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## **The Theory of Planned Behaviour and Food Choices: The Case of Sustainable pre-packed Salad**

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### **Introduction**

The demand for sustainable food products is in continuous growth. There are many different instruments that can be used in order to signal to consumers environmentally-friendly characteristics of food products, among which product labelling. Organic certification is probably the most well-known. Many studies have investigated consumer preferences towards organic products (Andersen, 2011; Bravo et al., 2013; Breustedt et al., 2011; Falguera et al., 2012; Gil et al., 2000; Gracia and De Magistris, 2008; Meike and Ulrich, 2014; Krystallis et al., 2006; Lee Wan-Chen et al., 2013). Despite the relevance of this aspect, other crucial labelled product attributes related to the sustainability have not yet been widely investigated (Bazoche et al., 2014; Govindasamy and Italia, 1998; Magnusson and Cranfield, 2005; Yigezu et al., 2013).

The paper aims at understanding the main factors affecting consumer purchase of products that report environmentally-friendly labelled features. The analysis refers to minimally processed pre-packed salad with environmental-friendly labelled characteristics related to integrated pest management. The Theory of Planned Behaviour (TPB) (Ajzen, 1985) represents the conceptual framework of this analysis.

Purchases of such products show a steady upward trend in Italy (Freshfel, 2015). Most of the research about the food category of minimally processed vegetables focuses on microbiological quality, safety, processing and packaging issues (Fusi et al., 2016). The analysis on the determinants affecting consumers preferences towards environmental characteristics of such products are still underdeveloped (Sillani and Nassivera, 2015).

The paper is organized as follow. The next section will introduce the conceptual framework. Afterword, the methodology is presented. Results and some preliminary final remarks are placed at the end.

### **Conceptual framework**

The TPB postulates that individuals' decision-making process is influenced by consumer evaluation on possible consequences of a certain behaviour, the expectation of reference individuals and the potential resources or impediments related to that behaviour. According to Ajzen's model (Ajzen, 1985), these considerations or beliefs result in the formation of different independent determinants of consumer intention to perform a certain behaviour: attitude towards the behaviour, perceived behavioural control and subjective norms. In our analysis, we did not take into consideration subjective norms.

According to the TPB, the antecedent of behaviour is the intention to perform behaviour. Generally, the stronger the intention to engage in behaviour, the more likely should be its performance. Furthermore, perceived behavioural control and attitudes influence intention directly.

Although the TPB has been successfully applied to predicting behaviour in many fields, the behaviour associated to food choices is complex and often characterized by apparent contradictions. Also in this paper, the focus of the study is on consumers' interest into two different and apparently inconsistent product attributes at the same time, i.e. convenience and environmental-friendly attributes. For this reasons, additional predictors could help to increase the understanding of consumer behaviour. According to the literature we extended the TPB by adding other predictors which were found to be significant in the literature to predict consumer green behaviour: consumer environmental behaviour (Steg and Vlek, 2009; Tobler et al., 2011; Turaga et al., 2010), environmental concern (Wandel and Buggel, 1997; Ignatow, 2006; De Groot and Steg, 2007), food shopping habits (Verplanken and Aarts, 1999; Van't Riet et al., 2011; Saba and di Natale, 1999; Honkanen et al., 2005) and consumer individual characteristics (Chekima et al., 2016).

## **Methodology**

A survey was conducted in the Lombardy region of Northern Italy via face-to face interviews. The final sample consisted of 550 adult consumers. The questionnaire was designed using a multiple-choice format with rating or dichotomous scales. Different questions addressed the different elements related to the TPB model, including attitude, perceived behavioural control, the intention to buy integrated pest management vegetables, and consumer behaviour towards such products. In addition, we included variables concerning food shopping habits, consumer agricultural practices concerns, and some other variables, like socio-demographic and individual characteristics and consumer food related environmental behaviour.

Data were firstly analysed by means of confirmatory factor analysis. Secondly, we used structural equation modelling to analyse the relative importance of the constructs on the behaviour, i.e., the purchase of IPM pre-packed minimally-processed vegetables.

## **Results and preliminary implications**

Preliminary results indicate that the TPB construct is verified. Attitude and perceived behavioural control influence positively consumer intention to buy IPM minimally processed vegetables. Moreover, consumer's intention is positively correlated with consumer behaviour towards such products.

Preliminary results show also a significant relation between buying integrated-pest-management pre-packed salad, income and gender. Consumer knowledge on the environmental issues play an important role in predicting the purchase of the analysed products. Also food shopping habits shows a positive relationship with consumer intention to buy IPM products. Interestingly, consumer concern towards agricultural practices is negatively correlated with consumer intention towards the analysed products.

Our analysis suggests that IPM pre-packed minimally-processed vegetables could represent an interesting convenience food characterised by an intermediate level of environmental and health attributes that could respond to medium levels of environmental and health concerns. Given their market position, such products could also represent a way for people with intermediate income levels to respond to their environmental and/or health preference.

Preliminary policy implications suggest that interventions aimed at promoting the purchase of IPM products should increase the knowledge about IPM products and about their environmental and health-related attributes, especially among those that do not adopt other environmentally friendly food behaviours. Having easy-recognisable and understandable logos also seem to have a role, as people that check labels regularly are more likely to purchase IPM products.

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