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Consumer Evaluation of Innovativeness in High-
Tech Consumer Durables

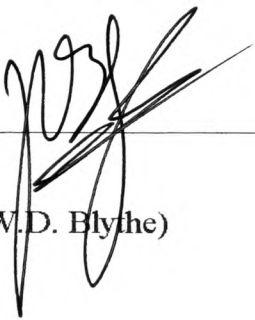
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A submission presented in partial fulfilment of the requirements of the
University of Glamorgan for the degree of Master of Philosophy.

March 1997

Declaration

This thesis is based upon my own original research and is entirely my own work except as acknowledged in the references herein.



(J.W.D. Elythe)

Acknowledgements

I would like to thank my supervisor, Professor Martin Evans, for his patient support in the preparation of this work.

I would also like to thank my many friends and colleagues at the University of Glamorgan who have given freely of their time and advice; in particular, Graham Hackett, Dr. Atsede Woldie, Dr. Ian Evans, Phil McCarthy, Professor Michael Connolly, Maurice Patterson, and Lisa O'Malley.

Finally, I would like to thank Sue Burnett for encouraging me to keep going when all seemed lost.

Abstract

This study concerns consumer responses to new product offerings in the category of high-tech audio equipment. The research was carried out under a positivist paradigm; other paradigms are described and a critical analysis of the reasons for choosing a positivist approach are given.

Part of the rationale for choosing the topic was to examine innovation and innovativeness from the viewpoint of the consumer, rather than from the viewpoint of the manufacturer or marketer.

For the purposes of the study, consumers were categorised on two dimensions; as innovators (or non-innovators) and as conspicuous consumers (or non-conspicuous-consumers).

The hypotheses to be tested were as follows;

H1: Consumers are able to ascribe degrees of innovativeness to new product offerings.

H2: Innovators will judge innovativeness differently from non-innovators.

H3: Conspicuous consumers will judge products differently from non-conspicuous-consumers.

In other words, the general objective of the research was to determine how differing groups of consumers view innovativeness, and how innovativeness is assessed, with particular reference to high-tech product offerings. The research was carried out in two stages; a series of focus groups was run to determine the dimensions of the problem, and a questionnaire derived from this. The questionnaire was then administered to visitors at the Sound and Vision Exhibition in Bristol.

Statistical analysis of the questionnaire revealed that there are significant differences between groups of consumers regarding the relative importance of various factors in the process of assessing innovativeness.

Recommendations both for marketing practitioners and for further academic research are made, based on the findings of the primary research and on the literature search.

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Chapter One: Introduction

1.1: The Role of Innovation

Particularly in recent years, much interest has been focussed on innovation and the management of new product development. It is part of received wisdom that successful firms are those who innovate, and indeed substantial evidence exists to support this viewpoint. For example, Johnes and Snelson (1990) go so far as to equate the loss of the British manufacturing base with a failure to innovate effectively. As the pace of technological change increases, it would appear likely that this focus on innovation will increase dramatically.

Several thousand studies have been carried out into new product development. Some focus on the firm itself, others on the characteristics of the product, and some on the interrelation between the two factors. Of those studies concerned with the firm's viewpoint, some focus on strategic planning for NPD, others on the process of development. Relatively few studies examine new product development from the consumer viewpoint.

The problem for companies in the field is that the vast majority of new product ideas fail to recoup their development costs (in fact, many never see the light of day at all). In a sense this appears paradoxical; on the one hand, there is evidently a huge demand for new products, such that the most successful companies appear to deal in little else, while on the other hand resources are wasted in developing products which never find a

market. Clearly not just any new product will do - but how are producers to decide which products stand a chance of succeeding and which don't?

Approaches to the problem have been twofold; on the one hand, researchers have attempted to look at those companies who are successful at new product development (NPD), while others have taken the approach of examining consumer behaviour and psychology in the hope of finding a relationship between personality traits and innovative buying behaviour. It has been well-established that some consumers are more likely to buy new products than others, but many of the studies have proved inconclusive. This may be due to the application of inappropriate psychological measures, or it may be due to inadequate definition of what is a new product.

Currently there is no generally-agreed method of determining the newness, or otherwise, of a product offering. Marketers would naturally start by finding out what consumers would regard as new, but attempts to do this have so far proved somewhat inconclusive. In particular, it would seem that there are degrees of newness in products, but no formula has been devised for assessing this, despite several optimistically-titled papers purporting to attack the problem. This is the area which this project seeks to address.

A small section of the literature has concentrated on innovation from the viewpoint of the consumer, and it is this approach that (presumably) should have the most relevance to marketers. Marketing is, after all,

concerned mainly with the consumer's motivations and aspirations, and yet the bulk of the literature appears to focus elsewhere.

Within the more consumer-orientated research, there has been a tendency to assume that products are either new or not; with a few exceptions, researchers have ignored the possibility that there are degrees of newness attaching to new product offerings, and in particular there has been little research carried out into the ways consumers judge new product offerings and assess the newness of them.

Partly this is due to the difficulty of doing so; newness is subjective, and relies heavily on the consumer's previous experience with the product category. Also, an innovative consumer for one type of product will not necessarily be innovative for another type, and therefore it is likely to be difficult to construct a predictive model which could be useable by practitioners. The research reported here is intended to go some way towards answering these problems.

1.2: The Conceptual Framework

The conceptual framework of the study therefore includes the following topics;

1. Consumer behaviour as it relates to response to new products.
2. Identification of innovators.

3. Personality traits of innovators.

4. Definitions of newness and innovativeness.

Of these, the most complex conceptual topics are the first three, largely because these deal with the individual. Although marketers frequently refer to “the consumer,” as if speaking of one person, individuals vary greatly and it is difficult to generalise about people’s motivations for adopting new products. It may be for this reason that the bulk of the literature concerning NPD is concerned with the process within the producing firm rather than the responses of consumers.

1.3: Newness and Innovativeness

For the purposes of the study, newness is defined as the degree to which the product is outside the experience of the observer. This definition has the following implications;

1. Newness is subjective, and is unique to each individual consumer (observer).
2. Newness is not an innate attribute of the product.
3. The newness of a product will decrease over time, as the consumer(s) become more experienced with it.
4. Newness (in this context) does not refer to the date of manufacture. It refers to the model, not the item.

This last attribute of newness often leads to a perceptual view that the length of time a product has been around determines its newness; this is not necessarily the case. For example, it is well-known in the record industry that a single can be released and make no impact for months or even years before suddenly becoming a hit for no apparent reason (the classic example of this being Ralph McTell's *Streets of London*, which was originally released in the late 'sixties and didn't reach the charts until the mid-seventies). Such records are called sleepers. To the record-buying public in the mid-seventies the record was apparently new.

Innovativeness has been defined by Midgeley (1977) as the degree to which an individual makes innovative decisions independently of the communicated experience of others. Kirton (1976) regards innovators as being people who do things differently (as opposed to adaptors, who do things better). Both of these definitions beg further questions; Midgeley's definition ignores the fact that innovators do not blindly adopt products, but do seek information about them. Kirton's definition is really concerned with a psychological bent, not with the adoption of new products (Kirton's research was concerned with management styles).

For the purposes of this study, innovativeness is defined as those characteristics that predispose consumers to adopt new products.

Innovativeness is therefore a product of three factors;

1. The personality traits of the individual.
2. The degree of newness of the product.

3. The product category.

Each individual has a different propensity to adopt new products, and this propensity appears to be specific to product categories; an innovator for one product category is not necessarily an innovator for another product category (see Chapter Two). Some people are not innovators at all (i.e. prefer not to buy new products until they have had the opportunity to gain some experience with the product) while others may be “super-innovators” who buy new products across a wide spectrum of product categories.

1.4: Structure of the Thesis

The study reported here examined the ways by which different types of individual assess the newness (or otherwise) of products in the hi-fi category. The products they were shown were the latest models, i.e. the respective manufacturers claimed that the models were new. The respondents did not necessarily agree with this view.

The following chapter examines the literature, reviewing the contributions made to each of the conceptual topics above.

Chapter Three examines diffusion theories of innovation; the ways in which new products become adopted by groups of consumers over a period of time. Diffusion theory operates at the interface between consumer personality traits and the product lifecycle; it is concerned with

the rate at which different types of individual adopt products with different levels of newness.

Chapter Four is about the research approach adopted and the rationale for the methodology and methods used in the study. An overview of current research paradigms is given.

Chapter Five concerns the first part of the primary research, the focus group discussions. These group discussions were held in order to ascertain the dimensions and shape of the study.

Chapter Six covers the administration and analysis of the questionnaire which formed the second part of the primary research. This chapter is concerned with the attempt to attach quantities to the dimensions obtained from the group discussions (qualitative research).

Chapter Seven offers conclusions and analysis, including strategic implications for practitioners as well as implications for future academic research.

Full transcripts of the focus group discussions are available in the appendix, as is a copy of the questionnaire used in the survey.

Chapter Two; Innovation From the Viewpoint of the Consumer.

2.1: Studying Innovation

Studies of innovation have largely concentrated on the firm's viewpoint, and have attempted to develop models for successful new product development based on assessments of successful strategies or processes. The bulk of the literature on innovation falls into this category.

A large part of the focus in the literature has been on innovation as a process conducted within the firm, and a lot of attention has also been given to developing more effective ways of generating new products which will succeed in the marketplace. Much of the research (Johne and Snelson, [1990], Peters and Waterman [1982]; O'Hare, [1988]; Johne and Snelson, [1988]) has taken the approach of looking at firms which are successful innovators, and examining what systems and procedures these firms have adopted for developing and screening new ideas.

Parallel to this process-orientated approach, a number of empirical studies have been carried out in an attempt to determine which product features are likely to lead to success in the market place, or in other words what is the most effective NPD strategy for the firm. Some of these used definitions of innovativeness derived from consumer perceptions (e.g. Robertson 1967), while others derived the definitions of newness from the producer's viewpoint (Calentone & Cooper 1981).

However, marketing is about meeting the needs of consumers, and the studies reported above take scant account of consumers' views on NPD. This chapter is concerned with innovation from the viewpoint of the consumer, an approach which is more consistent with the marketing concept.

Everett M. Rogers (1983) pointed out that not all innovations are adopted, even when there are clear advantages. Sometimes there is a wide gap between what is known and what is put into use. He gives the example of the QWERTY keyboard, originally developed to limit typing speeds, as opposed to the far superior Dvorak keyboard. This may support the argument that some consumers actually dislike newness, or change; however, in most cases new product failure is more likely due to other factors, such as poor product positioning and launch strategies (Rogers, 1983). In the first chapter of his book, Rogers also indicates the role that newness plays in the purchasing decision;

“The perceived newness of the idea for the individual determines his or her reaction to it”

(Everett M. Rogers, 1983)

Two main threads run through current thinking on innovation from the viewpoint of the consumer; firstly, theories based around consumers' perceptions of the attributes of the innovation, and secondly theories based around attributes of the consumers themselves. Some studies have attempted

to combine both these approaches and thus bring the two threads together, but these have so far yielded limited results.

2.2: Consumers' Perceptions of the Attributes of Innovations

Everett Rogers (1962) identified the following perceived attributes of innovative products, by which consumers apparently judge the product during the decision-making process.

1. Relative advantage. The degree to which the innovation is perceived as better than the idea it supersedes.
2. Compatibility. Consistency with existing values, past experiences and needs of potential adopters.
3. Complexity. Ideas that are easily understood are adopted more quickly.
4. Trialability. Degree to which a product can be experimented with.
5. Observability. The degree to which the results of an innovation are visible to others. This contains the concept of re-invention; users finding new ways to use the product (not envisaged by the designers).

Rogers developed this perceptual model from work done with farmers, studying the adoption of new agricultural products (essentially an industrial marketing situation); however, it has been widely accepted as an appropriate model for examining consumer perceptions. It implies a rational decision-making process, probably of the extended type undertaken for high-involvement purchases, and would therefore probably not encompass

purchases of low-involvement or FMCG products. This is an important consideration, since many later studies were conducted among housewives buying low-priced grocery or household products which would not necessarily involve such a lengthy decision-making process.

For example, George H. Haines (1966) carried out a somewhat basic study into consumers' reasons for buying new products. Researchers stopped people who had just bought "new" products and asked the following three questions;

1. How did you first find out about the product?
2. How did it happen you decided to purchase this product today?
3. Did you plan to buy this product before you came to this store?

The new brands were two types of toothpaste, two new brands of cereal, a type of instant dessert, a canned dog food, and a soap brand. All these brands had come onto the market within the previous few months. Haines found that 15% of his sample reported that they had bought the product "because it was new", lending support to the idea that the diffusion process gets started by innovative people (i.e. there is a demand for newness per se). 21% of the sample had in fact bought the product before, and a further 19% had tried a free sample already; therefore of those who were trying the product for the first time (60% of the overall sample) a quarter were doing so simply because the product was

new to them. This lends considerable support to the idea that newness is desirable for itself, at least to some people.

Interestingly, 25% of those questioned had no idea what the comparative price of the new product was. They had not, therefore, based the buying decision on price; unfortunately Haines does not report the extent to which the innovators (who were buying newness) were in this category. More than half of the sample who bought a high-priced brand of toothpaste were aware that the price was substantially higher than competing brands, lending support to the idea that at least some consumers are prepared to pay for novelty. This of course begs the question as to what novelty (newness) is, and whether there are degrees of newness.

Thomas S. Robertson (1967) went some way towards answering these questions. He was mainly concerned with defining different types of innovation, as below; these definitions were themselves derived from an attempt to see things from the consumer's viewpoint, and therefore differ from the definitions used by some other researchers who were examining innovation from the producer's viewpoint (Calentone & Cooper, for example).

1. Continuous innovation. Involves a marginal increment in technology which, while offering some improvement over the technology it seeks to replace is so closely related to it that informed observers can immediately perceive its relationship with the preceding "state of the art".
2. Dynamically Continuous Innovation. Involves a technological step of sufficient magnitude to create a state of risk.

3. **Discontinuous Innovation.** Result of a major technological breakthrough, causing a radical change to the adopter's lifestyle. For example, the video recorder, which allows displacement of favourite TV shows to a more convenient time.

These criteria still seem to be product-orientated, and they have not been derived directly from studies of consumer responses. Some of the terminology may also need definition; for example, how informed does an "informed observer" need to be? Or how much risk must be perceived to exist in order to create a "state of risk"? Having said that, this framework provides a useful guide to assessing newness, and has been widely used since.

Valerie A. Zeithaml (1988) attempted to define the concepts of price, quality and value from the consumer's perspective, and relate the concepts in a model. Zeithaml discusses whether quality equals instrumentality (the extent to which an object or action will achieve an end), but ends by defining quality as superiority or excellence. These concepts are difficult to define, since the consumer may be unable to assess the quality of an innovative product before a prolonged experience of using the product; for example, a consumer durable may appear to be well-made and well-fitted to the task in hand, but may not last more than a few weeks. This naturally reflects in the value-for-money judgement. The consumer may be able to assess search attributes and some experience attributes, but must take credence attributes on trust. (Ford et al., 1988)

2.3: Attributes of Consumers

It is possible to examine adoption as a process rather than as a set of product attributes. In 1977 David F. Midgeley divided the process into cognitive processes (those internal to the individual) and social processes (which are external). Midgeley re-examines the adoption process as follows (after Rogers);

1. Knowledge. The consumer hears about the product, finds out its function.
2. Persuasion; Forms favourable/unfavourable attitude.
3. Decision. Activities which lead to a choice to adopt or not.
4. Confirmation. Seeks reinforcement for decision.

As a model of the decision making process this may well be incomplete; in common with Rogers, it implies a complex process which would only be undertaken for major purchases, and not, presumably, for the purchase of a new brand of biscuits.

Midgeley offers a definition of innovativeness, as follows;

“Innovativeness is the degree to which an individual makes innovative decisions independently of the communicated experience of others” (Midgeley 1977)

This definition has a small hole in it, in that some people may reject innovation despite favourable reports from others; perhaps it would be better stated as

“Innovativeness is the degree to which an individual makes *decisions regarding innovations* independently of the communicated experience of others”.

This, of course, implies that others have experience of the innovative product; yet presumably there must be a first buyer of every new product, and in practice there must be many hundreds, even thousands, of buyers who could have no possible contact with any previous user. These individuals must be extremely innovative, by Midgeley’s definition.

To an extent, consumers will be able to make comparisons with pre-existing products; in the case of continuous innovations and dynamically continuous innovations the consumer will have fairly close analogues to compare with. Monroe et al (1987) call these analogues reference products; they are the next best alternative to the new product. Even in the case of discontinuous products the consumer will have had a previous solution to the need problem. For example, before video recorders became widely available, consumers would either visit cinemas to see the latest films, or would wait until the films were broadcast on TV. Although these are considerably less convenient than renting a videotape, it was easily possible for consumers to make a comparison with those alternatives.

Sometimes consumers will need to make comparisons with several reference products, particularly in the case of discontinuous innovations. Also different types of consumer may use different reference products when assessing the same new product (Forbes & Mehta, 1978).

Much research has been carried out into what it is about consumers that makes them more likely to adopt a new product (or not). Rogers' early work on this identified the following groups;

1. Innovators. Those who want to be first to own the latest gadget, or adopt the latest methods (about 2.5% of the population).
2. Early adopters. Those who are quick to see the advantages of new products, and are willing to adopt anything that will show an advantage over the existing product offerings (about 13.5% of people).
3. Early majority. Those who, while open to new ideas, will only take them up once they have been well and truly tested by other consumers (about 34%).
4. Late majority. Those who only reluctantly adopt new products, once everybody else has done so (about 34%).
5. Laggards. Those who mistrust anything new and will only adopt a product once it has ceased to be new, i.e. when everybody else has got one (about 16%).

(Rogers, 1962, op.cit).

While this analysis is useful in grouping consumers according to their response to new product offerings, it says nothing about other factors that may distinguish the groups. It should also be noted that the percentages given are based on the respondents' relative distance from the mean of the normal

distribution curve; they have no objective meaning in terms of respondent characteristics other than that. Several other researchers have carried out studies which have attempted to fill in some of the gaps in Rogers' study by finding out what it is about a consumer that makes him/her become an innovator.

Donald T. Popielarz (1967) compared risk-taking behaviour with cognitive style. Subjects were asked to indicate their willingness to buy a specific innovative product (camera, instant coffee, headache remedy, dress shoes, deodorants, car tyres). They indicated willingness to purchase on an 11-point scale; in an interesting development, Popielarz used them as their own controls by subtracting their willingness to buy an established product in the category from their willingness to buy the new one. This neatly "tuned out" all other factors than the novelty of the product itself. Subjects were also tested for breadth of categorisation; narrow categorisers (those who are more cautious in their viewpoint) were less willing to try new products. Hence, not surprisingly, Popielarz demonstrated that those subjects who were more prepared to take risks were also more prepared to buy new products.

Clearly there are two different types of risk involved here. On the one hand, the broad categoriser is prepared to take the risk of looking foolish, by overstating a situation. This seems to be a relatively low-level risk for some people, whereas on the other hand an innovative purchase involves at the very least the risk of wasting money, at worst a possible risk to health or safety. There is an implication here that respondents should also be assessed on the type of risk they are prepared to run (of which more later).

Robertson & Kennedy (1968) brought together “innovator” characteristics from a number of other studies. The innovators were judged by their purchase of a new household product. 60% of the sample were judged to be innovators; there was already an 11% market penetration of the test product in the geographical area. The authors used discriminant analysis to determine the importance of each feature of the innovators, as shown in the table below. The original propounder of each innovator characteristic is given in brackets.

Venturesomeness (Everett Rogers)	35%
Social mobility (Opinion Research Corporation)	29%
Privilegedness (Richard P. Coleman)	11%
Social integration	11%
Interest range (Katz & Lazarsfield)	3%
Status concern (Veblen)	2%
Cosmopolitanism	9%

The inference is that venturesomeness and social mobility are the two most important characteristics in the personality of the innovator. However, what may actually be being measured here is the degree of inner- or outer-directedness of the respondents. Possibly the psychological measures being used were inappropriate to the case, and something like the Kassarian I-O Social Preference Scale might have been more useful. (Kassarjian, 1962). This

scale was developed for the purpose of measuring inner- and outer-directedness, and was based on Reisman's earlier theory of social types. The relevance to innovative behaviour is that outer-directed people are often conspicuous consumers, and may be innovators for that reason (wanting to be the first to have the latest model); inner-directeds are more concerned with the quality of their experience of a product, and may therefore want to be innovators in order to enjoy the latest developments. (Reisman, 1950; Reisman 1952).

Donnelly and Ivancevich's 1974 paper concerned just such an approach. The authors carried out a longitudinal study of the launch of the Ford Maverick. Using Kassarian's I.O. Social Preference Scale, they categorised purchasers as inner- or outer-directed. The authors found that mainly "inner-directeds" bought the car in the first year of launch, whereas mostly "outer-directeds" bought in the final year of the study. For control purposes they also studied buyers of similar established brands. The figures need some further analysis as the authors quote numbers of purchasers rather than percentages, and also no account appears to be taken of the proportion of inner-directeds and outer-directeds in the population at large ("inners" appear to be over-represented in the sample, although this may be a characteristic of the I-O Social Preference Scale itself). The study also only relates to purchases of new cars, not second-hand, so a large part of the population of car buyers are excluded.

There appears to be some evidence that inner-directed people are more likely to be innovators than outer-directed people; this is interesting, since many outer-directed people are conspicuous consumers who might be expected to want to

be the first to be seen driving the new model. Referring back to the Popielarz study, it would seem sensible to suppose that a broad categoriser would be less fearful of looking foolish (which would indicate an inner-directed outlook) and would therefore perceive less risk in buying a new product. Whether there is a link between breadth of categorisation and inner-directedness remains to be seen, and is outside the scope of this study.

Robertson and Myers (1969) made a study of personality as it relates to innovativeness. The researchers studied groups of neighbours in a Los Angeles suburb, rating them by innovative behaviour, opinion leadership, and a range of 18 personality traits taken from the California Psychological Inventory. The results of this study were somewhat inconclusive, probably due to the inadequacy of the personality testing instruments, but it represents an important step in attempting to link personality to innovative behaviour. This approach has now superseded by the KIO studies of Foxall.

Donnelly & Etzel (1973) followed up Popielarz's 1967 study. The general hypothesis to be tested was as follows; "That a housewife's breadth of categorisation is related to her willingness to try certain kinds of new products". Respondents were first asked questions to determine their breadth of categorisation (e.g. "If the average increase in the Alaskan population was 3,200 per annum, what was greatest/least annual increase?")

The researchers then used four evaluative discussions to gauge "newness";

1. Packaging

2. Physical appearance
3. User preparation/behaviour
4. Technological processing

These categories were decided by the authors, and by the staff of a local supermarket; they were chosen because they are (a) non-subjective in nature since they are tied to physical characteristics and (b) constitute attributes common to all grocery products. When new products came in the authors and judges independently compared the “new” product with the next nearest “old” product. If it only differed on one dimension, it was defined as “artificially” new.

This seems to be a somewhat arbitrary approach, and does not take account of newness from the consumer’s viewpoint, but again this research was an important attempt to relate personality traits to innovative behaviour. Donnelly and Etzel agree with Popielarz that broad categorisers tend to be innovators (although they draw a distinction between “genuinely new” and “artificially new” products), but their results also suggest that the attributes of the product may be as important as the innovative behaviour of the consumer. Again, it is important to note that the products being examined were fast-moving grocery brands, not high-involvement major purchases.

Innovators do not always innovate; the type of product and the characteristics thereof also need to be considered. Donnelly and Etzel recognised that the

degree of newness influences early trial, but unfortunately estimated degree of newness without real reference to the consumer.

Another approach to the problem of defining consumers in terms of innovativeness would be the behavioural approach; that is to say, to regard the consumer as a black-box problem and simply to ask whether he or she engages in innovative behaviour. This approach was developed by Goldsmith and Hofacker, who used a straightforward six-point Likert scale to evaluate the degree to which respondents behave innovatively. (Goldsmith and Hofacker, 1991). This scale was thoroughly tested for dimensionality, reliability, convergent and discriminant validity, nomological validity, criterion validity, predictive validity, and freedom from social desirability and acquiescence confounds using multiple samples of college students and adult consumers across a variety of product categories.

This approach has the advantage of directness and simplicity, although of course it leaves several questions unanswered; for example, it does not address the problem of what it is that motivates consumers to become innovators, and it does not address the question of how consumers themselves define innovativeness, either in products or in people.

2.4: Cross-Referencing Characteristics of the Product with Characteristics of the Consumer

Clearly it is not realistic to consider either the product or the consumer in isolation. Even the most innovative consumer will not buy every new product that appears, and likewise even the most conservative of laggards will not reject every innovation. Therefore there is a clear need to assess the consumer's perception of the product with reference to the characteristics of the individual respondent.

Lyman E. Ostlund (1974) carried out two studies of housewives' reaction to innovative products (a self-layering dessert mix, and Roastabags, which were then very new on the market). He found that the characteristics of the innovation as perceived by the housewives were more important in the decision process than the characteristics of the housewives themselves (except for venturesomeness and socioeconomic status). The attributes of the product which Ostlund used were essentially those identified by Rogers (1962, op.cit.), but with the addition of perceived risk, and Ostlund was able to rank them in order of importance to the consumer as follows;

1. Relative advantage.
2. Compatibility.
3. Complexity.
4. Perceived risk.

5. Observability.

6. Trialability.

Relative advantage and compatibility were ranked well ahead of the other factors. Ostlund points out that, since the products are low-priced, trialability would obviously not be an issue; likewise the nature of the particular products would make observability relatively low in importance.

The roles of observability and trialability in consumer evaluation may be affected by the product's search, experience or credence attributes (Ford et al, 1988). Search attributes are visible features of the product; its size, portability, design, etc., or those attributes which can be determined from external sources, e.g. brochures and information leaflets. Experience attributes can only be assessed by trying the product out, and credence attributes usually only become plain after extended usage of the product. Most new products will contain all three types of attribute, but consumers will often only be able to rely on search attributes and experience attributes prior to purchase.

Ostlund's work is important in that it included the consumer's perception of the product's features, and identified this as being the most important variable in the purchase decision. The factor which he omitted from his study was that of newness; from earlier studies it would appear that this is an important factor, but it is possible that consumers faced with a range of practical, rational reasons for buying the product might rationalise their decision to buy (based on the

simple fact of newness) into something which they believe might make more sense to a researcher.

Gordon R. Foxall (1989) gives a useful view of the problem as it applies to new product development.

“Ideally, a psychological test of personality which could be applied to representative consumer groups early in the NPD process ought to identify the type of consumer to whom the new product is likely to appeal.”

He goes on to say that using psychological tests to predict innovativeness and other aspects of consumer choice has a history of poor results and inapplicable findings; this may be due to the inadequacy of the psychometric tools available to earlier researchers. Foxall defines continuous products as product extensions, and discontinuous products as those which mean that the adopting consumer will change his/her lifestyle or purchasing patterns.

The author describes the Kirton Adaptive-Innovative Inventory, a psychological test which measures the degree of adaptiveness or innovation of respondents. Foxall used the KAI in a number of subsequent studies. This paper appears not to take account of Ostlund’s work, which clearly showed that the product’s features (as perceived by the consumer) were more important than the consumer’s personality traits.

Foxall is undoubtedly the most important researcher in the field at present. His 1988 paper examines the behavioural effects of having an innovative disposition.

Foxall concludes that actualised innovativeness (in consumers) may show up in three ways;

1. Vicarious innovativeness (interest in new products, gadgets etc. not yet acquired)
2. Adoptive innovativeness (purchase of new products)
3. Use innovativeness (using existing products in new ways)

Foxall quotes Elizabeth Hirschmann as seeing creativity in terms of cognitive level and complexity. The creative consumer has a highly-developed capacity to conceive, comprehend and master novelty (Foxall does not offer any evidence for this). Research was carried out on two separate groups of female purchasers of food products. It was found that innovators are apt to be Innovators on the KAI scale (although Foxall later retracted this; see other refs.) A consumer panel was asked to classify products into continuous, dynamically-continuous, and discontinuous brands (13 brands in all). The categorisations are as shown in Table 2.1.

Table 2.1: Product Categorisations

DISCONTINUOUS	DYNAMICALLY CONTINUOUS	CONTINUOUS
Herb-and-garlic dressing	Mixer sherry	Drinking yoghurt
Instant decaff. coffee	Low-fat sausages	Cream and veg. oil spread
Low-calorie, sugar-free wholewheat biscuits	Low-fat cheddar	Instant cheese sauce granules
	Fibre-rich cereal	Battered haddock steaks
	Savoury wheat crackers	Mixed-fruit drink

(Source: Foxall, 1988)

These groupings could also be identified by examining the KAI scores of the purchasers. There is therefore a correlation between the KAI scores of purchasers and cognition of innovation. More Innovators are attracted to discontinuous products; more Adaptors to continuous products. In terms of the Donnelly and Etzel study, Adaptors prefer the “artificial” newness of continuous products, while Innovators are attracted to the riskier Discontinuous products.

Michael Kirton’s 1976 paper is the basis of Foxall’s later studies of innovativeness. According to Kirton, people can be classified according to

“doing things better” (adaptive) or “doing things differently” (innovative).

Managers were asked to sort lists of statements into 2 groups which in their experience went together. This was done twice with different groups and resulted in very close agreement (thus demonstrating the validity and reliability of the technique). Innovators and adaptors are often suspicious of each other; adaptors think innovators are neurotic, extrovert, insensitive to others.

Innovators see adaptors as dogmatic, inflexible and conservative, disliking the unknown. Neither group accepts these descriptions of themselves.

Adaption/Innovation scores follow the normal curve.

Gordon Foxall and Christopher G. Hawkins (Food Marketing) used the Kirton Adaption-Innovation Inventory to research “healthy” foods. An earlier study (Foxall, op.cit.) had found that KAI scores for purchasers of up to 3 new brands did not differ from the mean for the general female population.

Purchasers of 4 or 5 new items scored high on innovation: purchasers of 6 or more moved towards the adaptive end of the scale. (The scale runs from 32 to 160; adaptors score low, innovators high). Females average 90.84 (SD 17.82). This study used 345 women (in a quota sample) and classified respondents as “healthy” eaters or not. The hypotheses to be tested were as follows;

H1; The mean KAI scores of Healthy Eaters would be greater than those of the Female General Population (i.e. Healthy Eaters would be more innovative).

H2: It would be possible to categorise products as relatively continuous/discontinuous on the basis of different KAI scores of purchasers.

H3: Purchase of greater number of “healthy” foods is directly related to higher mean KAI scores.

The researchers concluded that H1 & H2 were proved, and H3 disproved.

The real problem arises with Hypothesis 3 in that those who purchased the highest numbers of “healthy” products were not, in fact, Innovators on the KAI scale, but were Adoptors. This appears to be a contradiction, and the authors had no good explanation for it.

In 1993 Foxall took another look at the problem, using Zaichowsky’s Personal Involvement Inventory to assess the level of personal involvement of the respondents (Foxall & Bhate 1993). The results showed firstly that the KAI scores were positively, but only weakly, associated with the volume of new “healthy” food brands purchased, and that highly-involved Adoptors accounted for the largest volume of innovative purchases. It would appear from this that being an Innovator on the KAI does not mean that a consumer will also be an innovator in terms of new product purchasing; the level of involvement appears much higher. Given that Foxall is investigating fast-moving food products (usually regarded as low-involvement purchases) it must be assumed that the respondents are highly-committed to a healthy lifestyle and are therefore seeking out products which fit this lifestyle, rather than seeking novelty for its own sake. This would appear to be adaptive behaviour. The final piece of the puzzle would be to obtain a perceptual response from the respondents regarding the degree of novelty or the newness of the products purchased.

2.5: Conclusions

The research so far appears, then, to fall into two main categories; studies of what it is that makes a consumer into an innovator, and studies of product attributes as perceived by consumers. One of the main problems which researchers have is that much will depend on the type of product being studied; in some cases, rather suspect analogies have been drawn. For example, it is difficult to see how an analogy can be drawn between adopters of new farming methods and housewives buying new brands of toothpaste for their families, yet researchers will often make this type of comparison.

Overall, then, the current state of play in the research is that there is clearly need to examine both the attributes of the consumer as well as the attributes of the product as perceived by the consumer if any useable results are to be obtained. The difficulty at present appears to lie in identifying which are the key attributes of both consumer and product which control the early adoption process. There is some evidence that novelty, or newness, itself is one of the product attributes that influences the decision, but this will be either a positive feature (for Kirton's *Innovators*, perhaps for Rogers' *Innovators*, for some of Reisman's *Inner-Directeds*, or for Popielarz's *Broad Categorisers*), or a negative feature for *Adaptors*, *Laggards*, *Outer-Directeds*, or *Narrow Categorisers*.

What is now needed is to find out what correlation, if any, exists between the perception of newness and particular consumer attributes. Inevitably much will depend on the type of product being studied, and its characteristics as laid

down by Rogers (1962) and Ostlund (1974), but the issue so far not addressed in any detail in the research is the role of newness in the purchasing decision.

2.6: Key points

- The perceived newness of the idea for the individual determines his or her reaction to it.
- There is a demand for newness per se.
- Innovativeness is the degree to which an individual makes decisions about innovativeness independently of the communicated experiences of others.
- Consumers will almost always be able to use a reference product in order to judge newness.
- People who are prepared to take risks are more likely to try new products.
- Inner-directed people are more likely to be innovators.
- Broad categorisers are more likely to be innovators.
- In the decision process, the characteristics of the innovation are more important than the characteristics of the consumer.
- The type of product being studied will affect the results obtained from consumers.

Chapter Three; Diffusion Theories of Innovation

3.1: The Adoption Process

Innovation has been defined as “Any idea, practice or material artefact perceived to be new by the relevant adopting unit” (Zaltman and Stiff, 1972). Adoption is the acceptance and continued use of a product by a consumer; due to the problem of defining what constitutes “continued use”, there is some disagreement among researchers as to when adoption can be considered to have happened, however.

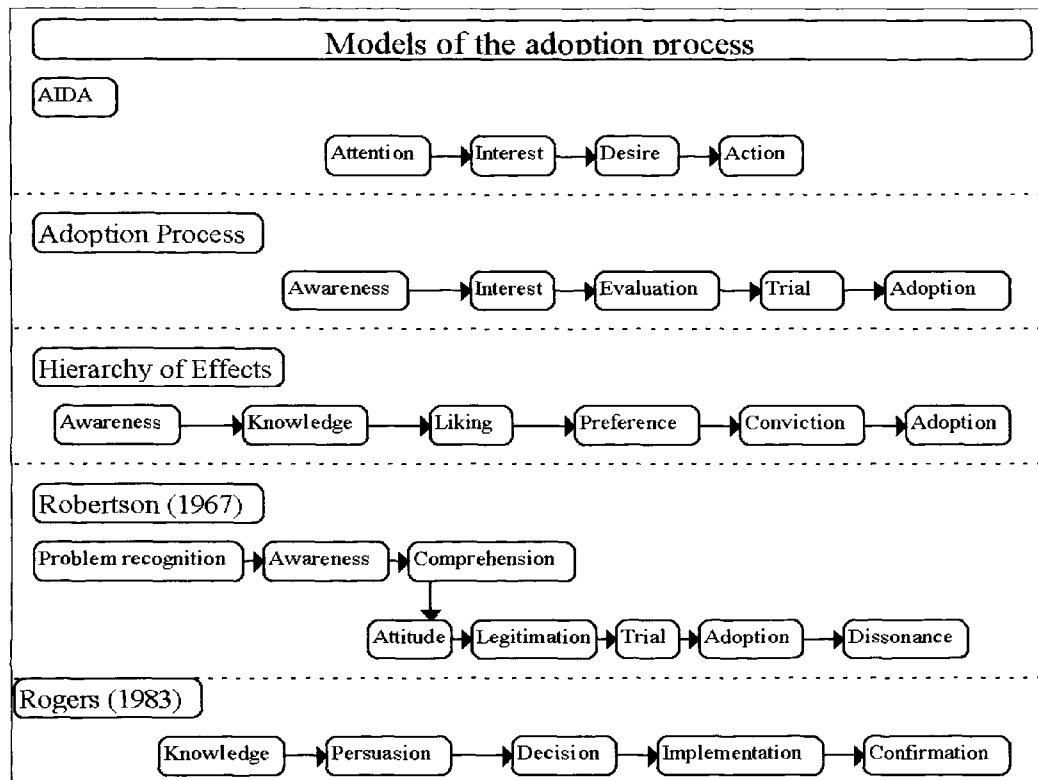
Figure 3.1 overleaf shows the main models for the adoption process.

The AIDA model shown in Fig. 3.1 is a somewhat simplistic view of the process; it ignores the stages of thinking which transform interest into desire, and also ignores some of the aspects of interest-generation which may also affect the adopter. Most importantly, though, the model seems to assume that the adopter will commit to the product without trying it first, which seems somewhat unlikely.

The adoption process model shown below it includes trial in the process, implying that the adopter will need to test the product before adoption will take place. This model also suggests that the consumer will make a conscious evaluation of the product before making a decision, though again this evaluation is not described in detail. The Hierarchy of Effects model

attempts to overcome this deficiency by including four middle stages, leading from knowledge to conviction.

Figure 3.1: Adoption Process Models.



Robertson's more complex 1967 model shows a much greater number of stages in the cognitive process. The process is still seen as being essentially linear, whereas in fact there are likely to be feedback loops in the process; Rogers' model is again simplified, leaving out much of the process of cognition.

For the purposes of clarity, the adoption process can be assumed to follow the following sequence, according to Robertson (1972);

1. Awareness. The adopter finds out about the existence of the product, but at this stage knows very little about it, and has yet to form an attitude about it. The adopter will probably first hear about the product either through marketing activities or through word-of-mouth, but may then conduct an external information search (discover new information) as well as an internal information search (using previously- learned information).

2. Comprehension. The adopter finds out about the product through an external information search, and has knowledge and understanding of what it can do.

3. Attitude. Here the adopter develops a favourable or unfavourable attitude towards the product. The attitude formed comprises what the adopter thinks about the product (cognition), what he or she feels about the product (affect) and what he or she intends to do regarding the product (conation).

4. Legitimation. This is the point at which the adopter becomes convinced that the product should be tried, or in other words develops a positive conation regarding the product.. This stage comes about as the result of a favourable attitude being formed towards the product, and the consumer may use both internal and external sources of information to reach this decision.

5. Trial. If possible the consumer will try the product to determine whether the actuality matches up with the previous impression gained from the information found. If it is not possible to use the product without adopting it (for example, cosmetic surgery) the adopter may use the product cognitively

(i.e. imagine what it would be like to use the product, or think through the full implications of adoption).

6. Adoption. Here the adopter decides whether or not to adopt the product, in the light of the unambiguous evidence from the trial of the product.

Not all consumers move through the adoption process at the same speed, and marketing communications vary in their effectiveness over the course of the adoption process. The adoption process may also be interrupted and therefore not completed by the individual, as shown in Table 3.1.

Table 3.1; Interruptions in the Adoption Process.

<i>Acceptance process stage</i>	<i>Marketer causes of incompleting processes</i>	<i>Consumer causes of incompleting processes</i>
Awareness	Poorly-used or too little communication	Selective exposure. Selective perception
Comprehension	Communication hard to understand	Selective retention
Attitude	Communication not persuasive	Complacency. Suspended judgement
Legitimation	Poor source effect of communications	Peer-group pressure against adoption. Laws regulating use of innovation
Trial	Behavioural response not specified in communications. Poor distribution system	Alternative equally good. Innovation not available
Adoption	Failure to develop new products and improve old products	Replaced by another innovation.

(Source: Zaltman and Stiff, 1972)

3.2: The Diffusion Process

Diffusion should here be distinguished from adoption. Adoption is an individual phenomenon, and is the process by which an individual consumer moves from first hearing about a product to becoming a regular user of it. Diffusion, on the other hand, is a group phenomenon and describes how the adoption of an innovation spreads among consumers. Robertson (1973) defines diffusion as;

“The adoption of new products and services over time by consumers within social systems as encouraged by marketing activities.”

There are several theories of diffusion, as follows;

Trickle-down theory (Veblen 1899). This theory suggests that upper-class habits and behaviour will be copied by the lower classes, and therefore if the upper classes of society adopt a product, the lower classes will eventually do the same. In this way the innovation is supposed to have “trickled down” the social order.

A second theory is the “**trickle across**” theory, in which the assumption is that, due to mass production and mass communications mean that the innovations are available to all potential adopters more or less at the same time. The rate of diffusion then only depends upon the individual rates of adoption of the consumers concerned.

A third theory is the **trickle-up** theory, in which it is assumed that many innovations (in particular fashion styles) come up from youth or working-

class sources and become adopted throughout the social strata eventually. This has certainly been true in recent years in the fashion industry (Evans and Blythe 1994).

The more recent **two-step flow theory** (Lazarsfield et al. 1948) suggests that nearly all creative or innovative individuals can become agents of diffusion if their views are broadly in line with those of the population at large. Consumers who have a greater level of involvement with products will exercise an important position in the diffusion process, since they will seek information on an ongoing basis, will therefore develop a high level of product knowledge, will buy new products within the product category, and will also influence other consumers by carrying out substantial word-of-mouth activities (Venkatraman 1988). This is in sharp contrast to the earlier trickle-down theory, since it does not assume that the process relies on an individual's social position or wealth. The assumption of the two-step model is that the influencers mediate the flow of information in some ways, because they learn about new products and pass the information on to others by word-of-mouth.

The two-step flow model has subsequently been replaced by the **multistage interaction model**. In this model it is assumed that the media influences are available to everybody, and that both the influential and the seeker are affected by the information flow. The influencer therefore does not mediate the flow of information, but rather contributes to it in terms of special insights.

This being the case, it is important to understand the characteristics of the innovators and influencers if the diffusion process is to be understood. The classifications described by Rogers (1962) were examined in the previous chapter; to recap, Rogers classified consumers as innovators, early adopters, early majority, late majority, and laggards.

3.3: Characteristics of Innovators

Robertson (1971) described the characteristics of innovators, as shown in Table 3.2.

Table 3.2; Characteristics of Innovators.

Demographic factors	Higher income levels. Often younger. Better educated. Higher occupational status.
Social interaction factors	Greater participation in friendship and organisational groups. An opinion leader. Socially mobile. Favourably disposed to innovation.
Attitudinal and perceptual factors	More venturesome and perceives less risk in buying new products. Perceives himself as an innovator. Has favourable attitudes towards new products.
Consumption patterns	Higher usage rates for the innovative product category. Marked willingness to buy new products.
Communication behaviour	Reads more print media.

(Robertson 1971)

Rogers describes the early adopters (those who watch the innovators and adopt when the innovation appears successful) as being more socially integrated than innovators, more likely to hold positions of leadership within

their communities, and are more likely to command respect as good sources of information. Because of these characteristics they serve as role models for the rest of the community. Early adopters directly influence other buyers by talking about their purchases and by having the products in their homes, or being seen to use the products.

There is no evidence for the existence of a super-innovator; in other words, an innovator for one product category is no more likely to be an innovator for other product categories than is anyone else, although there may be some overlap where the product categories are related (for example, a hi-fi enthusiast might also be interested in digital radio).(Summers 1971).

Communication variables that are positively associated with innovativeness are as follows;

- Social participation
- Interconnectiveness with the social system
- Cosmopolitanism
- Change agent contact
- Mass media exposure
- Exposure to interpersonal communication channels
- Knowledge of innovations
- Opinion leadership

- Belonging to highly interconnected systems

Although innovators for one product group are not necessarily innovators for other groups, there are some correlations. For example, **technophones** are people who like technology for its own sake, and who are prepared to take an interest in (and even buy) new computers, electronic gadgets, miniature TVs and so forth, whereas **technophobes** have a loathing for such devices. Technophones tend to be younger, more affluent, and better-educated than the average, and watch less TV and read more magazines and newspapers. (Mitchell, 1994).

Clearly it is important for marketers to identify who the influential people are likely to be, and much research has been carried out into this area. Table 3.3 shows the main characteristics of influentials which have been identified so far; but this is probably not an exhaustive list, nor will it be generally applicable to all cases.

Table 3.3: Characteristics of Influentials

<i>Characteristic</i>	<i>Description of Influential</i>
Demographics	Wide differences according to product category. For fashions and film going young women dominate. For self-medication, women with children are most influential. Generally, demography shows low correlation and is not a good predictor.
Social activity	Influencers and opinion leaders are usually gregarious.
General attitudes	Generally innovative and positive towards new products.
Personality and lifestyle	Low correlation of personality with opinion leadership. Lifestyle tends to be more fashion conscious, more socially active, more independent.
Product related	Influencers are more interested in the specific product area than are others. They are active searchers and information gatherers, especially from the mass media.

(Source; Adapted from Engel Blackwell and Miniard (1995))

3.4: Influences on the Rate of Diffusion

Several factors influence the rate of diffusion; currently there appears to be an increased rate of diffusion of innovation (Olshavsky, 1980) which may be due to more rapid communications. According to Olshavsky, price does not appear to be significantly correlated with rate of diffusion, although it might reasonably be expected that more expensive items would diffuse more slowly. This may be a result of the increasing wealth of the population, however.

A more significant factor in slowing down the rate of diffusion might be that of switching costs. Any adoption of a new product will involve not only the cost of purchase, but also the costs of changing one's habits and peripheral activities to accommodate the innovation. For example, a consumer who adopts a new brand of biscuit incurs very low switching costs; the adopter of a new computer software package may have to spend a great deal of time learning how to use it, and may even have to buy a new computer in order to run the software.

Marketers can use various strategies to overcome consumer resistance to innovation, as Table 3.4 shows.

Influencers (and others) like to pass on their knowledge, and there are several reasons for doing this.

Involvement is a major force. The influencer is actually interested in the subject area, and wants to share the excitement with others. A hi-fi enthusiast who buys a new Arcam stereo will want to tell friends and colleagues all about it on Monday morning. Telling other people acts as an outlet for the pleasure of owning the equipment (Venkatraman 1990).

Self-enhancement is about airing one's superior knowledge. People like to appear to be "in the know" - perhaps being able to say "I discovered a wonderful unspoiled place for a holiday". Appearing to be a connoisseur, whether of fine wines or works of art or classic cars is something many influencers strive for (Dichter, 1966).

Concern for others often precipitates influence. The desire to help a friend to reach a good decision often prompts the expert to say “OK, I’ll come with you when you go to the shop.” This factor is strongest when there is a strong link between the individuals concerned, and when the influencer has been very satisfied with the product or service concerned (Bone 1992).

Table 3.4: Strategies for Overcoming Resistance to Innovation

	Functional barriers			Psychological barriers	
	Usage barrier	Value barrier	Risk barrier	Tradition barrier	Image barrier
Product strategy	Develop a systems perspective (e.g. packaging). Integrate innovation with preceding activity (packaging)	Improve product performance (modification and development). Improve product positioning	Use a well-known brand name		Borrow a good image (brand name)
Communication strategy			Elicit endorsements and testimonials	Educate customers. Use change agents.	Make fun of negative image. Create a unique image.
Pricing strategy		Reduce price by lowering costs			
Market strategy	Mandate usage (market development)		Facilitate trial (increase market exposure).		
Coping strategy				Understand and respect traditions.	

(Source; S. Ram and Jagdish N. Sheth)

Message intrigue is the factor concerned with comments about advertising messages. If an advertisement is particularly intriguing or humorous, people will discuss it; this enhances the message by repetition. A prime example of this is the long-running series of advertisements for Hamlet cigars which was only ended on UK TV by a Europe-wide ban on tobacco advertising. In each case the hero's disappointment when life turned out badly was assuaged by smoking a Hamlet to the accompaniment of Jacques Loussier's piano. These advertisements were widely-quoted and even now (some five years after the series ended) pianists can raise a smile by playing the opening bars of the Loussier arrangement.

Dissonance reduction is about reducing doubts after making a major purchase (Gatignon and Robertson 1985). As word-of-mouth influence this can be good or bad; sometimes the influencer will try to reassure him/herself by telling everybody about the good points of the product; more often, though, the disappointed customer will use word-of-mouth to complain about the product. This is sometimes a way of passing the responsibility over to the supplier rather than admitting that the influencer has made a bad decision or a bad choice.

In many cases the innovation is diffused via non-personal means. In these cases, the innovation is demonstrated via the media direct to the potential adopter; sometimes this is done via vicarious learning, or modelling. Overt modelling is the process whereby the potential adopter is shown images of

an individual trying the product and enjoying it, either live (in-store modelling) or in a TV ad (symbolic modelling). An important aspect of effective modelling is that there must be a perceived similarity between the model and the observer (Peter and Olson, 1994). Modelling enables potential adopters to learn effective purchase and use behaviour while avoiding negative consequences; this is of obvious benefit when using a cognitive trial, as described earlier in this chapter.

Defining Terms

Generally within the literature the terms “new”, “innovativeness” and “innovation” are used with the assumption that the reader knows what the terms mean. In other words, definitions of those terms are rare and sometimes ambiguous. In particular, researchers tend to describe products as either “new” or “not new”; apart from Robertson’s (1967) classification of innovations as continuous, dynamically continuous, and discontinuous the majority of researchers do not distinguish between degrees of newness in products.

In itself the term “new” can have different meanings according to context, which makes the process of researching the concept difficult when dealing with groups of respondents who may attribute completely separate meanings to the word. For example, “new” can mean “of a type not seen before” or it could mean “fresh from the factory”. The word may also mean “recent”.

This naturally complicates the wording of measures used in any research, a problem which has not always been addressed by previous studies.

As shown in Chapter Two, newness is an attribute accorded to a product by an observer. Therefore newness is derived from two factors; the characteristics of the product, and the characteristics of the observer. What is new to one person may not be new to another, and it may be possible for one observer to accord a greater degree of newness to a given product than would another; equally, the same observer may be able to make comparisons between two different products and ascribe different degrees of newness to each.

For the purposes of this research, therefore, newness is defined as “*the degree to which a given product is outside the observer’s experience*”.

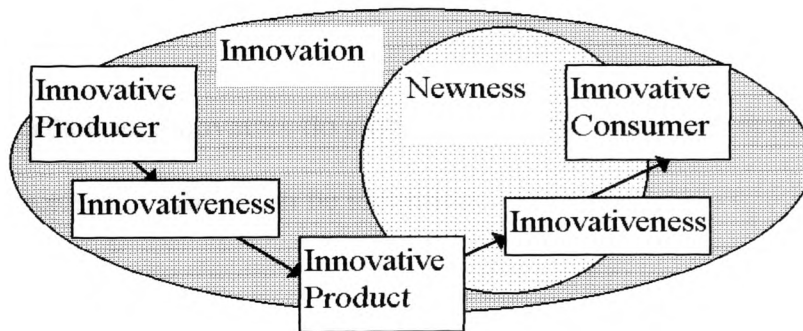
The terms “innovation” and “innovativeness” are also used within the literature with few attempts at definition. Part of the problem is that the word “innovation” can be used either as a noun or as a verb (the act of innovation). As a noun, the word refers to *a product that is different from its predecessors or near competitors in some way*; again, there may be degrees of innovation, but these would be difficult to assess objectively since the attributes of the observer will almost certainly mean that what is actually being judged is newness. As a verb, the word refers to *the act of adopting or offering a product which is significantly different from its predecessors or close competitors* (in other words new). The act of

innovation is peculiar to the innovator, so it will be contingent on the characteristics of the individual concerned.

The particular characteristic which controls the act of innovation is the individual's innovativeness. This is *the degree to which the individual makes decisions regarding innovations independently of the communicated experience of others*. Individuals with a high degree of innovativeness (innovative individuals) are those with the highest propensity to adopt or offer new products.

Figure 3.2 shows the relationship between the three concepts.

Fig. 3.2: Innovation, Innovativeness and Newness.



Within the sphere of innovation, the producer's innovativeness leads to the offering of innovative products; the consumer's innovativeness leads to the adoption of the product; newness is at the interface between the consumer and the innovative product.

3.5: Key Points

- Adoption is an individual process; diffusion is a group process.
- Diffusion of innovation is a gradual process because adopters adopt at different rates.
- Diffusion requires a process of learning on the part of potential adopters.
- The learning process comes from two sources; the media (marketer-generated information) and influencers (adopter-generated information).
- Learning can be direct or vicarious.
- Innovators for one product category are not necessarily innovators for another.
- Nevertheless, innovators do share certain personality and demographic characteristics which can be identified.

Chapter Four; Primary Research Paradigms, Methodology and Methods.

4.1: Research Paradigms

Historically, research in the social sciences has been carried out under the positivist paradigm developed by August Comte. Positivism is, essentially, the philosophy of using similar approaches to those of the physical sciences when researching social issues; it was originally proposed as a means of making the social sciences more rigorous than they had been in the period leading up to the mid-19th century. Up until the advent of positivism social problems were often explained in terms of metaphysics and theology, rather than in terms of the structure of social relations. Comte proposed the use of the scientific method for social research in order to obtain an accurate picture of social reality, untainted by the influence of the researcher.

Positivism has been criticised (Girtler, 1984) for making the assumptions shown in Table 4.1 overleaf.

Table 4.1: Assumptions of Positivism.

<i>Positivist assumption</i>	<i>Criticism</i>
Social phenomena exist outside the interpretation of individuals	The researcher, as a social animal, cannot avoid being part of the social phenomenon under investigation.
Reality can be determined objectively	The attempt to be objective can lead to bureaucratic dehumanisation of the process (Brieschke, 1992).
Social phenomena can be described in quantitative terms.	Quantification hides the meaning of social interaction because it relies on describing what happens rather than why.
An initial hypothesis (and research design) will enable the researcher to maintain the necessary objectivity to carry out the research effectively.	Because the hypothesis limits the breadth of the research and thus the options of questions and responses, opinions which otherwise might not have been expressed may be forced on respondents.
Research should be limited to what can be perceived by the senses, using quantifiable research tools to test hypotheses.	This approach denies the involvement of the researcher's own social involvement in the process; it is probably impossible for the researcher to be wholly divorced from the respondents, and for the respondents to be wholly divorced from the researcher.
Tried and tested methods of research are most likely to provide rigorous results.	This approach adjusts reality to fit the methods, rather than adjusting methods to reality.
Reality is the sum of measured or measurable attributes which can be quantified.	The research methodology is geared towards quantifying and classifying events, which may not always give an unbiased account of reality.
The researcher should avoid influencing the researched; ideally, researchers should be disembodied abstractions, or depersonalised (Collins 1992).	It is neither possible nor beneficial to bracket out the researcher's personal experiences and views.
The natural sciences are taken as the model for the research.	Natural sciences are able to operate in isolation, dissecting the research object into its elements and taking each for examination; also, natural scientists are able to duplicate research with identical objects, whereas social scientists deal with almost infinitely variable people.
Respondents are treated as scientific objects to be studied.	Respondents will be affected by the process of study itself; in the same way as physicists are unable to observe the electron because any attempt to focus on it causes it to leap to a new energy level (and hence position) social scientists are rarely able to observe people without causing a change in behaviour.
Positivism requires the researcher to be objective, and to use standardised procedures as much as possible so that the findings can be duplicated by other researchers if necessary.	Objectivity is not possible since the perceptions and meanings of the researcher permeate the research. Secondly, standardisation may create an artificial world with little in common with reality.

Finally, positivism has been criticised on the grounds that it tends to divide the world into dichotomies; feminists have criticised this approach (on the basis that the world is also divided into masculine and feminine by positivist researchers), and this criticism has led to the development of feminist research, which seeks to avoid such divisions.

These criticisms have led to the emergence of new research paradigms; firstly, the interpretive paradigm propounded by Gadamer (1981) and others. For Gadamer, the subject and the object in social research are intertwined and deconstruction is difficult or impossible. Gadamer therefore proposed a theory and practice of interpretation which he dubbed hermeneutics. Interpretive techniques include action research (in which the researcher is part of the study) and most forms of qualitative research - focus groups, depth interviews and so forth.

Secondly, critical theory views reality as not being created by nature, but by people; specifically, critical theorists take the attitude that reality is created by powerful people who influence the way others perceive and interpret the real world. Critical researchers seek to “explain social order so that it becomes the catalyst that leads to transformation of the social order” (Fay, 1987). Critical research seeks to discover the mechanisms of control, expose them, and find ways of overthrowing the power base that has given rise to them.

A fourth paradigm, postmodernism, has been proposed (Lather, 1991) in which the modernist notion of research as leading to progress has been

questioned. Postmodernists view research as being about story-telling; different languages, different registers of the same language, and different discourses each construct the world differently (Usher, 1997). Positivist research is firmly-rooted in the modernist philosophy, and postmodernism seeks to overthrow this; thus the critical paradigm is an oft-quoted example of postmodern research, but postmodern research in general has yet to be fully-accepted as a distinct fourth paradigm. Usher goes so far as to say that postmodernism is not a paradigm for research, but rather “an injunction to be constantly vigilant”.

The choice of paradigm is more a function of the researcher’s own attitudes and beliefs than it is of the objective of the research; although interpretive and critical approaches offer alternatives to positivist research, the fact remains that the bulk of social research carried out is undertaken within a positivist framework (Sarantakos, 1993).

4.2: Research Models

The basic assumptions behind research models are (1) that research follows a series of steps (2) that the steps are executed in a given order and (3) that planning and execution is more successful if a model is used. The purpose of the model is to offer a guide, thus reducing time and costs; to introduce a systematic approach to the research; to encourage the introduction of an effective organisation; to help in planning and use of resources; helps the researcher to direct and control the operation.

The research model will contain answers to the following questions;

1. The methodology (the research paradigm adopted, rather than the actual methods used).
2. The sampling procedure.
3. Data collection method(s).
4. The method of analysis.
5. The administration.
6. The control of bias and errors.

Research models should be designed around the need for reliability and validity. Reliability refers to the consistency of results obtained; a reliable piece of research is one that can be repeated over time, over respondents and over samples and give similar results (Alreck and Settle, 1985).

Validity refers to the degree to which the study measures what it is supposed to measure. Internal validity refers to whether or not what are identified as the causes actually produce what have been interpreted as the effects.

External validity is the degree to which the results can be generalised beyond the immediate research sample; population validity refers to generalisation to the population as a whole, ecological validity to generalisation to other contexts (Gill and Johnson, 1991).

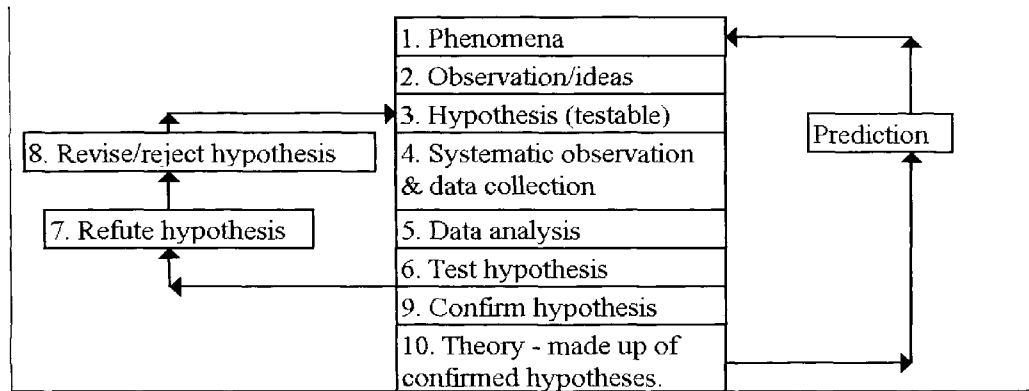
4.3: The Methodology

In the study reported here, the aim of the primary research was to determine whether different groups of consumers use different factors to assess newness. This raises three conceptual issues; firstly, choosing appropriate ways to divide consumers into groups, secondly determining whether consumers are able to ascribe degrees of newness to products, and thirdly whether the different groups use different factors when assessing newness. This in turn meant that the personalities of the respondents would need to be tested as well as their cognition of the newness factors of the products.

The research was conducted within a positivist conceptual framework; the assumption was that, for the purposes of the study, the impact of the researcher's identity on the responses would not be a factor (given reasonable care) since the respondents are (ultimately) reporting on their past behaviour and future intentions. The study would not therefore require participant observation or action research approaches as would a phenomenological approach. The research would also be conducted by deductive methodology, rather than inductive; in other words, the study would begin with a hypothesis then examine the facts rather than begin with a set of observed facts and try to explain them. In the event, this choice of methodology may have led to problems later on (as is shown in the Conclusions, Chapter 7).

McNeill and Townley give the following model of the hypothetico-deductive method.

Fig. 4.1; Hypothetico-Deductive Method.



(Source: McNeill, P. and Townley, C. (1986).

Since newness appears to be desirable per se (Haines, 1966) the observation of the phenomenon of consumer response to newness is well-established in the literature and elsewhere.

4.4: Sampling Procedure

The basic hypothesis to be tested is that different groups do, indeed, assess newness differently (more detailed hypotheses are given later), so the next stage in the research was to identify a group of consumers who would be suitable for the research. This was dependant on the following factors;

1. The product category itself needed to have sufficient features for the respondents to have a choice of factors for assessment of newness.
2. The respondents needed to be sufficiently involved with the specific product category to be prepared to take the trouble to respond, and to have sufficient knowledge of the product category to have formed opinions about what is new and what is not.
3. The respondent groups needed to be identifiable and accessible.

For these reasons the hi-fi market was chosen. Hi-Fi enthusiasts (audiophiles) are likely to be knowledgeable about the product category, the products themselves are usually complex enough to have a wide range of possible innovative features, and as a group audiophiles are relatively easy to identify and contact.

In order to examine consumer responses to innovativeness, it is useful to categorise the respondents according to their personality characteristics. The categories needed to be relevant and clearly-defined, but also needed to be relatively easy to determine with simple measures. In other words, it would be necessary to use measures that would be simple and quick to administer if any substantial number of respondents were to be categorised, since the use of lengthy testing procedures for more than a few respondents would result in a high level of refusals.

For these reasons respondents were measured according to their innovativeness as determined by the Goldsmith-Hofacker Innovativeness Scale (Goldsmith & Hofacker, 1991), and also for their inclination towards conspicuous consumption as measured by an adapted version of the TGI Consumer Survey questionnaire (TGI 1994). The Goldsmith-Hofacker Innovativeness Scale has been widely-tested in a variety of situations, and is both valid (known to measure innovativeness) and reliable (has been used in a variety of situations by different researchers and has given consistent results). Application of the Goldsmith-Hofacker test would make it possible to divide respondents into innovators and non-innovators.

The main advantage of the Goldsmith-Hofacker Scale is that it is simple to use and direct; it asks respondents about their past behaviour and intended future behaviour, rather than examining personality factors that may (or may not) indicate innovativeness. While some personality factors have been identified (for example, some innovators are known to be charismatic) it is not necessarily the case that all charismatic individuals are also innovators. The Goldsmith-Hofacker Scale avoids these problems by asking directly about innovative behaviour.

Testing for conspicuous consumption was undertaken because this personality trait would, on the face of it, appear to have relevance in terms of the observability of the innovation (Rogers, 1962). It might be assumed that conspicuous consumers would tend to emphasise the more obviously visible innovative features of products, since their main interest would be in showing off their new acquisitions, whereas other consumers who are not

conspicuous consumers might be more concerned with the performance or usage of the equipment.

Clearly there are many other personality characteristics that might affect responses to newness in products; there is, however, a limit on the number of test instruments a given respondent is willing to undertake.

The hypotheses to be tested were therefore as follows;

H1: Consumers are able to ascribe degrees of innovativeness to new product offerings.

H2: Innovators will judge innovativeness differently from non-innovators.

H3: Conspicuous consumers will judge products differently from non-conspicuous-consumers.

4.5: Data Collection Methods

Having decided on a method for categorising respondents in terms of personality, it was necessary to develop a system for eliciting appropriate responses about respondents' reactions to new product offerings in terms of their cognition. Primarily the study was concerned with the respondents' attitudes to the product in terms of its innovative attributes, or innovativeness. Attitude comprises elements of cognition, affect and conation; for the purposes of the study, the element of most interest is cognition, although affect might be expected to contribute towards

respondents' willingness to participate. Conation, if it is interpreted as a willingness to adopt the innovation, was not part of the study (although some respondents expressed views which indicated conation towards the products).

Green and Tull (1964) have identified five operational approaches to attitude measurement, as follows;

1. Inferences based on self-reports.
2. Inferences drawn from observation of overt behaviour.
3. Inferences drawn from partially-structured stimuli.
4. Inferences drawn from performance of objective tasks.
5. Inferences drawn from physiological reactions to the attitudinal object.

SELF REPORTS; These are drawn from the responses given by subjects to specific stimuli. This means either a questionnaire, or a structured interview in which the subject is asked a set of specific questions and either gives his/her answers to the interviewer verbally or writes them down. The difficulty with this technique is that the designer of the questionnaire may not be asking the right questions; quite apart from the problem of making the wording of the questions as unambiguous as possible, the researcher may simply be missing the point and not asking the subject's opinion on the most fundamental issues. Also, some attitudes may be hidden or may be

difficult to express. The main strength of questionnaire-based studies is that quantitative data can be obtained; given the positivist approach of the study, this was a major consideration.

OBSERVATION OF BEHAVIOUR; Observation enables the researcher to find out what is happening, but rarely to find out why. Observation can therefore be useful in deciding on the dimensions of the problem, but would not be useable as the sole methodology for this study.

PARTIALLY-STRUCTURED STIMULI; This approach appears rather more promising. It involves such methods as sentence completion, story completion, and the thematic apperception test (TAT). This test invited the respondent to provide the dialogue for a cartoon or a picture story. The free-ranging interview, whether with a group or with individuals, also falls within this approach. The interview may be semi-structured, or unstructured, with respondents being asked to discuss the topic of the study without prompting from the interviewer. The main advantage of this group of methods is that the respondent is not "led" in the same way as he/she would be by a structured interview or questionnaire, and is therefore likely to produce unexpected responses. Some of the techniques, however, would require a trained psychologist to interpret the results, and it is difficult to obtain quantitative data from such studies. Again, these methods would be useful for deciding the dimensions of the problem.

PERFORMANCE OF OBJECTIVE TASKS; Within the context of the topic of research, this approach might (for example) giving respondents a

new product to use, with instructions on how to use it, and observing the resulting activity. This would certainly be of some use in investigating re-invention, and perhaps other aspects of innovative behaviour on the part of consumers, but it is of limited use in determining consumer perception of newness per se. As an extra tool in the study it might be of some use, however.

PHYSIOLOGICAL REACTIONS; Certain emotional responses to external stimuli are revealed by physiological reactions. For example, interest causes the pupils of the eye to dilate, fear causes perspiration and a lower electrical resistance in the skin, and so forth. Subjects who are shown the attitudinal object, or who are invited to discuss the object under consideration, may exhibit these physiological responses, and from this inferences may be drawn. Again, it is difficult to see how this technique might be of use in determining consumer perception of innovativeness, since it is an indicator of affect and possibly conation, but is not really useful in determining aspects of cognition.

Clearly none of the above techniques would alone be adequate for the study. As has been seen from earlier chapters, previous studies have almost invariably suffered from the problem of relying on the researchers' parameters, without seeking to derive the dimensions of the problem from the consumer's viewpoint. A combination of techniques was therefore chosen, firstly to obtain qualitative data in order to derive the dimensions of innovativeness from the consumer's perception, and secondly to use this

data to design a suitable study for the purpose of obtaining quantitative results, applicable to the population at large.

For the first stage of the study the stimulus needed to be as open-ended as possible, since the intention was that this part of the empirical work should provide the right questions, rather than rigorous answers. The method used was a combination of observation and group depth interviews.

The advantage of the group depth interview is that the respondents provide their own stimulus for each other, with minimal input from the moderator; respondents are forced to justify their viewpoint to the group without recourse to the moderator. In keeping with the positivist tradition, this minimises the risk of interviewer bias, and is the method most likely to lead to a full exposition of the dimensions of the problem.

There are two main drawbacks; one is that the results are difficult to quantify (irrelevant in this case, since this exercise is intended as a pilot study prior to developing a quantitative instrument), and the other is that the group may tend to endorse the view of the most articulate (or most vociferous) member of the group. The moderator must only interrupt if the discussion appears to be going off the subject; this may be difficult to achieve in practice, since it can be hard to see where an apparently unrelated trend in the conversation may be leading.

The qualitative research helped to define the main issues in the consumers' perception of innovativeness; these were then used to develop a self-

completion questionnaire which was administered to visitors attending the Sound and Vision Show in Bristol.

4.6: Analysis of Qualitative Data.

Qualitative data can be analysed by computer, both in terms of frequency of responses and in terms of the hypertext links between key words and concepts. To prepare the data for the computer requires the researcher to divide up the data into manageable bits of information, assigning each a meaningful “tag” to enable groups to be identified. The groups themselves must also be identified; in other words, a category set must be derived from the overall mass of data. The procedure is iterative, since the processes of describing, classifying, and connecting will throw up new perspectives on the earlier links in the analytical chain (Dey, 1993).

Analysis of qualitative data relies fairly heavily on creative judgements on the part of the researcher; given the open-ended nature of the data derived from, say, depth interviews the researcher is faced with the task of deciding which categories are appropriate and which statements fit into each category. If the number of categories is small, the degree of fit of the data is likely to be small also; in other words, the data will be increasingly forced into inappropriate categories (Bliss 1983). On the other hand, if the number of categories is large, it will be difficult to draw meaningful conclusions from the data (Miles and Huberman 1984). For this reason, the derivation of a category set is likely to be a process of continuous refinement.

Another issue in this type of analysis is the distinction between style and substance. A statement made in a casual manner by one person may be made in a more forceful manner by another; this alters the nature of the data considerably, yet may not show up in a transcript and may therefore not be given the appropriate weighting by the computer.

A further problem with research based on qualitative data is that it can rarely be duplicated elsewhere, since the time and place at which the study takes place will frequently be crucial to the study. This means that the validity and reliability of the conclusions become difficult to check, and much must be taken on trust (Dey, 1993).

A final problem with qualitative research is that computers have limitations, and the type of analysis described becomes difficult if the quantity of data is too great (Dey, 1993 p.256).

Maintaining objectivity in the analysis of qualitative data is difficult to say the least, and while it can be argued that any research is likely to be affected by the prejudices and misconceptions of the researcher, the dangers appear far greater when handling qualitative research since so much depends on creativity and judgement on the part of the researcher. Furthermore, it is difficult (and sometimes impossible) to check on the objectivity of the findings by repeating the research elsewhere.

4.7: Analysis of the Questionnaire

Given the small sample size the analysis proved difficult, but the completed sample was analysed using a range of statistical tools; further details are given in Chapter Five.

4.8: Administration

For the purposes of this study, administration was straightforward since both the qualitative and quantitative studies were small enough to be administered by one person.

The only external assistance used was in the issuing of questionnaires at the Sound and Vision Exhibition, when two students were recruited to help pass out and collect questionnaires.

4.9: Control of Bias and Errors

Although attempts were made to minimise bias by using group interviews and self-completion questionnaires, sampling bias due to non-response rate became evident.

Perhaps the best method of controlling for bias and errors would have been to repeat the study at several locations and times. This would have allowed comparisons to be made with different groups of respondents. This was not done due to the difficulty of assembling a large enough group of audophiles;

the Sound and Vision exhibition offered an excellent opportunity for this, but unfortunately the exhibition is only held once a year and is the only one of its type in the UK.

4.10: Conclusions.

Even within a positivist framework, there is always considerable risk of bias due to the researcher's own preconceptions and prejudices coming through. Attempts to minimise this will inevitably rely on an open-minded examination of the respondents' beliefs and attitudes. These can be elicited in a number of ways; by self-report, by experiment, or (sometimes) by observation. It is important, though, not to be so open-minded as to remove all judgement.

Questionnaire surveys are usually used for the collection of quantitative data, but the process of designing questionnaires can lead to bias due to the researcher only including questions which will confirm a prejudice, or by omitting questions which should have been asked simply because the researcher has not considered that dimension of the problem. A suitable combination of qualitative research (to obtain the dimensions) and questionnaire survey (to provide a basis for objective analysis) can help to overcome these problems.

4.11: Key Points.

- Research can be conducted under positivist, interpretive, or critical paradigms, according to the nature of the research problem and the propensities of the researcher.
- Methodology arises from the paradigm selected.
- Researcher bias is difficult to exclude.
- Qualitative data is difficult to analyse because it requires considerable judgement on the part of the researcher in assigning categories.
- Analysis of large amounts of qualitative data is problematic given the current state of the art in computer analysis.
- Questionnaires are prone to bias in terms of questions included or omitted.
- Questionnaires are an effective way to provide quantitative data about the problem, but have the drawback of being narrow and inflexible in most cases.

Chapter Five: Focus Group Interviews

5.1: Selection and Categorisation of Respondents

As stated in the previous chapter, the purpose of the qualitative research was to determine the dimensions of the problem preparatory to designing the questionnaire survey which would provide quantitative data. To this end, four groups of respondents were recruited from the student body of the University of Glamorgan. Although students were used, some of the group were mature students and therefore there was some spread of age and income levels; having said that, the sample clearly has limitations and is not representative of the population at large.

The groups were selected so as to be as homogeneous as possible.

Individuals were tested using the following psychographic measures;

1. An adapted version of the TGI Consumer Survey, designed to determine whether respondents were conspicuous consumers or not.
2. The Goldsmith-Hofacker Innovativeness Scale.

Groups were formed of members who tended to be towards the extremes of these scales (four groups in all). In order to make the process manageable, groups consisted of four to five members. To obtain sufficient respondents

to be able to select appropriate group members, a total of forty volunteers were tested.

5.2: The Study

The groups were shown some innovative hi-fi products and invited to discuss them, with particular reference to the following areas;

1. Is it new?
2. If so, how new is it?
3. What makes it new?

The discussions were filmed and transcripts made (see Appendix A). From the transcripts it was expected that it would be possible, firstly, to identify the factors which enable consumers to judge innovativeness and degree of newness. Secondly, it may be possible to identify differences in perception between the groups, i.e. to develop hypotheses about how people with differing cognitive styles view newness. Thirdly, it would be possible to develop a measure which could be used on a large sample of consumers to test the hypotheses developed.

In common with other qualitative studies, the analysis of the group responses required the exercise of considerable judgement on the part of the researcher; in this respect, this part of the research departs considerably

from the ideal positivist approach. There is, however, a difference between using judgement and introducing bias; the responses are purely those of the group members, and the interpretation of those responses belongs solely to the researcher.

The interviews were all held on the same day, and respondents were shown two hi-fi sets, one supplied by Denon and another by Arcam, with loudspeakers supplied by Heybrook. All three companies are known as innovative manufacturers in the hi-fi industry. Respondents were asked to decide which piece of equipment was most innovative, and why. No time limit was put on the interview, but each session lasted approximately forty minutes.

Table 5.1 shows the categorisation of the groups.

Table 5.1: Categorisation of Groups.

	Conspicuous Consumers	Non-conspicuous-consumers
Innovators	Group One	Group Three
Non-innovators	Group Four	Group Two

The groups tended to spend considerable time in discussing whether or not they liked particular features, and whether they would want to buy the products, rather than directly on innovation. Group Four had considerable difficulty in making any comments at all, and their interview was therefore

somewhat short. Group One tended to handle the equipment more, and also seemed better able to keep to the subject of newness.

The full transcripts are shown in Appendix A, but selected extracts (specifically those extracts where the respondents are talking directly about innovation) now follow. Individual respondents have not been identified.

5.3: Group One (Conspicuous Consumers who are also Innovators).

First Statements on Newness.

Which is the most innovative?

Hard to tell unless, you know, unless you study the brochures.

You'd go for the looks.

But it isn't only looks is it?

But its innovative design, but like you said earlier, that's been around.

You've seen that for absolutely years.

Saying that, that's a new colour, whether it'll take off.....

The thing is we're not going to find out which is the most innovative unless we read the manuals.

But then I don't understand the jargon they use anyway.

But this one's got this tape thing. I like the tape to tape thing.

This one's innovative with the size, they're making them even smaller than that nowadays.

Compared to this one, yeah.

But then you could add to it.

Well, I think I can solve the problem.

This one's more innovative because of the size and because its more compact and that. They're making them even smaller than that nowadays.

I'm not too sure about these small buttons.

I don't like the small buttons.

The thing is you can't have a small system with really big buttons.

But this has gone too far the other way, with these they're almost pin size.

But with a remote control you just sort of sit there and press that.

But half the time I don't understand the remote control either.

This set of statements raises the issues of size, of the brochures, and of the difficulties of understanding the technicalities of the equipment. Also the issue of the practicality of using the equipment is raised.

This group were the most tactile of the groups, and spent considerable effort on showing each other various aspects of the hi-fi sets on display. This may be an indication of a desire to air their knowledge of hi-fi systems; such a desire might easily be expected of conspicuous consumers who are also innovators. On the other hand, it seems strange that this group, knowledgeable about the equipment and probably keen to make a good impression, should also be prepared to admit that the technicalities of the equipment are hard to understand.

5.4: Second Set of Statements on Newness

I reckon this one's more innovative, then.

Yeah, but are you going on looks alone?

Yeah, it is swaying me a bit but no. Like the fact that it's more compact and everything, you're going into smaller things now, all your microchips and everything.

That's all we can say really because we don't know about the sound and that.

But if I went into a shop and they, um

That one's more fuddy-duddy, this one's more modern and probably people see that as being more innovative.

There's a record player option on it.

If you go into a shop and they have stacks of stuff there you'd just like listen, I wouldn't know, I wouldn't have a clue which would be the best sound for me really. And the one that sounded best to me might not be the ones that have the bass and everything on.

This set of statements contains the issue of appearance, and also raises the conflict between understanding the technicalities, and making the equipment easy to use in practice.

Some group members seem to be avoiding the use of technical terminology; this may stem from a desire not to seem too “highbrow” in the eyes of the others (and might possibly be less apparent if the group was drawn from an older sample). This may also account for the statements earlier on about difficulty in understanding the technicalities of the equipment.

5.5: Third Set of Statements

Why don't we just go for that one - everything about that one in that shape.

Where's the bass and that?

I don't think it's there.

There must be an action somewhere.

You've got the Dolby.

Unless it automatically does it for you, some of these automatically do it for you these days.

In that case this one's more innovative, isn't it?

You know you'd have thought there'd be an option somewhere on this, somewhere to change the sound quality, you know bass and treble.

Maybe you do have somewhere.

Here the group is moving towards a view that technical excellence equates with newness. Design issues also get a mention in this set of statements; this equates with appearance, clearly of interest to conspicuous consumers.

5.6: Fourth Set of Statements

I don't like it not being adjustable.

I'd go for this one, I'd go for the adjustable one.

This one looks like the one I've got, five six or seven years old.

That's quite an old one, isn't it.

Whereas this, this one uses computer interfacing which is quite different.

That's right, yes.

So this one must be more innovative, if it's using digital impulses.

Yeah, very right.

Why, what's the point?

Is it just to cut down

Yeah, that is more innovative.

Here the group is moving from a view that the appearance is important, towards a view that the innovative aspects of the technology are most important. There is a strong element of conformity coming into the equation, as one member's view about technology is adopted by the other members.

5.7: Fifth Set of Statements

The question is, which is the most innovative?

Going on looks not on sounds, maybe the buttons but mainly the looks, this one's more innovative. And the fact we've got more information on this one.

Whether you can understand it all is a different thing.

Generally these books are absolutely appalling, aren't they?

They're not very user friendly, are they?

It's baffling, it's bad enough trying to buy stereo equipment; you don't understand what you're looking at, there's a load of variety you don't understand what you've got, what the features are.

A problem is raised here about the comprehensibility of the brochures, and the equipment; the group is apparently equating incomprehensibility with innovation. This may not be an uncommon attitude among less well-informed individuals, but it seems a little incongruous in a group of innovators.

5.8: Sixth Set of Statements

MODERATOR; *Did you come to any conclusions then?*

Yeah, we think this one.

Well, the size really.

Looks and size, really.

This one's got the ribbons as opposed to all the wires, also it's got the system built in to sort of adjust the bass and that which the three of us prefer. You like to fiddle with it yourself, whereas I'm not very good with things like that, I prefer to have it done for me!

It's quite neat and compact, isn't it?

I haven't seen this before, this tape thing, I quite like that.

I don't like the colour of that one.

I don't like the metal grille.

I don't like the looks of this one.

Here the group is beginning to drift away from a discussion of innovation, and towards a discussion of which equipment they prefer (an issue of affect rather than cognition). Size of the equipment is clearly being raised as a major issue regarding perception of innovation.

The size of the equipment relates both to its appearance and its technical superiority; the main thrust of electronic advancement over the past fifty years (since the invention of the transistor) has been ever-greater miniaturisation. Therefore it would be difficult to say whether the respondents are more concerned with the appearance of the equipment or with its technical aspects; this is perhaps an area which could have been probed more thoroughly.

5.9: Group Two (Non-Innovators who are also not Conspicuous Consumers); First Set of Statements on Newness

This one seems more innovative.

But you prefer the other one.

Switch on the radio, try the

This one's separates as well.

Does the radio tune into it as well?

I like the stereo receiver.

Can you put the CD back on?

Let's try it with the culture model, it's stylish. Stereo receiver

.....

Innovative is like.....

*This one is like for if you just want a good sound. You could
fiddle more with this one.*

What are all these for, do you know?

*This is different, you see all these in stores. Which one do you
prefer?*

Well, this one's really innovative.

*That's more your bog-standard separate, I suppose. What do you
think?*

*This one's more innovative, especially the tape deck. Yeah, its
well good, that, I thought it was two CDs. Is that a digital tape
recorder?*

But you buy all them

Have you got the prices for it?

I think its one of these that if you want to get it you wouldn't look at the prices.

Has it got the prices on?

No it doesn't.

This is also innovative in the fact that it's smaller, isn't it.

Yeah. I like that tape.

Sleek. This has got a clock built into it, like a radio alarm.

Here the group is equating size, and to an extent the technical features, to newness. As stated already, size may relate to technical superiority. This group tended to get side-tracked into a discussion of whether they would actually buy the equipment, rather than concentrating on its newness.

5.10: Second Set of Statements on Newness

Speaker's a bit impressive, isn't it?

I think you'd expect that of these. It's certainly quite novel and different. Is that a major radio station, then?

It's on FM at the moment.

You've got four kind of wiggly bits.

I wonder why that is?

Just to confuse you I think. Function.. tape...

CD....

Complicated as hell.

I think we got a remote control with this one.

Yeah, I like that.

I've seen these CDs too many times before.

Yeah, it's quite standard really.

The function button changes from tape to CD.

It tells you what it's called. Cool. Can't get it to make any sense, though.

They're both separates.

Again the issue of the comprehensibility of the equipment is raised. This group found the equipment less comprehensible than did the first group.

5.11: Third Set of Statements on Newness

It'd take you a few hours to read this, I think.

This has got a fast forward button on the CD. I've never heard of that before, have you?

Is that on the same button for fast forward as it is for the next track ?

No its got "next" for next track, and a fast forward button as well.

Have you seen that before, then?

This one's got it as well, but its the same button for next track as it is for the fast forward.

Oh well, go on then.

For next track you just press it quickly once, but you can do it backwards as well.

But you can put your video through that one, too.

Where does it say about the video?

You can't see very clearly how much time you've got left on this one.

"lifestyle system" !

Seen this too many times before.

Here the group is very much concentrating on the technical features, and also the practical aspects of using the equipment. It might be reasonably expected

that a group of non-innovators would be concerned with the practicalities of day-to-day use, and that non-conspicuous-consumers might be less concerned with appearance.

5.12: Fourth Set of Statements

This one I'd be able to use but I don't think I could handle all those buttons.

There's a few of them like that in the shops.

You can have the sound coming out the speakers.

They're more fun, you can fiddle with them. Is that new or not? Have you seen it before? I've seen like tellies wired up to speakers. Oh yeah, I've seen videos and things.

It still sounds nicer, actually.

You've got the bass/treble, you've got graphic equalisers on both of them.

They don't seem to work, though.

I suppose that one's more... different, isn't it?

Quite responsive.

Sound is excellent, though.

This one isn't.

That one's a bit weak, just little speakers on it.

Here the group is again concentrating strongly on the technical aspects of the equipment, but still very much from a practical point of view.

5.13: Fifth Set of Statements

You can synchronise the, ER, that and that if you're recording off the CD.

Must be this one here.

You can synchronise the what and what?

If you're recording off the CD onto a blank tape you just press that and it starts them both at the same time, which is quite useful.

Yeah.

This one's definitely more advanced than that.

Which one's more advanced?

I don't know, I think they're about the same except that one's got the fast forwardy bit and the tape thing. And the bottom bit's the funky bit.

It fitted all into the amp, the receiver and that goes into the amp.

Again, the emphasis is very strongly on the technical aspects of the product.

5.14: Sixth Set of Statements

It still keeps the clock going when you turn it off.

This one goes off completely.

That one's got the tape deck in a different area.

I don't know whether that's a gimmick, or whether it means something.

It says here this enables a horizontal profile so it lowers it all down.

This one "incorporating Denon's horizontal system so enabling lowering of the deck's profile".

What happens if the tape gets stuck inside, it starts chewing up the tape?

Does this come off?

You're going to find out!

I think it doesn't.

Speakers are impressive.

These look more standard, don't they.

I think these look a bit more flash with the, er, woofer its got this great big lump sticking out of it.

They look nice, though.

They put me off, there.

This is the first time this group mention appearance as being part of the equation when assessing newness. By this time they are beginning to run out of things to say; this may mean that the appearance of the equipment is of much lesser importance than the technical aspects.

5.15: Seventh Set of Statements

MODERATOR; *Which is the most innovative, and why?*

Well I think its that one, because it's real megatechnical. Features hidden away deep in the heart of that one which I haven't come across.

I think they're pretty much the same but that one's made to look far more funky than that one.

You've got nice little features with the radio there.

That one actually does more, I think.

The amp on that one seems to pick up a radio station, which seems to be innovative, and the cassette deck is flat as opposed to being upright.

That's good, yeah I like that.

That one's smaller, too.

But that depends on how many bits you've bought for it, because there's three more bits to go on the side of it.

I thought you had the choice of having them on top or at the side.

That one's far more modern-looking; that one's been around for a few years I'd guess, anyway.

MODERATOR; *What is it about them that makes you say they're innovative?*

You can get drawn to that one for the styling.

You can do far more with that one. That one you went through it and pressed all the buttons and that's it. That one there's loads to play with.

It looks more modern as well, you're used to seeing black stereos not so much the shiny metallic ones.

Yeah, I think that's the innovative one.

That one is, because of the appearance side of it, it's more attractive, which is innovative with the buttons, and the screen the tape thing and the thingy on the bottom of it.

Here the group is being asked to bring together their thoughts on innovation. Predominantly the technical features are brought to the fore, with only a brief mention of the appearance. Mention of the technicalities of the product is a little surprising at this stage since this group is (supposedly) non-innovative. In fact different members of the group appeared to focus on different aspects of newness, and the group as a whole did not agree on which was the most innovative of the machines.

5.16: Eighth Set of Statements

That's probably the most innovative, but we don't like the speakers.

MODERATOR; *Anything to add?*

I haven't seen one where you can set it to record while you're out, so I presume that's a fairly new thing but that one would seem simpler to use, the remote control's got all the words on and everything for repeating the songs.

Here, in their final statements, the group emphasise the practicalities of using the equipment.

5.17: Group Three (Innovators who are not Conspicuous Consumers);

First Set of Statements on Newness.

That's quite interesting, you know, remote controls have been around for ages, yeah? In this Arcam thing they've just introduced a remote control. It says it's Arcam's new remote control so you can use it from your armchair whereas most hifi you take it for granted you get a remote control anyway.

Maybe they mean it's for separates.

It's not new to the industry though, is it, where they go mostly for quality?

It's nice that it says what it does, what the buttons on the bottom of the stereo do.

You regard it as standard.

This group appears to be more concerned at this point with the practical aspects of using the equipment. Note the somewhat contemptuous opening statement about "Arcam's new remote control". This encapsulates one of the problems of studying innovation; what is new to the company is clearly not new to this respondent, who is very determined to get this point across.

5.18: Second Set of Statements

There are design functions that I like. I like the drawer, I think that's brill, but some of the gimmicks, I to me are useless like this search and find a tape thing. I wouldn't use that at all.

It's got a lot of plusses. A lot of it's gimmicks, you've got your sliding out drawer thing which is nice, you've got your buttons which I tend to like, the big ones and your laser display.

Which is the most innovative?

The Denon definitely.

It's the looks.

Which do you think is the most innovative?

Why is it the most innovative?

It's the colour, its image, these sort of little touch controls.....

This is new.

I agree with what you're saying.

These little touch controls.

Is it really functional, your tape coming out like that, it's quicker just to push a button.

This drawer sliding out and that...

is it must be a real bummer if your tape gets chewed, I mean how do you manage with head cleaning and that? You sort of take it along to the bloke and say stick your head cleaning tape in?

I would have thought that came out easily.

This is practical and in a way it hides all its innovations,

whereas that one shouts at you this is new, this is Gary Glitter music!

This one doesn't appear to have anything, your stop your play your forward.

It's programmable, it repeats your scan, it's all standard, maybe it's all inside whereas that one shouts out what it's got but it doesn't particularly explain why.

There's a thing on, what's that programme called where they test all the cars? Top Gear, saying sports cars could be like a cappuccino, looks great but doesn't taste so good, but that's sort of tastes good but doesn't look so good.

At the end of the day I'd still stick with that.

But this one's more innovative, just on presentation.

The group is still mainly concerned with practicalities, but has now introduced the idea that appearance might be an issue also, if only as a means of communicating the product's newness. The group as a whole tended to speak less than the others, and spend more time examining the equipment; individuals seemed very sure of their ground, but had trouble coming to a consensus about the equipment.

5.19: Group Four (Non-Innovative Conspicuous Consumers); First Set of Statements on Newness

This could be newer because you haven't got a tape on it.

You're getting into a market without tapes.

From a distance I prefer that one because I like these speakers, but when you look at it that particular unit is much more sophisticated than that one. This one, you've seen it hundreds of times before. When you get up close ...

I haven't seen one as neat as that before.

When you haven't seen it before you don't really know whether it's new of whether its just....

Connect to the tape deck....

Will it go on with that, just pressing that I wonder, will the remote control just make it play, I wonder, just pointing at it?

This one's, um, haven't seen that before where instead of just scanning for the number CD you want you just press repeat and it just plays it again.

That's on this one. Now that is neater, and I'd assume would belong to that one. It's like almost as if they'd split that, does that sound silly? I know these are too big for that unit. If I was picking that I'd say that belonged to that, its more modern anyway.

Here appearance is more of an issue, as might be expected from conspicuous consumers, but there appears to be a view that the practical aspects of the equipment are also important. The respondent who is making the final statement is clearly concerned that the speakers and the hi-fi unit should match,

but it is not entirely clear whether this means matching in terms of appearance or matching in terms of power ratings, etc.

5.20: Second Set of Statements

The question is which is the most innovative, isn't it?. I think that, but that's purely on design, and slightly.... and I feel it's a better sound, but that's a pleb talking who has no knowledge whatsoever. What I can't justify, is the two speakers. With this one it's got all the speakers for the connoisseur, but then I'm getting carried away by these. You feel it's for the younger person, who's a connoisseur. Who wants more quality music.

How much do they cost?

MODERATOR; *I think there's a price in the brochure for that one.*

Probably for my age, if I was buying one for me personally, I would probably buy that one because I can see it easier. If I was actually going into a shop and buying it, but I certainly wouldn't buy these two.

You can programme it to record things.

So perhaps that one is more.... gadget wise isn't it, but I don't know, I'm a complete pleb. How much is it?

This group's lack of technical knowledge is beginning to show here, and also the difficulty of dissociating judgement of newness from intention to purchase. None of the group showed much involvement with the product category, and also this group suffered the most from absenteeism on the day of the study (three of those who had originally volunteered failed to turn up). This is the only group that became deeply concerned about price.

5.21: Third Set of Statements

Because it's more compact it seems to me to be a more modern design, and because of the way the tapes go in.

It is more innovative definitely, than that one.

I don't seem to have anything more to say. Probably I'd like that for innovation, although it's got the basic commands on it. This, I feel, this design would look nicer with that.

That one seems to be spoiled by the speakers.

I would prefer to see something with that, with a slightly more innovative design of speakers. Perhaps someone with greater knowledge would say no, those speakers are out of date, but that would be lost on a pleb like me who went in to buy it. To me those speakers are very conservative-looking to the unit, so that's where they lose on the innovation.

Those speakers look newer and more designed to.... aesthetically.....

The group is apparently now coming to a consensus view that appearance is the main factor in assessing newness; this is probably due to a lack of knowledge of the technicalities involved. In other words, the group is forced to judge by appearance, due to a lack of any other method.

This may also account for the interest in price; price is often used as a surrogate for judging quality, in the absence of other signals (Erickson and Johansson, 1985).

5.22: Analysis of the Responses

Some common themes could be identified from the finished transcripts, and these are as shown below;

- A need to study the brochures on each piece of equipment.
- The appearance of the equipment.
- The technical features of the equipment.
- The size of the equipment.
- Failure to understand the equipment.
- Failure to understand the brochures.
- Practicality of certain features for using the equipment.

The exercise demonstrated that there are areas which these groups have in common, and more importantly there are clear differences between the groups in terms of their perceptions of newness. From these similarities and differences it was clear what the next stage of the research should be.

A questionnaire was developed (see Appendix B) to encompass those factors which the focus groups had identified, so that a quantitative analysis could be carried out using a much larger cross-section of respondents. This questionnaire was administered to visitors to the 1995 Sound & Vision exhibition held in Bristol; seventy useable responses were obtained from 362 questionnaires handed out (a response rate comparable with postal questionnaires). Of the questionnaires returned, only three were unusable (due to respondents having failed to complete sections of the questionnaire, and in one case having clearly just ticked all the middle boxes on the Likert scales). It would therefore appear that the questionnaire was reasonably clearly-designed, and analysis showed a high degree of internal consistency.

The questionnaire appears in Appendix B; the analysis of the survey appears in the next chapter.

5.23: Conclusions

Broadly speaking, the results of the group observation exercises are in line with what might have been expected; the main value of the exercise, however, lies in

the identification of the dimensions of newness. That is to say, the respondents were able to say (with some consistency) how they go about judging whether a product is innovative or not, and what factors go to inform that judgement.

To an extent, the first question which the research set out to address has been answered by this; there are, indeed, varying degrees of newness apparent to most consumers, and they are able to rank innovative products according to newness. There is also a strong indication that different categories of consumer judge newness by different criteria, but they are still able to make decisions on newness even when approaching the question from a different perspective.

It might therefore be reasonably expected that any broad, mixed sample group of consumers would not agree on the degree to which a particular product was innovative, since the subgroups would be using different criteria for the judgement.

The next chapter examines this issue, and some of the other issues raised as a result of the questionnaire analysis.

5.24: Key points

- The “focus group” approach proved to be an effective way of developing the dimensions of the problem with minimal interviewer bias.
- Consumers can rank products according to newness (although some people are better than others at doing this).

- Different types of consumer appear to use different criteria for assessing newness.

Chapter Six; Analysis of the Survey Questionnaire

6.1: Introduction

This chapter is concerned with the analysis of the questionnaire (see Appendix B) which was designed in the light of the findings from the focus group research.

The questionnaire categorises respondents against two dimensions;

1. Conspicuous consumption.
2. Innovation.

In all, 42 questions were asked, making this a rather long and complex questionnaire for the respondents to complete, particularly in view of the fact that they were being asked to do so at a large and crowded exhibition. However, of the 362 questionnaires handed out at the exhibition, seventy-three were returned of which seventy were useable. Under the circumstances this is a reasonable response rate, comparable with postal questionnaires.

The first 21 of the questions were concerned with conspicuous consumption, the next 9 questions comprising the Goldsmith-Hofacker Innovativeness Scale (Goldsmith & Hofacker 1991). Respondents were then asked to state which were the three most innovative products on show at the exhibition, and to give a score (out of ten) to each product.

The main purpose of this part of the questionnaire was to confirm that respondents were able to assign degrees of innovativeness to products, and also to determine whether there would be any consensus among the sub-groups of respondents as to which was the most innovative (newest) product.

The next group of questions asked respondents to say how they had arrived at their conclusion about the equipment. Respondents were asked to assign scores out of ten to the various factors used in reaching the decision, according to the importance of each factor.

The intention here was to determine whether consumers are able to distinguish between the importance of the various factors, and also to determine whether different categories of respondent rely on different factors when making decisions about innovativeness. The factors themselves were developed from the focus groups described in Chapter Five.

Respondents were next asked for their age, gender and postcode. It was to be expected that the bulk of respondents would be from the South-West of England, and Wales, since the exhibition was held in Bristol. Table 6.1 shows the overall breakdown of respondents.

Using the exhibition as a source of respondents had the advantage of providing a ready source of audiophiles for the study; the danger would be that a large proportion of them would prove to be innovators. This turned out not to be the case; the sample was fairly evenly-divided between innovators and non-innovators, and indeed this has a reasonable explanation in that an audiophile

might be interested in knowing what is new without having any intention of adopting the product until it is well-established and/or the price has fallen.

Table 6.1: Breakdown of Respondents (N=70)

<i>Category</i>	<i>Number</i>	<i>Percentage of Total</i>
Male	60	85.7%
Female	10	14.3%
Under 25	24	34.2%
25-34	21	30%
35-44	13	18.6%
45-54	7	10%
55-64	4	5.7%
65+	1	1.4%
Bristol postcodes	18	25.7%
Cardiff/Newport postcodes	7	10%
Swindon, Oxford, Bath postcodes	11	15.7%
West Country postcodes	9	12.9%
Other South Wales postcodes	11	15.7%
Other English postcodes	8	11.4%
Unidentifiable/refused	6	8.6%

A further problem might be identified from the non-response rate; the majority of visitors to the exhibition refused even to take a questionnaire, and of those who did only about a fifth completed and returned it. In postal questionnaires techniques exist for controlling the non-response problem (follow-up mailings,

telephone interviews etc.) but there was no such opportunity at the exhibition. In the event, this may not have mattered since the objective was to identify and examine innovators and non-innovators, conspicuous consumers and non-conspicuous-consumers and this objective was reached; whether there would have been a difference between innovators who respond to questionnaires and innovators who don't is impossible to determine from this study.

6.2: The Analysis; Comparison of Dimensions

As can be seen from Table 6.2, there is no significant relationship between the two dimensions, nor would there be any reason to suspect that there might be.

The evidence for this lies in the actual mean scores on both dimensions.

Although the actual mean for all respondents is considerably higher than the theoretical mean in both cases, both innovators and non-innovators are within a few points of the overall mean on the consumption scale, and likewise both conspicuous consumers and non-conspicuous consumers remain close to the mean for all respondents on the innovation scale. (The theoretical mean for the conspicuous consumption scale is 22, and for the innovation scale it is 18).

The number of respondents falling into the four "combination" categories (innovators who are also conspicuous consumers, non-innovators who are also conspicuous consumers etc.) was too small to be useable statistically (two or three in each cell). This is in sharp contrast to the group study reported in Chapter Five, where it proved relatively easy to find respondents in the combination categories.

Table 6.2; Mean scale scores of respondents on the dimensions of conspicuous consumption and of innovation. (N=70)

	<i>Non-conspicuous consumers (N=35)</i>	<i>Conspicuous consumers (N=35)</i>	<i>Innovators (N=35)</i>	<i>Non-innovators (N=35)</i>	<i>All respondents (N=70)</i>
Conspicuous consumption	44.18	25.17	32.18	34.17	34.57
Innovation	28.63	29.17	36.27	19.41	28.10

(Source: Questionnaire responses)

There is therefore no evidence from the questionnaire that being, say, a conspicuous consumer has any bearing on whether the respondent is also an innovator; given the larger sample size of the questionnaire study relative to the group study, it seems likely that the two dimensions are entirely independent.

6.3: Ability to Judge Innovativeness

All four groupings were able to make judgements about innovativeness; in fact, from the 70 respondents in the full sample only 12 were apparently unable to make a distinction (i.e. gave all the products the same score). Interestingly, six of these were in the non-conspicuous-consumer group.

Table 6.3 shows the differences in scoring for the subsamples; the mean of the scores was also calculated, to see whether any difference in levels of scoring

could be discerned. In other words, a check was made to ensure whether one or other group was “marking high”.

From this table it can be seen that all the sub-samples were able to make considerable distinctions between the innovativeness of products. The range of the mean scores varied from 3.03 to 3.43, indicating a significant level of discrimination between innovative products. The differences between sub-groups are significant at the 95% confidence interval; that is to say, there is a statistically significant difference between scores given by innovators and those given by non-innovators. The main reason for this appears to be that both innovators and conspicuous consumers tend to rate products higher; this may indicate a greater enthusiasm for innovativeness per se, or at least a greater interest in the type of product being assessed. This explanation may also be supported by the high proportion of non-conspicuous-consumers who seemed unable to differentiate between products.

Having established that there are differences in the ability of respondents to assess innovativeness, the next stage was to examine the methods by which each group assessed innovativeness.

Table 6.3; Mean scores regarding the innovativeness of products, by respondent category (Standard deviations in brackets).

	<i>Non-conspicuous-consumers (n=35)</i>	<i>Conspicuous consumers (n=35)</i>	<i>Innovators (n=35)</i>	<i>Non-innovators (n=35)</i>
Product A	8.03 (2.99)	8.66 (1.81)	8.60 (2.32)	8.09 (2.63)
Product B	6.80 (3.29)	7.23 (2.59)	7.40 (2.64)	6.63 (3.18)
Product C	4.60 (3.70)	5.63 (3.08)	5.57 (3.42)	4.66 (3.47)
Range	3.43	3.03	3.03	3.43
Mean score	6.48	7.17	7.19	6.46

(Source; Questionnaire responses)

6.4: Methods of Judging Innovativeness

An analysis was carried out on the importance of the various methods used by respondents when arriving at their decisions. Respondents were asked to assign a score out of 10 for the importance of each factor in the decision when assessing the innovativeness of products.

Because the respondents were asked to assign scores out of ten to the various factors, without being asked to rank them, it would be possible for a high rating to be given to all the factors, or indeed for a low score to be given to all.

Therefore the range of the mean responses was calculated, since (combined with the mean score) this should indicate the degree to which respondents rely on few factors in making the decision. For example, if a group of respondents relied predominantly on technical features, while ignoring most of the other features, this would tend to produce a low mean with a large range. High mean

and high range would indicate reliance on several features, low mean with low range means that none of the factors given are regarded as important; high mean and low range would indicate heavy reliance on all the factors. This is illustrated in Fig. 6.1 below.

Fig. 6.1: Ranges vs. Means.

	Low mean	High mean
Low range	None of the factors are regarded as important	Heavy reliance on all factors
High range	Heavy reliance on few factors	One factor of very low importance, all other factors highly-important.

Table 6.4 shows some differences between the groups. Although all respondents rate technical features and practicality high in terms of assessing innovativeness, the size of equipment appears to be less important to both conspicuous consumers and non-innovators than to the other groups; conversely, these groups appear to find the brochures more important in the assessment. It is possible that conspicuous consumers and non-innovators are equating size with appearance, whereas the other two groups are equating size with technical superiority (see Chapter Five).

Table 6.4; Relative importance of methods used by respondents when assessing innovativeness (Standard deviations in brackets).

	<i>Non-conspicuous-consumers</i>	<i>Conspicuous consumers</i>	<i>Innovators</i>	<i>Non-innovators</i>
Brochure	4.34 (3.24)	5.2 (3.17)	4.51 (2.90)	5.03 (3.60)
Appearance	3.26 (2.76)	3.57 (2.78)	3.37 (2.89)	3.46 (2.71)
Technical features	7.6 (2.52)	7.00 (2.75)	7.03 (2.85)	7.57 (2.26)
Size of equipment	3.71 (3.55)	2.67 (3.24)	3.71 (3.38)	2.79 (3.48)
Practicalities of usage	7.26 (2.76)	7.49 (2.22)	7.11 (2.53)	7.62 (2.36)
Range	4.34	4.82	3.74	4.83
Mean score	5.23	5.19	5.15	5.29

(Source: Questionnaire responses)

For the dimensions of conspicuous consumption and innovativeness, the mean scores obtained for respondents closely followed the normal distribution curve. Therefore roughly half of the sample scored less than the theoretical mean of 3 on each of the scales. Overlap between the groups was small; in other words, there were very few respondents who scored high (or low) on both dimensions.

Subsequently ANOVA was used to determine the significance of these differences between the groups; the results of this analysis can be seen in Tables 6.7. and 6.8.

6.5: Correlation and Covariance Analysis

A linear correlation was attempted using Pearson's correlation coefficient to determine whether (for example) a tendency towards using size of equipment to judge innovativeness would increase in proportion to the individual's score on a given dimension. A positive correlation of 1 would indicate that an increasing score on a given dimension would exactly match an increase in score on using size of equipment as a measure; a negative correlation of 1 would indicate that an increasing score on the dimension would equate exactly to a decreasing score on using size of equipment as a measure. A correlation of zero would indicate that there is no relationship between the measures at all. For the Pearson correlation, the relationship is generally considered to be:

- *Very low* if the coefficient has a value under 0.20.
- *Low* if the coefficient has a value between 0.20 and 0.40.
- *Moderate* if the coefficient has a value between 0.41 and 0.70.
- *High* if the coefficient has a value between 0.71 and 0.91
- *Very high* if the coefficient is over 0.91.

Correlations between scores on each dimension and the factors used in assessment were weak, as Table 6.5 below shows. Each factor was tested separately against each dimension to obtain the table below.

Table 6.5; Correlation between respondent dimensions and assessment factors.

<i>Assessment factor</i>	<i>Conspicuous vs. Non-conspicuous consumers</i>	<i>Innovators vs. non-innovators</i>
Practicality of use	-0.15558 (very low)	-0.05329 (very low)
Size of equipment	-0.18005 (very low)	-0.02722 (very low)
Technical aspects	-0.05098 (very low)	0.00308 (very low)
Appearance	-0.10528 (very low)	0.047007 (very low)
Brochure	-0.24326 (low)	-0.03323 (very low)

There would appear to be a low negative correlation between the use of brochures and the level of conspicuous consumption, but the relationship is too remote to draw meaningful conclusions. Had the correlations shown any statistical significance, it might have been possible to generate composite variables, but in view of the low significance levels obtained, this clearly would not have had any meaning.

Of course, the relationship between the assessment methods and the consumer's orientation may not be linear; for this reason, covariance analysis was tried. However, in the event covariance analysis showed a similar pattern, as Table 6.6 shows. Like correlation analysis, covariance is greatest if the score obtained approaches unity; the significance of the relationships between scales reduces as the scores approach zero.

Table 6.6; Covariance analysis of respondent dimensions against assessment factors.

<i>Assessment factor</i>	<i>Conspicuous vs. non-conspicuous consumers</i>	<i>Innovators vs. non-innovators</i>
Practicality of use	-0.13279	-0.08626
Size of equipment	-0.2098	-0.06016
Technical aspects	-0.04571	0.005238
Appearance	-0.09986	0.084558
Brochure	-0.26925	-0.06975

Low covariance relationships emerged on size of equipment against conspicuous consumption, and on brochure use and conspicuous consumption; the negative sign here indicates that conspicuous consumers may be less likely to use information from the brochures as a guide to the innovativeness of the equipment. Again, though, the relationship is not a close one and is therefore not likely to be reliable.

It would appear from this that, although there may be a relationship between innovativeness and ways of judging innovativeness, this relationship is not a linear one and may only describe a tendency rather than a one-to-one relationship.

It became clear at this point that more powerful statistical tools would need to be used.

6.6: Analysis using ANOVA

Two separate analyses were carried out using ANOVA; firstly the respondents were divided into two groups along the innovative/non-innovative dimension, then into two groups along the conspicuous/non-conspicuous consumer

dimension. ANOVA is a method of comparing the means of two samples to see whether the differences between them are statistically significant.

One-way ANOVA generated the figures shown in Tables 6.7 and 6.8. The F-values were close to 1 in most cases, indicating that there was no significant difference between respondents regarding their use of the factors involved. The exceptions were the use by innovators of the technical aspects of the product and the size of the product in making judgements. In each case the differences between innovators and non-innovators were significant at the 99% level.

What this means is that non-innovators do not appear to consider the size of the equipment as an important factor when deciding whether the equipment is innovative or not. Innovators appear to rate size as significantly more important than do non-innovators.

Likewise, non-innovators appear to rate technical features as being more important than do innovators.

One of the problems of using ANOVA for this study is that the assumptions which underpin ANOVA may not be satisfied. For instance, ANOVA assumes that the data follows a normal distribution curve, which is hard to test for in such a small sample. Also, ANOVA assumes that the two samples are reasonably homogeneous; again, this may not be the case here. Having said that, the significance levels indicated are high, and therefore it is not unreasonable to conclude that the differences between the group means are real, even if covariance analysis shows that the relationships are not linear.

Table 6.7; ANOVA for Innovators and Non-innovators.

<i>Judgement factor</i>	<i>Source of variation</i>	<i>SS</i>	<i>Degree of freedom</i>	<i>Mean squared</i>	<i>F-value</i>	<i>P-value</i>	<i>F crit.</i>
Practicality	Between groups	183.34	34	5.392	0.7703	0.7756	1.762
	Within groups	245	35	7			
Brochure	Between groups	368.34	34	10.834	1.077	0.4135	1.762
	Within groups	352	35	10.057			
Appearance	Between groups	296.48	34	8.720	1.312	0.214	1.762
	Within groups	232.5	35	6.642			
Technical aspects	Between groups	354.2	34	10.418	3.077	0.00067	1.762
	Within groups	118.5	35	3.385			
Size	Between groups	569.8	34	16.759	2.567	0.00338	1.762
	Within groups	228.5	35	6.529			

In the case of the conspicuous consumption dimension the analysis did not generate any significant findings (Table 6.8).

Since this could be due to the closeness of the scores between the groups on each dimension and for each factor of assessment, an analysis was undertaken of the ten respondents at the extremes of each dimension. Again, although the F-values moved further away from 1 in some cases, the significance level remained low; the strongest variation between the extremes of the dimensions was (again) that of use of brochures by conspicuous consumers, where the F-value rose to 6.079 and the P-value to 0.24. This only equates to a 76% confidence level, however, which is still too low to regard as significant.

Table 6.8; ANOVA for Conspicuous Consumers and Non-Conspicuous Consumers

<i>Judgement factor</i>	<i>Source of variation</i>	<i>SS</i>	<i>Degree of freedom</i>	<i>Mean squared</i>	<i>F-value</i>	<i>P-value</i>	<i>F crit.</i>
Practicality	Between groups	238.34	34	7.01	1.291	0.2277	1.762
	Within groups	190	35	5.428			
Brochure	Between groups	380.34	34	11.187	1.152	0.3398	1.762
	Within groups	340	35	9.714			
Appearance	Between groups	175.48	34	5.161	0.304	0.9996	1.762
	Within groups	593.5	35	16.957			
Technical aspects	Between groups	180.2	34	5.3	0.634	0.906	1.762
	Within groups	292.5	35	8.357			
Size	Between groups	420.8	34	12.376	1.147	0.344	1.762
	Within groups	377.5	35	10.786			

6.7: Regression Analysis.

As might be expected, regression analysis of individual factors in assessing innovativeness failed to generate any significant findings. The F values were mostly close to 1 and in all cases were not significant. The scattergrams generated showed the regression lines as almost horizontal, which tends to indicate that there is no linear relationship between methods of assessment and orientation along the specified dimensions.

Regression of the block of factors against the two dimensions produced the figures in Tables 6.9 and 6.10.

Table 6.9; Regression of Judgement Factors against Innovativeness

<i>Factor used in judgement</i>	<i>Coefficient</i>	<i>Standard error</i>	<i>t Stat</i>	<i>P-value</i>
Brochures	0.04394	0.050335	0.872965	0.385896
Appearance	0.035707	0.070363	0.507463	0.613548
Technical aspects	0.154035	0.054697	2.816143	0.006428
Size of equipment	-0.04446	0.047611	-0.93384	0.353841
Practicalities of use	0.22258	0.047853	4.651322	1.67E-05

The two areas of statistical significance here are the technical aspects of the products, and the practicalities of use.

Table 6.10; Regression of Judgement Factors against Conspicuous Consumption

<i>Factor used in judgement</i>	<i>Coefficient</i>	<i>Standard error</i>	<i>t Stat</i>	<i>P-value</i>
Brochures	0.03072	0.042124	0.729283	0.468449
Appearance	0.017306	0.058885	0.293901	0.76977
Technical aspects	0.163164	0.045775	3.564518	0.000689
Size of equipment	-0.04784	0.039844	-1.20055	0.234283
Practicalities of use	0.210618	0.040047	50259296	1.73E-06

The same two factors (technicalities and practicalities) are significant contributors for the conspicuous consumption dimension.

It would therefore appear that the technical aspects of the products and the practicalities of use are of importance to the respondents in general, although there may be other differences in emphasis according to the level of innovativeness of the respondent.

6.8: Factor Analysis

Factor analysis seeks to explain variance by comparing the observed data with a series of hypothetical factors. The rationale is that it should be possible to explain variance as being caused by some other factor; for example, a series of political attitudes might be explained by a factor of conservatism among a group of respondents.

The main problem with factor analysis lies in the level of judgement required of the researcher in deciding whether a hypothetical factor can adequately explain the variances concerned; the researcher needs to consider whether or not it is reasonable to draw a conclusion based on the correlations generated. For this reason, factor analysis has been strongly criticised, notably by Hills (1977) and by Chatfield and Collins (1980) who go so far as to say factor analysis should not be used in most practical situations. Blackith and Reyment (1971) even suggest that the technique has persisted precisely because researchers can use it to justify preconceived ideas.

Having said that, the technique still has something to offer as a way of reducing the data to a manageable level, and of casting data in a new light in order to

generate new insights. Provided the technique is used in conjunction with other techniques, and care is taken with the conclusions drawn, it has much to offer.

Factor analysis carried out across the range of responses found 13 factors with eigenvalues greater than 1 (i.e. likely to be relevant). The first factor accounted for only 14% of the observed variance however, and the second factor for 11%; the remaining factors accounted for less than 5% each. These figures are somewhat low, indicating that although there may be some common factors at work, they do not explain the observed variance very well.

Factor analysis carried out on responses to the Goldsmith-Hofacker Innovativeness Scale generated three factors, the first of which accounted for 33% of the variation observed; this factor would probably be the innovativeness factor which the scale seeks to measure. Communalities scores for all questions in the measure were above 0.5, so the scale shows considerable internal consistency. Since the scale only contains nine questions, however, factor analysis (which is a data reduction technique) probably adds little to what is already known about the respondents.

Factor analysis of the conspicuous consumption measure revealed nine factors with eigenvalues greater than 1; the first two factors accounted for 17.7% and 10.4% of the variance respectively. Again, these percentages are low, and Varimax rotation showed only five of the questions making more than a 0.6 contribution to Factor 1. This casts considerable doubt on the validity of the measure.

Overall, nothing of sufficient significance came from the factor analysis of the data. Although it appears to confirm the validity of the Goldsmith-Hofacker test, it would be dangerous to draw any conclusions about the rest of the data from factor analysis.

6.9: Analysis by age

An analysis of the responses by age showed that there were no major differences between the groups attributable to age (Table 6.11). Such differences as there were between groups were well within one standard deviation of the mean; with such a small sample these differences would clearly not be significant statistically.

Table 6.11: Analysis of Sub-Groups by Age.

	<i>Non-conspicuous-consumers (N=35)</i>	<i>Conspicuous consumers (N=35)</i>	<i>Innovators (N=35)</i>	<i>Non-innovators (N=35)</i>	<i>Total respondents (N=35)</i>
Mean Age	30.91	31.77	35.00	27.67	32.04
Standard deviation	6.44	12.00	12.16	11.64	12.97

(Source: Questionnaire responses)

No significant differences in assessment methods could be attributed to gender (although, since only ten women responded to the questionnaire there may very well be a marked difference between the genders, if only regarding response rates to questionnaires about innovation).

It is worth pointing out at this stage that the respondents were not asked about intention to buy; they were only asked to consider innovativeness. The desirability or otherwise of the equipment is not at issue.

6.10: Conclusions.

To recap on the original basis for the research, the hypotheses to be tested were as follows;

H1: Consumers are able to ascribe degrees of innovativeness to new product offerings.

H2: Innovators will judge innovativeness differently from non-innovators.

H3: Conspicuous consumers will judge products differently from non-conspicuous-consumers.

It would appear that consumers are able to ascribe degrees of innovativeness to high-tech products, and are able to do so with or without specialist knowledge of the products concerned. Therefore H1 is supported.

The criteria by which innovativeness is judged will, however, vary from one category of consumer to another; consumers appear able to select from a list of factors, and ascribe importance to each factor.

Non-innovators tend to judge innovativeness on the size of the equipment and on the technical aspects of it; innovators do not appear to be quite as much in

agreement as to how innovativeness is to be judged. The different approach is, however, statistically significant; H2 is therefore supported.

On the other hand, the significance levels thrown up by the analysis of conspicuous consumers against non-conspicuous-consumers were so low that the research does not support H3.

All the groups ascribed importance to the technical features of the products; perhaps this is due to the fact that the products are all highly-technical and would therefore be unlikely to be innovative in any other way, or it may be due to the fact that the respondents had all taken the time and trouble to visit a technophilic exhibition, and could therefore reasonably be expected to be interested in technology. In support of the former view, it could be pointed out that the non-innovators rated practicality of usage higher than the technical features in judging innovativeness by a convincing margin, thus demonstrating that not all the respondents are interested in technology alone. The practicality of use of the products was a major factor for all respondents in judging innovativeness, however.

Innovativeness can be defined, therefore, both by quantity and by type; in other words, consumers distinguish between one product and another by its innovative content, and can also say by what dimensions of the product the innovativeness is measured; differences between the ability of different groups of consumers to do this can only partly be determined by the research described here.

In the next chapter, this will be put into the context of the previous research and the implications for product managers discussed.

Chapter Seven; Conclusions and Recommendations

7.1: Research into Innovation and Newness

Overall, innovation has attracted a great deal of research attention, both from the viewpoint of the firm and from the viewpoint of the consumer. Although some attention has been paid to consumer attitudes towards innovation, very little research has examined how consumers approach defining innovativeness in given product categories.

Whilst there is clearly a place for an introspective view of innovativeness within firms, and indeed most of the research previously carried out has focused on systems and processes within innovative firms, the marketing concept dictates that marketers, at least, should be more concerned with innovation as perceived by the consumer. As Hirschmann (1980) has pointed out, “the desire to seek out the new and different is conceptually indistinguishable from the willingness to adopt new products.” This view is also implicit in Haines (1966) study in which 15% of innovators said they had bought the product “because it was new”.

Arising from this approach there have been several attempts to devise innovativeness scales which would assess the inherent novelty-seeking behaviour of some consumers (Goldsmith & Hofacker 1991; Hurt, Joseph & Cook 1977). In each case these scales have been tested against only one form of product, and there is (so far) little evidence to show that a consumer who is a novelty-seeker in one category of product would also be a novelty-seeker elsewhere.

Theoretically, of course, there may exist a group of super-innovators who seek novelty in many areas of their lives, but it is unlikely that there would be many people who do not have a considerable degree of habitual behaviour (favourite products, favourite restaurants, etc.) More research may be indicated to examine this area.

Even here, though, there is a lack of definition. It is one thing to say that a given individual is seeking novelty, but it is another thing altogether to be able to say what that individual would regard as novel. Furthermore, even when a consumer does regard a product as novel, this still begs the question as to the degree of newness involved. Although Robertson (1967) developed a template for judging newness, the definitions still will (ultimately) be subjective as far as the individual consumer is concerned. For example, Robertson says that a dynamically continuous innovation involves a step of sufficient magnitude to create a state of risk; yet from the consumer's viewpoint, the risk involved in buying even the most technologically-advanced chocolate bar is minimal since the price of the product is low. Clearly the risk involved in buying a hi-fi system is much greater, even if no innovation is involved.

Therefore the consumer's perception of the degree of innovation, and the consequent risk involved, is basic to any study of innovation.

As stated in Chapter Two, the newness of a product is determined both by its innovativeness, and by the characteristics of the observer; there is a theoretically-objective state of innovativeness inherent in any new product, but whether the observer categorises the product as new or not will depend largely

on the previous experiences and attitudes of the individual concerned. For this reason it is impossible to determine the innovativeness of a product in any objective way; what results from an attempt to do so is actually an assessment of the product's newness.

7.2: Innovators

The evidence from the research reported here is that innovators in high-tech markets are adept at judging degrees of innovativeness, and take an interest in newness per se; in other words, innovators are attracted by the novelty of products for its own sake, and not necessarily for any practical reasons connected with the use of the product. Therefore an innovator is able to make a clear judgement about both the desirability of a product (based on its innovativeness) and the degree of desirability.

The problem for innovators is that their increasing knowledge about the product category means that novelty is ever harder to come by; in other words, an ever-increasing degree of innovativeness is needed to provide the same degree of newness. Since it is the newness that is desirable to the innovator, the manufacturer has a problem in deciding what level of innovativeness will be needed to attract the attention of the innovators.

Over the past thirty years or so, marketers have increasingly focused on finding ways to attract the innovators, since these consumers are widely seen as being the leaders in the market; Everett M. Rogers' (1962) descriptions of adopter

categories have led marketers to seek to influence the innovators, on the assumption that they, in turn, would influence the later consumers of products.

Within high-tech markets it would seem that all respondents are likely to judge newness by the technical features of the product (e.g. the sound quality, the speaker design) and by the practicalities of usage of the product. Perhaps surprisingly, non-innovators are more likely to judge by technical aspects than are innovators; size of the equipment seems to be more important to innovators than to non-innovators, but still ranks low in the assessment process.

For the marketer who wishes to attract innovators towards purchasing the products, therefore, technical innovation is important but size is where innovators differ from non-innovators. Practicalities of use of the equipment also ranks high, though with less consensus. Innovators also appear to take more factors into account than do any of the other groups, but in all cases the appearance of the equipment is low on the list.

The firms that are likely to be the most successful with innovators will be those who adopt the following organisation structures and strategic approaches;

- Offensive approach (after Gupta, Raj & Wilemon, 1986)
- Are Prospectors (after Miles & Snow, 1978)
- Have a balanced strategy; technological drive, but with market orientation (after Cooper, 1985)
- Loose-tight management structure for the R&D function (Olson 1995)

- Low-pyramid, even organismic, organisation structure (Miles & Snow, 1978)

7.3: Conspicuous Consumers

The second group which has always been of perennial interest to marketers is, of course, the conspicuous consumer. These are individuals who are prepared to devote large portions of their incomes to buying the latest, or most prestigious, products.

The research reported here does not show any significant differences between conspicuous consumers and others regarding their judgement of newness, however. This may be due to a lack of interest in newness on the part of conspicuous consumers (since the research does not address the issue of desirability of the equipment) but they were able to make judgements and to state the methods they use to judge newness.

A marketer's best approach to the conspicuous consumer, therefore, does not depend on the newness of the product, since conspicuous consumers do not appear to differ from the rest of the population in their judgements of this dimension of the product. Whether other factors influence the desirability of the product is outside the scope of this research; unlike innovators, who see newness as being desirable per se, conspicuous consumers may (or may not) be influenced by newness in terms of conation.

Those respondents who categorised themselves as not being conspicuous consumers are the hardest group to deal with, since they showed the least

agreement about anything. By nature, these consumers appear to be individualistic types who are not easily impressed; they gave the lowest scores to innovative equipment, and also showed the least propensity to be able to distinguish between different levels of newness (indeed, six of the group couldn't make ANY distinctions). This group is undoubtedly the hardest to market to, since they don't easily fall into a homogeneous segment; one assumes they spend money on something, but it is difficult to know what.

If, as seems entirely possible, this group is mainly composed of inner-directed people, marketers seeking to tap this market may need to adopt a much more flexible approach, and offer individually-tailored products (Blythe 1993).

7.4: Non-Innovators

Finally, non-innovators presented an interesting problem. Since the questionnaires were administered at a hi-fi exhibition, where manufacturers were exhibiting the latest products, it seems a little odd that so many non-innovators responded to the questionnaire. This can perhaps partly be explained by a changing social paradigm (McNulty, 1986; Evans and Blythe, 1994) or by the possibility of spouses and partners of innovators attending.

For whatever reason, the survey did pick up 13 respondents (those at the extreme of the innovator/non-innovator dimension) who were quite clearly not innovators. They showed low interest in innovation per se; these people would correspond to Rogers' (1962) categories of late majority and laggards. From a

marketer's viewpoint, these are the people who will tend to adopt a product only when it has been thoroughly tried and tested, and everything is known about it; the correct innovation strategy for this group would be as follows;

- Defensive; producing “me-toos” with slight improvements. (Gupta, Raj & Wilemon, 1986)
- Analytical (Miles & Snow, 1978).
- Low-budget, conservative strategy (Cooper 1985) to maximise profits.
- Emphasis on process innovation (Kotabe, 1990; John & Snelson 1990)
- Aim to produce Old But Simple Money Savers, or Synergistic Close-To-Home products (Calantone and Cooper, 1981)

The evidence is that adopting a basically non-innovative approach is less risky for firms, although potentially less profitable. Since the population at large appears (according to Rogers) to be basically non-innovative, this approach is likely to tap the biggest market for nearly all products. (On the face of it, the fact that so many non-innovators turned up to a show dedicated to innovation argues that the number in the population at large must be high indeed).

7.5: Conclusions for Practitioners

If marketers are to be successful in high-tech markets, they should not assume that having a technological lead will always lead to commercial success. As with any business activity, it is first of all essential to decide on goals; what is the company trying to achieve with its new product programmes? If the basic target is to produce profitable products, then the me-too approach, appealing to non-innovators, is likely to be best. Conversely, if managers are looking for market leadership in the longer term, a more aggressively innovative approach is more likely to succeed, particularly with the innovators. In this case, the main thrust of the marketing effort might be put into demonstrations, roadshows, and exhibition attendance.

In all cases, the focus groups demonstrated that many consumers (even technically-competent ones) find the brochures and technical information difficult to understand. Although this can lead to a perception that the products are innovative, it is more likely to lead to a failure in perception of value for money (i.e. the consumer doesn't understand what he or she is paying for). It is almost certainly worthwhile for manufacturers to address this problem, perhaps by producing "idiot's guides" to the technicalities of the equipment.

7.6: Further Research

There is still considerable scope for research into consumer responses to new product offerings. Consumers can be categorised in many other ways; according to the Kirton Adaptive-Innovative Inventory (Kirton, 1976), according to the Kassarian I-O Scale (Kassarjian 1962), by broad and narrow categorisers (Popielarz 1967), or by any number of other psychological measures.

Unfortunately, each time a study is carried out it will, of necessity, only refer to one category of product, and it is certainly not reasonable to generalise from, say, innovation in FMCG markets to innovation in capital goods markets, or to make inferences about consumer markets based on research done in agricultural markets (as has frequently been the case with Rogers' 1962 work).

7.7: Criticisms of This Study

The research reported here has, in common with most research, some limitations. These are as follows;

1. There may be other factors involved in assessing newness.
2. Respondents were not all reporting on the same equipment.
3. There are other ways of categorising respondents, some of which may provide more cohesive responses.
4. Respondents were asked to complete the questionnaire at an exhibition, where time is generally at a premium; although the response rate was good in the

circumstances, it could be improved upon greatly by carrying out studies at a more relaxed location (for example, conducting hall tests).

5. The measure which was intended to assess conspicuous consumption was (at best) inconclusive. In any future research this measure would need to be extensively tested beforehand.

The difficulty with extracting the dimensions of newness from a consumer study is that those dimensions will almost certainly only apply to the product that is in front of the particular respondent at the time; in other words, the research may not be easily generalisable. To overcome this, a series of studies covering several different product categories might produce some common elements, and indeed some of the elements by which the respondents from this study judged newness might be generalised to other product categories (for example, practicalities of use, or appearance).

A further possibility which has considerable potential would be to build on the focus group study contained in this research. Within a positivist methodology, this would entail recruiting rather more respondents and forming several groups of innovators, non-innovators, and other homogenous groups. The transcribed responses could be analysed using NUDIST or other qualitative-data analysis software. The advantage of this approach would be that the respondents could be more open in their responses, rather than limited by the constraints of a questionnaire; also responses might be teased out by the group interaction. Certainly in the research reported here the focus groups were dynamic in their

expression of views about the equipment, and were able to “trigger” responses from each other. Although there is a danger of each group conforming to the views of the most vocal members, this may not be too big a problem if several groups are run, each group being composed of similar personality types. The major drawback with carrying out this research would be the quantity of data to be analysed, and the resulting (arbitrary) judgements which would need to be made.

An alternative possibility would be to carry out further group exercises under an interpretive paradigm; this would involve greater participation on the part of the researcher in terms of guiding the discussion and probing areas of interest. This type of exercise would be more likely to lead to answers about the ways in which consumers decide that a product is new, and the relative importance of various factors in the decision. Even here there may be hidden motivations and factors which are operating below the conscious level of the subjects, however.

Of course, there will always be a problem in terms of an individual’s willingness to define a product as new. Even a new-to-the-world product will usually only represent a better way of meeting an existing need. Even a discontinuous innovation such as a video recorder only replaces other home entertainment equipment; it augments the TV, helps replace the radio, replaces the piano which was prevalent in most Victorian homes, and probably replaces conversation as the main entertainment medium in many homes. Sophisticated innovators may well be reluctant to admit that a product is new at all (in fact, one respondent in the study reported here gave all the equipment zero marks for innovation, with the comment “Nothing new here this year” despite the fact that

several manufacturers were launching “new” models at the exhibition. Other respondents did not seem to suffer from this problem, however.) A response of this nature might be held up as a prime example of the drawbacks of positivism; the respondent is clearly giving an answer which is intended to have an impact on the researcher, rather than expressing a “true” state of affairs. This is, of course, another argument in favour of emphasising qualitative research in future studies.

Finally, more research is indicated into the desirability of newness as compared with other aspects of the product. Although this study did not address the desirability of the products per se, there is some evidence (Haines, 1966) that newness itself is a desirable feature. It might not be the case, however, that more newness equals more desirability. Presumably more newness means greater risk, which might reduce desirability for some consumers, while others would prefer greater risk. Here the research might actually be simpler to carry out; if respondents could ascribe a degree of newness to a product and also a degree of desirability, it might be possible to correlate newness and desirability across different personality types. The problem here would be filtering out the other desirable aspects of the product.

More research is certainly indicated, since so little has been carried out in this area of innovation; there is clearly a need for a more marketing-orientated approach to the question, since this has been sadly lacking.

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APPENDIX 1: FOCUS GROUP TRANSCRIPTS

The focus groups were videotaped and the following full transcripts were made. Although the groups were instructed to discuss the newness of the products, there was a tendency to deviate from this and discuss the desirability (or otherwise) of the products under consideration.

Individual respondents are not identified in the transcripts.

A.1: GROUP ONE

We're

Where do we start?

Is it blue?

I've got one at home.

I used to have one.

I don't know what the volume's like. Stand back and we'll find out!

Quite unusual design, isn't it?

I don't like the colour.

Don't you?

No.

It's like the grey ones you used to get, Panasonics and things.

Like the black ones.

It's quite a clean sort of design.

I don't mind that, I just don't like the grey.

I don't like the design.

Do these sort of come with it? They don't match, though. Perhaps they don't, yeah. You can sort of mix and match though, can't you.

They're *not too bad*.

Yeah, they're Denon aren't they, so the speakers are Denon. They can be space savers.

They can be compact all along.

What are these other bits for, then?

That's another CD player there.

I presume that you can put a CD in there and you can plug in the turntable thing, to choose between the two.

A lot of them now the more technical ones have two CDS in the one player or even up to six CDS in the one player.

Say you're, you know, at a party and you can select the CDS.

There's three little ones in there and you can sort of programme them in the stacks to see which one it goes to. You get all those things.....

And it will randomly choose one for you.

Look at all those things.

I suppose so once you know what they're all doing.

We don't like the grey one.

I don't mind actually.

It looks very Japanese as well.

There's loads of graphic equalisers and everything.

You've got those on the stereo.

They're going now to the opposite way, aren't they from lots of buttons and things.

Don't you think they're a bit small though, I prefer them that size to those tiny little things there.

Sort of I like them bigger, that size you..... Its got Rec there, what's that for?

You can't record onto a CD though.

Its got record on there.

You can't record onto a CD can you, it must be onto a tape. Can't you though? Aren't they doing something that you can record?

Which ones the volume, then.

You'll have to wait and compare it with that one in a minute, I suppose.

Trying to find all these buttons.

What's these buttons here.

That's Play, it's going to start playing now.

Its gone back to the beginning of the song.

It takes a while, though, doesn't it?.

It's gone on, though, or has it turned around?

It's gone back to the beginning, though.

How much is it?

Midi system to be used with these speakers, £749

It is, it's quite expensive then really, isn't it?

And its a UK make as well.

It's quite expensive really, most of them are about three hundred and fifty, four hundred pounds.

Has it got

Radio data system

Yes, I've read that.

Oh yeah of course, its that one there.

"Owing to the fact that the British require British speakers the d90 is a specially commissioned design." You can buy it with or without the speakers.

Preferably buy it with the speakers.

You could actually have the speakers, you get a good system but you wouldn't have the quality.

The speakers are only eighty pounds.

So they're quite cheap actually, but they're really very effective.

CDS stereo sections.

I don't know a lot basically.

Usually they've got something so you can adjust it, haven't they, actually on the thing, the unit.

There's only the one speaker in there.

How would you compare buying something like this?

I'd go for the make.

I'd never know how to use it.

It shuts down automatically.

Save electricity.

There's only one speaker in there.

Doesn't mean a lot to me.

Safety sort of things in there.

Remote controls on the receiver.

Total waste, why put two midrange speakers in? I'd go for the make as well.

I've never heard of these.

Difficult to know what I'd go for; the make as well, go for the name.

Is it owned by a Japanese company?

I think so, Nippon Columbia, yet another Japanese company. You can get other things for it as well.

Shall we have this CD on?

Yeah, why not?

There aren't any brochures for this one.

A bit of culture!

How much is this one?

I like the look of this one, eh. I prefer the size of that one.

I don't like the speakers, either.

What don't you like, this one better than that one?

I like the black, it looks tatty, the grey.

Its nice, the finish.

What do you think about the colour?

I don't like all those knobs.

It's bulky.

It's a nice matt finish.

It looks very futuristic.

The controls are too small, aren't they? I don't like the size of them.

I like those buttons down there, but I don't like these.

Sort of Captain Scarlett, like the old cooker controls they used to use.

Which are the speakers that are supposed to come with it, then.

I'd imagine those.

What about those, the top ones?

You'd have to play the same songs in both of them, with either of them you can't really compare the sound because it's different songs you'd have to play the same songs. Maybe this is sort of, different with the bass and that.

There's all the controls on this one to fiddle with, you sort of don't get the point.

They're quite expensive, but they're really good.

You don't know all about it.

For example I don't know much about cameras, I wanted something for about eighty pounds, I wanted it to be automatic, I wanted to find out what the extras was. I think if I ever bought anything like this I'd want to consult somebody who knew about it.

You'd buy it because its a well known make.

There's all these at the back, how easy is it to like plug in and sort out at the back? I'm always putting things in the wrong holes and that.

You sort of like slot them it's the

It says on this one it's got loads of things.

Obviously at the back you can get a video tuner, you can connect up to the television to get the stereo sound.

You can plug it into the telly to get like a better sound.

Like the TV its got like Nicam and stuff you can transfer the sound to this system.

I don't know what it means, but

You can gear it up to receive, you can still get the signal but it can't translate it.

It's got a remote control as well, this one.

Would you have a preference to buy British or Japanese?

There's Kenwood and some of the others, and they're the sort of makes you find in things like Which Hi-Fi, you come across these makes being starred.

Just go for the big commercial radio, which would be like you'd go for the big commercial ones, the popular makes.

I couldn't have like a technical one because I wouldn't understand.

Yeah, but its the look of it isn't it, if you have it all there, your graphic equalisers and that.

Keeping up with the Joneses.

I definitely prefer that one.

I'm sort of like getting to like that, I'm not sure about the mirror stuff there, it's more sort of compact and that. It's too plastic there.

It's sort of cheap and nasty.

I don't know what it is, I'd sort of like that one better. I didn't like all these speaker things on here.

You've got a tweeter when it's playing, you sort of don't hear that.

These look a bit more sort of sophisticated, this lot.

What do they cost, this lot?

Its just to get an idea because you don't have the amplifier. I suppose you do mix and match, don't you?

Personally I prefer small speakers.

I don't want big ones that, you know.....

It depends on what space you've got I suppose.

That's why they do have very small loudspeakers.

Even if you've got a big house its sort of going to fit on the shelf.

I suppose that's why they develop very small ones.

That's probably why they look so awful most of the time.

Or do what my mum does and put plants on top of them, decorate the speakers.

They don't come in sort of half-moon shells.

Shall we have another listen to the other one?

Right.

Not very clear how much this one is.

No.

Right.

Which is the most innovative?

Hard to tell unless, you know, unless you study the brochures.

You'd go for the looks.

But it isn't only looks is it?

But its innovative design, but like you said earlier, that's been around. You've seen that for absolutely years.

Saying that, that's a new colour, whether it'll take off.....

The thing is we're not going to find out which is the most innovative unless we read the manuals.

But then I don't understand the jargon they use anyway.

But this one's got this tape thing. I like the tape to tape thing.

This one's innovative with the size, they're making them even smaller than that nowadays.

Compared to this one, yeah.

But then you could add to it.

Well, I think I can solve the problem.

This one's more innovative because of the size and because its more compact and that. They're making them even smaller than that nowadays.

I'm not too sure about these small buttons.

I don't like the small buttons.

The thing is you can't have a small system with really big buttons.

But this has gone too far the other way, with these they're almost pin size.

But with a remote control you just sort of sit there and press that.

But half the time I don't understand the remote control either.

I quite like the sound of that.

It's got quite a lot of bass and things.

It's got rather more bass on them.

It depends on how loud you turn it up I suppose.

There's not a lot of stuff on this one either.

Not much information on that one.

Lack information about this one, whereas with that there's so much you have to find out.

What is a stereo receiver then, go back to that, which is what this is.

It's a radio, isn't it?

Is it, oh.

I see. It must be able to receive it, there's a band there . Is there any on this one.

That's just going to record on there, you can put a tape on. It'll play onto the tape, the radio

It should tell you there.

I reckon this one's more innovative, then.

Yeah, but are you going on looks alone?

Yeah, it is swaying me a bit but no. Like the fact that it's more compact and everything, you're going into smaller things now, all your microchips and everything.

That's all we can say really because we don't know about the sound and that.

But if I went into a shop and they, um

That one's more fuddy-duddy, this one's more modern and probably people see that as being more innovative.

There's a record player option on it.

If you go into a shop and they have stacks of stuff there you'd just like listen, I wouldn't know, I wouldn't have a clue which would be the best sound for me really. And the one that sounded best to me might not be the ones that have the bass and everything on.

The people who are selling these things are not terribly clued-up on these things.

if you go into a shop the acoustics may be terrible and things.

There must be some way you could set up.

If I was going for sound quality I'd go for that one because its so....

It would just have to depend on the person, unless theres some way to set it up.

I must admit like these ribbon bits on the back, these flatty bits on the back. They must be easier, you know, to install. Did you stop that one?

Yeah, I stopped it.

That sounds really, that doesn't sound too clever.

Try fiddling with those you're not getting like... You're getting the surrounding sort of sounds I think out of that one.

To me, there's too much bass on that.

Yeah, there's too much bass.

But you'd only get to find that out by fiddling with it. It depends on people, on people's taste in sounds, they're probably quite different.

I like the screen on that, compared with this.

Oh no, I'd say that one.

Why don't we just go for that one - everything about that one in that shape.

Where's the bass and that?

I don't think it's there.

There must be an action somewhere.

You've got the Dolby.

Unless it automatically does it for you, some of these automatically do it for you these days.

In that case this one's more innovative, isn't it?

You know you'd have thought there'd be an option somewhere on this, somewhere to change the sound quality, you know bass and treble.

Maybe you do have somewhere.

Most of these manuals are impossible to understand when you first read them, aren't they?

You get the instructions in every language.

Everyone wants to get started.

"Contents - main features - An independent quality sound.... super dynamic bass - "

You like this one don't you?

Yeah, colour and everything.

It sounds like it's preset or something. You're never going to be able to change it. "Super-dynamic bass control circuit..... "

I suppose as well if its got preprogramming for bass and treble that's ideal.

Which is good.

But for some people they want to choose how much bass and how much treble they get, it's taking away that option, isn't it? In which case they just go for a different machine, anyway. What is it?

Chris de Burgh.

If the orientation of the sound is not clear, the speaker polarities are wrong.

The what?

Speaker polarities, you change them round at the back. So all you do is change the speakers, you don't seem to be able to adjust it at all.

So if you were buying it in a shop which would you go for? I don't like it not being adjustable.

I'd go for this one, I'd go for the adjustable one.

This one looks like the one I've got, five six or seven years old.

That's quite an old one, isn't it.

Whereas this, this one uses computer interfacing which is quite different.

That's right, yes.

So this one must be more innovative, if it's using digital impulses.

Yeah, very right.

Why, what's the point?

Is it just to cut down

Yeah, that is more innovative.

The sound of that seems a little better.

I don't like it not being adjustable, though, and I can't stand the buttons on it.

If I was forced to buy one or the other I'd go for that one. There are things on that one I prefer.....

Maybe you can buy variations of this where you can adjust the bass and that yourself.

I wouldn't buy either of them.

I take it we have to go on just what we have?

It goes on price, how much is this one?

Seven hundred and odd.

Which I think is quite expensive, actually.

Five hundred, that's without speakers.

Wonder why we haven't got the price on the other one?

Or much information on the other one.

We can't make much of an assessment without really sitting down and reading everything.

But would you really read all that if you were buying one? I'd go into a shop and I'd be looking at it, I wouldn't sit down and read through the instructions, would you? I'd wait until I got home for that.

Don't you think you'd do a bit more information searching beforehand, if I was spending this amount of money?

If I was spending a hundred pounds I'd still go through it all.

I'd want to be getting value for money.

Yeah, you'd ask friends what they've got, what trouble they've had with their systems.

People like Richer Sounds, they're quite good.

We don't have to know everything to make a decision anyway. The question is, which is the most innovative?

Going on looks not on sounds, maybe the buttons but mainly the looks, this one's more innovative. And the fact we've got more information on this one.

Whether you can understand it all is a different thing. Generally these books are absolutely appalling, aren't they? They're not very user friendly, are they?

It's baffling, its bad enough trying to buy stereo equipment; you don't understand what you're looking at, theres a load of variety you don't understand what you've got, what the features are.

They just put the volume on and say listen to this.

It's not very clear what the difference is between tape and CD.

It would be interesting to see what the difference is like between the tape and the CD.

The CD's more clear.

You get these metal tapes.....

Playing a tape in the car makes a big difference.

Most car systems are very poor I put chrome dioxide in mine and its a waste of time, you don't get any better sound.

I think we've exhausted everything now haven't we?

Theres only so much I can say about these, I must be honest with you, I'm not very technically minded.

We know bits between us, but we don't know everything. But we don't know loads each.

MODERATOR; Did you come to any conclusions then?

Yeah, we think this one.

Well, the size really.

Looks and size, really.

This one's got the ribbons as opposed to all the wires, also it's got the system built in to sort of adjust the bass and that which the three of us prefer. You like to fiddle with it yourself, whereas I'm not very good with things like that, I prefer to have it done for me!

It's quite neat and compact, isn't it?

I haven't seen this before, this tape thing, I quite like that.

I don't like the colour of that one.

I don't like the metal grille.

I don't like the looks of this one.

A.2: GROUP TWO

(Begin by looking at the brochures) What the hell, shall we turn one on? Let's go for it.

It doesn't even have a CD player.

It's got two CDs.

No, that's a tape deck.

Is that a tape? Oh yeah, brilliant! It doesn't seem very clear, does it? Go to the next one, then.

It's got a graphic equaliser.

I like those.

It's quite impressive.

Is that the CD, then?

This is more of, er, this is better ergonomic, er This one certainly looks more expensive.

That's one of those cassette things.

That's the CD.

You've got the CD in the amplifier.

Is this all separates, like these? (lots of time looking at brochures)

Crystal clear sound from this one, it's much better. Much better, isn't it?

This one seems more innovative.

But you prefer the other one.

Switch on the radio, try the

This one's separates as well.

Does the radio tune into it as well?

I like the stereo receiver.

Can you put the CD back on?

Let's try it with the culture model, it's stylish. Stereo receiver
.....

Innovative is like.....

This one is like for if you just want a good sound. You could fiddle more with this one.

What are all these for, do you know?

This is different, you see all these in stores. Which one do you prefer?

Well, this one's really innovative.

That's more your bog-standard separate, I suppose. What do you think?

This one's more innovative, especially the tape deck. Yeah, its well good, that, I thought it was two CDs. Is that a digital tape recorder?

But you buy all them

Have you got the prices for it?

I think its one of these that if you want to get it you wouldn't look at the prices.

Has it got the prices on?

No it doesn't.

This is also innovative in the fact that it's smaller, isn't it.

Yeah. I like that tape.

Sleek. This has got a clock built into it, like a radio alarm.

Is it a radio alarm, then?

I think it has, it's in the receiver somewhere.

Lets see the instructions, then.

That's the receiver, isn't it?

Speakers a bit impressive, isn't it?

I think you'd expect that of these.

It's certainly quite novel and different. Is that a major radio station, then? It's on FM at the moment.

You've got four kind of wiggly bits.

I wonder why that is?

Just to confuse you I think.

Function.. tape... CD....

Complicated as hell.

I think we got a remote control with this one.

Yeah, I like that.

I've seen these CDs too many times before.

Yeah, it's quite standard really.

The function button changes from tape to CD.

It tells you what it's called. Cool. Can't get it to make any sense, though.

They're both separates.

What's this name thing?

"When listening to radio broadcast check that connections are proper"

With the radio stations.

Is it only the CD one on this?

It's all a bit complex though, really.

I can't work it all out, see how to set it up.

Can I borrow that CD in there, compare like with like?

We can have the Placido Domingo if you want.

I prefer the look of that one, but this one's far more fun, I suppose.

It's more complex, this one.

This one sounds better.

Yeah it sounds a lot clearer, that one's much clearer. There's no doubt about it, that one's a lot clearer.

Do you use these buttons a lot, or do you just use the remote control?

I dunno. Can we work out what we're suppose to do with all these buttons?

The treble and the bass.

That's the treble, I think. The radio's built into the amplifier. They should be a little bit separate.

Since they are separates it should be easier to change it and that. Changing them would be easy.

Midi system with speakers, £799.

"Receiver, CD player, cassette deck, system intelligent, and the automatic shut off system which shuts it down after ten minutes for seven hundred and ninety nine".

This is this little lot here.

That sounds quite cheap really.

Let's have the Placido.

It sounds like rain!

It's supposed to be people clapping.

That's terrible.

It's a bit fiddly though, this one. At least with that one you can just go like that, this ones really sort ofI don't know if you'd be able to cope with this one. Definitely sounds better, though.

What does that one do, then?

Play, I think.

Oh it is, yeah.

Trying to reset this thing.....

I don't think I'd be able to cope with this after I'd had a few, actually.

Maybe that's because you can't find any of the buttons on that one.

I don't know actually, because it is better quality sound.

Maybe that's just the way it's set up. What's the price difference between them? Just knock it off the stand.

This one definitely sounds better.

Um, what does that one do then?

Play it.

You couldn't play around with that one much.

I'm trying to reset but I can't find it.

Maybe that's because you couldn't find any of the buttons on that one.

This sounded pretty good on this system, anyway.

Arcam CX.

(more reading of brochures)

Which one's that one?

Is it just for style or is that to make it sound better, do you know?

I think it's the style.

There's a revolving head thingy in there somewhere, I'm not quite sure what that is.

You probably can't see anything from there.

Try to keep things simple.

It needs some forward fast, what are these things?

Can you do that?

You can with some tape decks.

That's quite useful, actually.

Yeah.

Some simple midis.

Give me some direction, please!

It'd take you a few hours to read this, I think. This has got a fastforward button on the CD. I've never heard of that before, have you?

Is that on the same button for fast forward as it is for the next track ?

No its got "next" for next track, and a fast forward button as well.

Have you seen that before, then?

This one's got it as well, but its the same button for next track as it is for the fast forward.

Oh well, go on then.

For next track you just press it quickly once, but you can do it backwards as well.

But you can put your video through that one, too.

Where does it say about the video?

You can't see very clearly how much time you've got left on this one.

"lifestyle system" !

Seen this too many times before.

I actually prefer the sound of this one, but that one's far more fun. I'd sit and play with that one for hours.

Super styling.

This one I'd be able to use but I don't think I could handle all those buttons.

There's a few of them like that in the shops.

You can have the sound coming out the speakers. They're more fun, you can fiddle with them. Is that new or not? Have you seen it before? I've seen like tellies wired up to speakers. Oh yeah, I've seen videos and things.

It still sounds nicer, actually.

You've got the bass/treble, you've got graphic equalisers on both of them.

They don't seem to work, though.

I suppose that one's more... different, isn't it?

Quite responsive.

Sound is excellent, though.

This one isn't.

That one's a bit weak, just little speakers on it.

(More brochure reading)

There's a bit about the speakers here.

This one's a little bit too advanced, really.

(Long period of brochure reading)

What is it, why is this so excellent? They've hidden all the leads under there. Look at that for video.

There's the remote control.

Here's a price list, I think.

That one there.

Is that expensive or what, I wouldn't know.

Haven't got a clue.

I've never bought a stereo, I couldn't say.

I've never bought anything for £800!

I don't even have £800, I'm a student.

I don't know, I think you could buy a pretty good one if you bought separates and that, bought everything separate and get a good one for £800.

Have you heard of Denon before?

No.

Seen the display functions on that? I suppose in case you want to watch video at night or something.

Have you seen that one with party discs and things, with a big like drum you stick about five discs in.

This is a preset.

Stop!

Can you video into that one?

You've got an auxiliary, I assume you can shunt one in.

You can synchronise the, er, that and that if you're recording off the CD. Must be this one here.

You can synchronise the what and what?

If you're recording off the CD onto a blank tape you just press that and it starts them both at the same time, which is quite useful.

Yeah.

This one's definitely more advanced than that.

Which one's more advanced?

I don't know, I think they're about the same except that one's got the fast forward bit and the tape thing. And the bottom bit's the funky bit.

It fitted all into the amp, the receiver and that goes into the amp.

This one's got a nice radio.

This one when you switch it one it says Denon as well, which is quite good.

Does it? And have you had a nice day at the office? Probably programme it to say messages.

Hi, honey, I'm home!

"What would you like to listen to? "

Yeah, this one has got a video.

It seems on this one you'd buy it all together.

Yeah.

I think you'd have to buy it all together, you couldn't buy it and pick different.....

I'm not pulling it.

It's neater than that one is, that one's.....

The way that one's wired up makes it clear because the plugs just clip in to the back.

Do we get to keep these?

This one looks a bit easier to assemble, as well. I wonder if you could fix it with other makes? I haven't even got a screwdriver!

Bit of tinfoil between the contacts.

There's more style with this one.

This one's covered in awards as well.

This one's a d90, including speakers £740.

It still keeps the clock going when you turn it off.

This one goes off completely.

That one's got the tape deck in a different area.

I don't know whether that's a gimmick, or whether it means something.

It says here this enables a horizontal profile so it lowers it all down.

This one "incorporating Denim's horizontal system so enabling lowering of the deck's profile".

What happens if the tape gets stuck inside, it starts chewing up the tape?

Does this come off?

You're going to find out!

I think it doesn't.

Speakers are impressive.

These look more standard, don't they.

I think these look a bit more flash with the, er, woofer its got this great big lump sticking out of it.

They look nice, though.

They put me off, there.

When you're sitting down they'd be the right height. Those stands there, haven't they got some use apart from that, though.

Something to do with the bass.

I can do lots with that.

Super dynamic bass button.

SDB, yes?

Yes.

This is 75 watt speakers, loud as hell.

These are 70 watt.

I can't notice a difference.

Is it just for the tuner, that superdynamic bass? Yeah, just for the radio?

The radio doesn't work.

I'd quite like to hear what these actually do. Go on then.

You first, then, please.

"Safety instructions hints and tips".

Under no circumstances!

Run leads from the

They need to have a competition, whether you can understand these. See if you can tell the difference between the five watts.

Loudspeaker connections; insert the red plugs in the red sockets and the yellow plugs in the black sockets. Positive conductor can be.....

So you'd have one from each speaker in each of those, one from each of these, because you've got two here..

There's no colours on the back of those speakers.

Is positive red?

I thought so, that's what I'd guess.

That's all it says. Terminal three to your right speaker, terminal four to your left speaker.

This is the instructions book, there.

That is trying to be traditional, that's trying to be hitech.

Not a cheap plasticky thing.

MODERATOR; Which is the most innovative, and why?

Well I think it's that one, because it's real megatechnical. Features hidden away deep in the heart of that one which I haven't come across.

I think they're pretty much the same but that one's made to look far more funky than that one.

You've got nice little features with the radio there.

That one actually does more, I think.

The amp on that one seems to pick up a radio station, which seems to be innovative, and the cassette deck is flat as opposed to being upright.

That's good, yeah I like that.

That one's smaller, too.

But that depends on how many bits you've bought for it, because there's three more bits to go on the side of it.

I thought you had the choice of having them on top or at the side.

That one's far more modern-looking; that one's been around for a few years I'd guess, anyway.

MODERATOR; What is it about them that makes you say they're innovative?

You can get drawn to that one for the styling.

You can do far more with that one. That one you went through it and pressed all the buttons and that's it. That one there's loads to play with.

It looks more modern as well, you're used to seeing black stereos not so much the shiny metallic ones.

Yeah, I think that's the innovative one.

That one is, because of the appearance side of it, it's more attractive, which is innovative with the buttons, and the screen the tape thing and the thingy on the bottom of it.

A.3: GROUP THREE

Can we play them?

MODERATOR: Certainly.

Has that got a tape player?

CD, tape and radio. Typical of Denon.

This is what I like about Denon, this is the tape player isn't it.

Yeah.

I love that, I don't know why.

It's just different, it looks new.

I suppose it's because it's to do with the CD player. It's image.

It's the same.

It's integrated, isn't it.

It's the colour, it's different.

It looks very hi-tech.

I don't like its styling there, I prefer it like that. I suppose again that's more conventional.

It's sort of the... it looks expensive, doesn't it. All right to check the sound system, isn't it? Anybody got any favourites they want to hear?

Don't like somebody's music tastes.

That's the more commercial look.

It looks more expensive, doesn't it?

That's the remote.

That's the sound system isn't it?

I don't like somebody's music tastes.

Only one plug as well.

Is there? That's a change.

That's the old heavy metal, that's different.

How much is it?

I think the finish is, like you say it's so different. Does it say how much it is?

It's just VDR 90.

It's got the usual digital display.

I think it's strange that. I dunno, everything runs through the amp do you know what I mean, like?

It's unusual not to find that there.

That's like for your more refined, to me that is like, um... It's only got one single cassette.

You can get twin cassettes.

Who would buy that? I think stereo buffs tend to go for something like that, black with knobs.

That's like your separates system, like you buy your separates.

It's a bit more flashier, that.

Yeah, that looks more status symbol like, with this lot you tend to find names that are unheard of whereas sort of with Denon you relate it to expensive. It's sort of that grade, whereas this is the kind of thing a stereo buff would buy.

Buy it for the sound not the image.

Because it would be a separate make CD because the amp performs better, the CD. Because it performs better than, you know, these are more expensive so you usually buy the separates.

Would you usually buy them separately?

If I had the money then I would go for this, I would buy the separates as opposed to the amp.

I wouldn't, I'd go for the other one. Why would you go for this one rather than the other one?

It just appeals to me, I dunno.

I prefer the look of the Denon but I prefer the sound of this one.

It's got a lot.

That's what we were saying before, for this you'd go for quality of sound.

I think you'd probably find the styling of that is

More technical, I would have thought.

Because there are people who prefer knobs and switches, things like that, and lights and then you've got like the people who prefer it done for them.

I like the minimalist sort of thing.

That's remote as well.

This is sort of bulkier.

But then again you buy it for the sound, I prefer the looks of the Denon but then this sounds better.

How much was it?

I don't know.

There are prices in the brochure.

Do you prefer like small speakers?

Yeah I like those micro systems, like the really tiny ones, but then you compromise on sounds.

I like the best of both worlds.

Tiny and light.

I would say something like this, though, hadn't reached its full potential if it was in your lounge then you wouldn't be able to bang the sound up because it would be too loud. With your little speaker it would look nice, more presentable.

You might not want this in the lounge it might be too loud whereas this one's got the small speakers, with your semi-detached you could pump it up as loud as you want to.

It's like the connections at the back of this one are so much more simpler than them.

Yeah, this is for somebody who knows about hi-fi and has an in-depth interest in music, rather than somebody who would like that one which looks flashy and expensive, but it sounds good as well.

You're getting your money's worth with the product and things like that.

Did you take this off?

Yeah, I took it off to see what the speakers are like.

I can't find the price, to compare the prices.

What would you price that one at, do you think?

That one's a lot easier to use, to go straight to it.

I suppose it's got the old conventional knobs, unlike the trend in the nineties towards buttons and electronic systems.

What I don't like is like with remotes the buttons are all on it, if the remote goes missing you can't use it. We've got a TV at home and you lose the remote you can't use the Nicam stereo, you can't use your Dolby because there are no buttons there to operate it from on the actual TV.

These buttons are small, though, like touch buttons, whereas those are sort of, you can actually see what you're doing, like you've got the big wheel things.

The whole thing looks a lot more dated, you know than this one.

I still think the Denon looks more refined, I suppose. Yeah, it's got the touch keys and that.

Any digital display on that one?

There is on the CD player, there's nothing on the amp. There again, on this one your amp's your amp. If you want a graphic equaliser then you're buying the separates and that.

Do you prefer to have a remote control?

Definitely.

I think it's definitely a plus, but like you were saying as to the practicality it's...

It's interesting too to see how this one's marketed, like the Denon it's all flashy stuff, it's saying state-of-the art. It's the whole sort of image of it, with the brochures and stuff so it's not just promoting the brand and the look of it. It's the image as well.

With this one, as soon as you open it the first thing you get is the technical spec, it's usually stuffed at the back.

Whereas this one's exactly the opposite, this one is showing the range.

Yeah, I think the way they've coloured it like that as well gives you a sort of.....

It's titanium is it?

Yeah, titanium. Is it the silvery look? It's the state of the art.

See now, I don't like covers on speakers. Do you not.

That to me looks a lot better.

What, like these two at the top, you mean. What, as opposed to this?

Yeah, with the cover on.

Does it make any difference to the sound?

Not that I know to, but for me it's the aesthetics of it all when you pump it up you can sit and watch the bass, see the speakers move.

Is that the same one?

What Hi-Fi

Shall we turn it on?

Oh, God.

It's a bit flashy, isn't it?

Excellent!

Yeah, just a bit.

It goes and tells you what's on, it's amazing.

The cost of this is about £700.

I don't know that I'd pay £700 for it.

It's separates as well, it's Denon.

What's SDB when it's at home?

Apparently this has got a system called Dolby S, that's got Dolby B and C.

I've never heard of Dolby S.

I don't like Dolby. I suppose it depends what your ears are tuned to. I prefer the mid range and the higher ranges rather than the basses, whereas I've got friends who will listen to things very very bassy.

I don't like this, the remote control.

It's huge.

This remote looks a bit cheap compared with what the system is. This one looks quite cheap, you can't really read what the buttons are.

They're like silver with white letters on them, you can't really read what they say.

You don't need it because you have a remote control as well.

Maybe it's better to have a remote control.

In some ways it's better to have it tucked down the bottom like that.

I like that.

It's a place to plug its aerial into.

What's CD SRS?

We'll have to look it up, they're new-fangled things, aren't they?

Let me borrow this disc.

That's quite interesting, you know, remote controls have been around for ages, yeah? In this Arcam thing they've just introduced a remote control. It says it's Arcam's new remote control so you can use it from your armchair whereas most hifi you take it for granted you get a remote control anyway.

Maybe they mean it's for separates.

It's not new to the industry though, is it, where they go mostly for quality?

It's nice that it says what it does, what the buttons on the bottom of the stereo do.

You regard it as standard.

This has got massive potential for sound, I presume it'll go right round to the other side.

It sounds a bit tinny, definitely.

Loudspeaker overload; how far will they go? is the first question people ask.

Does that make any difference.

Now that's soft, yeah.

What's that ?

Oh, this is the tape.

Try that SDS thing.

That's just a bass thing, isn't it. I suppose.

That's it off.

Can't see any difference.

Must be more bassy.

I think the Arcam sounds better but looks worse, but the Denon looks better but sounds worse. Worse is a kind of liberal term.

No, it doesn't sound bad.

With this, you know, your sound monsters that definitely looks good and that, but for the price you could pick up a very good range of speakers and just have your basic, plus if that comes complete with tape deck amp and things at least. Nowadays personally I would just have an amp and a CD player.

Not cassette player.

Not cassette, no, because everything I've got on tape I've upgraded to CD anyway.

If you upgraded then it would be exactly the same system as that. I don't like these ones with the stands like that.

If you had one of these with the tape player underneath, it would look exactly like that.

What about these speakers, then.

Why is there four of them, is it quadrophonic?

I don't like these things, they look very 1970s.

It's part of the furniture.

If you have great six foot high ones they.... It's the way they look.

I've got a friend who's got the very big ones, a set of Missions, they're very very powerful but.....

The same with that, the whole trend is towards making it small and hiding everything, but with professional systems like this it's all sort of being chunky.

I prefer these two to these two, for starters, and like you say without the cover it looks quite attractive.

Is it not the wood that doesn't appeal to you? I mean if it was like that shape but in something like the black or the titanium?

Maybe if it was a dark tan colour, the dark tan if it's in your nice wooden house, in a different kind of setting, well....

People if they'd got like a £700 stereo and they got speakers like this, they might say where's my big speakers? People would expect to get nice big speakers.

The thing with like these separates is it's your room, I imagine the stereo is the main part of the room isn't it? The TV sits in the corner and it's the main part of the room, that is like well, it's fine, that gets switched on or turned off. But with this you might have the TV in the centre of the room with the fireplace and the speakers either side of the fireplace, it's a furniture thing.

It's designed to be the centrepiece of the room, isn't it, as opposed to the TV.

These would be out of the way, your speakers with this would be out sight, but this it's a furniture piece, not like that which you might hide behind the chairs. I personally would put these out.

This is incidental, that's in the background.

They're heavy though, they weigh a ton!

Good speakers usually do.

The Denon ones are really, you know.

"Safety instructions, hints and tips."

What do you think of these bass and treble things?

I don't like 'em.

Personally I don't use them a lot, I mean sometimes I'll set them.....

I tend to set them up once and then leave them.

That's what I mean.

But it's a good feature and that.

This doesn't appear to have it.

Is that it on the bottom.

No. I really don't like this.

Oh yeah, it's got treble, bass and that.

Are those exceptionally difficult to um.....

We can't adjust it from here.

It's really out the way.

But in this room it looks cheap in comparison with the stereo.

It looks really naff it doesn't go with the stereo.

Wonder why they went for that? It doesn't

With this remote you wouldn't expect to have this stereo, would you?

It's your Toshiba, that is.

The whole way, the whole thing is it's spoiled for looks, especially the buttons on the bottom.

They're out the way, right out the way.

Let's have a look at the ...Have you got an instruction manual for the Denon?

Yeah, it's that.

Jesus.

Do you think we should put this in the light, see what it would look like like that?

You don't mind if we just move this?

(disassemble the Denon system)

I like um...

Does that look better?

I think it looks weird.

What do you think of that?

It looks er... It takes up more room, doesn't it?

I don't think I'd set it out like that.

I don't like the grille there, I know you've got to diffuse the heat somehow but....

Bang and Olufsens are set out like that, but they're so much thinner aren't they? But you've got your covers over the top and its buttons here. It's sort of strange to see it like that, but if it's level like that you've got to sort of get down to adjust it.

I don't like it like that.

Looks nice in the photo, though, but then again from the angle you've got it, it's different.

If it was here.... if it was there it would be just sort of like.....

Yeah, I wouldn't have it on a table like that. If it was on a shelf then yeah, but on a table, no.

So we don't rate that Dolby.

I haven't heard anything... I don't think.. as I say I've got a couple friends who like that bass sound, but they don't use the Dolby they just turn the bass up.

It's too muffled, the Dolby.

You don't need it on a CD player. With tape players I've never used it, it's not a feature I'd go for.

It makes it sound worse often, more muffled, not quite so clear.

I know which one I'd go for.

On looks I'd go for Denon but on sound I'd go for that and I think I value sound more than looks.

Something like that, I'd tend to hide that behind something, behind the chair or out of the way, but with this it would be a waste to hide it away, you'd leave it out because it would look so nice.

I suppose everything is all inside.

I must say the sound quality of that is you know not so bad.

No no I didn't say it is but sort of as a centrepiece... I'd expect that's an incidental sort of thing.

I'd expect that to be more expensive than this, even taking into account that it's got a tape deck as well.

See, it gets the top end and the bottom end. But at the end of the day you see Yeah, that's definitely a better quality sound. That one's more appealing looks-wise.

What I don't like on that... I'm definitely a twiddly thing

.... instead of pushing buttons if I could have that stereo in that colour, not necessarily that make, but sort of that styling; it's better, it's like you say that's different.

How about that size, do you like that size like that?

Yeah, yeah, it doesn't bother me, I've got an amp at home it's like twenty years old. It's an old Morantz amp, and it's massive it's like with videos we used to have an old Ferguson video with the big chunky buttons you push down. With videos and that, something like that is better than the chunky buttons, but with that you can see what you've got.

With something like that it's sort of level like.

With that it's got the little writing, it's in the wrong colour.

Well, it takes a while to know what's going on if you don't know. If someone's just come into the house and you shout to turn something off, it's a lot easier to sort of hit that as opposed to try and find those tiny buttons there.

With that it's more for looks, this one's more functional.

I like that.

When I was trying to take the CD out just now I didn't know whether it was that or that.

Yeah, that's quite confusing.

I like the idea of the same format, yeah, whereas before you used to have your turntable, your two cassette decks. With this it's all the same format, it's quite nice.

Anybody notice the fact that you can't have a record player with that?

I suppose you could buy a record player for that?

You're getting into the old vinyl debate.

Well, the thing is with this you've got so much freedom of choice that you can go to anybody. You'll probably find the plugs on the back of this are universal, you go out and buy your Morantz amp, your Sony CD player, whatever record player you want, you go out and buy the best of everything. Whereas if you bought something else with that it would look so out of place with this. It's designed so anything else would look out of place. If I wanted an Arcam CD player it would just look stupid sitting on that.

You mentioned the vent system on top. This is the equivalent on this one, it just highlights the fact that this is, well, it's necessary but it's an eyesore. There's no other ventilation anywhere that I can see.

I would say that that one's definitely out of proportion.

Designed to fit the way you live.

The whole marketing thing, this whole brochure saying what the critics say about the Denon... it's all blue lines and trumpets throughout this thing, saying how wonderful it is.

Again, see you can get most things in Denon, anything else just wouldn't go.

(reading brochures)

It must be in black.

No, it's the titanium finish.

£690, it didn't seem that much.

See, that's got flashy features... the Arcam's very basic in a way, like you say it's just concentrating on sound. This is for the person who likes the sound, to say it's got this, it's got that, that one it's sit you down and listen to this, it's got the CD.

The image of that's flashier definitely.

You can tell by this stuff.

That says OK, I've got the money.

It says it all, doesn't it.

The spec and that.

And also if you look at its safety instructions, hints and tips they don't tell you what buttons are what. They're giving you things like it may takes ten minutes to warm up and things like this in order to get proper sound and that.

This number and such and such a thing.

What you want to know is what's in the back so you connect it up right first time to whatever else you've got.

And looking at the back of this one it's complex, I wouldn't know where to start. To be honest.

It's got video, tuner.....

Yeah, that's so you can connect stuff to it like your TV and get cinema sound and Nicam stereo.

Do you know what SPQ is?

Yeah, it diverts the speakers. If you've got other speakers, you can connect to other speakers. It should say so on the instructions. What it does basically is if you've got it, it connects to auxiliary speakers, if you're still connected to the main speaker or you want to use headphones.

It's for getting quadrophonic sounds

I can't believe this stuff they go into about running speakers in, like a car or something.

"Place fairly close to a rear wall"

I suppose the stands have been designed to sort of help it on its way but really that's a plug it in, connect it up and away you go, do you know what I mean? you learn as you go.

The stands haven't been put there for show they're to make the speakers work better. So everything's aimed towards quality of sound.

So you'd take that, would you?

I see myself as being, in a way, like the practicality would be the sound that I'm after. I like the knobs and things like that, that you can play about with. I think at the end of the day I can build up and build up, that may become outdated, a new system like DCC if it finally takes hold, you may have trouble finding stuff to connect to that and you may have to replace the whole stereo. With that you may have a new amp or player or even just a different connector.

If something that shape and everything would have the buttons.

I would be more a of a, um, button man.

If something that shape and everything had the buttons I would like that sound quality and that speakers.

That's what I'd want, the best of both worlds.

Exactly, combine it.

This one lacks on charisma. but this one looks good, but the sound quality's not there and it's expensive that one, too.

I don't like the size of the speakers, but then I don't like micro systems.

I don't like the small speakers.

I disagree I like the micro system but at the end of the day I like the sound.

That's something that would be my criticism, that it's small and it might not turn out the power and sound that I would want.

At the end of the day you choose the system that's most appropriate for you. You go for the appearance, or for the sound.

At the end of the day did you notice any difference with the bass thing or not?

This one hasn't got any of the gimmicks that this has. You've got your simple You've got your bass/treble and your balance and your volume.

Your CD's not programmable, is it. Oh, yeah, it is.

You've got all these down here to go with that, I mean you've got your SD tracking.

Those are all your basics, though. It's what comes with CD players. It's like with tape players you can get them, and with CDs, where it will read the CD. It can look at how much tape you've got on your tape, if you're recording from one to the other and see how much space you've got left and coordinate the two and

It's complicated working out how it does it.

If you buy something like this, you've gone out to the shop,

would you sit down with this and your big thick instructions manual and sit and go what's this bit and what's that bit? I've never done it, to me it's sort of unlikely.

No, I'd just want to know what this does and that does.

You play about with it until you find it, but this SDS stuff, you know it's in here somewhere but half the time you can't be bothered to look through it.

You can't find it, to start with.

You've got the specifications at the back, superdynamic bass...

There are design functions that I like. I like the drawer, I think that's brill, but some of the gimmicks, I to me are useless like this search and find a tape thing. I wouldn't use that at all.

It's got a lot of plusses. A lot of it's gimmicks, you've got your sliding out drawer thing which is nice, you've got your buttons which I tend to like, the big ones and your laser display.

Which is the most innovative?

The Denon definitely.

It's the looks.

Which do you think is the most innovative?

Why is it the most innovative?

It's the colour, its image, these sort of little touch controls.....

This is new.

I agree with what you're saying.

These little touch controls.

Is it really functional, your tape coming out like that, it's quicker just to push a button.

This drawer sliding out and that... is... it must be a real bummer if your tape gets chewed, I mean how do you manage with head cleaning and that? You sort of take it along to the bloke and say stick your head cleaning tape in?

I would have thought that came out easily.

This is practical and in a way it hides all its innovations, whereas that one shouts at you this is new, this is Gary Glitter music!

This one doesn't appear to have anything, your stop your play your forward. It's programmable, it repeats your scan, it's all standard, maybe it's all inside whereas that one shouts out what it's got but it doesn't particularly explain why.

Theres a thing on, what's that programme called where they test all the cars? Top Gear, saying sports cars could be like a cappuccino, looks great but doesn't taste so good, but that's sort of tastes good but doesn't look so good.

At the end of the day I'd still stick with that.

But this one's more innovative, just on presentation.

It's a question of what you're looking for at the end of the day. When I walked in and saw it was silver, to me having looked at stereo shops I knew straight off it was Denon. If it was sleek and had a glass top, you know straight off it's Bang and Olufsen, it just goes with it.

If it's stereo it would look like that.

The techniques go with both, there's two sides to that.

When I first came in, I saw that stacked up there like that with your little amp.

This you've just got your CD and you've got your amp. whereas you've got your tape and if you put your tape player on you can build up you'd get your tape player on top and your graphic equaliser.

And maybe if you said you'd like your turntable on top it would get quite big, it'd be up here somewhere.

If you built up it would get quite chunky.

It depends on what you want, you might not want a CD player, you might prefer your old vinyl and things like that.

I imagine your DJ going for something like this and laughing at people who would spend a vast amount of money for something like that. The people who are in the know would go for things like this.

On looks this one would take it.

I think everything's inside this, it's all hidden away. If you knew more about it, that would be a sensible choice.

It depends, I suppose, like I say if you knew more about what was going on inside, I have no idea about that, the technical stuff. Somebody may be able to look at the technical spec on that and go straight to it and say, "It's forty watts per channel," the what, the noise ref rated power input, and what the impedance and overload margin is, it obviously means something to somebody more technical than me.

A more technical instrument.

It's hidden away inside with that one. It's the physical features, whereas the innovations and stuff with that is all inside.

That's a little box of tricks that's hidden away there.

GROUP FOUR

This is a CD player.

People moving away from using tapes.

Yes.

You're getting them without records, now you're getting them without the tapes. Only CDs.

To an extent we're living in a market continually for tapes, with that one without tapes.

This could be newer because you haven't got a tape on it.

You're getting into a market without tapes.

From a distance I prefer that one because I like these speakers, but when you look at it that particular unit is much more sophisticated than that one. This one, you've seen it hundreds of times before. When you get up close ...

I haven't seen one as neat as that before.

When you haven't seen it before you don't really know whether it's new or whether it's just....

Connect to the tape deck....

Will it go on with that, just pressing that I wonder, will the remote control just make it play, I wonder, just pointing at it?

This one's, um, haven't seen that before where instead of just scanning for the number CD you want you just press repeat and it just plays it again.

That's on this one. Now that is neater, and I'd assume would belong to that one. It's like almost as if they'd split that, does that sound silly? I know these are too big for that unit. If I was picking that I'd say that belonged to that, it's more modern anyway.

Still can't make it play, you know.

Press Play.

We've got action out of here!

Maybe it's, um. You go on buttons and things.

What are these?

No, not on that one. Maybe it's something they tried a while ago and it didn't work. This one seems to have more gadgets on it.

Well, to me to try to get it to play, its more complicated. I'm sure its not, its just we're messing about.

I think its more probably the newer one, actually.

Play. OK.... Switch it off and start again. I know, what about power on?

Here now, see if it will play.

It's easier to see there, with this one it's easier to see. This is the volume button because of the size of it. With this one if you couldn't read very well, which I can't without my glasses, you couldn't see what you're doing. Unless you use the remote control with this one.

We can't get it to play.

Try the remote control.

Brilliant!

I think this one's probably easier to use, looking at this one.

Why has it got these two speakers as well, is it a sort of four speaker gadget?

What does that one sound like, let's take this one off.

How do you switch it off? Great!

I prefer this one, gadget wise this one would seem more intelligent, it's easier to see what you're doing. Push in there, it's the volume button, know what I mean, but this one it's too many gadgets.

Yes. I know what you mean, you can't see the writing. Did you manage to get it to play?

This one's a big stack, you get more to go on.

Has that one got a better sound or is that just me or is it just the music?

I wouldn't choose to listen to operas, so I can't say it's that, I mean it's not my choice of music. But it would appear to have... So this one's coming through four speakers.

No, just the two.

Do we have to say which one we think is the most innovative?

Do we have to make a positive decision or can we split the decision? If there was a choice of splitting these items?

Well this one is easier to use, to figure out, like play or stop, this is just symbols which might be more sort of trendy I don't know. It's a bit big, that's lighter than that one. That one looks newer, but this one gadget wise.....

There's more on it. For design reasons I would still split them, I would feel that these speakers would go with that unit. I would put this with that unit, because that's just for looks not sound or anything. And perhaps even those plain sleeker speakers with this unit. Is it black ash on the outside of that? The whole thing, but that's pure look wise but I agree with you, I think this is an easier one to use than that one button wise.

But I presume that people who would buy that are people who would... I means it's less fussy but some people like their music systems to look fussy, they want lots of gadgets and buttons to play with. Whereas that one's more sleek for people who like good music. You have more to fiddle with.

I thought those speakers were the better ones.

I feel that one's the more expensive one for somebody who wants something to listen to.

Whereas this one's for people who just want the sound.

This seems more gadgetty. Perhaps for somebody younger.

That silver stack, that looks, I could see that in somebody younger's house. That very tight sort of....

Older, but not old, but young. That's definitely a younger person's, I think.

The question is which is the most innovative, isn't it?. I think that, but that's purely on design, and slightly.... and I feel it's a better sound, but that's a pleb talking who has no knowlege whatsoever. What I can't justify, is the two speakers. With this one it's got all the speakers for the connoisseur, but then I'm getting carried away by these. You feel it's for the younger person, who's a connoisseur. Who wants more quality music.

How much do they cost?

MODERATOR; I think there's a price in the brochure for that one.

Probably for my age, if I was buying one for me personally, I would probably buy that one because I can see it easier. If I was actually going into a shop and buying it, but I certainly wouldn't buy these two.

You can programme it to record things.

So perhaps that one is more.... gadget wise isn't it, but I don't know, I'm a complete pleb. How much is it?

They're all stacks.

And that's this, roughly how much.

Right.

Ah, look, they've got something. I quite like that as a speaker with those.

We're talking about 200 pounds for each bit.

But we don't know how much it is.

One, two, three and speakers - do speakers count? - three pieces, about a grand.

About a grand.

That would appear to me more expensive.

We should definitely think more expensive than that one.

For the money the looks of that would make it seem worthwhile, There's more to it whereas this one

Is this for the Bang and Olufsen type of market? It used to be silver.... Is it aiming for that top part of the market?

I mean, the brochures are very plain with that one compared to this. If that's what actually belongs to that if that's what it is this looks a lot more....

I'd definitely go for that one, for that model.

Do you want us to make a positive decision? What we've got to choose?

That one.

I would like that one, but I'd probably buy that one because of my age, because my eyes are going by fact of age, or if they could get bigger writing on there..... But I think that's a better sound.

Because it's more compact It seems to me to be a more modern design, and because of the way the tapes go in.

It is more innovative definitely, than that one.

I don't seem to have anything more to say. Probably I'd like that for innovation, although it's got the basic commands on it. This, I feel, this design would look nicer with that.

That one seems to be spoiled by the speakers.

I would prefer to see something with that, with a slightly more innovative design of speakers. Perhaps someone with greater knowledge would say no, those speakers are out of date, but that would be lost on a pleb like me who

went in to buy it. To me those speakers are very conservative-looking to the unit, so that's where they lose on the innovation.

Those speakers look newer and more designed to.... aesthetically.....

I don't like those other things at all, all I got to say is thank God my husband hasn't seen it, I wouldn't want to live with those. Personal things, but I don't even like the design of them, they must be able to do something better than that.

I don't like these other things at all.

I always think the speakers are badly designed, you have to have them in your lounge. You don't know what to do with them, and apparently you have to put them in certain positions to be able to hear. And for a person who doesn't buy stereo equipment, you just wish they could do something with them to make them more attractive for your room.

Somebody who was really into the music wouldn't care, they'd just buy it for the sound.

But if you're married to somebody you have to live with those speakers, you end up putting a jug on top of it to break the look up, disguise the speakers.

Strangely enough, even though that one looks more basic as a speaker, more real as a speaker, that is still better to look at than that.

The old ones I've seen really do look old.

What, speakers?

No stereo systems. I've seen people with old systems, they look that shape, that long shape. This is like the square look that you see in the shops.

That's probably the most expensive, then.

Though I wouldn't like to say that's more expensive than that one.

That's probably the most innovative, but we don't like the speakers.

MODERATOR; Anything to add?

I haven't seen one where you can set it to record while you're out, so I presume that's a fairly new thing but that one would seem simpler to use, the remote control's got all the words on and everything for repeating the songs.

APPENDIX II: QUESTIONNAIRE.

The questionnaire was derived from an analysis of the focus group interviews, and administered at an audio exhibition in Bristol.

Although the finished questionnaire design appeared somewhat lengthy, this proved to be less of a problem than might have been anticipated, and the response rate was high. Most of the questionnaire was used as the basis for the selection of the focus group members so it was not piloted beforehand in its entirety.

ATTITUDE SURVEY

This survey forms part of a study into how peoples' attitudes affect their responses to new products. In particular, we are looking at high-tech consumer products such as hi-fi and CD players.

Below you will see a series of statements, and we would like you to tell us the extent with which you agree or disagree with each statement. Next to each statement is a row of boxes to indicate how strongly you agree or disagree with the statement; please tick only ONE box in each row.

Please try to answer all the questions, even if you feel the question doesn't exactly fit your feelings about the topic. If you are having real difficulty answering any of the questions, please feel free to ask for clarification.

	Agree strongly		Neither agree nor disagree		Disagree strongly	Office use
	1	2	3	4	5	
With a credit card I can buy the sort of things I couldn't normally afford	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
My family thinks I'm doing well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2
I prefer to have as few possessions as possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3
It is important to me to look well-dressed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4
I am perfectly happy with my standard of living	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5
I enjoy splashing out on dinner in an expensive restaurant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6
I enjoy owning really good things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7
I have a very good sense of style	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8
You can tell a successful man by the car he drives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9

	Agree strongly		Neither agree nor disagree		Disagree strongly	Offi use
	1	2	3	4	5	
I would consider going to Paris for the day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10
I really enjoy any kind of shopping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
I buy clothes for comfort. not for style	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
Expensive perfume is something I can't resist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
It is important to be attractive to the opposite sex whatever your age	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
I really enjoy shopping for clothes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
I would like to take more than one holiday abroad each year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
When people come to my home they have to take me as they find me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
I think designer clothes are really worth the money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
I don't like the idea of being in debt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
I think people have more respect for you if you look as if you're doing well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2
I don't worry much about my appearance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2
In general, I am among the last in my circle of friends to buy a new product when it first appears.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2

	Agree strongly		Neither agree nor disagree		Disagree strongly	Office use
	1	2	3	4	5	
If I heard that a new high-tech product had come on the market, I would want to buy it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23
Compared to my friends I own few high-tech products.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24
I would want to buy a new high-tech product, even if I hadn't heard much about it yet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25
In general, I am the last in my circle of friends to know about the latest high-tech products.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26
I know all about the latest high-tech products before other people do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27
I like to read about new high-tech products, or try them out if I get a chance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28
I would like to be the first to own a new high-tech product, even if I knew the price would come down later.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	29
My friends think of me as being something of an expert in new technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30

SECTION TWO

Now to see what you think about hi-fi equipment. Look at the information supplied, and decide which you think is the most INNOVATIVE product of the three. Take your time - if you need to read all the information, go ahead! Then answer the questions below.

Which is the most innovative? Give each one a score out of 10.

EQUIPMENT A: _____

EQUIPMENT B: _____

EQUIPMENT C: _____

Office use
3:
3:
3:

Which of the factors on the list below did you use in making your decision? How important was each factor in making your decision?

	Very important	Fairly important	Not important	
Studying the brochures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3
Looking at the pictures of the equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3
Technical features	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3
The size of the equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3
Practicalities of using the equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3

SECTION THREE

Now a very small section about yourself. Please answer all the questions; everything you put is completely confidential, and will only be used for statistical purposes so that we can work out how different groups of people might feel about new products.

Your age: _____ (39) Male/female: _____

40
41

Your postcode at home: _____

If you don't know your postcode, please put your address; we can then look up what your postcode is. The postcode helps us work out whether people from the same kind of area have similar attitudes.

OK, that's it finished! Thank you very much for your time; your responses will be of great help to us in our research.

