



**SWP 16/95 THE ROLE OF ATTITUDINAL, NORMATIVE
AND CONTROL BELIEFS IN DRINK
BEHAVIOUR**

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Abstract

Between 1985 and 1990 consumption of low alcohol and alcohol free beer grew at an annual rate of over 100%. Yet expectations of a large and expanding market into 1990's were not fulfilled, partly because of economic downturn. As the economy recovers some brewers are anticipating renewed growth. This paper reports an application of reasoned action theory to the role of attitudes, norms, behavioural control and habit in predicting behavioural intention in respect of alcohol free beer, in the very different market environment of the 1990's. Data were collected by means of a questionnaire posted to 400 households, yielding 78 usable responses. Unexpectedly, not getting drunk was not found to be an important predictor of intention. Instead, behavioural intention was chiefly determined by beliefs concerning taste and health. Normative influences, especially friends for non-users, family for users, were secondary predictors. Neither perceived behavioural control or habit were found to add to the predictive power of the model. Some suggestions for the practical application of the findings are made.

Introduction

During the 1980's the market for low alcohol and alcohol free beers soared. A mere £20m. niche in 1985, by 1990 the segment was worth £226m, and a large and rapidly growing market was in prospect for the 1990's (Projection 2000, 1992; Key Note, 1991) (table 1). Success was attributed to the drink/driving bonus, lower calorie content, overall health connotations and changing consumer attitudes to the over-consumption of alcohol. The participation of major manufacturers, leading to ease of availability and massive advertising expenditure, was also a factor (Leatherhead, 1989).

However, in 1990 sales unexpectedly peaked and started drop back. By the middle of 1991 fewer than 20 of the 50 to 60 competing brands were left on the market (Projection 2000, 1992). Part of the decline resulted from an overall fall in social drinking as a consequence of economic recession, and growth is expected to resume as the economy picks up. Although the rate of increase will probably be less spectacular than before, the shake out of weaker products means that the remaining competitors should be better able to dominate the sector to the benefit of their turnover and profitability. Managers with the task of exploiting this opportunity will need to understand the consumer of the 1990's, and the theory of planned behaviour offers a suitable framework for research.

Table 1: Low Alcohol and Alcohol Free Beer Market Volume Growth 1986-1991.

	Index (1986=100)
1986	100
1987	200
1988	400
1989	520
1990	550
1991(<i>estimated</i>)	550

(Source: Key Note, 1991)

The Theory of Planned Behaviour

The theory planned behaviour (Ajzen, 1985, Ajzen and Madden, 1986) is an extension of reasoned action theory, which predicts intention to perform a behaviour from two predictors. The first, *attitudes* towards the behaviour, measures the extent to which an individual has a favourable or unfavourable evaluation of the behaviour in question. The second predictor, *subjective norm*, measures the influence of other people in respect of the behaviour (Ajzen and Fishbein, 1980). The method has extensive empirical support, including many applications to drink related consumer studies (see Raats, 1992).

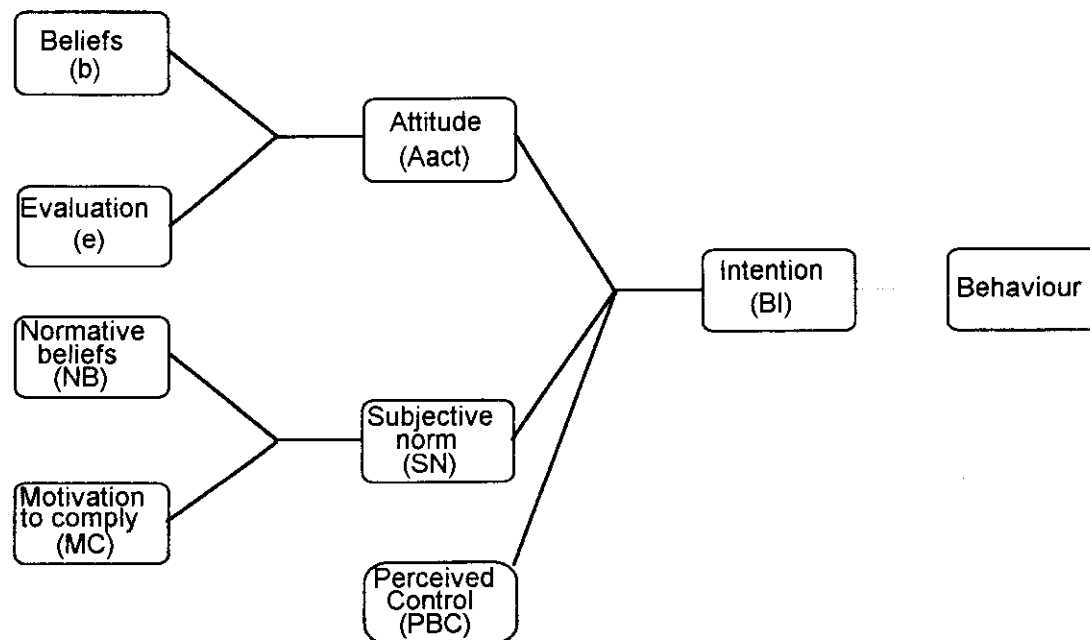
However, reasoned action theory does not take account of situations where a behaviour is not completely under an individual's control, such as when people are not free to act because they lack appropriate opportunities or resources (e.g. time, money or skills). The theory of planned behaviour addresses this problem of incomplete volitional control by incorporating a third predictor, *perceived behavioural control*, which measures the perceived ease or difficulty of performing the behaviour. According to Ajzen and Madden (1986), perceived behavioural control is not linked directly to behaviour, but is completely mediated by intention.

A diagram of the theory of planned behaviour is shown in figure 1. Scanning the diagram from right to left the model predicts behaviour by the intention to perform that behaviour. Behavioural intention (BI) is then decomposed into three components: attitude towards the behaviour (Aact), subjective norm (SN) and perceived behavioural control (PCB). Attitude towards the behaviour is predicted by salient beliefs about a behaviour (b), weighted by the subjects' estimation of the likelihood that performing that behaviour will result in a given outcome (e). Subjective norm is predicted by normative beliefs (NB) about what relevant other people (salient referents) would advise, modified by the subject's motivation to comply (MC) with the advice of those people. Perceived behavioural control (PCB) is measured through control beliefs that may help or hinder the individual in carrying out the behaviour. The extent to which the theory succeeds in predicting behavioural intention is usually evaluated by means of linear multiple regression analysis.

The theory is specifically concerned with behaviours involving choices freely made, where individuals consider the implications of their actions before deciding whether or not to act. It follows that it is inappropriate to the study of behaviours which are involuntary; being required by social convention (e.g. going to work) or compelled by prior commitment (the decision to drive your car means you must buy petrol). Neither

is it applicable to behaviours where little thought is involved (impulsive purchases or the purchase of commodities, like petrol). It is suited to a wide range of commercial decisions, including sub-category choices (e.g. leaded or unleaded petrol). The decision to drink alcohol free beer falls into this category (East, 1993).

Figure 1. The Theory of Planned Behaviour



Ajzen and Fishbein argue that all other factors, such as personality, past experience and demographic variables, are mediated through beliefs and evaluations and, therefore, Aact, SN and PBC should be sufficient predictors of intention. There is strong empirical support for this. However, a number of studies have shown that the predictive power of the model is improved by the addition of other factors. Of particular interest in the context of beverage consumption is the suggestion that habit is an important factor in frequently performed behaviours such as eating and drinking. (Ronis, Yates and Kirscht, 1989; Tourila and Pangborn, 1988). A measure of habit was included in the study.

The basic model has been refined developed and tested over many years, but it has not been without criticism. For instance, according to Fishbein and Ajzen, the best predictor of behaviour is the person's intention to perform the behaviour, but it is argued that this link can be disrupted by the passage of time, unforeseen events or new information. In addition, low involvement behaviours are likely to be based on few, weakly held, possibly unstable, views. Other criticisms include limited applicability

(e.g. Sarver, 1983) and conceptual problems (e.g. Laljee, Brown and Ginsburg, 1984). Nevertheless, the theory's basic proposal have received continuing, widespread empirical support, having been successfully applied to a diverse range of volitional behaviours. (see e.g. Sheppard, Hartwick, and Warshaw, 1988; East 1993).

Aims and Hypotheses

Within the framework provided by the theory of planned behaviour, the overall aim was to establish the relative importance of the two predictors which derive from reasoned action theory (attitude, subjective norm), and of the additional predictor (perceived behavioural control) to the decision to drink alcohol free beer. Two hypotheses were formulated:

H1. Components of the theory of reasoned action, attitude and subjective norm, are sufficient predictors of intention.

H2. Inclusion of perceived behavioural control in the regression equation will add significantly to the prediction of intention.

The main components of the theory can be decomposed in order to establish which beliefs have the most relationship with attitude and subjective norm. No hypotheses were advanced. However, it was expected that being legally able to drive, taste and health would be important expected values, family and friends would be important referents, and also that price would be an important control factor.

An additional aim was to test the efficacy of a proposed modification to the theory, the inclusion of a measure of 'habit'. Although there is some empirical support for this, Ajzen and Fishbein believe that all other factors are mediated through the attitudinal and normative components of the model, thus:

H3. Inclusion of a measure of habit in the regression equation will *not* add significantly to the prediction of intention.

Data Collection

Elicitation.

Semi-structured interviews were conducted on a free response basis as proposed by Ajzen and Fishbein (1980) in order to elicit salient outcome beliefs, referents and

control beliefs in respect of alcohol free beer consumption (table 2). These were then incorporated into the main questionnaire.

Table 2: Salient Outcome Beliefs, Referents and Control Beliefs.

Outcome Beliefs	Referents	Control Beliefs
1) Not getting drunk	1) Family	Affordability
2) Good taste	2) Partner/Spouse	Availability
3) Can Drive	3) Work colleagues	
4) Healthier	4) Friends	
5) Clear alternative choice of drink	5) Police	
6) Individualistic	6) Boss/Employer	

The Questionnaire

Following the elicitation interviews a questionnaire was constructed and piloted. The method requires a fairly lengthy and complex questionnaire, and piloting revealed some respondent fatigue resulting in incomplete responses. Consequently, only one measure (of two items, which were summed) of perceived behavioural control, and one measure of habit were used in the final version of the questionnaire. Four hundred questionnaires were then posted to every nth address on the electoral register in residential streets selected to represent a spread of socio-economic groups. In addition to the standard demographic questions the questionnaire consisted of the following measures:

- A question for each of the six 'outcome beliefs', accompanied by a seven point bi-polar scale.
- A question for each of the six related 'belief-evaluations', accompanied by a seven point bi-polar scale.
- Four 'attitude to act' questions, each accompanied by a seven point bi-polar scale.
- A measure of 'subjective norm' accompanied by a seven point bi-polar scale.
- A measure of 'normative belief' for each of six salient referents accompanied by a seven point bi-polar scales.
- A measure of 'motivation to comply' for each of the six salient referents, accompanied by seven point uni-polar scales.
- A question on 'perceived behavioural control' for each of the two control beliefs, accompanied by seven point bi-polar scales.
- A self report measure of 'habit', accompanied by a seven point bi-polar scale.
- A measure of 'behavioural intention', accompanied by seven point bi-polar scales.

- Approximate date of the last occasion the respondent consumed an alcohol free-beer.

Seventy eight actionable replies were returned in reply paid envelopes. The age distribution of respondents approximated closely to that of the United Kingdom as a whole, with the exception of the over 65's which were under represented. The gender split was 51% male 49% female. The split between users and non-users was 35%, which is similar to Mintel's (1994) figure of 38% for those trying low and no-alcohol beer. Users were defined as those drinking alcohol free beer more often than once every six months.

Analysis

Responses were measured on seven point bi-polar scales and scored +3 to -3 except for motivation to comply measures which were treated as uni-polar rather than bi-polar constructs and scored +0 to +6 in keeping with Ajzen and Fishbeins' (1980) recommendations. (For a discussion of scaling issues see East 1993). Statistical analysis was carried out using SPSS PC software (SPSS Inc., Chicago, Ill., USA) on an Elonex PC-425X computer. Each outcome belief response (b) was multiplied by the appropriate evaluation score (e) and the products were summed (Σbe). Normative belief responses (NB) were multiplied by the corresponding motivation to comply responses (MC) and the products summed ($\Sigma NBMC$). The two perceived behavioural control items were summed to give a total perceived behavioural control score (PBC). The four attitude items were summed to give a total attitude score (Aact). Simple correlation (Pearson correlation coefficients) and multiple regression were used to assess the degree of association between components.

Intercorrelation between outcome beliefs was checked, and was generally found to be of a low order (table 3). The exceptions to this were the beliefs regarding 'good taste' and 'healthier' and those relating to 'not getting drunk' and 'can drive'. There seems to be no valid link between taste and health and the association is likely to be coincidental. However, a link between not getting drunk and driving can clearly be postulated, and it is possible that these were measuring the same thing. Therefore, being able to drive was removed from the list of salient beliefs. As a result the correlation of Σbe with Aact fell from $r = 0.55$ to $r = 0.52$.

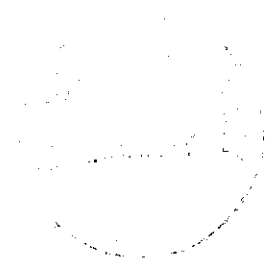


Table 3: Intercorrelation Between Outcome Beliefs.

		b.e1	b.e2	b.e3	b.e4	b.e5	b.e6
No getting drunk	b.e1	1.0	.22	.68*	.26	.35	.11
Good Taste	b.e2		1.0	.25	.53*	.37	.22
Can Drive	b.e3			1.0	.38	.38	.21
Healthier	b.e4				1.0	.44	.32
Clear Alt. Choice	b.e5					1.0	.36
Individualistic	b.e6						1.0

(*p = <0.050)

Results

The Theory of Reasoned Action.

The theory of reasoned action was supported by the findings which yielded a moderately good multiple regression coefficient of $R = 0.49$ (figure 2). The beta coefficients indicated that attitude ($\beta = 0.46$), was a more important predictor than subjective norm ($\beta = 0.23$).

H1 is shown to be valid.

Analysis by rate of use revealed a stronger correlation of $R = 0.62$ for users. Beta weights confirmed that attitude ($\beta = 0.57$) is a more important determinant of behaviour than subjective norm ($\beta = 0.12$). Due to the size of the sample (users $n = 27$) these figures should be treated with caution. Neither habit or control factors added significantly to the result. The model was not successful with respect to non-users, yielding a very poor $R = 0.11$.

Theory of Planned Behaviour.

Inclusion of perceived behavioural control in the regression equation improved the predictive power of the model, from $R = 0.49$ to $R = 0.52$ (figure 2). However, whether an increase of 0.03 can be regarded as significant is overshadowed by lack of statistical significance, and by an independent correlation between Σ PBC and BI which yielded an extremely weak correlation, also lacking in statistical significance ($r = 0.03$, $p = 0.81$).

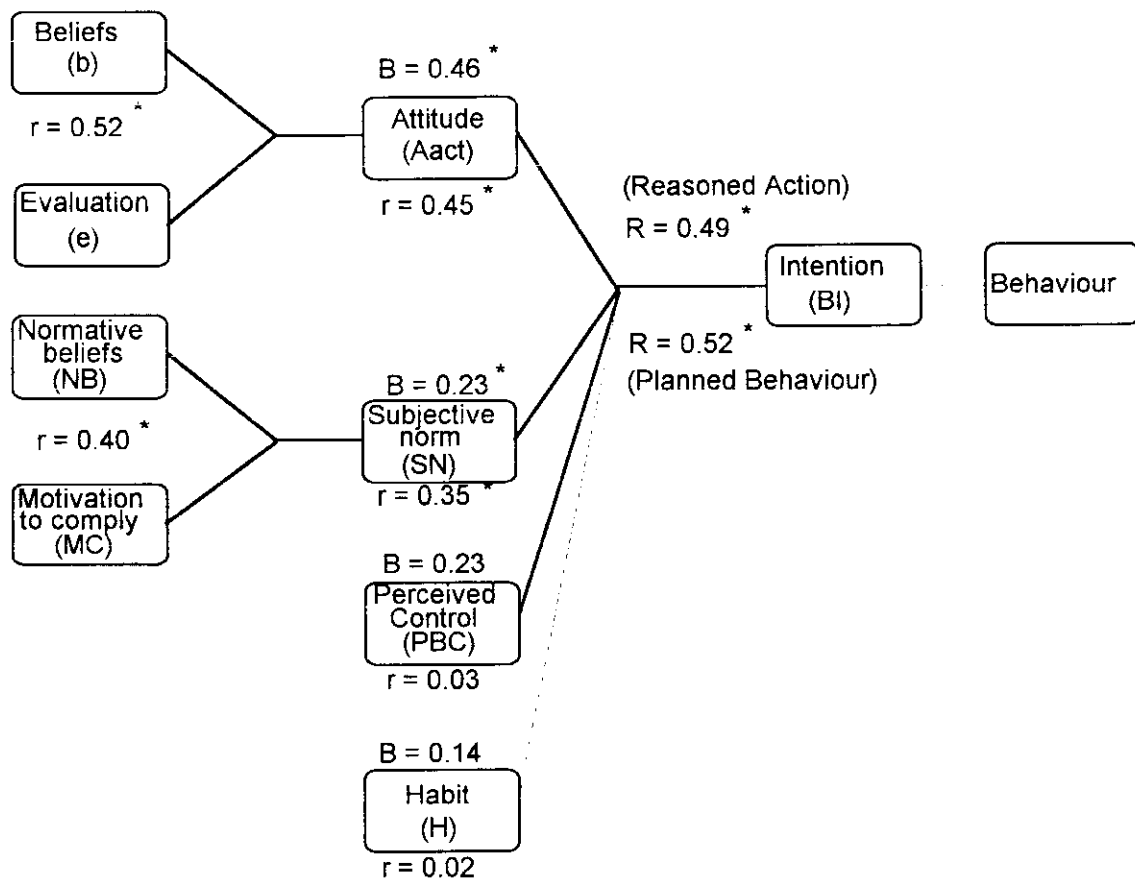
H2 is rejected.

Habit

Inclusion of a measure of habit in the regression equation resulted, against Ajzen and Fishbeins' contention, in an increase 0.04 in the multiple correlation coefficient. However, once again the result was not statistically significant, and a very weak independent correlation between H and BI reinforced this finding ($r = 0.02$, $p = 0.89$).

H3 is shown to be valid.

Figure 2: Correlation Between Components of the Theory of Planned Behaviour.



* $p < 0.05$, $n = 78$

Outcome and Referent Beliefs

Behavioural intention was found to be primarily determined by attitude (Aact) followed by social norm (SN). Decomposition of the attitude component revealed a strong correlation of $r = 0.52$ between the global measure of attitude (Aact) and the sum of outcome beliefs (Σbe). Further analysis revealed that the individual beliefs

which resulted in the strongest association with attitude were, as expected, 'good taste' and 'healthier'. Not getting drunk, and by extension drink driving, were unexpectedly weakly correlated with attitude. 'clear alternative choice' was moderately correlated. Users appear to put even more emphasis on health and alternative choice, and see alcohol free beer in a more positive light, as 'individualistic' (table 4).

Table 4: Correlation Coefficients (r) Between Attitude and Outcome Beliefs.

	Over all	Users
Good Taste	0.47*	0.42*
Healthier	0.44*	0.54*
Clear Alternative Choice	0.34*	0.52*
Not getting drunk	0.28*	0.25*
Individualistic	0.25*	0.48*

* $p = <0.05$

The secondary predictor of behavioural intention was subjective norm (SN). Decomposing this, the correlation coefficient between the global measure of subjective norm (SN) and the sum of the normative belief - motivation to comply (Σ NBMc) was an acceptable $r = 0.40$. The most influential referent group was 'friends'. All of the other referents ('family', 'partner/ spouse', 'the police and 'work colleagues'), except for 'the boss', yielded a moderate level of association. Contrary to the over all outcome, the most influential group for users were the partner/spouse, followed by police and family members before friends (table 5). Users tended to to give higher ratings to all normative referents, nevertheless, the beta weights indicated that subjective norm was of less importance in determining users behavioural intention than it was for respondents as a whole.

Table 5: Correlations (r) Between Subjective Norm and Referents.

	Over all	Users
Friends	0.46*	0.61*
Partner/Spouse	0.38*	0.73*
Family	0.34*	0.65*
Police	0.33*	0.70 *
Colleagues	0.31*	0.48*
Boss	0.10	0.53*

* $p < 0.05$

Discussion

Intention was chiefly determined by attitude, primarily concerning expectations of taste, followed by health. The importance of taste is not unexpected as it is commonly found to be the key attitudinal factor in studies of food and drink choice (Shepherd and Farleigh, 1986; Shepherd, 1987; Towler and Shepherd, 1992; Raats 1992; Thompson, Haziris and Alekos, 1994). Unfortunately for the brewers the taste of alcohol free beers was frequently criticised during the exploratory stage of this study, and it was poorly rated in the questionnaire. However, according to the brewers, improvements to the production process and the demise of weaker brands have resulted in a general improvement in the taste of alcohol free beers now on the market. If this is so, then the physical characteristics of the products are no longer the problem - but this has yet to be communicated to consumers.

The connection between health and what we consume is a topical issue, and this applies to drink also; consumers are said to scrutinise more and more closely the effects of alcohol on both health and weight (Marketing, 1990). Therefore, the importance of beliefs about health in connection with alcohol free beer consumption is no surprise. Yet, whether or not alcohol consumption is a genuine health problem is debated. Stuttaford (1989) argues that taking alcohol in moderate amounts is beneficial, as it reduces the chance of cardiovascular disease, relieves stress, improves the quality of life in the elderly and is a source of nutrition; providing calories without fat and several important trace elements.

The most unexpected finding was the lack of association between 'not getting drunk' and attitude to drinking alcohol free beer.

The view that habitual behaviours such as eating and drinking may be of such low involvement that they are not much influenced by what others think we should do is supported in a number of studies (see Rutter and Bunce, 1989). Nevertheless, in this study the influence of other people was found to be an important predictor of behavioural intention, possibly because of the strong social context of the behaviour concerned and the social opprobrium arising from drunkenness. Over all the key referents were, as expected, friends and then family members. However, users were far more influenced by family members, and less by social and work groups. The biggest difference between users and the over all outcome was the influence of the police on users.

Notwithstanding the 'habitual' nature of food and drink consumption, incorporating a measure of habit into the model did not improve the prediction of behaviour. However, habit may be conceptualised in several different ways to the self reported 'force of habit' used here (e.g. as automatic behaviour, past behaviour or absence of awareness). Further research in this vein might therefore be of interest, but in order to avoid respondent fatigue it might be advisable to test this against the basic reasoned action model by eliminating the measure of perceived control.

Price and distribution were operationalised under perceived behavioural control as affordability and availability, but they did not contribute to the predictive power of the model. It is possible that these are already incorporated into the formulation of attitudes towards drinking alcohol free beer, and so are accounted for by reasoned action theory. This is not inconsistent with planned behaviour theory: Ajzen (1985) points out that not all behaviours are subject to problems of control, and intentions alone are sufficient to predict behaviours in which control poses few problems. In this case questionnaire responses indicated that consumers appear to be content with both affordability and availability, and so neither posed a control problem. It seems that current levels of affordability and availability are not significant inhibitors of behaviour, but neither are they sufficient in themselves to induce consumption. In Herzberg's (1966) terms they appear to be 'hygiene factors', that do not sell products, but which can still 'unsell' products if they are inadequate.

Putting the Results to Use

Changes in social attitudes towards drinking leading to a fall in the consumption of alcoholic drinks suggest that there is considerable potential demand for alternative drinks, and that it is worth persisting with alcohol free beers as a small, but potentially profitable, niche. There are two main obstacles; firstly, brewers have created consumer

resistance by their rush to market inadequately developed products in the 1980's; secondly, attitudes may now have shifted to such an extent that it is no longer necessary to *appear* to be drinking alcohol, and an increasing number of people may wish to be seen to be not drinking alcohol, which could make adult soft drinks a more attractive alternative for many 1990's drinkers.

The Target Market

The beer market, is highly segmented. According to Mintel (1994) no and low alcohol beer drinkers are more likely to be males, in the higher social groups, living in Southern England, the Midlands and Wales. There is a bias towards the young, but not overwhelmingly so (table 6). These age and sex characteristics were confirmed in the current study, no other differences were found between users and the sample as a whole. Identification of the target segment on a demographic basis is therefore reasonably clear cut except for selection of the most appropriate age group. The well-worn route would be to target the under 25's because they are generally more willing to try something new. However, even 'new improved flavour' alcohol free beers may not be new enough if they have been around since you were at school, and new adult soft drinks are seen to be the more innovative alternative. Furthermore, the under-25 segment of the population is set to fall by nine per cent over five years. By contrast the 25 to 54 year old group will *grow* by five per cent over the same period, yet has a reasonable proclivity to try no and low alcohol beer (table 6) and may still value the single u.s.p. which alcohol free beer has over its non alcoholic competitors - it looks as if you are drinking beer.

Table 6: Adults Trying No and Low Alcohol Beer by Age

Age	%
15-19	47
20-24	57
25-34	49
35-44	49
45-54	36
55-64	22
65+	16
Over all	38

Source: BMRB/Mintel

Product Attributes

Conventional market research has noted the swing in social attitudes against excessive drinking, but has tended to identify driving as the main reason for drinking low and no alcohol products (e.g. Projection 2000, 1992; Key Note, 1992, Mintel 1994). This study indicates that it is beliefs about alcohol and health which are now inducing consumers to try alternative drinks. Drunkenness and driving are only secondary factors for users and non-users alike. The primary attitudinal factor in alcohol free beer consumption over all, and an important factor for users, was taste, so it is essential get that right. Brewers have handled the taste attribute badly in the past, but according to many in the industry it has been considerably improved, and the problem is now said to be one of perception based upon products which were rushed onto the market with insufficient development - many of which are now defunct. This proposition can be assessed independently by organoleptic tests. If it is so, then the problem is one of misconceptions about taste and, therefore, a communication problem.

Marketing Communications

Yet changing consumer behaviour through marketing communications is not easy and attempts can go expensively wrong. Ajzen and Fishbein (1980) argue that the reason why public education programmes often fail is that the message content does not pay enough attention to the relevant motivation, and so fails to offer any acceptable reason to motivate a change in behaviour. Planned behaviour theory can make a valuable contribution here. Although it is not possible to establish causality, application of the theory can indicate the links between behavioural intention, through attitudinal and normative social factors, to the underlying salient beliefs and referents which are the keys to influencing behaviour. In this case the main determinant of behavioural intention was found to be attitude. Therefore, the over all communication objectives might include reinforcing the already positive salient beliefs about health and clear alternative choice. For non-users beliefs about taste could be tackled by free tastings or by inducing trial. Repeat purchase among users could be encouraged by promotional incentives. The influence of other people was also found to be a determinant factor in alcohol free beer consumption. If consumers believe that salient referents disapprove of their behaviour, it is unlikely that this will be outweighed by approval conferred by (say) Billy Connolly. Use of 'friends' and other salient referents in advertisements, and stimulation of word of mouth communication would be appropriate in communicating the key messages of taste and health..

Price and Distribution

The knowledge that perceived price and availability were not shown to significantly impede behaviour also has practical implications. Lack of availability is clearly a potential impediment to action, and it is helpful to know that current levels of distribution are not perceived as such. Given the criticism of alcohol free beer prices an indication that price does not significantly prevent action is even more helpful. However, if current levels of affordability and availability are not significant inhibitors of behaviour, neither are they sufficient in themselves to induce consumption. In Herzberg's (1966) terms they appear to be 'hygiene factors', that do not sell products, but which can still 'unsell' products if they are inadequate. There is no room for complacency.

Summary

The present study offers clear evidence of the efficacy of reasoned action theory and some interesting findings emerged. The main determinant of behaviour was found to attitude. However, against expectations, avoidance of getting drunk and drunk driving were not major attitudinal factors, and attitudes about taste and health were found to be more important. Subjective norm was more influential than is commonly associated with posited low involvement behaviours, probably because of the highly social nature of the behaviour under investigation. A measure of habit failed to contribute to predictive power of the model. A possible explanation for this is that normative factors may effectively prevent the choice of drink in a social environment from developing into habitual behaviour. Ajzen's theory of planned behaviour was not supported by this study, probably because control problems were not relevant to the research topic. However, this can change over time, and the outcome concerning planned behaviour does not negate Ajzen's proposed modification to the basic Ajzen-Fishbein framework. The framework has a good record of predicting a wide variety of behaviours, but it is has not until now been used much in industry. To underline the relevance of the method to practising managers the practical application of these findings were discussed and some proposals made.



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