's mind (Okebukola, 1992). Maps created by an expert in a discipline should provide a more accurate representation of the nature and organisation of concepts and propositions than those created by the student (Rewey et al, 1990).

Creation of a concept map involves the following steps (Novak and Gowin, 1984; Entwistle, 1986; Okebukola, 1992 ):-

- 1) Identification of main concepts and themes.
- 2) Arrangement of concepts into a hierarchy with the most inclusive at the top and subordinate concepts connected below by arrows or lines.
- 3) Labelling of relationships with words, phrases or symbols to form propositions which describe the nature of the relationship.

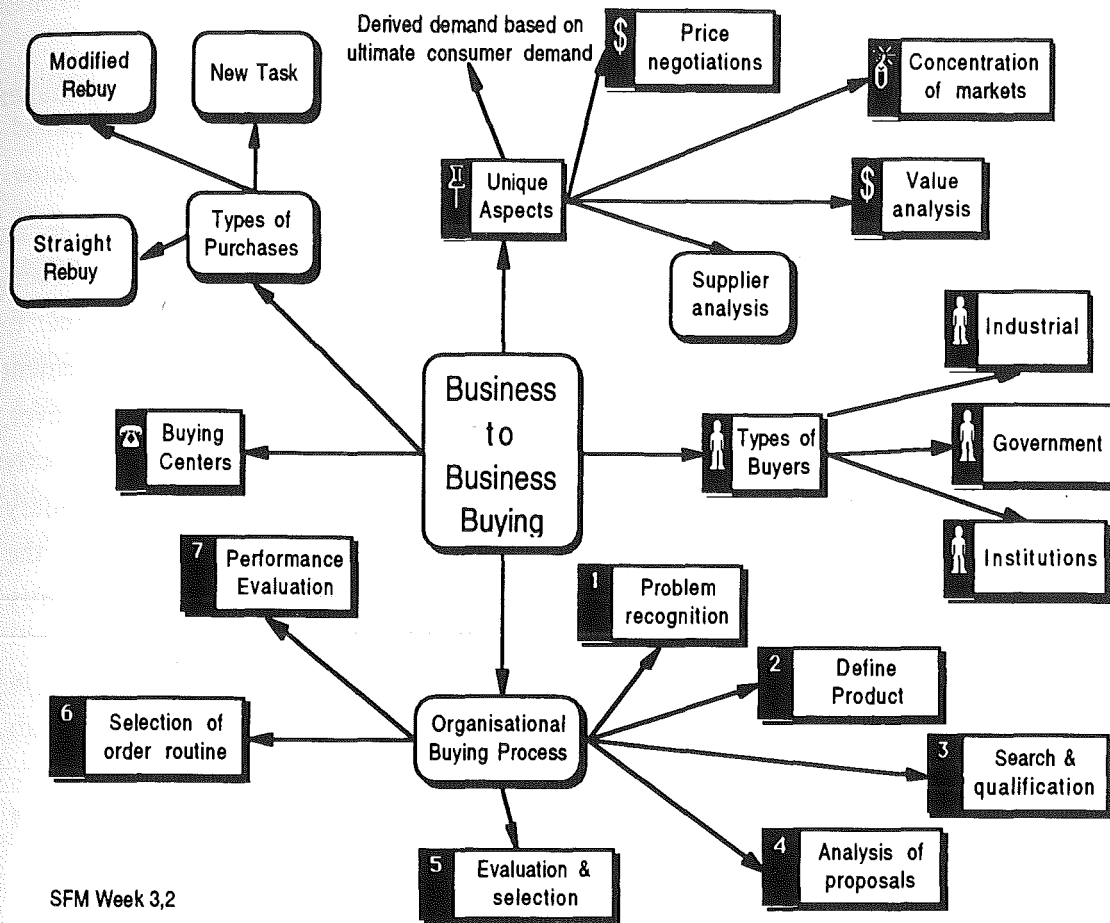
Concept maps have been used to teach earth sciences, mathematics, physics, statistics, microbiology, biology, chemistry and medicine (Barenholz and Tamir, 1992; Mahler et al., 1991; Mason, 1992; Ross and Munby, 1991). However, the use of metacognitive tools has not been reported in the social science or management education literature.

A possible explanation for this could be that concepts and propositions in fields like marketing are less precise and hierarchical in nature than those found in the physical sciences. This is not to say that knowledge claims cannot be constructed in Marketing. It is more a reflection of the difficulties of measurement and the inseparability of interacting variables in the discipline that make it difficult to introduce a hierarchical metacognitive tool like concept maps. For this reason non-hierarchical tools may be of more use in the preparation and presentation of lecture material in the marketing discipline.

The non-hierarchical metacognitive tool called mind maps were designed by Tony Buzan (1974). Mind maps consist of one main concept in the centre with associated secondary ideas radiating outwards in all directions. Ultimately, a map with a growing, organised structure of key words and graphics is produced (Buzan, 1982; Russell, 1979). Figure 2 shows a sample mind map used during lectures.



Figure 2: Sample mind map used as a lecture handout



Initially, mind maps were developed as a memory aid and note taking tool. Thus, they utilise a number of techniques that facilitate memory recall (Buzan, 1982; Russell, 1979; Jonassen, 1984 and 1987):-

- 1) The individual is required to sort and organise information into a pattern with the key idea in the centre and associated secondary ideas radiating outwards. The activity of determining where a piece of information fits within the mind map assists in the formation of new linkages between concepts.
- 2) Use of key words.
- 3) Use of visual images to form associations with words and ideas.

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- 4) Related ideas form clusters radiating from a well-defined central concept. The notion of *Chunking* as developed by Miller (1956) is used to restrict the number of clusters to less than seven.
- 5) Use of visual memory devices like colour, arrows, lines, three dimensional shapes and pictures.

Mind maps and concept maps are both tools that can be used to determine an individual's understanding of concepts and connection with other ideas (eg. Jonassen, 1984 and 1987; Novak and Gowin, 1984). Both techniques encourage the learner to form new associations between different ideas and use some form of graphical element such as a circle or oval to indicate relationships between different concepts. However, they differ in the way that they are constructed. Concept maps are constructed strictly in a top-down hierarchical manner, whereas mind maps use a number of secondary clusters radiating from a central concept. These secondary ideas are formed using the process of association. Mind maps also rely more on visual imagery to aid memory retention.

### **Rationale for using mind maps**

Some years ago as a postgraduate student enrolled in an accelerated 12 months Master programme, I found mind maps a valuable technique for coping with the shear volume of reading that was expected of students. Mind maps were used later as an important study revision tool for the final exams.

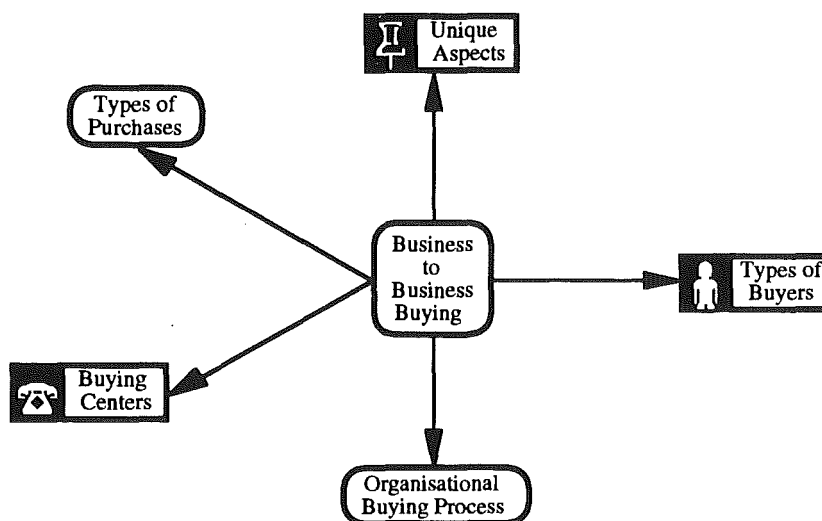
When faced with lecturing in a new subject area - Sales Force Management, I used mind maps as a way of dealing with a large body of unfamiliar material. Mind maps helped me to identify central concepts and to visualise relationships and linkages between secondary concepts. Initially, it was only my intention to use mind maps to structure my lectures, but I realised that I had created a useful lecture handout. I felt that the handout would help students understand relationships between concepts and revise lecture material later.

### How my mind maps were developed for Sales Force Management

Initially, a broad conceptual framework was developed for the course detailing the broad topic areas to be covered during the semester. Preparing a typical lecture, I would first conduct a *content analysis* on each topic area from a collection of textbooks. This enabled me to organise and select key concepts that should be covered during lectures. I made a conscious decision to select usually no more than five main ideas to be discussed during each 1 hour lecture. In addition, I designed each lecture to be a stand alone module within the week's broad topic area. Thus each mind map presented a summary of a distinct component of the course.

For each lecture, two versions of the mind map were created; - a detailed map and a skeletal map. The skeletal mind map contained the central theme and approximately four or five main branches. This was first shown on an overhead projector at the beginning of the lecture to give students an overall view of the topic. It was then used at later points to help sign-post the transition to new sections of the topic. Figure 3 displays the skeletal mind map associated with the detailed map in Figure 2.

**Figure 3: Skeletal mind map used for topic introduction and sign-posting**



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The detailed version of the mind map contained the central theme, the four or five main branches and all sub branches (see Figure 2). Each sub branch corresponded to a number of points on a set of overheads. Once all the points for a sub branch were explained, the skeletal mind map was then displayed on the overhead to sign-post a change to a new sub branch.

Over the duration of the semester, my detailed mind maps grew in both content and complexity. Wherever possible, the graphics on the mind maps included different sorts of symbols and pictures to aid memory retention and to help form associations between different ideas and concepts.

To assist in the preparation of mind maps, a software package was purchased for the *Macintosh* computer called *Inspiration3.0™*.

At the end of the semester, a study was conducted to assess from the students' perspective the effectiveness of this form of instructional aid.

### **Study Methodology**

A questionnaire was developed to measure student attitudes to the use of mind maps during lectures using a battery of attitudinal statements. These statements were measured using a 5 point Likert scale.

The questionnaire was administered to students enrolled in *Sales Force Management* with 33 useable questionnaires being collected.

## **Discussion of results**

As shown in Table 1, students responded very favourably towards the use of mind maps during lectures and later as a study revision tool. Most students found them to be useful (82%) and always collected when available (85%). The mind maps helped students to understand lecture material (85%) and to understand links within lectures (82%).

These results contrast strongly with the findings of both Cardemone (1975) and Bogden (1977) as cited in Novak (1990). Both authors reported that only few students found teacher prepared concept maps to be useful. In these studies, the concept maps did not include any propositional statements connecting the various concepts whereas my mind maps always used words or pictures connecting each concept. Later research by Stewart (1979) and Novak (1981) established the importance of using words to label links between concepts.

I believe that my results highlight the importance of a well-structured lecture. Students need to know what is being covered, where it is being covered, how it all fits together and be told when the lecturer jumps to a new idea. Based on my findings, the use of skeletal mind maps as an introduction device and as a sign posting device should be continued.

The majority of students believed that the mind maps provided an effective summary for each topic area (76%), made their study easier (76%) and used my mind maps when revising for exams (82%).

One of my misgivings about providing mind maps to students was that students would feel that it was not necessary to take their own notes during lectures or would feel that mind maps would make lecture attendance unnecessary. This concern was not realised as the majority of students felt that it was worthwhile attending lectures (76%) and necessary to take their own notes (73%).

A number of results suggest that the use of mind minds could be improved. While 73% of students experienced no difficulties using mind maps, it is important to consider those students who are either undecided or expressing some difficulty using mind maps. Possible factors contributing to this difficulty may be the amount of detail on each mind

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map and the complexity of the material. Only two thirds of students (67%) found mind maps helpful when dealing with complex material and only about half the students (58%) found the maps easy to understand when full of detail.

With the benefit of hindsight, some of the mind maps were too complex and contained too many secondary branches. Case (1975) as cited in Novak (1988) suggested that lectures and other instructional material be organised so that students are not required to process more than seven chunks of information for any specific idea.

**Table 1: Attitudes to Mind Maps (n=33)**

	SA %	A %	UD %	D %	SD %
Found them very useful	21	61	12	6	0
		82			6
Always collected them when available*	15	70	6	9	0
		85			9
Helped me understand lecture material	27	58	6	9	0
		85			9
Helped me understand links within lectures	15	67	15	3	0
		82			3
Made my study much easier*	21	55	15	9	0
		76			9
Provided an effective summary	30	46	15	9	0
		76			9
Used when revising for exams	30	52	6	9	3
		82			12
Still necessary to take lecture notes*	9	64	21	6	0
		73			6
Still worthwhile going to lectures*	3	73	24	0	0
		76			0
Had no difficulty using them*	18	55	21	6	0
		73			6
Easy to understand when full of detail*	6	52	21	18	3
		58			21
Helped me deal with complex material	15	52	27	6	0
		67			6

\* Scales have been switched to reverse the negative question

### Discussion of Teaching Implications

I have a better understanding of how students view mind maps after completed this study. The next stage will be to conduct in-depth interviews exploring how students actually used teacher generated mind maps.

I feel that this study does establish that teacher generated mind maps do have a rightful place in the teacher's armoury. Mind maps were vital in aiding my understanding of a new knowledge domain in *Sales Force Management*.

The mind maps have also assisted me in developing structure within my lectures. The skeletal mind maps have been very important as a device to introduce new sections and to signal to students that I was about to change my discourse to a new area. Although I was aware of the concept of information chunking before I started lecturing, some of my mind maps contained too many branches and too much detail associated with each sub branch. After reflecting on some of my lecture performances, I do know that I tried to cover far too much ground in a one hour lecture. Not surprisingly, the mind maps associated with these lectures tended to be those mind maps with too much detail.

I am conscious of the need to actively involve students in constructing their own learning. The main benefit of mapping subject knowledge goes to the person who constructs the maps (Novak, 1990). Mind maps have helped me to provide an organised and structured lecture programme. I believe that mind maps can be even more useful when students take an active role in creating their own maps. In the future, I plan to circulate an enhanced skeletal mind map at the beginning of the lecture. This new form of mind map would show my conceptual framework for the lecture but would not include all details. The mind map would contain the central theme, all secondary branch ideas and a partial listing of sub-branches. In a sense, the mind map would be similar to Thompson and Lee's (1991) note-taking guides whereby the students would have the lecturer's conceptual framework in front of them but would need to flesh out the details as the lecture proceeded.

To assist students in filling in the partial mind maps, I intend to conduct a training session on the art of creating mind maps. This would also help students create mind maps for other learning situations.

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An ongoing aim of my future teacher practice will be to encourage student involvement in the generation of their own study and revision material as this should help them develop a deeper approach to learning. Mind maps can play a role in facilitating this development.

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**Title:** Preconscious Hemispheric Processing Effects: Some  
Experimental Results

**Abstract:** The unique processing strategies of the brain's individual hemispheres together with contralateral conduction schema for visual stimuli, enables people to subconsciously process peripherally presented advertising stimuli. A series of experiments investigated the independence of conscious consideration and attitude formation. The effects of stimulus placement and hemispheric specialisation congruity were examined and gender differences studied. The Solomon four-group design was used and a comprehensive analytical approach was undertaken to capitalise on the power of this design. Implications of the results for advertising stimulus arrangements, which preconsciously impact brand attitude, are discussed.

## Introduction

Psychology and experimentation has provided bases for the development of hypotheses about consumer preference and attitude formation. Of particular interest, for the present research, was the suggestion that attitude formation can occur independently of conscious consideration. Attempts to explain this phenomenon include the theory of cerebral asymmetry, with the most important contribution being the experimental paradigm of divided visual field presentation (Glass, 1987).

The divided visual field (DVF) paradigm suggests a human visual field through which stimuli located up to 1.5 degrees either side of the centre of focus are received simultaneously by both cerebral hemispheres. Stimuli outside this range are said to be processed by individual hemispheres through contralateral conduction (Pirozzolo (1977) That is, stimuli located outside 1.5 degrees to the left of the focal point will be processed by the right hemisphere and vice versa.

Anatomically, the human brain consists of two hemispheres of near parallel volume, shape and physical topography. However, "curiously, the two hemispheres as a rule are not endowed with the same functional capacities" (Harrington, 1987:3). This ascribed asymmetry of function has given rise to speculation that the organisation of visually peripheral material, vis-a-vis predetermined focal points, may preconsciously influence attitude formation. The contralateral conduction of visual stimuli, together with evidence of individual hemispheric processing styles, may provide advertising opportunities at point of sale. The problem examined by the present research was to determine whether a potential exists for using promotional arrangements in this way.

### *The concept of lateralisation*

There appears little disagreement about the distinct processing strategies of the respective hemispheres, particularly in relation to visual stimuli (Janiszewski, 1988). However, acceptance of the concept of lateralization as either a continuous or discreet characteristic remains a contentious issue. Glass (1987:6) believed this contentiousness arose as a result of "...the confounding of biological differences in brain asymmetry with variation in measurement of asymmetry itself". Marshall (1987b) pointed out that the notion of complementary specialization has often been interpreted as meaning that the presence of a

particular processing capacity in one hemisphere indicates the other is inert in that processing domain. This concept is variously described as the 'brain duality model', the 'cerebral dominance model' or the 'absolute specialization model' (Cohen, 1982; Glass, 1987).

The absolute specialization version is not well supported. However, some exceptions, as a result of physiological abnormalities or radical surgical procedures leading to atypical reorganizations of function, have been reported in the medical literature. Modern thought prefers the notion of a functional continuum, with the differences in capability being regarded as a matter of degree (Pitblado, Petrides and Riccio, 1979; Cohen, 1982; Beaumont, 1982; Marshall, 1987b; Glass, 1987; Janiszewski, 1990). Notwithstanding acceptance of the continuum notion, discrimination of the hypothetical extremes appears possible and potentially useful to marketers.

#### *Preconscious processing*

While divided visual field (DVF) investigation is only one of a number of approaches which contribute to the study of cerebral organization, it is arguably the most common and influential (Beaumont 1982). From a consumer behaviour perspective, an important area in contemporary DVF investigation is that which links hemisphericity with preconscious attitude formation. Preattentive processing involves the unconscious, or preconscious, scanning of sensory channels for stimuli which will evoke a shift in attention (Janiszewski, 1988:201). Logically, stimuli located in the peripheral fields tend to be processed in this manner, without conscious consideration or active analysis. In view of the contralateral conduction of these images by virtue of their relative location, and in the absence of specific attention, it appears reasonable to accept that stimuli placed in the peripheral areas of an individual's field of vision will initially be processed at the hemispheric level, using the relative strategic specializations of each hemisphere.

Evidence of the formation of preference independently of conscious consideration suggests that the consumer need not be able to identify the antecedents or processes responsible. Accordingly, lack of recognition or an inability to recall peripherally presented stimuli may not preclude influences on attitude formation (Krugman, 1977; Davidoff, 1982; Spinger and Deutsch, 1985; Mitchell, 1986; Holbrook and Batra, 1987; Mandler, Nakamura and Van Zandt, 1987; Segalowitz, 1987; Janiszewski, 1988, 1990a, 1990b).

It would appear that preconscious processing of nonattended stimuli is an identifiably separate portion of the overall information processing experience which has the capacity to subconsciously affect the formation of preferences and attitudes. It seems further evident that the proof and extent of this procedure is tied to the differentiated functional capacities of the brain's individual hemispheres.

*Verbal and pictorial stimuli*

It is accepted that almost all forms of marketing communications depend on a combination of verbal and nonverbal elements. Accordingly, a significant amount of research has focused on this phenomenon, particularly in two broad categories: the effects of pictorial messages on memory, and the impact of pictures on consumer attitude. (e.g. Vaughn 1980, Houston, Childers and Heckler 1987, Janiszewski 1990a). There is substantial evidence that pictures are recalled more easily and accurately than words in a wide variety of memory tasks. However, the research in regard to recall and attitude variation has centered almost exclusively on the effects of presentation at the centre of focus.

Picture superiority theory may be explainable by the use of visual imagery as a mnemonic device which is superior to sentence elaboration or rote rehearsal (Gardner and Houston 1986). Logic would suggest that placement of pictorial stimuli in the left visual field, thereby activating right hemisphere processing, will hasten and enhance visual imagery and, perhaps, the recall capability which accompanies it (Hannay and Malone, 1976; Ellis and Miller, 1981).

These findings support the generally accepted hypothesis that the holistic and integrative strategies of the right hemisphere are more suited to the processing of pictorial material while the logical, unit integrative strategies employed by the left hemisphere are better suited to processing verbal stimuli. The implications for advertising arrangements would seem obvious. However, Hansen (1981) and Krugman (1971) maintain that, in low involvement situations, stimulus placement has no effect. Pictorial stimuli, however, do more than enhance memory. They appear to have the capacity to influence attitudes. This is particularly significant for marketers, as attitudes are commonly viewed as a pivotal link to purchase behaviour.

### *Individual differences*

Individual differences in lateral asymmetry have been attributed to factors such as

- Gender
- Age
- Verbal capacity
- Handedness (left or right)
- Differences in cerebral volume

The greatest amount of research into lateral asymmetry has concentrated on gender and handedness. Springer and Deutsch (1985:184) argued that, "from a theoretical standpoint, the significance of sex differences in brain organization is considerable". From a practical research aspect, however, such conclusions remain equivocal (Fairweather,1982).

Considerations of the relationship between handedness and lateral asymmetry are similarly controversial. Glass (1987), for example, cited long established clinical evidence of the handedness/asymmetry correlation, whereas Beaumont (1982:214) argued "...the evidence suggests that in left handers there are no significant biases to either side, and the trends are predominantly in the same direction as the asymmetries of right handers".

### *Processing interference*

Environmental interference with the processing of visual advertising material seems little researched but of vital importance to those seeking to influence consumer behaviour. Research and discussion tends to be based on the tenet that, at any given moment, only a small amount of the stimuli in an individual's environment occupies focal attention. However, a process of continuous environmental monitoring is taking place, providing the potential for interference with the focal task. Further, predictions are deduced about how the preattentive processing of nonattended material may indirectly influence subconscious operations supporting the processing of attended material. Interference tends to be a function of the content of the material accompanying the focal stimulus and its placement in relation to that stimulus (Janiszewski 1990). The interference by nonattended material with the processing of attended material can be seen in two ways:

1. Interference at hemispheric level with hemisphere-specific processing strategies.



2. The disruption of cooperative processing.

In each case, the interference results from nonattended material competing for the sub-conscious resources that would otherwise be dedicated to the processing of the attended stimulus (Obermiller, 1985). Accordingly, disruption would seem likely, especially if the peripheral information is placed so that it directly accesses the hemisphere possessing the appropriate processing function.

### Past Research

The complex array of methodological techniques and theoretical bases adopted by DVF researchers suggest caution should be exercised in interpreting and applying results. The methodological and inferential disparities appear due to one or more of the following.

1. It is evident that much of the research related to hemispheric processing is of a post test nature and lacks the control groups that may otherwise improve the validity of results. (e.g. Holbrook and Batra, 1987).
2. The majority of DVF researchers in the consumer behaviour field used small samples (e.g. McSweeney and Vannieuwkerk, 1985; Gardner and Houston, 1986; Mitchell, 1986; Janiszewski, 1988, 1990a; Allen and Janiszewski, 1989).
3. Subjects were often not adequately screened to eliminate the influence of handedness and prior awareness, although Verhoff (1978) was a notable exception.
4. Some researchers failed to account for the possibility of gender differences (e.g. Schwartz and Kirsner, 1982).
5. Lack of establishment of a distinct focal point rendered attempts at peripheral placement questionable in some experiments (Bradshaw, Nettleton and Taylor, 1981). Similarly, as Janiszewski (1988, 1990a 1990b) noted, failure to accurately define degree of separation from the extremities of the focal task occurred in a number of experiments (e.g. Bradshaw, Gates and Patterson, 1976; Hannay and Malone, 1976; Cotton, Tzeng and Hardyck, 1980).

6. Guise was commonly used in an attempt to reduce primacy and recency effects (Holbrook and Batra, 1987; Janiszewski, 1988, 1990a, 1990b; Homer and Kahle, 1990; Yi, 1990). No researcher, however, used methods such as the Solomon 4-group design, which would seem appropriate.
7. Only one group reported a detailed examination of the robustness of their design (MacKenzie and Lutz, 1989).

The implication of the current state of conceptual disparity and lack of controlled and consistent methodology is that progress in the field of practical DVF applications has been slower than would have occurred with a more focused approach.

### **Hemispheric specialisation models**

In the last twenty years, the simple black and white model of cerebral dominance has been replaced by a more complex model in which differentiated hemispheric strategies play a role in a dynamic and integrated process (Glass 1987:12). The division of models of hemispheric specialisation into fixed structure and dynamic models (Cohen 1982) does not necessarily mean each adopts a philosophically opposed approach. Each is used to address the three major issues in hemispheric processing theory, namely:

1. How resources are allocated between hemispheres
2. How resources within each hemisphere are allocated among the large number of stimuli being processed at any one time, and
3. How the hemispheres share and coordinate their output.

In analysing the influence of non-attended material, Janiszewski (1990:226) advocated the use of the 'cooperative interaction model', which addresses the issues "...from the perspective that much of the information processing does not require a specific response to the environment." The model is based on two assumptions directly related to a dual strategy processing system. Specifically:

1. "The brain is a parallel processor - each hemisphere has its own independent pool of resources.." (Janiszewski 1990:226)

2. Cooperative interaction of the hemispheres and transfer of information enables each hemisphere to enhance the outputs of the other.

While some researchers remain at odds with such an approach (e.g. Beaumont, 1982; Marshall, 1987b; Glass, 1987), Cohen (1982:110) adopts an intermediate approach "a relative specialization model, whereby a given cognitive function is performed preferentially, better, or more efficiently by one hemisphere than another is more consistent with empirical findings." However, empirical findings continue to be controversial. The research suggests a combination of a fixed and a dynamic model could best explain the variability in observed asymmetries. "At the present stage, however, the model is seriously underdetermined." (Cohen 1982:110).

Given this statement, further research seemed warranted. The present study attempted to provide additional insights by addressing the following hypotheses:

- H1: Attitude formation can occur independently of conscious consideration.
- H2: Preconscious processing of hemispherically congruent stimuli influences attitude towards brands.
- H3: Hemispherically incongruent stimulus placement has a greater effect on preconscious attitude formation than does congruent placement.
- H4: Gender influences preconscious processing.

## **The present study**

### *Research design*

Although a number of one-treatment condition experimental designs are immune from threats to internal validity, only the Solomon four-group design gives explicit

consideration to external validity factors (Braver and Braver, 1989; Campbell and Stanley, 1966). Accordingly, this design was chosen for the present research. The design is little used and, as a result, there are few suggestions as to the most appropriate statistical procedure.

Braver and Braver (1989) and Sekeran (1984) attribute the underuse of the Solomon four-group design to the fact that the number of groups is twice that used by other one-treatment condition; conclusions are far more complex as a result of the number of comparisons it permits and there is an inherent uncertainty as to the correct statistical analysis. In addition, comparatively few researchers have displayed an interest in pretest sensitisation.

The following grouping was selected, providing for two distinct applications of the Solomon four-group design for the congruent and incongruent stimulus arrangements:

**Table 1**  
**Experimental Designs**

Classification	Hemispherically Congruent Stimulus Experiment				Hemispherically Incongruent Stimulus Experiment			
	Group	Pretest	Treatment	Posttest	Group	Pretest	Treatment	Posttest
Experimental	1	01	X	02	5	07	X	08
Control	2	03		04	6	09		010
Experimental	3		X	05	7		X	011
Control	4			06	8			012

This design was adopted to establish the internal validity of the experimental technique in view of the potential primacy and recency problems of the pretest/posttest method. The congruent/incongruent groupings were necessary to test hypotheses 3 and 4.

*The sample selected*

A total of 180 subjects were recruited from students at a large Australian university, using a lottery type incentive. Students were allocated to groups of thirty on a random basis, except that each group had equal numbers of males and females to enable testing of the gender based lateralisation hypothesis. Eligibility for participation also included the requirement that all subjects be right handed, that there be no evidence of left handedness

among parents or siblings, that they had normal (or corrected to normal) eyesight and no prior knowledge of the basis for the experiment.

*Apparatus and procedure*

The experiments used a pretest/treatment/posttest process. Pretests and posttests included self administered questionnaires, while the treatment involved exposure to video images on a television screen. Guise was employed in both the questionnaires and the treatment (e.g. Holbrook and Batra, 1987; Janiszewski, 1988, 1990a, 1990b; Homer and Kahle, 1990; Yi,1990) in an attempt to counter experience, primacy and recency effects. Products not the subject of the treatment, were included, and the order of both questions and brand listings were altered between pretest and posttest. Separate questionnaires were used for pretest and for posttest measurement, each comprising questions about five separate product groupings. For each grouping, only one of the five brands considered by the subject was represented in the treatment. The balance provided guise for the purpose of the experiment. Seven point bi-polar scales were employed throughout.

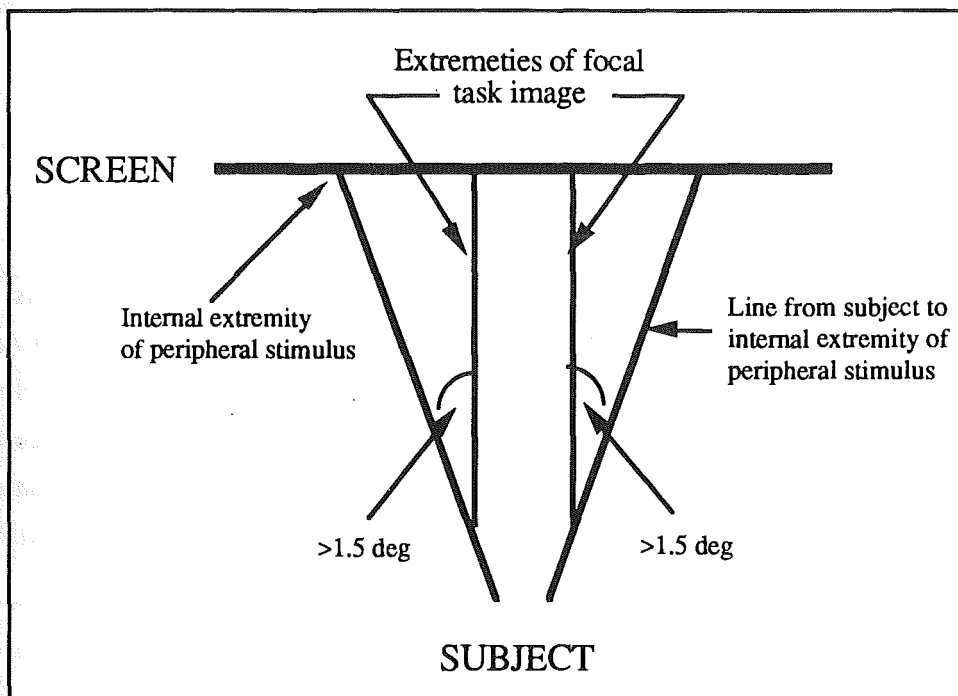
Guise was further employed in the treatment. Subjects were instructed that this phase involved perceptions of "value-for-money", and they were asked to nominate a choice from among five price and volume combinations (in similar format to that seen on supermarket shelves) displayed vertically in the centre of a television screen. At the same time, advertising stimuli were presented in the area of the subject's peripheral visual field. Two stimulus arrangements were used, dependent on the group to which the subject was assigned. An illustration of the screen arrangement appears as Appendix I.

To provide an arrangement congruent with hemispheric processing specialisation, a pictorial stimulus was presented in the Left Visual Field (LVF) and verbal in the right. This arrangement was reversed for the second four groups to provide an incongruent array. Each combination of verbal and pictorial stimuli were complementary and material from actual advertisements was employed. For example, one stimulus showed an American Express Card and its complement, the slogan: "Don't leave home without it" in opposing visual fields.

Limited exposure time (20 seconds) established in one of the pilot tests, forced concentration on the focal task to reduce problems of perceptual drift. An adjustable chin rest /head restraint device was constructed and used to accurately place the subject at a pre-determined distance from the screen, thereby validating the advertising placement position

beyond 1.5 degrees either side of the central focus. The nature of the restraint device physically discouraged head movement. To further enhance the accuracy of the subject/stimulus relative placement, the peripherally displayed stimuli appear beyond a two degree angle subtended by lines drawn between the subject and the outer extremity of the central task and the inner extremity of the stimulus as illustrated below. Exact distances were contingent on the screen size and were calculated algebraically based on the angles known and the screen width as shown in Figure 1.

Figure 1 : Subject/Stimulus placement



Proportionately sized monochromatic screen images were prepared and recorded on video tape capable of executing exposure times to within 1/100th of a second. Each subject was exposed to a series of five display screens, each of which peripherally displayed advertisements for a single brand from within each of the five product groups.

## Data analysis

In view of the lack of prescribed analytical techniques for the Solomon four-group design, two distinct forms of analysis were used to determine the existence and significance of treatment effects within this experimental design as follows:

1. 'E'-Scores (Sekaran, 1984)
2. Meta-Analysis of parametric techniques

The flowchart, which appears in Appendix II, shows the steps employed in the analysis. The steps in the Meta-Analysis are numbered to facilitate interpretation of the result summaries.

## Results obtained

Outcomes of the application of the 'E'-score tests resulted in inconclusive results, largely due to the inherent lack of sensitivity of this technique. In contrast, the Meta-Analysis provided the most interesting and conclusive results. These are summarised below on a stage by stage basis. Individual experiments are eliminated from the testing process at the stage where significant treatment effect becomes evident. The balance are retained for further analysis employing progressively more powerful techniques, as outlined in Appendix II.

TABLE 2  
Congruent stimulus experiments

Congruent Stimulus Experiments				
	Testing Stage	Individual stimulus experiments retained for further analysis	Experiments excluded on conclusive evidence of treatment effect	Comment
ALL	1	ALL	N/A	No significant pret/treat interaction
	2	ALL	N/A	Noted for AMX and CHL
	3	AMX, BUD, CHL		AMX retained due to pretest sensit'n
	4	AMX, BUD, CHL		
	5	BUD, CHL	AMX	
	6	CHL	BUD	Residual: CHL
MALE	1	ALL	N/A	No significant pret/treat interaction
	2	ALL	N/A	No significant effect
	3	SIA, PHL, CHL	AMX, BUD	
	4	SIA, PHL, CHL		
	5	SIA, PHL, CHL		
	6	SIA, CHL	PHL	Residual: SIA, CHL
FEMALE	1	ALL	N/A	No significant pret/treat interaction
	2	ALL	N/A	
	3	ALL		
	4	ALL		
	5	ALL		
	6	ALL		Residual: All

Note: Basis for retention/elimination is significance at .05 level



TABLE 3  
 Incongruent stimulus experiments

Incongruent Stimulus Experiments				
	Testing Stage	Individual stimulus experiments retained for further analysis	Experiments excluded on conclusive evidence of treatment effect	Comment
ALL	1	ALL	N/A	Interaction signif. for AXM only
	2	ALL	N/A	Pretest sensit'n significant for CHL
	3	AMX, CHL	SIA, PHL, BUD	AMX, CHL retained due to above
	4	AMX, CHL		
	5	BUD, CHL	AMX	
	6		CHL	Residual: Nil
MALE	1	ALL	N/A	Interaction signif. for AMX only
	2	ALL	N/A	No significant effect
	3	SIA, AMX, CHL	PHL, BUD	
	4	SIA, AMX, CHL		
	5	SIA, CHL	AMX	
	6	SIA, CHL		Residual: SIA, CHL
FEMALE	1	ALL	N/A	No significant pret/test interaction
	2	ALL	N/A	Significant for CHL only
	3	CHL	SIA, AMX, PHL, BUD	CHL retained due to above
	4	CHL		
	5		CHL	
	6			Residual: Nil

Note: Basis for retention/elimination is significance at .05 level

ANOVAs were used to provide insight into the possible existence of pretest/treatment interaction, and subsequent main effects tests to enable the individual significance of each to be quantified. 2 x 2 ANOVAs were undertaken on posttest scores. The factors were the presence or absence of treatment and presence or absence of pretest. For congruent

stimulus arrangement experiments, the absence of significant pretest/treatment interactions was encouraging. The main effect for pretest was noticeably absent for males at either level, but evident for females at the 0.10 level. Significant treatment effects were evident for aggregate groups on three products at the 0.05 level and on four at the 0.10 level. Of the gender based subgroups there was a marked absence of treatment effect for females, while males displayed effects on a smaller number of products than the aggregated group. The absence of interactions in those cases where a main effect for pretest is present, indicate that, while pretest sensitization may be present, it enhances the treatment effect.

The results for incongruent stimulus treatment groups contrasted strongly with those of the congruent stimulus groups. Although some pretest/treatment interaction was evident for one product, this did not correspond to the product for which the main effects test for pretest reached significance at the 0.05 level. Treatment effects were significant across all products for the aggregated sample and the female subgroup, and evident in respect to three of the five products for males.

The absence of treatment effects on the Singapore Airlines (SIA) and Challenge Bank (CHL) stimuli was the same for males in both congruent and incongruent stimulus experiments. Conversely, female responses display disparate results, with incongruent treatment groups showing significant effects, while the congruent groups failed to reach significance at either the 0.05 or 0.10 levels.

ANCOVAs were subsequently performed on both the congruent and incongruent stimulus arrangement experiments. Pretest scores were co-varied on posttest scores with treatment as the factor. The results showed a failure to reach significance in each case at the 0.05 level perhaps indicating that previously detected treatment effects were attributable to within-groups variance. However, such a conclusion at that point was considered premature, given the failure of the ANCOVAs to account for those groups which were not pretested.

Accordingly, a t-test was used to test those remaining groups for evidence of treatment effect in the absence of a pretest. Some evidence of treatment effect was identifiable for aggregated subject groupings in both congruent and incongruent stimulus experiments. Male subjects displayed an effect for the same stimulus in each experiment, although with a marginally higher significance for the incongruent stimulus arrangement. Perhaps most notable, was the number of significant results for female subjects under an incongruent

stimulus arrangement compared with a total absence of significant effects on the alternative arrangement.

Having performed stand-alone analyses on the first and second (pretested and not pretested) pairs of groups in each experiment it was necessary to enhance the power of these individual analyses through a technique that combined them into a format that tested all four groups in each experiment simultaneously. In doing so, it was anticipated that such a technique would provide greater statistical power than the individual analyses.

A Meta-analysis combines tests, for treatment effect, of all groups in each experimental category. Evidence of treatment effect for the aggregated groups in the congruent stimulus experiment was significant for three of the five stimulus treatments at the 0.05 level. However, males displayed significant attitude change for only two of the treatment stimuli. Notably, females displayed no significant effect as a result of exposure to this stimulus arrangement. These results provided a stark contrast with those for the incongruent stimulus experiment. Significant treatment effects were evident in respect to all stimuli in the aggregated groupings and for three of the five for the male subgroup. In evidence of stimulus arrangement impact, the female subgroup has significant results for all stimuli, in contrast with the results for the same subgroup in the congruent stimulus experiment. Alternative outcomes at significance levels of .10 and .01 reflected the same trends.

#### *Examination of specific hypotheses*

**H<sub>1</sub>: Attitude formation can occur independently of conscious consideration.**

Initially, it is important to assess the likelihood that conscious consideration of the peripherally presented stimuli was precluded. Arguably, this was achieved through the combination of the experimental techniques employed. Of prime importance, given acceptance of the divided visual field paradigm, is the placement of the stimuli in relation to the centre of subjects' focus. As explained, accurate measurements were used to ensure that stimulus placement was in excess of two degrees either side of the extremities of the foveal task as viewed by the subject. Physical restraint of each subject's head further restricted conscious attention to the stimuli. To limit perceptual drift, a focal task of

considerable complexity was required to be performed within a highly restrictive time allowance.

Disregarding for the moment, the congruence of stimulus placement, statistically significant evidence of attitude formation or alteration is provided in the results of the meta-analysis. Collectively, these conditions could be viewed as providing support for this hypothesis.

**H2: Preconscious processing of hemispherically congruent stimuli influences attitude towards the brand.**

Given that the treatment stimuli were processed preconsciously there is some statistical evidence of influence on attitude where a hemispherically congruent arrangement was used. This is illustrated in the meta-analysis. However, it is reasonable to eliminate the Budget Rent-A-Car (*BUD*) stimuli experiment from the aggregated group as its significance appears to be the result of the compounding of the gender sub-groups' scores, which just failed to reach significance at the 0.05 level. Influence on attitude is restricted to two of the five experimental stimulus pairs for a hemispherically congruent arrangement.

While this appears to lend support to Janiszewski's (1988) contention, insufficient evidence was provided by the experimental results to justify unqualified acceptance of the hypothesis or, any degree of generalisation of the results. At best, it could be concluded that, at the 0.05 level, the hypothesis holds specifically for the American Express (*AMX*) and Philips (*PHL*) stimulus pairs, and no others. This reduces to one product at 0.01 and no products at 0.001 levels respectively.

**H3: Hemispherically incongruent stimulus placement has a greater effect on preconscious attitude formation than does congruent placement.**

Substantial support for this hypothesis is shown by the results of the meta-analysis. This is evident both in the aggregated group and the gender-based subgroups and provides evidence contrary to Janiszewski (1990). In supporting the hypothesis, this outcome also contradicts the contentions of Krugman (1971) and Hansen (1981) that stimulus placement has no effect on the extent of attitude change caused by exposure. It appears that there is evidence upon which to base acceptance of this hypothesis, within the limitations of the experiments undertaken.

**H4: Gender influences preconscious processing.**

Insofar as the effects of preconscious processing are seen in changes in attitude towards individual products, the results of the meta-analysis display marked gender based differences. Reference to the results revealed a marginally greater effect of the incongruent arrangement for males, perhaps indicating a less pronounced asymmetry under conditions of low involvement; a characteristic ascribed to females by Ray (1987).

For females, however, the results provide a striking contrast with those of the male subgroup. A complete absence of preconscious processing effect is evident under conditions of congruent stimulus arrangement, whereas results for all experiments conducted with incongruent arrangements achieved statistically significant results at the .05 level (and four of the five at the .01 level). Such results provide support for Glass's (1987) theory that lateralisation is strongly correlated with gender, a view supported by Annett (1982), Springer and Deutsch (1985) and Segalowitz (1987), but disputed by Fairweather (1982). The distinct contrast in outcomes for gender groups appears to provide support for the hypothesis that differences in preconscious processing effects are, at least partially, gender based.

## **Conclusions**

The hemispheric processing of peripherally presented stimuli has its locus in the exploitation of the divided visual field (DVF) paradigm. The stimulus in each visual periphery is processed contralaterally, at least initially, by the individual hemispheres. In addition, the individual hemispheres are attributed with distinct processing styles or capabilities which facilitate specialist decoding of stimuli dependant upon format. Further, if conscious consideration is neither facilitated nor required, any change in attitude that is attributable to exposure can be deduced to have been effected preconsciously.

The assumption arising from this is that stimuli which are congruent with ascribed hemispheric processing strategies and presented in the appropriate contralateral visual field will be subject to rapid unencumbered processing. Accordingly, it would seem reasonable to assume that, if stimuli were to be recalled or affect a subject's beliefs or attitudes in the absence of conscious consideration, a hemispherically congruent presentation would have the most significant impact (Holbrook and Batra, 1987; Janiszewski, 1988).

Notwithstanding support for the concept of preconscious processing effects, the current research has indicated that, under conditions of limited exposure, incongruent stimulus arrangements have greater effects on attitude than the preceding logic would indicate. Stimulus arrangement appears to be a pivotal determinant of the strength of preconscious attitude change under conditions of low involvement processing.

Gender has similarly been shown to be a highly influential variable. This is particularly evident in respect to the results for females, which, when contrasted with the results for males, gives rise to three possible explanations. The first is the possibility that, given the brevity of stimulus exposure, the strength of laterality in males degraded the treatment effect of the incongruous stimulus arrangement. The lack of significant effect under congruent stimulus arrangement, however, tends to negate this possibility. A second possible explanation lies in the concept that, in comparison to males, females are neutrally lateralised (Ray, 1987) and, therefore, likely to reflect substantial treatment effects irrespective of stimulus arrangement. The complete absence of effect under conditions of congruent stimulus arrangement, however, would appear to refute such an explanation but give rise to speculation that a reverse hemispheric specialisation may be present. This interpretation is supportive of Segalowitz's (1987) findings but contrasts with many contemporary views (e.g. Fairweather, 1982). Third is the possibility that post-exposure cooperative processing occurs with greater facilitation in female subjects than in males. Alternatively, the associative pathways established by females in cooperative processing of relatively complex focal tasks, may better facilitate a parallel process for the decoding of the peripheral stimuli. This explanation would be further supported if it was shown that the demands on the resources of the left hemisphere in decoding complex mathematical comparisons reduced its capability for interpretation of stimuli in the right visual field.

## Implications

Evidence suggests that it is possible to influence consumers' attitudes without their conscious consideration or, for that matter, without their ability to identify the antecedents to that change. Under conditions of limited exposure the extent of influence is affected by the placement of the verbal and pictorial components of advertisements within peripheral visual fields. From a theoretical perspective, this suggests the individual cerebral hemispheres are endowed with unique processing strategies.

From a practical perspective the findings may be significant. The effectiveness of television or theatre advertising, for example, where exposure conditions are under volitional control, may be enhanced through placement manipulation. Further, where there are a predominance of female consumers, it may be beneficial to design advertising layouts in specific recognition of their apparent processing characteristics.

Careful advertising stimulus placement at point-of-sale may enhance opportunities to redirect choice or encourage impulse purchases. The appropriate placement of verbal and pictorial components of a hire car advertisement behind an airline counter, for example, may influence the choice of car hire firm, or elicit a decision which would otherwise have been postponed. Similarly, the ability to create a point of focus with supermarket displays may enable the accurate placement of advertising stimuli so that attitude toward the promoted brand can be favourably altered. Such opportunities, though, would have to be considered in the light of the interrelationships between advertising stimulus complexity, focal task complexity and exposure time.

From a theoretical perspective, the results of this study may have implications for Fishbein's Multiattribute Model (Fishbein and Ajzen, 1975). While it remains undetermined whether the measured effects of the treatment in each experiment are the result of influence on attitudes alone, or on the beliefs that are the theorised antecedents to that attitude, it is possible that preconscious processing effects are an intervening variable between the two. If this were the case, it would seem to imply some degree of causal independence between these aspects of the model. Alternatively, preconscious processing effects may be affective in nature and not replace but merely intervene, without affecting the cognitive component of attitude which the model attributes to beliefs. It may be reasonable, however, to hypothesize that the preconscious processing effect is evident in the affective component of attitude, and therefore reflected in an aggregate measurement as an intervening variable. It is possible that an additional recursive affect on beliefs is initiated by its influence on the affective component.

### **Future research directions**

A number of opportunities for future research emerged from the current study. Parallel studies using low involvement products could provide a broader perspective to the

applicability of the present research, allowing generalisations from point-of-sale to point-of-impulse purchase. A further potential enhancement lies in the use of the same stimuli and placement arrangements in a variety of media, thereby enabling the allocation of a weighting to each medium in relation to its ability to capitalise on preconscious processing effects.

The introduction of colour and the measurement of its effect in conjunction with placement effects under varying exposure times, could provide insight into the effectiveness of colour. The investigation of the interaction of colour and placement effects may also provide additional support for theories of hemispheric specialisation.

Variations in the complexity of both the focal task and stimuli and their respective impacts on treatment effects may have implications for advertising copy and the need for designs which reflect an understanding of situation-specific exposure times. It may also highlight threshold levels of complexity beyond which the necessity for cooperative processing negates the potential of individual hemispheric specialisation.

If future research is to incorporate investigation of placement effects on behavioural intention, it should be dealt with by a more comprehensive approach. Finally, out of the data analysis an opportunity arises to develop modifications to Sekaran's (1984) 'E'-score procedure to broaden its applicability and flexibility in the detection and measurement of treatment effects. Not only would such an advance simplify the analysis of Solomon four-group experimental designs but may advance the use of this design to the benefit of researchers seeking greater accuracy and internal validity in pretest/posttest situations.



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# Appendix I: Screen Layout



A
0 .3 1
for
14

B
0 .5 3
for
25

C
1 .2 1
for
60

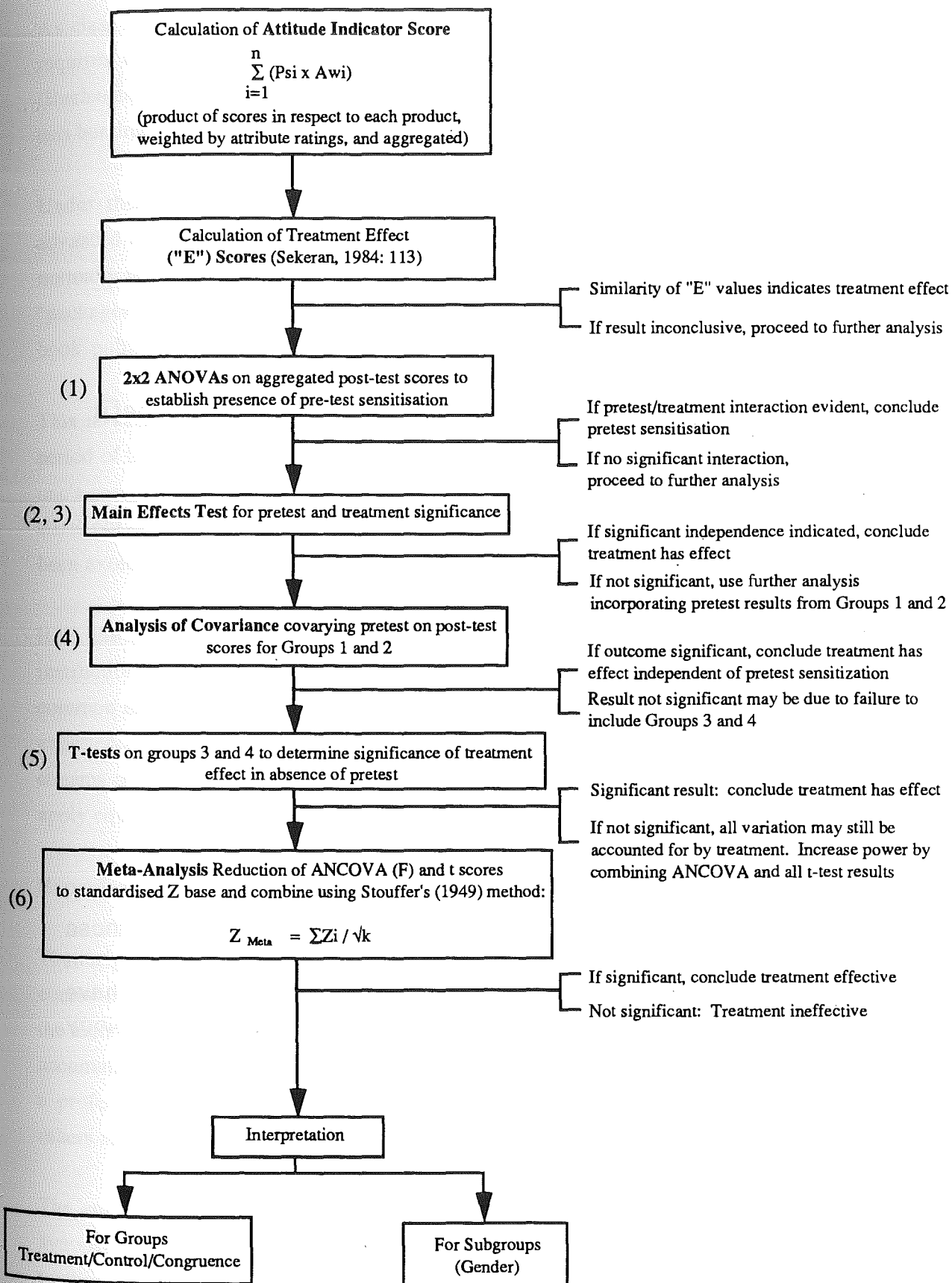
D
0 .8 8
for
45

E
0 .1 2
for
5

GO WELL  
GO SHELL

## Appendix II

### Flowchart: Analytical Methodology





MEDIA  
OR  
*MONSTER?...*

--some simple rules for gaining the maximum benefit  
from the use of teaching technology.

as submitted by:

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**Massey University**

**Palmerston North**

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**ABSTRACT**

This paper is intended to provide some general guidelines for those contemplating the possible use of technology in their teaching. It provides useful insights gained from hard experience which have proved useful in getting the fullest benefit from any technology employed.

## INTRODUCTION

As class sizes escalate, those teaching them often find that maintaining student interest requires a drastic change in teaching methods. As mentioned in a previous paper (Buchanan, 1990), standing up in front and delivering small-class lectures to audiences of two hundred or more just does not work!!

Under these circumstances, it frequently occurs to the instructor that some sort of advanced teaching technology might be helpful, and some will inevitably be tried. What normally happens first is that the instructor will "wet his/her feet" by using some existing "packages" (over head transparencies, slides, movies, etc.) that are often provided by book publishers.

This is usually enough to arouse the instructor's interest. And, it is normally a short period of time before someone decides that what should really be done is to try designing one's *own* materials. With more enthusiasm than wisdom, the neophyte media producer starts out on a journey which normally encounters a number of pitfalls that could have been avoided with only a little fore-thought.

It is the intention of this paper to help those contemplating the development of instructional technology to gain the maximum benefit from it by avoiding the most common mistakes. As such it is hoped that they (and others) will be encouraged by their experience. Although this author's teaching experiences are primarily focused on large streams of the introductory marketing course, the recommendations made could probably apply equally well to any user of advanced teaching technology.

### Experiential Base

The insights provided by this article come from two main sources. One is a doctoral level course of study in the field of Instructional Development and Technology completed by the author during his graduate programme. The second is approximately twenty years of accumulated experience in both using technology assisted teaching and (in his capacity as a professional speaker to industrial conferences and meetings) watching himself and others struggle along with mediated tools.

The emphasis will therefore be less on carefully documented research, and more on a synopsis of what seems to be useful advice that goes beyond what may be written in textbooks. The insights discussed are not an all-inclusive list, but consist of those tips

which seem the most likely to help others master this "monster" of mediated technology.

### **Definitions**

Defining just exactly what "instructional technology" is represents something of a problem. It is normally taken to mean anything that is used for instructional purposes other than the instructor's voice. As such, at a ridiculous level, even a piece of chalk and a black board could be said to represent the use of *some* form of media. However, (with the exception of not having chalk or an eraser!) this low tech equipment is unlikely to cause serious problems. As far as this author is concerned the only serious difficulty he has seen have involved technologies that (at a minimum) required some sort of *electricity* to work. So, the media discussed by this paper will be defined as embracing only those types which require an electrical supply for proper functioning.

This definition is broad enough to include the simpler forms of technology (over head transparencies), as well as more sophisticated media, such as television, movies, computers, etc. For the most part, all of the following suggestions apply equally well to most technologies. But, for some specific media, there may be some cases in which the advice given may not be appropriate.

### **Tip One: Teaching Technology Is Very Expensive**

Few people appreciate how much time, effort, and expense is required to construct a piece of teaching apparatus. The technical excellence needed frequently requires the employment of expert assistance and costly equipment. Beyond that, simply co-ordinating these specialists (even if budget can be secured) is very expensive. As a rule of thumb, **for every minute a technology is to be used in front of a class, it usually takes one day (at least) of someone's time to co-ordinate the production of the item under consideration.**

Because of this fact those developing instructional technology should try to get their administrators to recognise that it can be equally as time consuming as developing an all-new course. And, quite a bit of financial investment may also be required.

This over-riding consideration of expense, though daunting, should not discourage people from trying. As shall be discussed later, there are ways to take "short cuts" that can make the costs managable. However, the fact that mediated technology is likely to be much more expensive than an instructor alone provides a useful back drop for many of

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the insights that follow.

**Tip Two: Never Do Anything With Technology You Could Do Just as Effectively Without It.**

People who use technology are often prone to falling in love with either the equipment or the thrill of using it. As such they can often waste enormous amounts of resources on mediated apparatus that doesn't do a particularly good job just because it seems either glamorous or likely to be "fun". This is a bad idea on several counts.

One is that it exposes the user to needless risk of equipment failure. There are few people using technology who cannot relate horror stories of being left in front of a group of people with nothing to do because something broke down. Any time mediated resources are other than the most basic, there is always a risk involved. Why take it if there is nothing to be gained?

A second is that students can often sense if a teaching medium is inappropriate. If they can't figure out why the presenter went to so much trouble to do something simple in a complicated way, they have a tendency to become very critical of whatever is done. This is not helpful.

Last but not least, administrators tend to be distrustful of large investments in mediated technology which has little apparent pay-off and/(or) seems to harm the instructional process more than it helps it. It takes only one disaster for administrators to deny any further requests for the resources needed to adopt a mediated approach. This leaves everyone worse off.

In order to avoid these problems, it may be useful before undertaking any technology development to ask, "Why am I doing this?" and "Is there a simpler way?" As a part of assessing these questions, it may be useful to conduct what one media specialist calls a "Cost/Benefit Analysis". What this means is that, before committing significant funds to any construction of media, someone should ask, "Would a reasonable person agree that the teaching of material under consideration will be improved enough by the proposed technology (versus traditional approaches) to justify its costs?"

It is best to be hard-headed when such an analysis is made. Just stating that a mediated approach would have a more powerful impact is not enough. "How much more powerful?" is the issue, and be sure to offset this positive with some sort of expected

value approach to an alternative disaster. Conducting such an analysis can be made much easier by applying a systems approach to any project being contemplated.

**Tip Three: Use A Systems Approach to Develop Instructional Materials.**

Exhibit one shows a simple Instructional Development Model that can avoid many of the pitfalls of instructional design. Its three step process involves 1) identifying the instructional problem, 2) developing the technology to be used from available resources, and 3) evaluating the "finished products" against the original objectives.

Although those using technology may not follow every step of this model "to the letter", even using its spirit and outline can help to avoid some very real problems.

**Tip Four: Maximise Use of Existing Resources**

As a part of the instructional development model, one is instructed to determine what resources may be available. This is a useful way to keep costs down. Sometimes the resources available are surprising.

Some institutions may have an "Instructional Development Office" that has budget (and sometimes specialists) who can be very helpful. Failing this, others may have an "Instructional Television" department that is likely to have tv equipment, graphic artists, and sound/video studios at their disposal.

Polytechnics and universities often have graphic arts departments with students that are quite willing to help out on "real life" projects they need to develop their portfolios. And, most colleges or faculties of education have "Instructional Resource Centers" or "Media" centers that may have needed equipment and materials. Add to these the hordes of computer specialists scattered through most campuses, and one can usually find someone somewhere with the needed skills and equipment to get most jobs done.

Although all of these can help offset the cost of instructional development, it can't completely eliminate it. Therefore, it is important to make sure that the results justify any expenditures involved.

**Tip Five: Keep It Professional.**

People today are full fledged members of what has been termed the "media generation". They have spent thousands of hours in front of television sets, computers, etc. and are

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therefore quite knowledgeable as to what constitutes technical expertise.

They can quickly spot shoddy production values--and will. Once they spot something deficient, they are quick to comment (sometimes quite vocally--while it is running!!), and deride both the inadequate item and those who use it. They will also be likely to extend this lack of respect to everything else the instructor has to say, and "turn-off" to both the failed technology as well as the entire message.

Presenters who face this situation often can get quite "huffy" in defending themselves with a statement like, "What did they expect?--obviously I don't have the resources of Hollywood at my defense!". This defense clearly misses the point.

The resources at the disposal of the presenter are not the students' problem. They have a tendency to figure that if the instructor wishes to gain from them the benefits of a mediated presentation, then he or she had better be prepared to spend the resources necessary to get it "right". The standards of excellence to be used in evaluating any item are therefore (inevitably) a comparison with commercial productions.

Because of this reality, a useful decision rule for evaluating any technology would be to ask, "Would this item compare well with commercial (e.g. theatre, television, etc.) efforts of a similar nature?" If the answer is "no", the item may still be useful (as it may compare acceptably with the relatively non-existent efforts of other instructors). But, it won't be as useful as it would otherwise be, and could actually be a step in the opposite direction.

Of course, production values are not the only way to go "wrong". A still more basic (and common) cause of failure is to have a good piece of software, but be let down by the failure (or non-existence) of delivery hardware.

### **Tip Six: Keep It Simple**

Obviously, if the necessary delivery hardware (e.g., video projectors, slide-tape equipment, etc.) is not available, instructional software cannot be used no matter what. Beyond that, the abilities of instructors to use delivery systems can be quite limited, and they are often reluctant to try anything new. Last but not least, even if the equipment is present, and someone can operate it, there is always a fair chance that it may not work.

Because any of these eventualities mandate the total loss of any investment in technology, it is important to minimise the likelihood of their occurrence. The best way to do this is to

keep any delivery hardware as simple and reliable as possible. What this generally means is that creators of teaching technology should begin by choosing hardware that; 1) is as user-friendly and cheap as possible, and 2) within the category concerned is the make or model of choice in the region (e.g., there are regional preferences with regard to vendors/formats).

Obviously, if an instructor is willing to go to all this trouble to design instructional materials, it behooves him/(her) to gain the maximum benefit from it. Doing so requires a careful following of Tip Seven.

**Tip Seven: Avoid "Dating Any Instructional Materials"**

Because instructional technology is so expensive, it is important that the maximum use be made of it. One good way to extend its life is to be careful not to include any items that are easily identifiable as being more than about three-four years old (e.g., the maximum "life" of most textbook editions). If something looks older than this, students will usually ridicule or ignore it. But, if the technology produced is relatively timeless, instructors may find that they can build up an impressive array of materials--even if only one new item per year is constructed.

Keeping items from dating usually requires; 1) avoiding the use of any topic of only passing interest (e.g., "Theory K", etc.), 2) featuring the use of items of fashion (clothing, automobiles, etc.) that one can easily see are outmoded, and 3) using prices that will go quickly out of date (e.g., it is more timeless to say, "five figure selling price" than "Nineteen thousand dollars").

If all the preceding suggestions are kept in mind *before* any technology is created, the finished product should be as productive as possible. However, once an item is created, knowing how to best use it can make the entire educational process still more productive.

**Tip Eight: Make Any Technology Part of An Over-All Educational Plan**

Some instructors will create or secure a brilliant piece of teaching technology, and then simply "throw it" into their lecture without any prior introduction or subsequent follow-up. This is seldom a good idea, as the students may (at worst) find the introduction of the un-needed item distracting and (at best) may sit back and enjoy it

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without learning anything.

It is vital that any instructional technology be seen as one part of a larger plan intended to teach students something. As such; 1) its purpose should be explained to them prior to its use, 2) its points of learning should be summarised after its use, and 3) some parts of the assessment mechanism should relate to it.

One thing that should not be over-looked when planning the use of instructional technology (particularly in a large-class setting) is that its objectives may be more than educational. An equally important aspect of technology is its novelty/entertainment components. These are often not seen as all that "respectable", but are absolutely essential to large-class settings if boredom is not to set in.

Assuming that all the preceding has been done, the items produced should be as useful as they are ever likely to be. But, this is only half of the battle. The other half is making sure they actually function "on the day".

**Tip Nine: Be As Careful In Using Technology As You Should Have Been in Producing It.**

The number of disasters that have occurred in attempts to present well produced technology are enough to make a media specialist weep. However, most equipment failures could normally have been prevented if only a few basic precautions had been taken. These are as follows:

Be Wary Of Using Other People's Equipment.

The likelihood of something going wrong seems to explode exponentially if someone else's equipment must be used. Often this unowned equipment may be in a dubious state of repair, may be inappropriate to the intended audience (e.g. a "postage stamp screen" for five hundred people), incompatible with the user's software, or particularly incomprehensible to operate. Assurances to the contrary are so likely to be fraudulent that this paper ranks them right up there with "the check is in the mail" among life's great falsehoods!!

The one exception to this rule is if the venue to be utilised has a cadre of either permanent or temporary media specialists on hand to assist in mediated presentations. These people generally know what they are doing and have the best equipment available. However,



their quality can vary from that of a trained specialist to "someone who helped show slides (once)!". This variability in quality makes the need for the next suggestion more apparent.

#### Always Check Out a Venue/Equipment Prior To Its Use

It is wise to personally inspect a venue prior to its first use sufficiently in advance for any needed changes to be made. These changes can vary all the way from moving a screen to the center of the room, to demanding new specialists/ equipment, to finding another venue altogether (e.g., this paper's author was once booked into a leaking circus tent during a rainy season because the auditorium was unavailable!). Beyond this, making sure that equipment is plugged in, switches on as desired, and is arrayed in a manner not hazardous to life and limb is frequently necessary. With regards to these last issues, packing spare extension cords and masking tape is a universally useful precaution to keep from either not having any power or being tripped up once it is connected. When these preparations are complete it is now necessary to see if the available hardware will actually function with the software prepared.

#### Always Run Technology Through A Complete Operating Cycle Prior to Student's Arrival

"One hundred percent reliable" software can mysteriously pick up "glitches" between its last use and the next one. Sources of these problems range from mischievous colleagues (inserting extraneous slides of naked people is a big favourite in some circles) to errant bursts of energy that can ruin computer programs or video cassettes, to simple dropping of fragile items like projector carousels (thereby scattering generally un-numbered slides all over the floor!).

Whatever the source, an ounce of precaution is worth a pound of cure. And, the only way to be reasonably confident of any technology is to run it through a complete cycle immediately prior to use. It is imperative that this test run take place prior to audience arrival, as being exposed to the workings of technology prior to its use seems to detract from its dramatic impact and appeal. Getting the most benefit from this rule will only occur if it is rigorously applied along with the next one.

#### Don't Take Your Eyes Off the Equipment Once You Know It Is Working

Keeping this rule normally means that the run-through implied by it will take place on the

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*same day* as the presentation. This is always a good idea (particularly if you have also run it through the night before to make sure that the necessary equipment is available in time to order it if it is not). To do otherwise takes the chance of resources available the night before not being there in the same format "on the day".

It is also important to understand that this rule is to be taken quite literally. If you don't stand within less than 30 cm of the equipment once you know it is working, someone (invariably) will come along and change the conditions under which it is operating--and this will cause it to fail later. These changes may be accidental (e.g., someone bumps into a projector knocking it over or out of alignment/ steps on an extension cord--thereby unplugging it/ or knocks over a screen, etc.) They also can be quite deliberate. People love to "fiddle" with technology and may find playing with it almost irresistible. They rarely put it back in the way it needs to be as they almost never know the sequencing (etc.) involved. Be firm in protecting your equipment. It is better to be thought paranoid than be left standing with egg on your face following a preventable disaster.

Because simple probability means that such disasters may happen no matter what you do (e.g., "Acts of God" take on personal relevance when you use technology!), it is important to plan for them in advance.

#### Thoroughly Understand All Aspects of Equipment Operation to the Point It is Second Nature

If you (or someone intimately involved with your presentation) are not personally familiar with all aspects of any equipment to be used, it is this author's advice that you forget about using it. To do otherwise puts you at the mercy either of "experts" in the class who rarely know anything and frequently do more damage than good--or technicians who may or may not know more than "plugged in...turned on...should work"!!

Furthermore, somebody close to the presentation needs to have this knowledge to the level that "they can do it in the dark". Instructional technology often involves (at best) dimly lit rooms to be functional. Once familiar controls can look very alien under these conditions--and of course they also preclude madly thumbing through an instruction manual--while students hoot in the back-ground!

Sometimes, despite everyone's frantic efforts, nothing will make it work. At such times it is important to know the last rule.

### Know When To Give Up and Use an Alternative

Any "glitch" lessens the dramatic use of technology, and probably cancels out most of its usefulness. So, in general, **if any technical problem cannot be solved within about two minutes**, it seems to be best to employ some alternative. Going longer than this rarely sees a problem solved, and so much interest is likely to be lost that it may totally destroy an entire learning situation. "Breaking" to get the technology working not only destroys everyone else's schedule, but also doesn't seem to recoup the situation as the "surprise" and drama is now lost forever.

Therefore it is vital that, at every point in a presentation where technology is to be used, you ask yourself, "What would I do if the technology failed?" Sometimes you can use a medium similar to the one that has failed (i.e., flip charts or a whiteboard can approximate transparencies to be used with an OHP that has "died", etc.). Or, it may suffice to simply apologise and summarise what the failed technology was supposed to have done. If this occurs don't despair!! Classes are very understanding of such events (they have often seen them before!!). And, they will usually be quite patient as long as you don't annoy them by wasting their time (repairing technology) to produce an effect that is now irretrievably lost. Just get on with it. Keeping that thought in mind may help with the final conclusions of this paper..

### **Summary/Conclusions**

Following all of these negatives, some readers of this paper may feel totally dis-inclined to try using any technology at all. If so, they have completely missed its point. The use of advanced teaching technology *can* have many pitfalls. This paper has summarised most of them--and how to keep them from happening. Now that this is known it should be possible for potential media users to avoid most problems and therefore master this "monster". As a user of number of teaching technologies over many years, this author can report that the results from employing teaching technology are well worth the efforts involved.

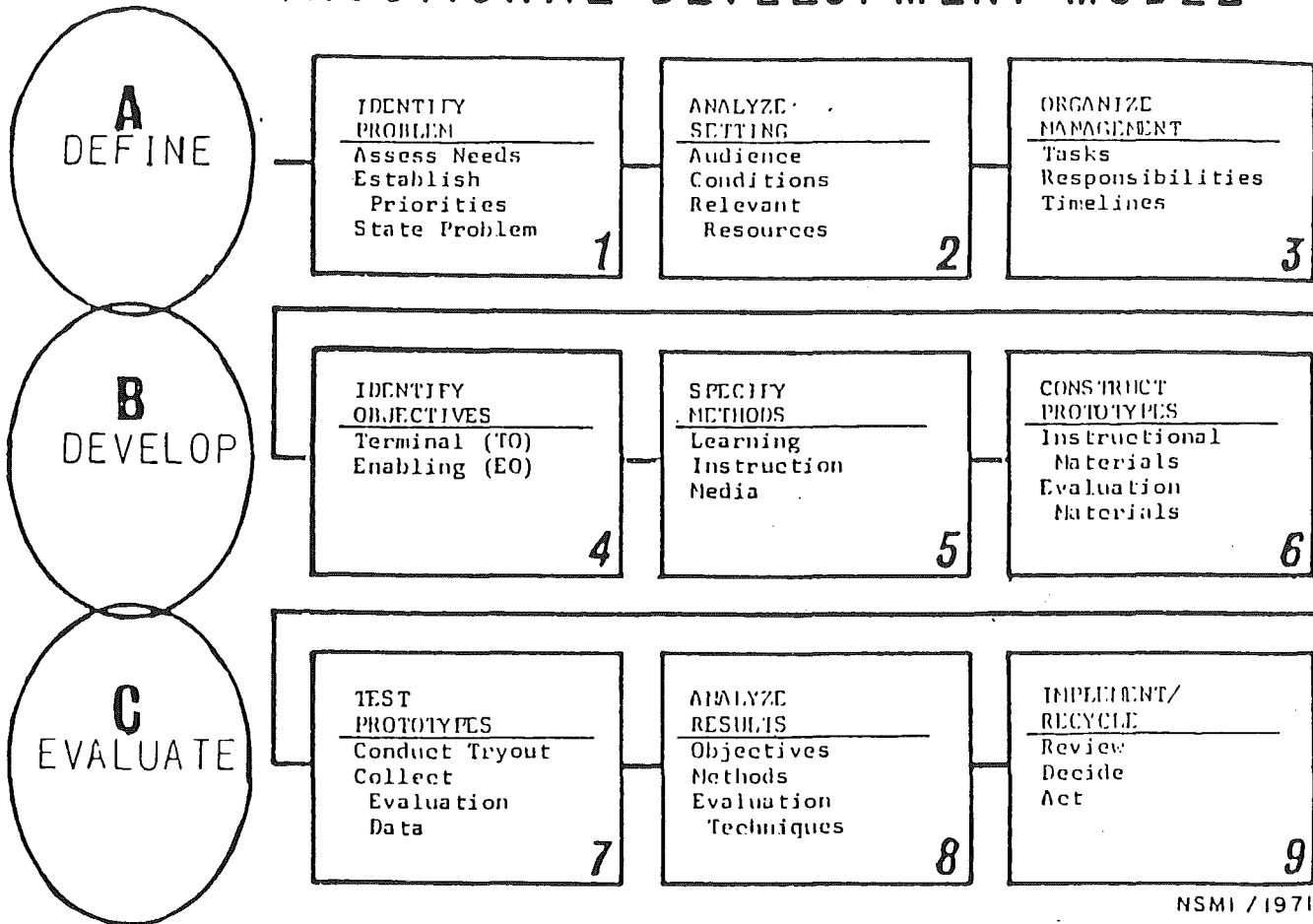
It has been the aim of this paper to help those who wish to take the teaching of marketing out of the stone age by making it easier to get a maximum return for their efforts. And, perhaps encourage others to follow their example.

## FOOTNOTES

Buchanan, Richard W. (1990), "An Informed Response to the Biggest Myths Associated with Mega-Class Teaching of Introductory Marketing Courses", Proceedings of Marketing Education Group, Oxford, United Kingdom

EXHIBIT ONE

INSTRUCTIONAL DEVELOPMENT MODEL



NSMI / 1971

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## **TITLE**

A COUNTRY OF ORIGIN EFFECT IN BUSINESS TO BUSINESS  
MARKETING: THE ATTITUDES OF AUSTRALIAN COMPUTER  
DISTRIBUTORS TOWARDS TAIWANESE-MADE COMPUTER  
PRODUCTS

## **ABSTRACT**

The focus of this study was on Australian distributors' perceptions towards Taiwanese personal computer hardware products. The comparative analysis is conducted, with reference to personal computer products originating from seven countries.

The country of origin effect appeared to be salient in the analysed segment. The comparison among preferences toward the products from industrialised countries with those from newly industrialised countries showed an inclination to the former. Differences in attitudes seem to depend on whether or not the respondents have experience in dealing with the product in question. Distributors who trade Taiwanese-made personal computer products perceive the products positively, but those without such opportunities and experience responded negatively.

**A COUNTRY OF ORIGIN EFFECT IN BUSINESS TO BUSINESS  
MARKETING: THE ATTITUDES OF AUSTRALIAN COMPUTER  
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**Introduction**

Foreign products seem to build their reputation on a combination of attributes in consumer perception, in conjunction with the originating country's general reputation. These perceptions and reputations normally vary from country to country, and may differ within each country as well. However, product value, technical features, quality, design and other, intrinsic and extrinsic characteristics (Han and Terpstra 1988) concerning one country's offering, appear to be generalised in the attitudes and opinions of consumers. In other words, consumers tend to evaluate the products and services in accordance with their origin, having in mind already established perceptions and prejudices for the country as such, and for that country's products in particular.

Country of origin is usually communicated by the term "Made in (name of country)". There are opinions that "Made in" label is quintessential for marketing, deserving to be fifth element of marketing mix (Kaynak and Cavusgil 1983).

Whereas a number of studies confirmed the stereotype effect of country of origin on an overall product evaluation, there are findings about the country-of-origin effects relating to specific product attributes as well (Johansson, Douglas, and Nonaka 1985; Patterson and Tai 1991a; Thorelli, Lim, and Ye 1989).

The stereotyping about the country of origin may be due to attitudes towards the people of the particular country, and familiarity with the country (Nagashima 1970; Wang and Lamb 1980). The demographic background and characteristics of consumers are also cited as an element of generalisation (Schooler 1971; Wall and Heslop 1986), but the cultural traits of consumers have been quoted as well (Tan and Farley 1987). The relevant classification of country-of-origin informational cues suggests that elements such as level of economic development (with variation of C-O-O effect within MDCs, MDCs vs. LDCs, and within LDCs)\*, demographic and

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\* C-O-O - Country of Origin, MDC - More Developed Country, LDC - Less Developed Country

personality variables, promotion, risk perceptions, and nature of industrial purchasing, account for the origins effects (Bilkey and Nes 1982).

Mass media, personal experience and the views of national opinion leaders may also shape the reputation of a country as a producer (Nagashima 1970). Several studies have confirmed the image, or stereotype, stemming from country-of-origin effect, suggesting that countries too have images, perhaps not so far removed from the marketers' concept of "brand image" (Bannister, Saunders, and Barker 1984; Hong and Wyer 1989; Kaynak and Cavusgil 1983; Patterson and Tai 1991a). However, recent studies suggest that brand name has a separate, additive impact, but is a less enduring cue compared to country-of-origin. This finding suggests that the country of origin effect is not only salient in the era of global brands, but may also be more enduring than global brand names (Tse and Gorn 1993).

Field studies have shown that in developed countries (e.g. USA, Australia, European countries), there exists a particularly strong bias against manufactured goods from developing countries (Kaynak and Cavusgil 1983; Patterson and Tai 1991a). In particular, it is stated that consumers prefer shopping goods from industrialised countries to those from less developed countries (Cordell 1992). From the other side, that bias towards a range of products from the same country may be vastly different depending on the product under consideration (Hooley, Shipley, and Krieger 1988; Schooler 1971; Wall and Heslop 1986).

Practical implications of country-of-origin effect continue to grow, with an increase in international trade. Therefore, an understanding of the scope and limitation of the effect could be of crucial importance for marketers. The finding that attitudes towards a specific product or brand could be substantially changed, both favourably and unfavourably, when country of origin of the product or brand is revealed, implies such a conclusion (Gaedeke 1973).

However, studies of country-of-origin effects in industrial purchasing situations are almost non-existent. Whether the origin effect in business markets have the same impact is therefore largely unknown. Business-to-business marketing is considered to be performing on more rational basis compared with consumer behaviour and decision making. However, one study has found significant differences in purchasing managers perceptions of various attributes of products from five different countries, based on



C-O-O effect (White 1979).

## **Objectives**

The focus of this article was is Taiwanese personal computer industry, and its perceived positioning among Australian distributors. With its rapid development in recent years, Taiwan is classified as a newly industrialised country. However, it still enjoys the biased perception, reserved for the products from developing countries (Cordell 1991). That may imply a gap exists among the real position of a particular country on the scale of development, and the consumers' and distributors' perceptions about that country, based on the past experience. It might, therefore, be hypothesised that some newly industrialised countries are inclined to have such a perception, due to their explosive development, and time needed for clients to adapt their perceptions and expectations. The personal computer hardware industry was chosen due to strong competition in the Australian market, and the presence of the major international manufacturers. We believe this makes the industry suitable for country-of-origin effect analysis. In that regard special emphasis should be given to the fact that the personal computer manufacturing industry in the 1990's is not brand differentiated, due to standardised technical quality and high degree of international integration. Therefore, the product is likely to be more prone to country-of-origin effects.

Consequently, the major objectives of our study were:

1. To explore Australian distributors perceptions of the Taiwanese personal computer manufacturing industry in general.
2. To examine distributors attitudes and perceptions of Taiwanese-made versus other countries personal computer products.

Based on the previous discussion and literature review, it was hypothesised that:

H1: Australian distributors will evaluate personal computers from industrialised countries more favourably than these from newly a industrialised country, ie., Taiwan.

H2: Distributors with significant experience with Taiwanese-made personal computers

will evaluate Taiwanese brands more favourably than non-experienced distributors.

## **Method**

This was a two stages study. Stage one was an exploratory phase, designed to gain further insights into country-of-origin issues surrounding personal computers, and to aid in questionnaire design. Thus, managers, as well as computer specialist and consultants, from several computer companies in Sydney were interviewed.

In stage two, after the questionnaire was pretested, a descriptive study was conducted. One hundred self-administered questionnaires were distributed to Australian computer companies in September 1991; Ten were personally handed to the companies located in Wollongong city; The remaining ninety were sent to the companies in Sydney, who had previously agreed to cooperate in the survey. There were 49 valid completed questionnaires received, representing a 49% response rate.

## **Results**

### **1. Perceptions Toward Taiwanese Personal Computer Manufacturing Industry in General**

Respondents were asked to indicate their agreement level on a 5-point Likert scale (1=strongly disagree to 5=strongly agree), concerning the series of statements about Taiwanese personal computers.

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Insert Table 1 About Here  
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Less than half (42.6%) of respondents considered Taiwanese personal computer manufacturers were concerned about quality. However, Table 1 shows that 65% of

respondents perceive Taiwanese computer product quality has improved over the past five years. Of major concern for the Taiwanese industry is the fact that only 27.7% of Australian companies consider them as concerned with after-sale-service. This suggests potential problems and conflicts in channels.

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Insert Table 2 About Here

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The same questions were put in context of a comparison among seven countries. The results (indicated by the average scores in Table 2), state very clearly the difference among USA, Japan and Australia, on one side, and Taiwan, Singapore, Hong Kong and Korea, on the other side. This polarisation is apparent in responses to statements 1 and 2, concerning product and service quality. Only in regard to statement 3 (improvement in last 5 years) does Taiwan with Australia, USA and Japan. These results suggest a potential C-O-O effect, but may only be indicator of the real market experience of respondents.

Taken together, Tables 1 and 2 provide support for hypothesis 1.

## 2. Attitudes Towards Taiwanese-Made Versus Other Countries-Made Personal Computer Products

Attitudes towards any particular product consist of three components: beliefs, brand evaluation, and the tendency to act. Five computer product attributes are employed to understand respondents' beliefs in terms of different countries personal computer products.

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Insert Table 3 About Here

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The results in Table 3 are fairly consistent. For all but one attribute there is a clear distinction among the group of developed countries on one side, and NICs\* , on the other side. The only response different, is the one for attribute 'value for money', where Taiwan, Singapore, and Hong Kong overtook Australia's position. These results are consistent again, stemming from possible beliefs about traditionally perceived

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\* NIC - Newly Industrialised Country

lower prices, coupled with improving quality, for products from NICs. Accordingly, the order of preference depicted in Table 4, is in compliance with previous responses.

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Insert Table 4 About Here  
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The suitability of Taiwanese computers for usage within Australian companies, and in schools and other educational institutions, is presented in Table 5. For schools and educational institutions Taiwan is ahead of Australia, other responses are consistent and as expected.

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Insert Table 5 About Here  
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In an attempt to gauge the impact of first-hand experience with Taiwanese suppliers, attitudes to Taiwanese computers were broken down (ANOVA) by whether or not they had dealt with that countries suppliers.

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Insert Table 6 About Here  
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From Table 6 stems the conclusion that the present/previous experience with Taiwanese suppliers, is strongly associated with more positive attitudes towards Taiwanese-made personal computers, than would otherwise be the case. The mean scores indicate that Australian computer companies with Taiwanese suppliers at present believe that Taiwanese personal computers do not break down easily (mean score 4.23), are preferred at above median, and are suitable for company use, with a mean score 5.73 (score 1-lowest 7-highest). The results imply that respondents with some experience in dealing with Taiwanese suppliers, are satisfied with them. Accordingly, hypothesis 2 is supported.

Tables 7 and 8 are foundation for Table 6, and indicator of prejudice against Taiwanese product.

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Insert Tables 7 and 8 About Here  
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## **Discussion**

It can be concluded from the foregoing analysis that companies that trade Taiwanese computers perceive the products more positively than those without such experience. The results imply that experience with a country's product appears to overcome C-O-O bias. Accordingly, there are positive elements to endorse hypothesis 2.

An additional key finding of this analysis is that organisations perceive product quality and other attributes as strongly, statistically being associated with country-of-origin. There is clear distinction in the analysed group of countries with Japan, USA and Australia, on one side, and Singapore, Taiwan, Hong Kong and S. Korea, on the other. Our exploratory research stage clearly indicated that the technical and design attributes are similar due to the use of the same technology, co-operation, and the fact that there exists only a few manufacturers of essential parts worldwide. It might be reasoned therefore that this polarisation is explained by country-of-origin bias. It is thus interesting that this bias also appears prevalent among buyers and resellers. It seems that even in that segment, the lack of information and knowledge about a particular country's products might be offset by C-O-O effect bias. Being only a minor producer of computers, Australia is nonetheless perceived in the more respected group, most likely due to the tendency of respondents to evaluate their own country's product more favourably than otherwise be the case (Han and Terpstra 1988).

The conclusion is in a favour of our first hypothesis, which is about grouping among countries, based on C-O-O effect. Figure 1 depicts polarisation of the two groups of countries, based on price and quality dimensions only.

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Insert Figure 1 About Here  
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The marketing implications of the findings in this study is that country-of-origin effect needs to be overcome by promotional actions. To position one country's products in respondents mind differently is long-term task, but may be reinforced with supply of adequate information, and resultant familiarity with products and/or country.

## Appendices

**Table 1. Perceptions about Taiwanese computer products (percentage)**

Statement	Valid case	Disagree	Neutral	Agree
1.	47	31.9	25.5	42.6
2.	47	51.1	21.3	27.7
3.	48	10.4	25.0	64.6

Note: Frequency percentages recoded: 1 & 2 = disagree, 3 = neutral, and 4 & 5 =agree

- 1: Manufacturers are concerned with quality.
- 2: Manufacturers are concerned with after-sale-service.
- 3: Product quality has improved over the past five years.

**Table 2. A comparison of average perceptions towards the seven countries' personal computer manufacturing industries**

State- ment	AU	HK	JA	SI	KO	TA	US
1.	3.70	2.94	4.30	3.30	2.98	3.13	4.40
Ranking	3	7	2	4	6	5	1
2.	3.46	2.43	3.62	2.70	2.60	2.70	4.02
Ranking	3	7	2	4	6	5	1
3.	3.62	3.25	4.08	3.55	3.48	3.81	4.04
Ranking	4	7	1	5	6	3	2

Abbreviations: AU - Australia, HK - Hong Kong, JA - Japan,  
SI - Singapore, KO - The Rep. of Korea, TA - Taiwan, US - U.S.A.

- 1: Manufacturers are concerned with quality.
- 2: Manufacturers are concerned with after-sales-service.
- 3: Product quality has improved over the past five years.

Scale: 1 - Strongly disagree to 5 - Strongly agree

**Table 3. Perceptions on different countries' computer product attributes**

State- ment	AU	HK	JA	SI	KO	TA	US
1.Product quality Ranking	4.29 3	3.86 5	5.98 1	4.37 2	3.61 6	4.22 4	5.98 1
2.Prices are high Ranking	5.27 2	3.16 5	5.02 3	3.35 4	2.98 6	2.61 7	5.71 1
3.Good value Ranking	4.15 6	4.36 5	5.13 1	4.42 4	4.08 7	4.82 3	4.84 2
4.Breaks easily Ranking	4.52 3	3.82 5	5.71 1	4.18 4	3.23 7	3.73 6	5.65 2
5.Design excellent Ranking	4.54 3	4.20 4	5.78 2	4.06 5	3.76 7	4.02 6	5.84 1

The mean scores come from seven points scale as below:  
1 - lowest (very negative) to 7 - highest (very positive).

**Table 4. The order of preference based on perceptions towards different countries' computer products**

Order	Country	Mean Score	Standard Deviation	Cases
1	U.S.A.	1.76	1.25	49
2	Japan	2.12	1.13	49
3	Australia	4.19	1.71	47
4	Taiwan	4.27	2.03	49
5	Singapore	4.65	1.32	49
6	Hong Kong	5.20	1.32	49
7	S. Korea	5.49	1.45	49

The mean scores come from preference order as below:  
1 - The most preferred to 7 - The least preferred.

**Table 5. The suitability of computers for company use, and schools and other educational institutions**

Statement	AU	HK	JA	SI	KO	TA	US
1. Company use	5.23	4.34	6.16	4.77	4.48	4.93	6.07
(std. dev.)	1.44	1.51	0.99	1.49	1.49	1.63	1.17
Ranking	3	7	1	5	6	4	2
2. Schools use	5.50	4.88	5.84	5.12	4.84	5.51	5.77
(std. dev.)	1.29	1.38	1.13	1.28	1.40	1.35	1.21
Ranking	4	6	1	5	7	3	2

The mean scores come from seven points scale as below:

1 - not suitable (very negative) to 7 - very suitable (very positive).

**Table 6. Attitudes towards Taiwanese-made personal computers products by experience with Taiwanese suppliers (one way ANOVA)**

Variable	Value Label	Mean Score	Standard Deviation	Cases
1. Var27 breakdown by var102 ( F=9.79; p≤ .003)				
Var 102	0 no	2.95	1.13	19
Var 102	1 yes	4.23	1.55	30
2. Var84 breakdown by var102 ( F=13.99; p≤ .001)				
Var 102	0 no	3.50	1.74	19
Var 102	1 yes	5.47	1.83	30
3. Var85 breakdown by var 102 (F=22.95; p≤ .001)				
Var 102	0 no	3.78	1.31	18
Var 102	1 yes	5.73	1.34	26

Note:Var27: Computers break down easily or not easily.

Var84: Computers ranked preference.

Var85: Computers are suitable for company use.

Var102: Companies with/without Taiwanese suppliers.

The mean scores come from seven points scale as below:

1 - very negative to 7 - very positive.



**Table 7. Crosstab table regarding reputation by experience with Taiwanese computers**

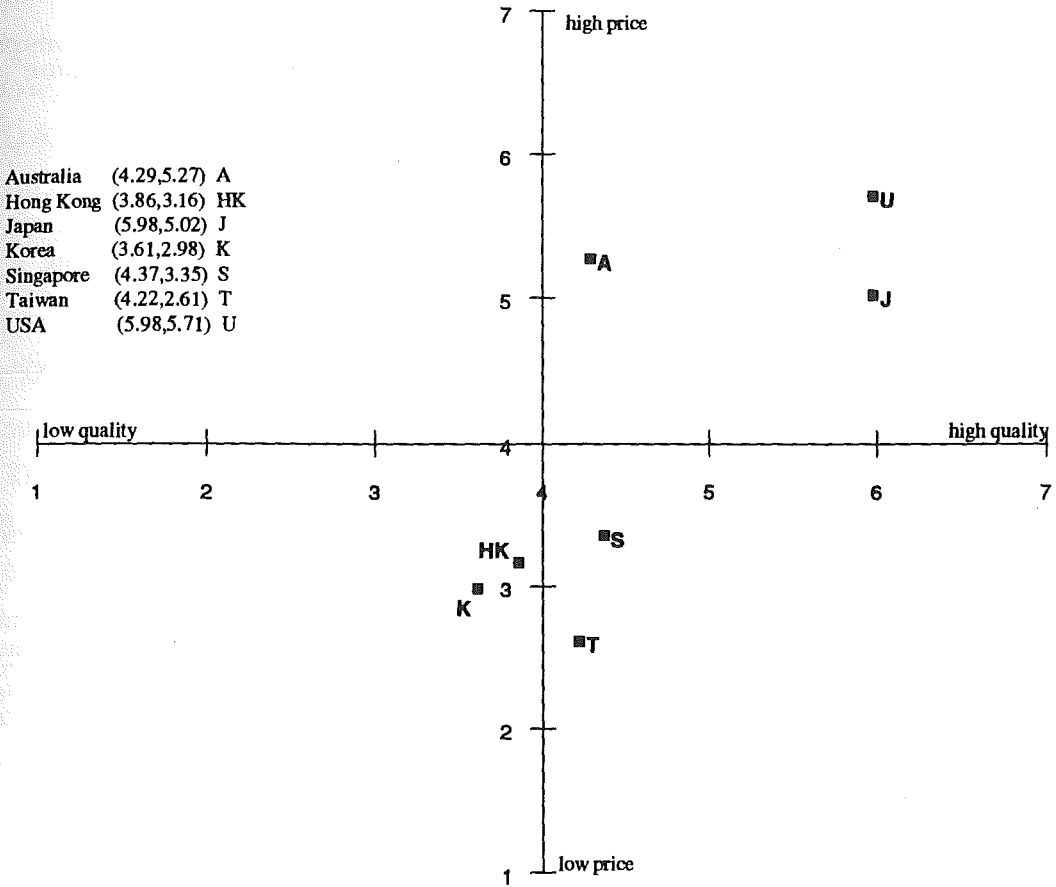
Trades Taiwan Computers	No	Yes	Total
Reputation			
Break Easily	12	11	23
Neutral	6	7	13
Do Not Break Easily	1	12	13
Total	19	30	49

**Table 8. Chi square test with suitability of Taiwanese computers for schools by experience in trading Taiwanese computers**

Trades Taiwan Computers	No %	Yes %	Total
Suitability			
Not Suitable	33	8	8
Neutral	45	15	12
Very suitable	22	77	24
Total %	100	100	n=44

$X^2 = 12.97$      $p \leq .0015$

Figure 1. Perceptual map about product quality and price of computers from seven countries



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