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Subjective norms, attitudes and intentions of Finnish consumers in buying organic food

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Abstract

Purpose – The purpose of this paper is to test the extension of the theory of planned behaviour (TPB) in an organic food buying context.

Design/methodology/approach – The relationships between subjective norms and attitudes and intention to buy organic food were studied by applying structural equation modelling.

Findings – The proposed modified model of the TPB model fitted the data better than the original model, implying that in the organic food-buying context the role of subjective norms differs from the original theory of planned behaviour. In buying organic food subjective norms affected buying intention indirectly through attitude formation. In addition, results showed that the modified TPB model predicts intention to buy organic food better than the original model. Based on the results, it can be said that consumers' intentions to buy organic food can be predicted with their attitudes ($R^2 = 0.558$), which can further be predicted by subjective norms ($R^2 = 0.374$), and that behavioural intentions reliably predict self-reported behaviour ($R^2 = 0.824$).

Research limitations/implications – First, this study concerned only organic bread and flour products, and therefore the results cannot be expected to explain consumer behaviour for all organically produced products. Second, just one retail channel of organic foods, a hypermarket, was examined. Since the different store formats have also very different characteristics (e.g. price level and number of products), it is likely that also the consumers' buying behaviour differs between different stores.

Originality/value – In past studies on organic food-buying behaviour, the role of subjective norms has often been neglected – either they are not included in the models or their explanatory power has been weak.

Keywords Consumer behaviour, Organic foods, Linear structure equation modelling, Finland

Paper type Research paper

Introduction

In recent years interest towards organic food production and buying (behaviour) has increased both among consumers and academics. Besides, the organic sector is expected to grow significantly in the future. According to Lampkin (1999) the organic farming sector in European Union could expand from the 1998 level of 2 per cent of the utilisable agricultural area to 10 per cent by 2005 and 30 per cent by 2010. Also consumers are reported to have become more interested in buying organic food (von Alvensleben, 1998). Thus, the subject has also started to intrigue academic researchers, and the number of studies of organic food buying behaviour has grown recently.

In the majority of earlier studies, consumers have been found to have positive attitudes for and interest in organically produced food (see Wandel and Bugge, 1997; Magnusson *et al.*, 2001, for a review of past research). However, the proportion of consumers who purchase organic food regularly is reported to be low (Roddy *et al.*,



1996) indicating that having positive attitudes towards organic food does not necessarily lead towards buying them. Two explanations are offered for the low purchase rates: the high price of organic food and their limited availability (Tregear *et al.*, 1994; Magnusson *et al.*, 2001; Fotopoulos and Krystallis, 2002). Earlier research has also revealed country-specific differences both in marketing of organic food and purchase frequencies of organic food. For example, the importance of different marketing channels of organic food differs between countries. In Italy, The Netherlands, Belgium, Germany, Greece and Spain the organic foods are mainly sold by either direct marketing or marketing via specialised shops, whereas in Sweden, Denmark, Finland, the UK and Austria the sales of organically produced food are concentrated on supermarkets and other non-specialised shops (EU, 2003). Additionally, differences in pricing of organic food can be detected across countries. Also the proportion of consumers who purchase organic foods regularly varies across countries and product categories: for example, Grunert and Kristensen (1995) reported that among Danish consumers 3 per cent were regular buyers of organic meat, whereas there were 23 per cent of the consumers who reported to buy organic vegetables frequently.

Present paper approaches the organic food consumption in Finland with the theory of planned behaviour (TPB). In Finland, which is forecasted to be a growing organic market (Padel *et al.*, 2003), the results concerning the consumption of organic food are almost entirely a part of general consumption researches and their only contribution to organic food consumption research is that consumers have positive attitudes and beliefs concerning organic products (see Laaksonen *et al.*, 1998; Lampikoski and Lampikoski, 2000). In this paper a modification of the TPB model will be tested and the emphasis is placed on the role of subjective norms in organic food buying context.

Applying the theory of reasoned action and theory of planned behaviour to buying organic food

The TPB is an extension of the theory of reasoned action (TRA) made necessary by the original model's limitations in dealing with behaviours over which people have incomplete volitional control (Ajzen, 1991). The central factor in the TPB is the individual's intention to perform a given behaviour. The TPB links behavioural intentions with attitudes, subjective norms and perceived behavioural control. In the earlier studies the theory of reasoned action (TRA) and its extension, the theory of planned behaviour (TPB) (Ajzen, 1991), have been found to be very useful in predicting a wide range of behaviour (Sheppard *et al.*, 1988).

The TRA and TPB have also been applied in organic food buying behaviour research (Sparks and Shepherd, 1992), and in studying the intentions to buy environmentally friendly products (Kalafatis *et al.*, 1999). However, in past studies on organic food buying behaviour the role of subjective norms, which refers to the perceived social pressure to perform or not to perform the behaviour (Ajzen, 1991), has often been neglected. For example, Magnusson *et al.* (2001) did not include them into their model at all. Sparks and Shepherd (1992) included subjective norms in their study, but subjective norms' explanatory power was relatively weak, even though significant. Thus, several authors have proposed that there is a need to modify the TPB. Chang (1998), Shepherd and O'Keefe (1984), Shimp and Kavas (1984), and Vallerand *et al.* (1992) have all found evidence that there is a significant causal path from subjective

norms to attitudes – neglected in prior studies. All these cases, where subjective norms and attitudes were related to each other, dealt with some kind of ethical or moral decision-making, but also in the case of personal benefit (coupon usage). As Chang (1998, p. 1832) has noted:

If this relationship exists, the effect of the significant other on attitude formation cannot be ignored.

Chang (1998) examined the correlation between subjective norms and attitudes towards behaviour more thoroughly, and tested the causal link from norms to attitudes. In Chang's (1998) study the path from subjective norms to attitudes towards behaviour was significant. Chang (1998) suggested that the link could be explained with social environment's influence on an individual's attitude formation. Chang's suggestion is followed and it is hypothesised that:

H1. Subjective norms will positively influence attitudes towards buying organic food.

Attitude toward the behaviour refers to the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question (Ajzen, 1991). According to Ajzen (1991) the more favourable the attitude with respect to a behaviour, the stronger is the individual's intention to perform the behaviour under consideration. Thus, it is hypothesised that:

H2. Positive attitudes towards buying organic food will positively influence intention to buy them.

One of the most frequent motives for buying organic food has been consumers' perception that organic food is healthy (Davies *et al.*, 1995; Hutchins and Greenhalgh, 1997; Squires *et al.*, 2001; Chinnici *et al.*, 2002; Zanolli and Naspetti, 2002). Therefore, the concept of health consciousness is included in the present study as a control variable. As earlier studies have shown healthiness of organic food is an important buying motive of organic food, it is hypothesised that:

H3. Consumers' self-identification as health conscious will influence positively the attitudes towards buying organic food.

According to Ajzen (2002) perceived behavioural control can account for considerable variance in behavioural intentions and actions. Perceived behavioural control can be further divided into two components: perceived self-efficacy, which refers to ease or difficulty of performing the behaviour, and perceived controllability, which refers to the extent to which performance is up to the actor (Ajzen, 2002). The past research of organic consumption has shown that the most important reasons for not buying the organic food are lack of availability and organic food's relatively higher price compared to conventionally produced food (Boccaletti and Nardella, 2000; Magnusson *et al.*, 2001; Fotopoulos and Krystallis, 2002; Zanolli and Naspetti, 2002). The lack of availability as an obstacle for buying organic food products is clearly not under consumers' control. Whether the organic food products are available to consumers, is in the hands of the supply chain. Based on the discussion above, it is hypothesised that:

H4. Perception of the availability of the organic food has an impact on the intention to buy organic food.

The other type of behavioural control, perceived self-efficacy, is more complex. As perceived controllability deals with the consumers' actual possibilities (i.e. external control) to buy organic food, the perceived self-efficacy deals with consumers' internal control for buying it. As the organic products' relatively higher price has been practically the most important reason for not buying organic food (see Tregear *et al.*, 1994; Magnusson *et al.*, 2001), higher price can, especially for low-income consumers, be an obstacle that makes it actually impossible to purchase organic food products (see also Shepherd *et al.*, 1996). However, it can also be a problem related to perceived self-efficacy, i.e. it makes buying organic food more difficult or more unattractive, because of a trade-off between ability to buy organic food and ability to save or spend money on products and services that offer personal utility. This phenomenon of trade-off between collective and personal interests has been noticed in environment-related issues before. Uusitalo (1990), for example, found that even though environmental quality is generally one of the most important social goals of consumers, free riding tendencies are present as soon as the social goal interferes with the respondents' own economic utility. It can be assumed that the high price of organic food is more of the perceived self-efficacy – type of control. This assumption is based on the conflict between collective and personal utility in consuming. Thus, the following hypothesis can be derived:

H5. Perceived price influences the intention to buy organic food products.

According to the theory of planned behaviour, performance of a behaviour is a joint function of intentions and perceived behavioural control. Evidence concerning the relation between intentions and actions has been collected with respect to many different types of behaviours (see Sheppard *et al.*, 1988, for a review). It is found that when behaviours pose no serious problems of control, they can be predicted from intentions with considerably accuracy (Ajzen, 1991). As intentions are reported to be significant predictors of actual behaviour, it was, thus, hypothesised that:

H6. Intention to buy organic food has a positive relationship with the buying behaviour of organic food.

Based on the discussion above, a model (see Figure 1), which considers the effects of subjective norms on attitudes, and attitudes', and health consciousness' effects on organic food purchasing intentions, is proposed.

Research design, data collection and measures

The sample consisted of 200 Finnish consumers in a hypermarket in the south-eastern part of Finland, and was collected during a week in one of the local hypermarkets. The availability of the organic bread and flour alternatives in the hypermarket was confirmed before the data collection. The sampling method used was quota sampling, which is a method that allows the researcher to control the sampling procedure in order to obtain a sample that is similar to the population (Kinnear, 1987). In the present study the controlling factors were age and gender. The researcher was situated in the bread department of the store, and asked the consumers to fill the questionnaire. The respondents were directed to a cafeteria in the bread department, where they could fill the questionnaire in the table while having a cup of coffee. In addition to the offered cup of coffee, the respondents received a free package of fair trade organic coffee as an

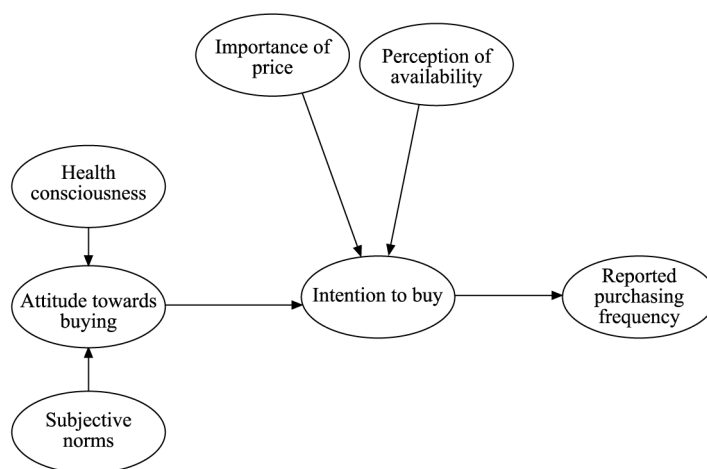


Figure 1.
The proposed model for
buying intentions of
organic food

incentive. During the data collection, the researcher aimed to obtain equal amount of responses from both genders and from all different ages ranging from 18 to 80.

The present study concentrated on two product categories. These categories are bread and flour. They were selected for the study, because the availability of organic alternatives in the categories was good, and the price premiums were on the average level in Consumer Agency and Consumer Ombudsman's (2003) price comparisons.

The subjective norms, attitudes towards buying organic food, and intention to buy were each measured with one statement, which was repeated for both product categories. The items for attitude towards behaviour, subjective norms, and behavioural intention were adapted from Ajzen and Fishbein (1980). The responses for attitude towards buying organic food and subjective norms were collected with a five-point Likert scale ranging from "completely disagree" to "completely agree", and the responses for behavioural intention were collected with a five-point scale, ranging from "do not intend" to "certainly intend". The first perceived behavioural control (i.e. the importance of price) measure was developed for the present study. The responses for this measure were collected with a five-point scale, ranging from "completely disagree" to "completely agree". Also the measure for the perceived availability of the organic food was developed for the present study. Perceived availability was measured with a two-item five-point scale, ranging from "very poor" to "very good" (see Table I). For measuring health-consciousness a three-item scale was developed. Two of the items were adapted from Squires *et al.* (2001) and one additional item was developed. The responses for the health consciousness scale were collected with a five-point Likert scale, ranging from "completely disagree" to "completely agree". A measure for organic food buying frequency was also included into the questionnaire in order to explore the self-reported organic food buying behaviour. This measure consisted of one item, which was repeated in both product categories. The responses were collected with a five-point scale ranging from "never" to "almost always". In order to check the internal consistency of the measures, the Cronbach alphas were calculated. As Table II reveals reliabilities are satisfactory as Cronbach's alphas exceed 0.70 (Nunnally, 1978).

Construct	Items	Loading	Cronbach alpha
Intention to buy	"I intend to buy organic bread in the near future"	0.765	0.812
	"I intend to buy organic flour in the near future"	0.824	
Attitudes towards buying	"I think that buying organic bread is reasonable"	0.942	0.928
	"I think that buying organic flour is reasonable"	0.915	
Subjective norms	"People, who are important to me, think that I should buy organic bread"	0.941	0.925
	"People, who are important to me, think that I should buy organic flour"	0.913	
Importance of price	"The price of a product is very important to me"	0.981	–
Health consciousness	"I choose food carefully to ensure good health"	0.655	0.811
	"I think of myself as a health-conscious consumer"	0.942	
	"I think often about health issues"	0.725	
Perceived availability	"Organic bread is always sufficiently available"	0.679	0.782
	"Organic flour is always sufficiently available"	0.956	
Self-reported behaviour	"How often buys organic bread"	0.778	0.745
	"How often buys organic flour"	0.754	

Note: All factor loadings are significant at $p = 0.001$

Table I.
Standardised
confirmatory factor
loadings

Analysis and results

Methods

In the past the organic consumption studies have been rather exploratory in nature. Some of the studies have just examined the frequencies of the responses (Tregear *et al.*, 1994; Hutchins and Greenhalgh, 1997), and some have used cross-tabulation or mean comparisons (Davies *et al.*, 1995; Magnusson *et al.*, 2001). The more powerful methods that have been used include logit models (Boccaletti and Nardella, 2000; Cicia *et al.*, 2002), factor or cluster analysis (Chinnici *et al.*, 2002; Fotopoulos and Krystallis, 2002), and logistic regression (Squires *et al.*, 2001). In addition to this, there have been some studies adopting a qualitative approach (Makatouni, 2002; Zanolì and Naspètti, 2002). In the present study, the hypotheses are tested by applying structural equation modelling technique (SEM), which is a relatively strong method of analysis, with AMOS 5. To avoid the problem with missing values, full information maximum likelihood (FIML) method of estimation (see Olinsky *et al.*, 2003) was used.

Description of the sample

The age of the respondents varied from 18 to 80 years. Almost 55 per cent of the respondents were females. The average educational level was further schooling and college-level education (see Table III).

As Table II reveals, only the minority of the respondents were frequent buyers of organic bread and flour, but that the majority of respondents had bought organic food products. However, of the 200 respondents, 15.1 per cent had never bought organic bread and 33.7 per cent had never bought organic flour. These figures are in line with the past research on organic food consumption. Despite of the relatively low purchasing frequencies, the majority of the respondents had positive attitudes towards buying organic food products and expressed intentions to buy organic food products in the near future.

	%
<i>Organic bread-purchasing frequency</i>	
Never	15.1
Seldom	58.3
Often	20.6
Nearly always	6.0
<i>"I think that buying organic bread is reasonable"</i>	
Strongly disagree	4.8
Disagree	8.0
Neither agree nor disagree	23.5
Agree	41.2
Strongly agree	22.5
<i>How likely will you buy organic bread in the near future?</i>	
Unlikely	6.3
Hardly	12.6
Probably	50.9
Certainly	30.2
<i>Organic flour-purchasing frequency</i>	
Never	33.7
Seldom	49.7
Often	11.6
Nearly always	5.0
<i>"I think that buying organic flour is reasonable"</i>	
Strongly disagree	5.4
Disagree	11.4
Neither agree nor disagree	30.3
Agree	33.0
Strongly agree	20.0
<i>How likely will you buy organic flour in the near future?</i>	
Unlikely	13.2
Hardly	32.6
Probably	36.1
Certainly	18.1

Table II.
Organic food-buying
frequencies, attitudes and
buying intentions

Results

Hypotheses were tested by applying structural equation modelling technique (i.e. AMOS 5) for validation of model proposed in Figure 1. The model fit was evaluated with the Tucker-Lewis Index[1] (TLI), root mean square error of approximation (RMSEA), and the comparative fit index (CFI). The model returned good fit, as the following fit indices show: $\chi^2 = 182.423$, $df = 73$ ($p = 0.000$); TLI = 0.873; CFI = 0.911; RMSEA = 0.087 (see Figure 2). The standardised confirmatory factor loadings of the observed variables on the latent constructs are shown in Table I, and the correlation matrix is presented in the appendix.

In the proposed model (Figure 2) the paths from attitude towards buying organic food to intention to buy and from subjective norms to attitude towards buying organic

	%	Buying organic food
<i>Age</i>		
18-25 years	11.6	
26-35 years	20.2	
36-45 years	23.2	
46-55 years	22.2	
56-65 years	17.2	
over 65 years	5.6	
<i>Level of education</i>		
Primary school	18.7	
Further schooling	30.3	
High-school diploma	9.6	
College-level	27.3	
Vocational high school	6.1	
Academic education	8.1	
<i>Gender</i>		
Male	45.4	
Female	54.6	
<i>Income €</i>		
0-4,999	3.8	
5,000-13,999	10.2	
14,000-24,999	22.0	
25,000-39,999	25.8	
40,000-59,999	26.9	
60,000-	11.3	

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Table III.
Descriptive statistics of respondents

food were significant, given support to our hypothesised positive relationships between subjective norms and attitudes, and attitudes and buying intentions. As the path from health consciousness to attitude towards buying organic food, the hypothesis concerning this relationship was rejected. Neither the hypothesised relationship between perceived availability and buying intentions nor the relationship between behavioural constraints (i.e. price) and buying intentions were supported. However, the path from intention to buy organic food to buying behaviour of organic food was positive and significant, giving support to the hypothesised relationship.

Analysis for the model with direct path from subjective norms to buying intention (as suggested in original TPB) was also conducted, in order to test if the modified model fits the data more accurately than the unmodified version of TPB. The fit indices with this unmodified model were almost satisfactory ($\chi^2 = 199.673$, $df = 73$ ($p = 0.000$); TLI = 0.852; CFI = 0.897; RMSEA = 0.093), but poorer than in the modified model. Furthermore, the path from subjective norms to buying intention was not significant in this model, which provides additional support for the proposed modified model.

Discussion

As the relationship between subjective norms and attitudes towards buying organic food was significant, it seems that attitudes towards buying organic food and

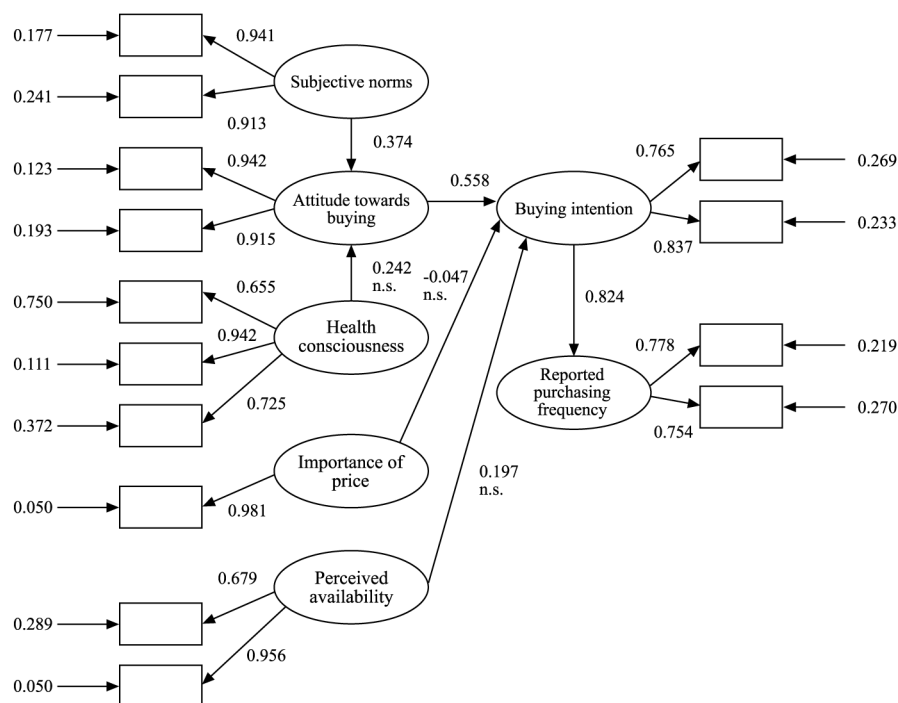


Figure 2.
The model with
standardised solution.
 $\chi^2 = 182.423$; $df = 73$;
 $p = 0.000$; RMSEA =
0.087

subjective norms are not independent from each other. Subjective norms were found to influence attitudes, which differs from the original theories of reasoned action and planned behaviour. Fishbein and Ajzen (1975) have admitted that attitudinal and subjective influences might be dependent on each other. Chang (1998) suggested that individual's favourableness or unfavourableness towards behaviour is affected by how those of importance to her think of the behaviour in question. In the past studies subjective norms' effect on attitudes has been mainly found in behaviours, that involve some kind of ethical decision, and also buying organic food can be seen as ethical decision reflecting environmental concern. However, whether buying organic food is or is not an ethical decision, it seems that positive (or negative) attitudes towards buying organic food "pass on" among people. Those, who think positively about buying organic food, have influence on the attitude formation of others.

Present study confirms previous findings as the relationship between attitudes towards buying organic food and intention to buy organic food was positive and significant. This result is inline with the theory and earlier studies, as for example Choo *et al.* (2004), who studied antecedents to new food product purchasing behaviour, found that attitudes had significant effect on behavioural intention among innovative Indian consumers.

Although, healthiness of organic food is one of the most frequently mentioned motives for buying organic food, the relationship between health consciousness and attitudes towards buying organic food was not significant, indicating that health consciousness does not explain the general attitudes towards organic food when

organic bread and flour are examined. The result might be different if the studied organic food products were different. For example, according to Fotopoulos and Krystallis (2002) the impact of the recent food safety scandals in beef (e.g. BSE crisis) plays an important role in the organic food purchase choice. Similar crises has not emerged in flour and bread categories, and thus, they can be, in general, considered safe and healthy

It seems that perceived behavioural control (i.e. importance of price) and perceived availability of organic food have no effect on buying intentions of organic food. Consumers did not perceive that price of products affected their intentions to buy organic food. This might be due to the fact, that the price premium for organic products in these categories in Finland is almost non-existing. Or, it might be that the perception of price of food products affects directly to attitude toward buying organic, instead of indirect effect through intention, as was the case in Bamberg and Schmidt's (1999) study where they measured the impact of price change of bus tickets on attitudes towards the usage of public transportation. Unlike hypothesised, the perceived availability of organic bread and flour did not have effect on buying intentions. This may be due to the fact that the supply of these products in Finnish hypermarkets is good, and thus the availability does not emerge as an issue when considering making a purchase.

As Figure 2 illustrates, the path from buying intentions of organic food to buying behaviour of organic food was positive and significant, giving support to the hypothesised relationship between these two variables. This finding is inline with previous research, as for example Choo *et al.* (2004) also confirmed that intentions to buy new food product is a predictor of actual purchase behaviour among innovative Indian consumers. The level of prediction ($R^2 = 0.824$) was comparable to that reported in other applications of the TPB (see Povey *et al.*, 2000).

Limitations and future research

There are a couple of limitations related to our research to be considered for the generalisation of the results. First, this study concerned only organic bread and flour products, and therefore the results cannot be expected to explain consumer behaviour for all organically produced products. Second, we also examined just one retail channel of organic foods, a hypermarket. Since the different store formats have also very different characteristics (e.g. price level and number of products), it is likely that also the consumers' buying behaviour differs between different stores. In the future, the role of subjective norms could be examined for different types of organic products, and in different decision-making situations.

Conclusions

The present study attempted to apply a modification of TPB into organic food buying context. The TPB modifications have dealt mainly with moral decision-making, where the subjective norms affected the behavioural intentions indirectly via attitude formation. Applying modified TPB to organic food buying context was based on the assumption that buying organic food is a moral decision reflecting collective utility of environmental well-being and to some form individual well-being. The results of the present study showed that this modification can be used to predict organic food buying intentions and self-reported buying behaviour. Perhaps the most important finding of

this study is that it is possible to predict consumers' buying behaviour of organic food with intentions to buy organic food, which can further be predicted with attitudes, and subjective norms, and that subjective norms affect buying intentions of organic food through attitudes.

Note

1. Also known as Non-Normed Fit Index, NNFI.

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		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Health consciousness1	Pearson correlation	1	0.628	0.464	-0.043	0.066	0.221	0.185	0.198	0.220	0.173	0.340	0.323	0.356	0.196
	Sig. (2-tailed)		0.000	0.000	0.560	0.384	0.002	0.012	0.007	0.003	0.031	0.000	0.000	0.000	0.006
2. Health consciousness2	Pearson correlation	0.628	1	0.689	-0.052	0.044	0.248	0.089	0.204	0.098	0.200	0.318	0.303	0.318	0.211
	Sig. (2-tailed)	0.000		0.000	0.482	0.561	0.001	0.233	0.006	0.190	0.013	0.000	0.000	0.000	0.003
3. Health consciousness3	Pearson correlation	0.464	0.689	1	-0.043	-0.027	0.295	0.096	0.247	0.188	0.275	0.331	0.297	0.264	0.142
	Sig. (2-tailed)	0.000		0.565	0.565	0.724	0.000	0.202	0.001	0.012	0.001	0.000	0.000	0.000	0.049
4. Perceived availability of organic bread	Pearson correlation	-0.043	-0.052	-0.043	1	0.643	0.203	-0.020	0.180	-0.011	0.286	0.181	0.144	-0.007	0.086
	Sig. (2-tailed)	0.560	0.482	0.565		0.000	0.006	0.797	0.017	0.880	0.000	0.031	0.050	0.926	0.241
5. Perceived availability of organic flour	Pearson correlation	0.066	0.044	-0.027	0.643	1	0.228	0.098	0.290	0.104	0.168	0.352	0.163	0.183	0.021
	Sig. (2-tailed)	0.384	0.561	0.724	0.000		0.003	0.201	0.000	0.177	0.039	0.000	0.028	0.014	0.777
6. Attitudes towards buying organic bread	Pearson correlation	0.221	0.248	0.295	0.203	0.228	1	0.345	0.866	0.332	0.518	0.427	0.437	0.346	0.008
	Sig. (2-tailed)	0.002	0.001	0.000	0.006	0.003		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.914
7. Subjective norms (bread)	Pearson correlation	0.185	0.089	0.096	-0.020	0.098	0.345	1	0.374	0.862	0.206	0.283	0.279	0.310	0.015
	Sig. (2-tailed)	0.012	0.233	0.202	0.797	0.201	0.000		0.000	0.000	0.013	0.001	0.000	0.000	0.835

(continued)

Table AI.
Correlation matrix

Table AI.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
	Correlations														
8. Attitudes towards buying organic flour	Pearson correlation	0.198	0.204	0.247	0.180	0.290	0.866	0.374	1	0.361	0.438	0.438	0.363	0.356	0.072
	Sig. (2-tailed)	0.007	0.006	0.001	0.017	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.332
9. Subjective norms (flour)	Pearson correlation	0.220	0.098	0.188	-0.011	0.104	0.332	0.862	0.361	1	0.207	0.293	0.276	0.289	0.013
	Sig. (2-tailed)	0.003	0.190	0.012	0.880	0.177	0.000	0.000	0.000		0.012	0.001	0.000	0.000	0.866
10. Intention to buy organic bread	Pearson correlation	0.173	0.200	0.275	0.286	0.168	0.518	0.206	0.438	0.207	1	0.686	0.548	0.385	-0.014
	Sig. (2-tailed)	0.031	0.013	0.001	0.000	0.039	0.000	0.013	0.000	0.012		0.000	0.000	0.000	0.866
11. Intention to buy organic flour	Pearson correlation	0.340	0.318	0.331	0.181	0.352	0.427	0.283	0.438	0.293	0.686	1	0.522	0.633	0.068
	Sig. (2-tailed)	0.000	0.000	0.000	0.031	0.000	0.000	0.001	0.000	0.001	0.000		0.000	0.000	0.419
12. Buying frequency (bread)	Pearson correlation	0.323	0.303	0.297	0.144	0.163	0.437	0.279	0.363	0.276	0.548	0.522	1	0.595	-0.081
	Sig. (2-tailed)	0.000	0.000	0.000	0.050	0.028	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.258
13. Buying frequency (flour)	Pearson correlation	0.356	0.318	0.264	-0.007	0.183	0.346	0.310	0.356	0.289	0.385	0.633	0.595	1	-0.002
	Sig. (2-tailed)	0.000	0.000	0.000	0.926	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.976
14. Importance of price	Pearson correlation	0.196	0.211	0.142	0.086	0.021	0.008	0.015	0.072	0.013	-0.014	0.068	-0.081	-0.002	1
	Sig. (2-tailed)	0.006	0.003	0.049	0.241	0.777	0.914	0.835	0.332	0.866	0.866	0.419	0.258	0.976	
Notes: *Correlation is significant at the 0.05 level (two-tailed); **Correlation is significant at the 0.01 level (two-tailed)															