



UNIVERSITÀ POLITECNICA DELLE MARCHE
Repository ISTITUZIONALE

A Theory of Planned behaviour perspective for investigating the role of trust in consumer purchasing decision related to short food supply chains

This is the peer reviewed version of the following article:

Original

A Theory of Planned behaviour perspective for investigating the role of trust in consumer purchasing decision related to short food supply chains / Giampietri, Elisa; Verneau, Fabio; Del Giudice, Teresa; Carfora, Valentina; Finco, Adele. - In: FOOD QUALITY AND PREFERENCE. - ISSN 0950-3293. - ELETTRONICO. - 64:(2018), pp. 160-166. [10.1016/j.foodqual.2017.09.012]

Availability:

This version is available at: 11566/260849 since: 2018-10-15T20:04:59Z

Publisher:

Published

DOI:10.1016/j.foodqual.2017.09.012

Terms of use:

The terms and conditions for the reuse of this version of the manuscript are specified in the publishing policy. The use of copyrighted works requires the consent of the rights' holder (author or publisher). Works made available under a Creative Commons license or a Publisher's custom-made license can be used according to the terms and conditions contained therein. See editor's website for further information and terms and conditions.

This item was downloaded from IRIS Università Politecnica delle Marche (<https://iris.univpm.it>). When citing, please refer to the published version.

(Article begins on next page)

1 Theory of Planned behaviour perspective for investigating the role of trust
2 in consumer purchasing decision related to short food supply chains

3 **Authors:** Elisa Giampietri*, Fabio Verneau, Teresa Del Giudice, Valentina Carfora, Adele Finco,

4 ^a Department of Agricultural, Food and Environmental Sciences, Università Politecnica delle Marche, Ancona, Italy

5 ^b Department of Political Sciences, University of Naples Federico II, Naples, Italy

6 ^c Department of Agriculture, University of Naples Federico II, Naples, Italy

7 ^d Department of Humanities, University of Naples Federico II, Naples, Italy

8 *Corresponding Author

9

10 **Abstract**

11 *To better understand the success and the spreading in number of short food supply chains (SFSCs) in Italy, this study*
12 *investigates consumer motivations and behaviour with regard to such alternative agri-food networks using an extended*
13 *model of the Theory of Planned Behaviour (TPB). In particular, this paper studies the role of consumer trust towards*
14 *purchasing in SFSCs as well as the role of consumer rural background and fair-trade purchasing preference, in*
15 *addition to common TPB variables. To this purpose, an online survey has been conducted on a convenience sample of*
16 *260 consumers in Italy. A Structural Equation Modeling (SEM) has confirmed the role of trust as direct antecedent of*
17 *consumer intention to purchase food at SFSCs, as well as the best-supported attitudes, subjective norms and perceived*
18 *behavioural control in the standard TPB model. In addition to intention and perceived behavioural control, the*
19 *behaviour is found to be influenced also by consumer rural residence and fair trade purchasing habit. These evidences*
20 *are interesting in order to suggest further marketing strategies for farmers, in the direction of more ethical and trust-*
21 *related forms of consumption.*

22

23 **Keywords:** trust; structural equation modeling; short food supply chains; consumer behaviour; theory of planned
24 behaviour.

25

26 **Introduction**

27 Nowadays, there is an intense movement in the debate on consumer trust in food choice. Indeed,
28 due to many food scandals (Forbes et al., 2009) and the progressive industrialization and
29 globalization of agri-food chains, consumer skepticism about food quality and safety has been
30 increasing during the last decades (Toler et al., 2009). Although product or process certifications
31 and labelling sometimes succeed in solving this problem, sometimes they fail instead as customers
32 often ignore or misinterpret the meaning of specific certifications (Grunert, 2005). In addition, the
33 perception of some food attributes, by their very nature, cannot be identified through a system of
34 certification, as in the case of Short Food Supply Chains (SFSCs) that boast some proper credence
35 characteristics (Migliore et al., 2015). These alternative circuits of food provision (e.g., farmers
36 markets, on farm direct selling) increasingly gained ground all over Europe and in Italy as well
37 (Kneafsey et al., 2013; Marino and Cicatiello, 2012) in recent years, representing a sustainable
38 alternative to global chains in terms of economic, social and environmental benefits (Giampietri et
39 al., 2016a; Mundler and Laughrea, 2016). This is in line with the current critical and ethical

40 consumerism that is highly related to both environmental and health impacts of food consumption
41 (Banterle et al., 2012). Notoriously, SFSCs reconnect farmers and consumers (Kirwan, 2004).
42 Those direct interactions between the actors are found to provide consumers with a sense of trust
43 that affect their purchasing decisions in relation to short chains (Holloway and Kneafsey, 2000).
44 To better understand the success and the spreading in number of such alternative agrifood networks,
45 based on two previous explorative surveys, this study explores the influence of the main
46 determinants of consumer intention and behaviour, as required by the Theory of Planned Behaviour
47 (TPB) (i.e., attitudes, subjective norms and perceived behavioural control). In addition, the paper
48 provides useful information about the role of consumer trust and their residential area and fair trade
49 consumption habits in order to predict and explain SFSCs-related purchasing decisions.

50

69 **Background**

70 In developing our conceptual framework, we draw on a previous work and the Theory of Planned
71 Behaviour by Ajzen (1991). TPB is rooted in social-psychology and represents one of the most
72 widely cited alternative approaches to understand and predict human behaviour. According to Ajzen
73 (2015), this theory does not rely on the utility evaluation of a product or a service, but it focuses on
74 the specific behaviour of interest, providing a comprehensive framework to explain and understand
75 its determinants. Many studies (Cook et al., 2002; Verbeke and Vackier, 2005; Louis et al., 2007;
76 Smith et al., 2008) have already demonstrated the predictive power of TPB in relation to food
77 purchase and consumption decisions. However, to the best of our knowledge, only little use of TPB
78 has been applied to investigate consumers' preferences for buying food at SFSCs (Giampietri et al.,
79 2015; Giampietri et al., 2016b). TPB central premise is that a precise behaviour is a function of the
80 intention (INT) to perform it and the perceived behavioral control (PBC). The stronger these two
81 determinants, the more likely the behavioural performance would be. Furthermore, the intention is
82 determined by the combination of three factors as attitudes (ATT), subjective norms (SN), and PBC
83 with respect to the behaviour in question, and these are influenced by behavioural, normative and
84 control beliefs, respectively. The more favorable ATT and SN and the greater PBC, the more likely
85 a consumer intention to engage in the concerning behaviour. Furthermore, some other factors can be
86 considered as additional determinants of the intention within the TPB original framework, as past
87 behaviour and self-identity (Carfora et al., 2016), risk perception (Lobb et al., 2007) or trust
88 (Mazzocchi et al., 2008).

89 In relation with the open debate on consumer increased distrust, during the last years we assisted to
90 the decreasing of consumer proximity to farming (Thorsøe and Kjeldsen, 2016) and the consequent
91 increasing attention in gaining new knowledge about food that we eat, e.g., where and how it is

92 produced and by whom, known as “quality turn” (DuPuis, 2000; Goodman, 2004). Accordingly,
93 nowadays food safety and quality represent a black box for consumers, especially for those who live
94 in urban areas that, by their very nature, are quite far from the production process and have lost their
95 control over food. It is worth noting that the erosion of consumer confidence grows when the risk of
96 moral hazard along the food chain prevails, in the first place affecting customer loyalty towards the
97 seller and/or the brand, and creating food safety concerns (Hobbs and Goddard, 2015).

98 Interestingly, trust represents a solution for those situations that are characterized by increasing
99 complexity and lack of knowledge, as in the case of consumer trust in food and buyer-seller
100 relationships (Frewer et al., 1996; Lassoued and Hobbs, 2015).

101 Nowadays, the necessity to rebuild and strengthen consumer trust between consumption and
102 farming represents one of the main challenges in the marketing field. Accordingly, Ding et al.
103 (2015) state that trust, especially towards farmers (instead of retailers), represents a complex and
104 hard-to-measure concept that plays an important role in decision-making, especially when the
105 information is scarce or hard to assess as the food purchasing process. Therefore, customer trust can
106 have a key role to solve this problem, as it can tackle the loss of both knowledge and control over
107 the supply chain and drive food choices, especially in the case of SFSCs.

108 Fostering the reconnection between producers and consumers by means of reducing the number of
109 actors and distances along the supply chain (Marsden et al., 2000; Parker, 2005), SFSCs are found
110 to significantly contribute to many social, environmental and economic sustainable goals related to
111 the agri-food sector (Ilbery and Maye, 2005; Forssell and Lankoski, 2014). Many authors (Trobe,
112 2001; Schneider, 2008; Tregear, 2011; Hartmann et al., 2015) found that the direct interactions
113 between farmers and consumers as well as their repeated encounters can provide consumers with a
114 sense of trust built especially on shared know-how and mutual understanding (Meyer et al., 2012).
115 Indeed, these typical SFSCs’ face-to-face initiatives (Renting et al., 2003) let producers and
116 consumers interact, share and exchange information related to both food products and production
117 process and their personal values (O’Kane and Wijaya, 2015), reducing the information asymmetry
118 and establishing new solid loyalty. In this framework, trust becomes a substitute for full knowledge
119 (Greibitus et al., 2015) and its role in influencing consumer food choice and purchasing decision
120 seems to be increasingly important nowadays.

121 In order to examine consumer motivations for purchasing food at SFSCs (instead of conventional
122 markets), the present study examines the impact of trust on purchasing intention, comparing an
123 extended TPB model with a classic TPB framework. In addition, the paper also considers the role of
124 consumers residential area and fair trade purchasing habit in influencing the investigated behaviour.

125

126 **Data and Methodology**

127 The methodology used is based on an empirical analysis carried out in Italy during the first semester
128 of 2016. An extended TPB model was assessed to investigate the determinants of consumer
129 purchasing habits related to SFSCs as market locations. To this purpose, we implemented an online
130 survey among a convenience sample of 260 Italian respondents that affirmed to commonly purchase
131 food at short circuits as farmers' markets (46%) or on farm directly (43%), whereas the remaining
132 11% prefer other forms of SFSCs as solidarity purchasing groups. The survey was administered as
133 an online questionnaire that was pre-tested among a small sample (25 participants) in December
134 2015, and only minor changes were made based on this. The questionnaire included three sections:
135 the first section asked respondents to state their purchasing habits related to SFSCs in terms of
136 buying frequency. The second section was designed for the assessment of five TPB variables;
137 specifically, each variable was measured with three items rated on a 7-point response format.
138 Finally, the third section incorporated some socio-demographic questions describing the sample.
139 Section number two, was aimed at assessing trust (TRUST) towards purchasing food at SFSCs and
140 the original components of TPB as respondents' attitudes (ATT), subjective norms (SN), perceived
141 behavioural control (PBC), and intention (INT).

142 Three adjective pairs were used to measure attitudes as follows: "Purchasing food at SFSCs is *not*
143 *gratifying* – *gratifying*; *unpleasant* – *pleasant*; *not satisfying* – *satisfying* to me"; composite
144 reliability was 0.91.

145 Subjective norms were assessed through the following 7-point *strongly disagree* – *strongly agree*
146 three items: "Most people who are important to me would approve on my purchasing food at SFSCs
147 instead of conventional markets"; "Most people who are important to me want that I purchase food
148 at SFSCs instead of conventional markets"; "Most people who are important to me think that I
149 should purchase food at SFSCs instead of conventional markets". The composite reliability was
150 0.91.

151 To measure PBC the following 7-point *totally false* – *totally true* three items were used:
152 "Purchasing food at SFSCs is easy to me"; "If I wanted to I could easily purchase food at SFSCs";
153 "Purchasing food at SFSCs depends entirely on me"; composite reliability was 0.73.

154 The intention to purchase food at SFSCs instead of conventional markets was measured using these
155 7-point *strongly disagree* – *strongly agree* three items: "I intend to purchase food at SFSCs for the
156 next month"; "I plan to purchase food at SFSCs next month"; "I am willing to buy food at SFSCs
157 next month"; composite reliability was 0.91.

158 Finally, based on Hartmann et al. (2015), with adjustments, the additional variables of trust was
159 measured by the following 7-point *totally false* – *totally true* three items: "I perceive purchasing at

160 SFSCs to be reliable”; “Purchasing at SFSCs appears trustable to me”; “I trust in purchasing food at
161 SFSCs”; composite reliability was 0.92.

162 Finally, we performed descriptive analysis using SPSS version 17, whereas Mplus 7 statistical
163 software was used to conduct structural equation modeling (SEM). To measure the goodness of fit
164 for the proposed models, the following indices were considered: χ^2 (chi-square), Comparative Fit
165 Index (CFI), the Tucker-Lewis Index (TLI)¹, and the Root Mean Square Error of Approximation
166 (RMSEA). The purpose has been to test a nested comparisons of a traditional TPB model and an
167 extended TPB model, as previously described. The extended TPB model has been developed in
168 order to verify the additional predictive power of trust on predicting consumer purchase at SFSCs.
169 Therefore, we have integrated TRUST to the original three TPB main antecedents of INT and we
170 have hypothesized that such variable had an influence on consumer intention that, in turn,
171 represents an antecedent of consumer behaviour. In addition, our extended TPB model benefits by
172 the inclusion of two other additional factors in terms of behavioural explanatory variable, namely
173 consumer residential area (RESID) and fair-trade purchasing habit (FAIRTRADE). The statistical
174 procedure for testing hierarchical models was used. Given that to accept an extended TPB model it
175 is necessary to compare it with a traditional TPB model, such comparison has been tested by
176 considering the first model as a nested model of the second. Hence, in the traditional model the
177 regression weights of the paths between additional factors and intention and behaviour have been
178 fixed to 0. To accept the extended TPB model, the hypothesized significant differences in the Chi-
179 square value have been analysed: if the Chi-square difference ($\Delta\chi^2$) is significant, the extended
180 model (the larger model with more parameters and less degrees of freedom) can be accepted as a
181 better model than the traditional model (the smaller one).

182

183 **Results**

184 Before analyzing the proposed extended TPB model, we report some sample descriptive statistics in
185 Table 1. In order to elicit the frequency of their purchasing at SFSCs (BEH), respondents had to
186 answer the following question: “*How often do you usually buy in local Short Food Supply Chains*
187 *(SFSCs)?*” (see Table 2).

188

189

Table 1 - Sample descriptive statistics

| Categories | Items | N. Obs. |
|-------------------|--------------|----------------|
|-------------------|--------------|----------------|

¹ To consider the model having an acceptable fit we refer to cut-off values of .90 or more for CFI and TLI (Bentler, 1990; Tucker and Lewis, 1973) whereas the threshold value for RMSEA is of .05 or less (Browne and Cudeck, 1992). In addition, values less than .08 of Standardized Root Mean Squared Residual (SRMR) are considered acceptable (Hu and Bentler, 1999). In relation to χ^2 , it is worth considering values having a probability of more than .05; however, we consider some other indices too, since this index tends to be deeply affected by sample size (Barbaranelli, 2007).

| | | |
|-------------------------------------|-------------------------------------|-----|
| Gender | <i>female</i> | 143 |
| | <i>male</i> | 117 |
| Age (years) | <i>18-30</i> | 133 |
| | <i>31-40</i> | 65 |
| | <i>41-50</i> | 32 |
| | <i>51-65</i> | 26 |
| | <i>more than 65</i> | 4 |
| Nationality | <i>italian</i> | 256 |
| | <i>other</i> | 4 |
| Education level | <i>primary school</i> | 1 |
| | <i>lower secondary school</i> | 13 |
| | <i>upper secondary school</i> | 79 |
| | <i>university degree</i> | 167 |
| Residential area | <i>urban</i> | 186 |
| | <i>rural</i> | 74 |
| N. of household members | <i>1</i> | 28 |
| | <i>2</i> | 48 |
| | <i>3</i> | 56 |
| | <i>4</i> | 97 |
| | <i>5 or more</i> | 31 |
| Average year income (€) | <i>less than 25.000€</i> | 100 |
| | <i>25.000-50.000€</i> | 120 |
| | <i>50.000-75.000€</i> | 27 |
| | <i>more than 75.000€</i> | 13 |
| Occupation | <i>student</i> | 102 |
| | <i>employee</i> | 136 |
| | <i>retired worker</i> | 6 |
| | <i>unemployed</i> | 16 |
| To go personally grocery shopping | <i>no</i> | 101 |
| | <i>yes</i> | 159 |
| Buying organic | <i>no</i> | 72 |
| | <i>yes</i> | 188 |
| Buying fair trade | <i>no</i> | 131 |
| | <i>yes</i> | 129 |
| Most frequently used forms of SFSCs | <i>on farm direct sale</i> | 112 |
| | <i>farmers' market</i> | 119 |
| | <i>pick-your-own</i> | 7 |
| | <i>box schemes</i> | 7 |
| | <i>Solidarity Purchasing Groups</i> | 10 |
| | <i>online sale</i> | 5 |

190

191

Table 2 - Consumers' annual SFSCs purchasing frequency (BEH)

| Question (BEH) | Items | N. Obs. |
|---|----------------------------|---------|
| How often do you usually buy in local Short Food Supply Chains (SFSCs)? | (1) once a year | 51 |
| | (2) more than once a year | 56 |
| | (3) once a month | 24 |
| | (4) more than once a month | 51 |
| | (5) once a week | 51 |
| | (6) more than once a week | 27 |

192

193 As afore mentioned, all the variables of the extended model have been measured by means of three
194 items each. Table 3 shows variables related descriptive statistics and the Cronbach's α^2 reliability
195 coefficient, whose high values indicate an high internal consistency of the items.

196

² According to Ajzen, we indicated 0.7 to be an acceptable reliability coefficient.

197

Table 3 - TPB variables' scales and descriptive statistics

| Variables (scales) | No. items | Cronbach's α |
|-------------------------------------|-----------|---------------------|
| Attitudes (ATT) | 3 | 0.91 |
| Subjective Norms (SN) | 3 | 0.91 |
| Perceived Behavioural Control (PBC) | 3 | 0.73 |
| Trust (TRUST) | 3 | 0.92 |
| Intention (INT) | 3 | 0.91 |

198

199 Table 4 reports the correlations among the investigated variables and also their mean and standard
 200 deviation. According to correlations, INT shows the strongest positive correlation with PBC and
 201 trust, while intention and PBC are the strongest correlates of BEH. In addition, all mean values are
 202 clearly above the scale mean (on a 1-7 point scale), showing that the interviewees boast highly
 203 positive attitude (5.28), subjective norms (4.67), trust (5.37), and intention (4.78) towards
 204 purchasing in such investigated alternative markets. However, the mean value for PBC is lower
 205 (4.48), compared to other variables, showing a lower respondents' self-confidence to engage in
 206 SFSCs-related purchase, despite their high and positive attitude and trust (Al-Swidi et al., 2014).

207

208

Table 4 - Correlations and descriptive findings between variables

| | 1. | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1. INT | 4.78 (1.50) | | | | | | | |
| 2. ATT | 0.323** | 5.28 (1.56) | | | | | | |
| 3. SN | 0.410** | 0.168** | 4.67 (1.55) | | | | | |
| 4. PBC | 0.482** | 0.142* | 0.272** | 4.48 (1.35) | | | | |
| 5. TRUST | 0.476** | 0.342** | 0.401** | 0.385** | 5.37 (1.11) | | | |
| 6. BEH | 0.578** | 0.294** | 0.229** | 0.379** | 0.255** | 3.29 (1.69) | | |
| 7. RESID | -0.003 | 0.262** | -0.028 | 0.028 | 0.073 | 0.088 | 0.28 (0.45) | |
| 8. FAIRTRADE | 0.242** | 0.102 | 0.210** | 0.091 | 0.261** | 0.248** | 0.005 | 0.50 (0.50) |

209

Note: Mean (Standard Deviation) for each variable on the diagonal

210

211 To test the construct validity, the measurement factor analysis model included seven latent factors
 212 indicating ATT, PBC, SN, INT, TRUST, RESID and FAIRTRADE. Goodness-of-fit statistics for
 213 this measurement model are acceptable ($\chi^2 = 170.94$, $df = 110$, $p < 0.001$; $RMSEA = 0.05$; $CFI =$
 214 0.98 ; $TLI = 0.97$; $SRMR = 0.04$). As showed in Table 5, the standardized parameter estimates are
 215 all significant and present higher values (from 0.62 to 0.94).

216

217

Table 5 - Study measurements

| Measures | Standardized factor loading |
|--|-----------------------------|
| INT | |
| I intend to purchase food at SFSCs for the next month. | 0.89 |
| I plan to purchase food at SFSCs next month. | 0.83 |
| I am willing to buy food at SFSCs next month. | 0.93 |

ATT

| | |
|--|------|
| Purchasing food at SFSCs is not gratifying – gratifying. | 0.88 |
| Purchasing food at SFSCs is unpleasant – pleasant to me. | 0.93 |
| Purchasing food at SFSCs is not satisfying – satisfying to me. | 0.84 |

SN

| | |
|---|------|
| Most people who are important to me would approve on my purchasing food at SFSCs instead of conventional markets. | 0.77 |
| Most people who are important to me want that I purchase food at SFSCs instead of conventional markets. | 0.94 |
| Most people who are important to me think that I should purchase food at SFSCs instead of conventional markets. | 0.84 |

PBC

| | |
|---|------|
| Purchasing food at SFSCs is easy to me. | 0.62 |
| If I wanted to I could easily purchase food at SFSCs. | 0.71 |
| Purchasing food at SFSCs depends entirely on me. | 0.72 |

TRUST

| | |
|--|------|
| I perceive purchasing at SFSCs to be reliable. | 0.83 |
| Purchasing at SFSCs appears trustable to me. | 0.91 |
| I trust in purchasing food at SFSCs. | 0.93 |

RESID

| | |
|---|------------|
| Which is your residential area? (urban/rural) | Fixed to 0 |
|---|------------|

FAIR-TRADE

| | |
|--|------------|
| Do you usually buy fair-trade products? (yes/no) | Fixed to 0 |
|--|------------|

BEH

| | |
|---|------------|
| How often do you usually buy at local Short Food Supply Chains (SFSCs)? | Fixed to 0 |
|---|------------|

218

219 The traditional TPB model (i.e., the one that does not consider trust as antecedent of the intention
 220 and RESID and FAIRTRADE as predictors of behaviour) shows the following good fit to the data:
 221 $\chi^2 = 35.46$, $df = 8$, $p < 0.001$; RMSEA = 0.12; CFI = 0.98; TLI = 0.82; SRMR = 0.05. Findings
 222 indicate significant effects ($p < 0.001$) of ATT ($\beta = 0.23$), SN ($\beta = 0.27$) and PBC ($\beta = 0.38$) on
 223 consumer intention to buy at SFSCs; in addition, both the intention ($\beta = .51$; $p < .001$) and PBC ($\beta =$
 224 $.13$; $p < 0.05$), show a considerable predictive power on the behaviour. Overall, 36.5% and 34.7%
 225 of INT and BEH variance is explained by this model, respectively.

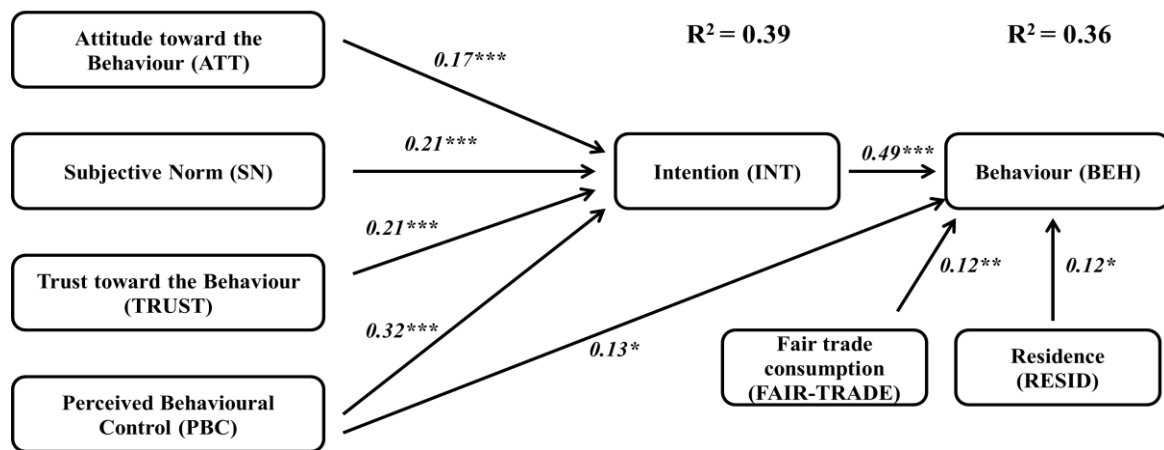
226 However, all the Goodness-of-fit statistics highlight that the extended TPB model fits the data better
 227 than the traditional one. Accordingly, $\chi^2 = 14.19$, $df = 5$, $p < 0.01$; RMSEA = 0.08;. CFI = 0.96; TLI
 228 = 0.90; SRMR = 0.03. Overall, 39.5% and 36.4% of INT and BEH variance is explained by our
 229 expanded TPB model, respectively. Standardized results show that ATT, SN, PBC and TRUST are
 230 all significant positive antecedents of intention; in particular, PBC represents the main predictor of
 231 INT ($\beta = 0.32$; $p < 0.001$), followed by TRUST ($\beta = 0.21$; $p < 0.001$), SN ($\beta = 0.21$; $p < 0.001$) and

232 ATT ($\beta = 0.17$; $p < .001$), as shown in Figure 1. Furthermore, the behaviour is significantly
 233 determined by the intention ($\beta = 0.49$; $p < 0.001$), followed by PBC ($\beta = 0.13$; $p < 0.01$), fair-trade
 234 consumption habit ($\beta = 0.12$; $p < 0.05$) and the residential area ($\beta = 0.12$; $p < 0.10$). Results show
 235 that the Chi-square difference value between the traditional TPB model and the extended TPB model is
 236 significant ($\Delta\chi^2 = 21.27$; $df = 3$; $p < 0.001$), thus the extended model is found to be significantly better than
 237 the traditional one.

238

239

Fig. 1 – Path model with standardized regression coefficients



240

241

242

243

Conclusion and Discussion

244 In order to contribute to explain the reasons why short food supply chains have largely gained
 245 ground in Italy in recent years, this paper aims at testing an extended framework of the Theory of
 246 Planned Behaviour in order to explain food purchases at SFSCs (e.g. farmers' market). In particular,
 247 this study scrutinizes the role of consumer trust. To this purpose, an online questionnaire
 248 administered to a convenience sample of Italian consumers assessed standard TPB variables (e.g.
 249 attitudes, subjective norms, perceived behavioural control, intention) and the additional trust with
 250 respect to buying food at SFSCs. Results show that TPB framework can be considered as a useful
 251 framework to understand the investigated behaviour, and especially to explain the intention that
 252 drives it.

253 Compared to the original TPB framework (that does not consider trust as an antecedent of
 254 intention), the extended model shows better goodness-of-fit statistics. All the investigated variables,
 255 as attitudes, subjective norms, perceived behavioural control and trust, reveal a positive effect on
 256 intention, explaining 48% of its variance. In particular, perceived behavioural control has the largest
 257 effect on intention, followed by trust. It follows that the easier for consumers to shop at SFSCs and
 258 the higher their trust, the higher their intention; similarly, the more consumers' attitudes are

259 positive towards SFSCs and people who are important to them (i.e. social referents as family,
260 friends) approve that they purchase in such alternative agri-food networks, the more consumers'
261 intention to perform it will increase. Furthermore, intention has a good predictive effect on
262 consumer behaviour, in line with what assessed by Kim et al. (2003) on dairy product consumption,
263 whereas it is minor than what found by Verbeke and Vackier (2005) in fish consumption. Also
264 perceived behavioural control is found to have a direct effect on behaviour. Furthermore, consumer
265 trust has no direct effect on consumer actual purchase, thus intention mediates its effect on
266 behaviour. In addition to intention and PBC, purchasing fair-trade products and living in a rural area
267 positively influence consumers' purchase at SFSCs, explaining 36% of the behavioural variance.
268 Although the explained variance related to behaviour proves to be minor than for intention, this is
269 also in line with the previously cited literature related to TPB application to food consumption
270 (Ajzen, 2015). In relation to fair-trade consumption, our findings confirm the strong connection
271 between consumers involvement and active participation in different forms of SFSCs and the
272 sustainable dimensions of their ethical consumerism (Grunert et al., 2014).

273 Based on our evidences, consumer trust is relevant when deciding where to buy food and we can
274 suppose that it might lead to positive behavioural effects when it exists. According to Holloway and
275 Kneafsey (2000), following these findings it is possible to assume that, by reinforcing consumer
276 trust towards SFSCs, people intention to purchase in such alternative networks will also increase,
277 encouraging their development in line with current sustainable trajectories of European Union for
278 the agrifood sector. As stated by many authors (Marsden et al., 2000; Trobe, 2001; Hunt, 2007;
279 Schneider, 2008; Meyer et al., 2012), trust can be established and reinforced through SFSCs' direct
280 encounters between producers and consumers, that facilitate the information exchange. Central to
281 these alternative networks are face-to-face interactions that, indeed, let consumers being more
282 informed and consequently more trusting (e.g., about food and production process), increasing
283 transparency along the food chain and reducing asymmetric information. Since trust tends to offset
284 negative perceptions associated with food purchasing decision (Ding et al. 2015), it might drive
285 loyalty and new solid relationships between producers and consumers (Hartmann et al., 2015),
286 overcoming consumer confusion and fostering SFSCs purchasing frequency and development.

287 Interestingly, in line with the literature on SFSCs, it is plausible to assume that such alternative
288 chains can successfully overtake modern consumer loss of confidence in food provision systems;
289 however, we have found trust reliability being very high and this seems to be a controversial aspect,
290 especially in case of high risks (e.g. food quality scares and scandals).

291 Although findings cannot be generalized, since the study has been conducted on Italian consumers
292 and on a consumers' sample that was not representative of the entire population, they provide some

293 novel contributions to the actual scientific debate on the role of trust in food choice and consumer
294 behaviour, in particular focusing on short food supply chains related preference. Further research
295 may be conducted to better scrutinize the role of trust by investigating, on a more representative
296 sample, the link between trust and behaviour, in order to suggest a way to overcome the existing
297 gap between intention and behaviour, as suggested by Armitage and Conner (2001).

298

299 **References**

300 Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human*
301 *Decision Process*, 50, 179-211.

302 Ajzen, I. (2015). Consumer attitudes and behaviour: the theory of planned behaviour applied to
303 food consumption decisions. *Rivista di Economia Agraria*, 70(2), 121-138.

304 Al-Swidi, A., Mohammed Rafiul Huque, S., Haroon Hafeez, M., Noor Mohd Shariff, M. (2014).
305 The role of subjective norms in theory of planned behavior in the context of organic food
306 consumption. *British Food Journal*, 116(10), 1561-1580.

307 Armitage, C.J., Conner, M. (2001). Efficacy of the theory of planned behaviour: a meta-analytic
308 review. *British Journal of Social Psychology*, 40, 471-499.

309 Banterle, A., Cavaliere, A. Ricci, E.C. (2012). Food Labelled Information: An Empirical
310 Analysis of Consumer Preferences. *International Journal on Food System Dynamics*, 3(2),
311 156-170.

312 Barbaranelli, C. (2007). Analisi dei dati. Tecniche multivariate per la ricerca psicologica e
313 sociale. Milano: Led.

314 Bentler, P.M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107,
315 238-246.

316 Browne, M.W., Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological*
317 *Methods Research*, 21, 230-258.

318 Carfora, V., Caso, D., Conner, M. (2016). The role of self-identity in predicting fruit and
319 vegetable intake. *Appetite*, 106, 23-29.

320 Cook, A.J., Kerr, G.N., Moore, K. (2002). Attitudes and intentions towards purchasing GM food.
321 *Journal of Economic Psychology*, 23, 557-572.

322 Ding, Y., Veeman, M.M., Adamowicz, W.L. (2015). Functional food choices: Impacts of trust
323 and health control beliefs on Canadian consumers' choices of canola oil. *Food Policy*, 52, 92-98.

324 DuPuis, E.M. (2000). Not in my body: BGH and the rise of organic milk. *Agriculture and*
325 *Human Values*, 17, 285-295.

326 Forbes, S.L., Cohen, D.A., Cullen, R., Wratten, S.D., Fountain, J. (2009). Consumer attitudes
327 regarding environmentally sustainable wine: an exploratory study of the New Zealand
328 marketplace. *Journal of Cleaner Production*, 17(13), 1195-1199.

329 Forssell, S., Lankoski, L. (2015). The sustainability promise of alternative food networks: an
330 examination through “alternative” characteristics. *Agriculture and Human Values*, 32(1), 63-75.

331 Frewer, L.J., Howard, J.C., Hedderley, D., Shepherd, R. (1996). What Determines Trust in
332 Information About Food-Related Risks? Underlying Psychological Constructs. *Risk Analysis*,
333 16(4), 473-486.

334 Giampietri, E., Finco, A., Del Giudice, T. (2015). Exploring consumers’ attitude towards
335 purchasing in short food supply chains. *Quality - Access to Success*, 16(1), 135-141.

336 Giampietri, E., Koemle, D., Yu, X., Finco, A. (2016a). Consumers’ Sense of Farmers’ Markets:
337 Tasting Sustainability or Just Purchasing Food?. *Sustainability*, 8(11), 1157.

338 Giampietri, E., Finco, A., Del Giudice, T. (2016b). Exploring consumers’ behaviour towards
339 short food supply chains. *British Food Journal*, 118(3), 618 - 631.

340 Goodman, D. (2004). Rural Europe Redux? Reflections on Alternative Agro-Food Networks and
341 Paradigm Change. *Sociologia Ruralis*, 44 (1), 3-16.

342 Grebitus, C., Steiner, B., Veeman, M. (2015). The roles of human values and generalized trust on
343 stated preferences when food is labeled with environmental footprints: Insights from Germany.
344 *Food Policy*, 52, 84–91.

345 Grunert, K.G. (2005). Food quality and safety: consumer perception and demand. *European*
346 *Review of Agricultural Economics*, 32(3), 369-391.

347 Grunert, K. G., Hieke, S., Wills, J. (2014). Sustainability labels on food products: consumer
348 motivation, understanding and use. *Food Policy*, 44, 177-189.

349 Hartmann, M., Klink, J., Simons, J. (2015). Cause related marketing in the German retail sector:
350 Exploring the role of consumers’ trust. *Food Policy*, 52, 108-114.

351 Hobbs, J.E., Goddard, E. (2015). Consumers and trust. *Food Policy*, 52, 71–74.

352 Holloway, L., Kneafsey, M. (2000). Reading the Space of the Framers’ Market: A Case Study
353 from the United Kingdom. *Sociologia Ruralis*, 40, 285–299.

354 Hu, L., Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis:
355 Conventional criteria versus new alternatives. *Structural Equation Modeling: a Multidisciplinary*
356 *Journal*, 6(1), 1-55.

357 Hunt, A.R. (2007). Consumer interactions and influences on farmers’ market vendors.
358 *Renewable Agriculture and Food Systems*, 22, 54-66.

359 Ilbery, B., Maye, D. (2005). Food supply chains and sustainability: evidence from specialist food
360 producers in the Scottish/English borders. *Land Use Policy*, 22(4), 331-344.

361 Kim, K., Reicks, M., Sjoberg, S. (2003). Applying the theory of planned behavior to predict
362 dairy product consumption by older adults. *Journal of Nutrition Education and Behavior*, 35(6),
363 294-301.

364 Kirwan, J. (2004). Alternative strategies in the UK agro-food system: interrogating the alterity of
365 farmers' markets. *Sociologia Ruralis*, 44(4), 395-415.

366 Kirwan, J. (2006). The interpersonal world of direct marketing: Examining conventions of
367 quality at UK farmers' markets. *Journal of Rural Studies*, 22, 301-312.

368 Kneafsey, M., Venn, L., Schmutz, U., Balázs, B., Trenchard, L., Eyden-Wood, T., Bos, E.,
369 Sutton, G., Blackett, M. (2013). Short Food Supply Chains and Local Food Systems in the EU. A
370 State of Play of their Socio-Economic Characteristics, Ipts-Jrc Report, EUR 25911. Available on
371 line at: <http://ftp.jrc.es/EURdoc/JRC80420.pdf>. ISBN 978-92-79-29288-0. doi:10.2791/88784.

372 Lassoued, R., Hobbs, J.E. (2015). Consumer confidence in credence attributes: The role of brand
373 trust. *Food Policy*, 52, 99-107.

374 Lobb, A.E., Mazzocchi, M., Traill, W.B. (2007). Modelling risk perception and trust in food
375 safety information within the Theory of Planned Behaviour, *Food Quality and Preference*, 18,
376 384-395.

377 Louis, W., Davies, S., Smith, J., Terry, D. (2007). Pizza and pop and the student identity: the role
378 of referent group norms in healthy and unhealthy eating. *The Journal of Social Psychology*, 147,
379 57-74.

380 Marino, D., Cicatiello, C. (2012). I Farmers' Market: La Mano Visibile del Mercato. Aspetti
381 Economici, Sociali e Ambientali delle Filiere Corte; Franco Angeli: Milan, Italy.

382 Marsden, T., Banks, J., Bristow, G. (2000). Food Supply Chain Approaches: exploring their Role
383 in Rural Development. *Sociologia Ruralis*, 40(4), 424-438.

384 Mazzocchi, M., Lobb, A., Traill, W.B., Cavicchi, A. (2008). Food scares and trust: a European
385 study. *Journal of Agricultural Economics*, 59(1), 2-24.

386 Meyer, S.B., Coveney, J., Henderson, J., Ward, P.R., Taylor, A.W. (2012). Reconnecting
387 Australian consumers and producers: identifying problems of distrust. *Food Policy*, 37(6), 634-
388 640.

389 Migliore, G., Schifani, G., Cembalo, L. (2015). Opening the black box of food quality in the
390 short supply chains: effects of conventions of quality on consumer choice. *Food Quality and*
391 *Preference*, 39, 141-146.

392 Mundler, P., Laughrea, S. (2016). The contributions of short food supply chains to territorial
393 development: A study of three Quebec territories. *Journal of Rural Studies*, 45, 218-229.

394 O’Kane, G., Wijaya, S.Y. (2015). Contribution of Farmers’ Markets to More Socially
395 Sustainable Food Systems: A Pilot Study of a Farmers’ Market in the Australian Capital
396 Territory (ACT), Australia. *Agroecology and Sustainable Food Systems*, 39, 1124-1153.

397 Parker, G. (2005). Sustainable Food? Teikei, Co-Operatives and Food Citizenship in Japan and
398 the UK; University of Reading: Reading, UK.

399 Renting, H., Marsden, T. K., Banks, J. (2003). Understanding alternative food networks:
400 exploring the role of short food supply chains in rural development. *Environment and Planning*,
401 35(3), 393-411.

402 Schneider, S., (2008). Good, Clean, Fair: The Rhetoric of the Slow Food Movement. *College*
403 *English*, 70, 384-402.

404 Smith, J.R., Terry, D.J., Manstead, A.S., Louis, W.R., Kotterman, D., Wolfs, J. (2008). The
405 attitude-behavior relationship in consumer conduct: the role of norms, past behavior, and self-
406 identity. *The Journal of Social Psychology*, 148, 311-334.

407 Thorsøe, M., Kjeldsen, C. (2016). The Constitution of Trust: Function, Configuration and
408 Generation of Trust in Alternative Food Networks. *Sociologia Ruralis*, 56, 157–175.

409 Toler, S., Briggeman, B.C., Lusk, J. L., Adams, D.C. (2009). Fairness, farmers markets, and
410 local production. *American Journal of Agricultural Economics*, 91(5), 1272-1278.

411 Tregear, A. (2011). Progressing knowledge in alternative and local food networks: Critical
412 reflections and a research agenda. *Journal of Rural Studies*, Subjecting the Objective-
413 Participation, *Sustainability and Agroecological Research*, 27, 419-430.

414 Trobe, H.L. (2001). Farmers’ markets: consuming local rural produce. *International Journal of*
415 *Consumer Studies*, 25, 181-192.

416 Tucker, L.R., Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis,
417 *Psychometria*, 38, 1-10.

418 Verbeke, W., Vackier, I. (2005). Individual determinants of fish consumption: application of the
419 theory of planned behavior. *Appetite*, 44(1), 67-82.