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Consumer satisfaction in Alternative Food Networks (AFNs): Evidence from Northern Italy

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ABSTRACT

The emergence of Alternative Food Networks (AFNs) has drawn the attention of researchers from various fields, who try to understand and explain these new phenomena. The purpose of this paper is to explore how personal attitude and product quality perception influence relative satisfaction over participation in AFNs, therefore contributing to the literature on socially conscious consumerism. Structural Equation Modeling is used to investigate the determinants of consumers' attitudes towards AFNs, its influence on perceived quality of food products, and their relative influence over satisfaction with participation in AFNs. A survey was conducted among 210 AFN participants. The results from this study suggest that consumers' attitude towards AFNs directly influences the perceived quality of food products; moreover, the analysis confirms the relationship between these two elements and overall satisfaction with participation in AFNs. Finally, the research provides suggestions on how to improve consumers' involvement and mainstream AFNs.

1. Introduction

During the last two decades, rising concerns over sustainability and environmental issues among society have pushed the adoption of new, alternative approaches to consumption. This is particularly true in the case of food choice, as a growing number of concerned consumers tries to consider local and global impacts of their daily consumption routines. In recent years, the emergence of Alternative Food Networks (AFNs) has drawn the attention of researchers from various fields, who try to understand and explain these new phenomena. The AFN label refers to a variety of 'post-productivist' market arrangements which offer an alternative to industrial food systems (Renting et al., 2003). The AFN category includes farmers' markets, through which farmers directly sell their products to consumers; buying groups and box schemes, as the Solidarity Purchase Groups (Gruppi di Acquisto Solidale – GAS) in Italy; Community Supported Agriculture (CSA), through which consumers support local farmers and share risks and benefits of food production. These organisational forms are characterised by short supply chains; direct links between producers and consumers, and among consumers themselves; existence of alternative food purchasing venues; commitment to sustainability in food production, distribution, and consumption (Favilli et al., 2015; Galli et al., 2015). The AFN phenomenon is on the rise in North America and Europe, (Morgan,

2015), and is booming in Italy in particular, as a consequence of governmental strategies for the adoption of agricultural multifunctionality. (Feola and Butt, 2017; Migliore et al., 2015).

The research on AFNs focuses mainly on the ethical consumption, rural development, and supply chain perspectives (Pascucci et al., 2016). The first research area explores political and ethical commitment of critical consumers: in this sense, AFNs act as tools for citizens to raise awareness on environmental issues, reduce the impact of food consumption, preserve biodiversity, and support local rural communities (Blasi et al., 2015). Secondly, the rural development stream focuses on the opportunity for small and medium sized farms to diversify and stabilize income, hence generating positive spillovers for rural and urban communities; moreover, the embeddedness of agricultural activity into local cultures and economies is often cited as the key to new food systems based on sustainable landscape and resource management (Brunori and Rossi, 2007). Third, the organisational perspective studies how new coordination mechanisms emerge and shorten the food supply chain through the means of trust and cooperation between consumers and producers (Galli et al., 2015).

By contributing to the literature on ethical consumerism and consumer perspective in AFNs (Tregear, 2011), this paper aims at exploring how personal attitude towards AFNs, together with food product quality perception, affects consumers' relative satisfaction. Existing

literature in consumer studies focuses on direct linkages among attitude towards a given phenomenon and expected quality, or between expected quality and satisfaction. The broader approach here presented grants new insights and contributes to the comprehension of the phenomenon of AFN participation. A questionnaire survey was conducted among consumers participating in various forms of AFN, to elicit three main latent constructs. The proposed conceptual model, and the relationship's hypotheses, were tested using Structural Equation Modeling. One of the key advantages of structural equation models lies in the chance to estimate not only direct effects, but also indirect effects among latent constructs (Bollen and Liang, 1989). The results shed light on consumers' psychological dynamics in AFN participation. The conclusion discusses the implications of the results, in detail how our findings could be used to promote consumers' involvement in AFNs, as well as improve participating farmers' communication and engagement strategies.

2. Conceptual background

The complex phenomenon of consumer participation in AFNs was examined and measured in reference to the three main conceptual constructs of attitude, perceived product quality, and satisfaction over participation. More in detail, the hypothesized relationships among the three constructs, and relative items, were measured with a questionnaire survey and tested using a Structural Equation Model (SEM).

2.1. Attitude towards AFNs

Consumer attitude towards a given behavior or a product is one of the determinants of purchasing intention, which in turn is a good predictor of actual purchasing behavior (Ajzen, 1991). In consumer behavior research, the 'Attitude' construct refers to a personal, either positive or negative, predisposition towards a product or a brand, and it includes personal beliefs, feelings, and intentions of the consumer (Huang et al., 2004). In the case of food choice, recent studies confirm the positive correlation between attitude and intention to buy (Savelli et al., 2017). Çabuk et al. (2014) demonstrate that attitude toward organic food acts as a mediating variable on health consciousness and environmental concern in food choice. In this research, the items used to measure this construct were selected according to the survey by Archer et al. (2003) on consumers' attitude to farmers' markets in North West England.

2.2. Perceived product quality

Literature on consumer quality perception and its multidimensional nature is broad and well developed. In the case of food choice, when evaluating quality, consumers consider both intrinsic and extrinsic product features. Intrinsic attributes refer to physical aspects of the product, e.g. colour, flavour, freshness; conversely, extrinsic features are embedded in the product but not in its physical part, as for example price, branding, origin (Espejel et al., 2007). Quality assessment hence depends on both objective and subjective elements. In the case of search goods, quality can easily be assessed prior to purchase; experience goods, on the contrary, present characteristics which are difficult to observe in advance; finally, credence goods do not directly convey information to consumers (Caswell and Mojuduszka, 1996). Even though AFN participants share basic traits with mainstream consumers (Le Velly and Dufeu, 2016), when evaluating product quality they put an emphasis on elements which are not directly linked to the satisfaction of basic needs, but respond to personally and socially desirable features, such as limited environmental impact, ethical attributes, and geographical origin of the evaluated product (Migliore et al., 2015). We measured the 'Perceived Product Quality' construct using items drawn from Hansen (2005), with the inclusion of additional items specifically related to the AFN shopping experience, identified in the survey by Archer et al. (2003).

Satisfaction – The concept of consumer satisfaction constitutes the link between purchasing and post-purchasing behaviors, and one of the drivers of attitude change and brand loyalty (Churchill and Surprenant, 1982). The link between satisfaction and repurchase behavior seems to be clear and sound: an increase in satisfaction should push consumers to buy again a given product (Chang et al., 2014). However, the complexity of the concept implies a less straightforward relationship: Nuttavuthisit and Thøgersen (2017) demonstrate that, besides the mere physical and sensorial experience, trust plays a major role in driving organic food choice; moreover, additional elements such as perceived switching costs and lack of attractive alternatives may alter the judgement of consumers (Aydin et al., 2005). According to Kannan (2017), satisfaction reflects consumers' happiness with an item or a service, with respect to the elements which constitute value for the consumers themselves. Subsequently, we measured this construct referring to relative satisfaction over the reasons which led consumers to participate in AFNs.

3. Research hypotheses

Starting from these premises, this study proposes a theoretical model to analyze the relationships between the three latent constructs. Three hypotheses, based on the existing literature, were developed to study psychological dynamics in consumers' participation in AFNs. Fig. 1 graphically represents the theoretical framework, depicting the proposed causal relationships among attitude towards AFNs, perceived product quality, and satisfaction.

Given the measurement scale described for each latent construct, we propose the following hypotheses:

Hypothesis 1. (H1): *The attitude of consumers towards Alternative Food Networks (ATTAFN) positively affects perceived quality (PQ) of products from AFNs.* Existing literature suggests that individual, cultural, and social factors influence consumers' opinion on product quality prior to purchase (Issanchou, 1996). This is true also in the case of ethically and environmentally concerned consumers, who ascribe superior attributes to ethical and green food products, in terms of healthiness, taste, and sustainability (Thøgersen et al., 2015). Hence, this hypothesis will test the influence of positive attitude towards AFNs on expectations on the quality of AFN-sourced products: in other words, how, and how much, consumers' specific environmentally friendly and ethically concerned beliefs and behaviors contribute to a *a priori* opinion on food products, which are expected to comply with their regulatory focus.

Hypothesis 2. (H2): *The perceived quality (PQ) of products from AFNs has a significant impact on consumers' Satisfaction (SAT).* Several studies in different contexts confirm the direct relationship between perceived product quality and satisfaction (Ažman and Gomišček, 2015; Saleem et al., 2015). As a deduction, according to extant literature, the relationship between consumers' perception of AFN food product
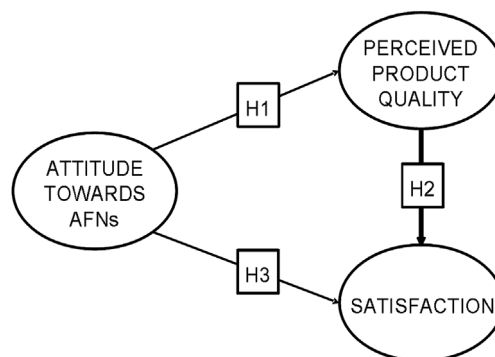

Fig. 1. The proposed model.

quality and the evaluation of satisfaction on consumption experience is expected to be positive and significant.

Hypothesis 3. (H3): *The attitude of consumers towards Alternative Food Networks (ATTAFN) has a significant impact on satisfaction (SAT)*. As explained in the previous section, consumers' evaluation of certain product features is not always straightforward nor necessarily objective and rational: the evaluation of satisfaction over credence goods in particular may easily be influenced or distorted by individual beliefs, as a consequence of confirmation biases. A review by Fernqvist and Ekelund (2014) on the influence of credence on consumers' appreciation of food products confirms that expectations on credence features, such as healthiness, local origin, sustainability, and ethics, have an impact on quality evaluation and sensory experience. Hence, it is expected that the attitude towards AFNs affects the evaluation, hence satisfaction, of features and quality of food sourced from AFNs.

4. Data and research methodology

A questionnaire was administered to different types of ethical consumers to gather information and data. The structure of the questionnaire follows the aforementioned conceptual background and research hypotheses. Attitude towards AFNs, perceived product quality, and consumer satisfaction were measured through 5-point Likert scales. Respondents were asked to rate the importance of selected items, presented in the literature on ethical and sustainable consumerism (Balderjahn et al., 2013; Chih-Ching and Yuh-Mei, 2015; Franco and Marino, 2012; Aertsens et al., 2009). The first section, adapted from Archer et al. (2003), explored consumers' personal and shopping habits conventionally related to AFN participation. The second and third sections reflected the two constructs of perceived quality and satisfaction over AFN products, as in Archer et al. (2003) and Hansen (2005). In detail, we inquired on the expectations, in terms of sensory (freshness, safety, taste) and intrinsic attributes (such as local origin, ethical aspects, low environmental impact), and *ex post* satisfaction over these same items.

In order to obtain a snapshot of the multifaceted Italian AFN phenomenon (Fonte and Cucco, 2016), a convenience sample of consumers participating in different AFN initiatives, namely, a community supported agriculture initiative (CSA), farmers' markets, and *Gruppi di Acquisto Solidale* (Ethical Purchase Groups, EPGs), was selected. In total, 210 complete and usable questionnaires were collected between March and May 2016 in the *Friuli Venezia Giulia* region, in the North East of Italy: 57 were administered to the *Patto della Farina* (*i.e.* the 'Flour Agreement') participants, 84 to buying groups affiliates, and 69 to farmers' market customers. Consumers were either directly contacted, in the Patto della Farina and buying groups cases, or randomly selected at farmers' markets, in the provinces of Udine, Gorizia, and Trieste, which coincide with the geographical space of the Patto della Farina initiative. The decision to limit the geographical space of the research reflects the presence, within the mentioned area, of the three main models of AFN: short food supply chains, ethical purchase groups, and farmers' markets.

4.1. The Patto della Farina initiative

The Patto della Farina, i.e. Flour Agreement, is a local CSA initiative localised in the eastern area of Friuli Venezia Giulia, which aims at changing social and market relationships among consumers and producers. In 2014 the local *Forum per I Beni Comuni* (*i.e.* 'Forum for the Commons'), an association which promotes ethical economies and environmental consciousness, supported the creation of an agreement between two local farmers, a miller, a baker, and a group of concerned consumers, for the production and transformation of organic flour and bread from ancient wheat varieties. At the beginning of the crop year, producers and consumers negotiate a fair price for the products, with

the first transparently presenting production costs, and the latter committing to buy at least 10 kg of flour per family along the year; in this phase consumers pay in 10% of their total expense, as a liquidity base for producers. During the year, consumers are periodically updated on the production, and get to visit the wheat fields and participating businesses; they share the entrepreneurial risk and build relationships among them and with the producers. On the point of view of the consumers, the personal and economic commitment is counterbalanced by the warranty of high-quality food products sold at competitive prices; conversely, committed entrepreneurs gain access to alternative and more remunerative markets. On a broader extent, this system generates positive externalities in terms of opportunities for local development, protection of rural communities, biodiversity and landscape preservation, and an overall contribution to community resilience.

4.2. Gruppi di acquisto solidale

Italian EPGs are local organisations, with various degrees of structuration and formalisation, through which consumers organize and coordinate their buying decisions according to a set of shared values and criteria. EPGs ground collective consumption on shared ethical values, which may vary from social justice to environmentally friendly behaviours. The first EPGs date back to mid-1990's, even though they have become more popular and widespread during the last decade. In general, the aim of EPGs is to create social links among their affiliates, and between them and the EPG suppliers, which are chosen according to their compliance with the standards defined by the EPG participants. Compared to conventional buying groups, EPGs look not only for economic convenience, as they heavily stress the role of solidarity principles and political action of their activities and buying decisions (Graziano and Forno, 2012). Representatives of all the seven EPGs in the provinces of Gorizia, Udine, and Trieste were contacted to forward the survey to their respective EPG members for voluntary participation in this study; however, responses from only four of the local EPGs were received.

4.3. Farmers' markets

The diffusion of local food movements in 1990's pushed the rebirth of the old, and apparently dead, model of farmers' market as places where consumers could source locally grown food directly from producers, in response to global supply chains and large-scale retail trade. Consumers choose farmers' markets for different reasons: to reduce food miles, promote local and rural development, reward local farmers who adopt sustainable farming practices, source local food varieties. On the costumers' side, farmers' markets offer a unique shopping experience and satisfy their demand for local, fresh, and healthy food; on the supply side, farmers have the chance to integrate their income, avoid intermediaries, and be aware of their consumer profile and desires (Dodds et al., 2013). Our study area provides different models of farmers' markets: besides individual agricultural entrepreneurs who directly sell their products at local street markets, the *Campagna Amica* and *Mercato della Terra* markets represent two more structured initiatives. Campagna Amica Foundation is part of the network of *Coldiretti*, Italy and Europe's largest farmers' union, and counts 312 farmers' markets in Italy, ten of which in the study area. Slow Food Foundation counts 36 Mercati della Terra in Italy, only one of which in our study area. Both Campagna Amica and Mercato della Terra provide local farmers with venues to sell their own local food products, but in turn participants must comply with the Foundations' policies, including the adoption of fair labour practices and prices, high food quality standards, and sustainability of production practices.

Table 1 presents a summary of social and demographic characteristics of the sample. The geographical distribution of the population shows a prevalence of urbanised consumers, with 58.1% of the sample

Table 1
Characteristics of the sample (N = 210).

Characteristics	Classes	%
Gender	Female	71,9
Age (years)	18–24	0,48
	25–34	14,29
	35–44	21,43
	45–54	27,62
	55–64	19,52
	≥65	16,67
Education	Primary school	3,33
	Lower seconday school	8.57
	High school	44,76
	University	31,90
	Post-graduate	11,43
Size of the household (individuals)	1	7,62
	2	35,71
	3	25,71
	≥4	30,95
Family income (.000 €) (x)	x < 15	13,81
	15 < x < 28	43,81
	28 < x < 55	35,71
	55 < x < 75	4,76
	x > 75	1,9
Size of the residential community (y = inhabitants)	y < 30000	56,19
	y > 30000	43,81

Table 2
Reliability and AVE of Latent Constructs.

Constructs and items	labels	Mean	S.D.	λ	α	AVE
Attitude towards AFNs (ξ)	ATTAFN				0,74	0,52
Importance of the geographical origin of food	AFN1	4,38	0,93	0,78		
Importance of food safety	AFN2	4,25	0,97	0,86		
Frequency of purchase of local grown food	AFN3	3,68	1,08	0,47		
Perceived product quality (η_1)	PQ				0,79	0,45
Expected overall quality	PQ1	4,37	0,87	0,62		
Importance of taste	PQ2	4,23	0,87	0,62		
Importance of organic production method	PQ3	4,03	1,19	0,59		
Importance of local origin	PQ4	4,63	0,72	0,72		
Importance of ethical content	PQ5	4,67	0,69	0,72		
Satisfaction (η_2)	SAT				0,89	0,55
Overall quality	SAT1	4,43	0,70	0,74		
Taste	SAT2	4,56	0,74	0,73		
Organic production method	SAT3	4,26	0,98	0,64		
Local origin	SAT4	4,66	0,69	0,72		
Food Freshness	SAT5	4,67	0,69	0,79		
Ethical commitment	SAT6	4,45	0,87	0,74		
Low environmental impact	SAT7	4,30	0,89	0,80		

living in the cities, and 41.9% coming from smaller towns and rural areas. The subgroups describe slightly differentiated trends: a large majority (83.3%) of buying group affiliates lives in small municipalities; farmers' market customers reflect the overall sample distribution; half of the Patto della Farina affiliates live in the main cities of the area.

Patto della Farina participants appear younger on average, in particular if compared to farmers' market customers. Critical consumers are generally well educated: almost half of the participants own a high school diploma, a third are graduated and more than 10% of the sample attended post graduate education: the figures appear interesting if compared to national educational trends, as less than 15% of Italians own a university degree, and postgraduates are extremely rare (ISTAT, 2015). Among the subgroups, higher levels of education emerge among the buying groups and *Patto della Farina* affiliates. Income distribution is homogeneous among the subgroups, with most respondents being part of the middle class.

Data analysis was carried out at first by assessing the measurement models, via Confirmatory Factor Analysis (CFA), which defines whether the latent variables were correctly measured. Thereafter, the proposed hypotheses were tested using a structural equation model, as this method is more suitable to make explicit the structure of causal relationships among latent variables (Cohen et al., 1990).

The CFA for each measurement model was estimated using maximum likelihood to identify the three latent constructs. Standardized factor loadings of each measurement item (λ), reliability (Cronbach's α coefficient) and average variance extracted (AVE) for each latent factor are presented in Table 2, together with basic summary statistics.

The Cronbach's alpha (α) of each construct is above the general threshold of 0.70, which indicates a high level of reliability or internal consistency in the measurement items (Nunnally, 1994). The AVE for each construct is above or very close to the cut-off point of 0.50, which suggests convergent validity (Hair et al., 2010). The CFA results indicate that the measurement models and its associated measurement items are valid and reliable. It is possible to proceed with the formal implementation of the structural model and testing of the hypotheses. The specification of the SEM was composed of three equations:

$$y = A^y \eta + \varepsilon; \tag{1}$$

$$x = A^x \xi + \delta \tag{2}$$

$$\eta = B\,\eta + \Gamma\,\xi + \zeta; \tag{3}$$

Equations (1) and (2) are measurement models, which tie the constructs to observable indicators. The p x 1 vector "y" contains the measures of the endogenous constructs η_n, and the q x 1 vector "x" consists of the measures of the exogenous indicators ξ_n. The coefficient matrices A^y and A^x show how y relates to η and x relates to ξ, respectively. The vectors of disturbances ε and δ represent errors in variables (or measurement error). Equation (3) is called structural model and expresses the hypothesized relationships among the constructs in conceptual framework. The m x 1 vector η contains the latent endogenous constructs and the n x 1 vector ξ consists of the latent exogenous constructs. The coefficient matrix B shows the effects of endogenous constructs on each other, and the coefficient matrix Γ signifies the effects of exogenous on endogenous constructs. The vector of disturbances ζ represents errors in equations. Generally (but not always) the measurement model possesses simple structure such that each observed variable is related to a single latent variable.

The SEM was implemented with Linear Structural Relationships (LISREL), using the LISREL 9.1 software (Joreskog and Sorbom, 2012). The fit indexes of the proposed model are introduced in order to verify how well the hypothesized model reproduces the observed covariance matrix, using the Goodness of Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI), both proposed by Joreskog and Sorbom (2001), and incremental fit indexes: the Normed Fit Index (NFI) proposed by Bentler and Bonnet (1980), the Comparative Fit Index (CFI), proposed by Bagozzi (1992) and the Root Mean Square Error of Approximation (RMSEA), proposed by Browne and Cudeck (1993). The proposed fit indexes are summarised in Table 3.

5. Results

The results indicate a good fit between the model and observed data and allow analysis of the assumptions of the hypotheses. Table 4 provides the path coefficient standardized estimates and corresponding t-values of the main direct effects. The existence of direct causal effects among the latent variables ATTAFN, PQ and SAT, is supported by the fit indexes from the SEM analysis. The incremental fit indexes provide an

Table 3
Main indexes of model fitting.

Global fit indexes	Value	gdl
GFI	0,83	
AGFI	0,80	
NFI	0,90	
CFI	0,92	
RMSEA (Test of Close Fit)	0,08	
χ2	565,41	87

Table 4
Direct effects among constructs.

Hypothesis	Estimate (*Standardized* γ)	s.e.	t
Direct effects			
(H1) ATTAFN→PQ	0,68	0,07	6,69
(H2) PQ→SAT	0,64	0,12	5,32
(H3) ATTAFN→SAT	0,19	0,07	1,93
Indirect effect (mediated via PQ)			
ATTAFN→SAT	0,43		

indication of the good adaptation of the conceptual model: 0.90 for NFI and 0.92 for the CFI. The goodness of fit of the model is also confirmed by the analysis of the indexes of the residues. Shifting attention to the RMSEA the value of 0.08 is an acceptable indicator of adaptation.

According to the results, H1 and H2 are strongly supported, while H3 is close to be rejected. The relationship between attitude of consumers towards AFNs (ATTAFN) and perceived quality (Q) of products is significant ($\gamma = 0.68$, $t = 6.69$), supporting H1. At the same time, perceived quality (PQ) of products from AFN, positively affects customer satisfaction ($\beta = 0.64$, $t = 5.32$). The effect of attitude towards AFNs (ATTAFN) on satisfaction appears to be almost irrelevant ($\gamma = 0.19$, $t = 1.93$), while the indirect effect mediated by PQ seems to be more pronounced. Fig. 2 presents the path analysis with the standardized estimates of causal relationships between latent constructs and their indicators.

The results of hypothesis testing specifically depict the responsivity of consumers to product quality: a positive attitude towards AFNs affects consumers' expectations over product quality and features, as supposed in H1; however, the limited statistical significance of H3 suggests that these expectations do not lead to judgment suspension. In fact, consumers who participate in AFNs build up expectations over precise product features which may satisfy their demand for search, experience, and credence goods, but in the end judgment and loyalty heavily depend on the experience, which in turn shapes consumers' satisfaction, as confirmed by H2.

6. Discussion and conclusions

The results from this study suggest that consumers' attitude towards AFNs directly influences the perceived quality of food products; moreover, the analysis confirms the relationship among these two elements and the overall satisfaction with the participation in AFNs, though highlighting the primary role of perceived product quality in the process of expectation formation. Given the nature of credence goods, however, the consumption experience is not sufficient by itself to evaluate satisfaction over intangible features, such as ethical attributes, local origin of food, and effective adoption of organic farming. Even though participation in AFNs implies indirect costs for consumers –namely, organizing, monitoring, and transaction costs (Cembalo et al., 2015), the rewards from intangibles may compensate these efforts (Holloway et al., 2016). This confirms the importance of the relationship between consumers and producers in building trust, commitment, and loyalty (Papaoikonomou and Ginieis, 2017; Sage, 2003). This information is of particular interest for producers who participate in AFNs, as, on the contrary, economic sustainability of their initiative is not granted, since much of their work is often unpaid or volunteer (Galt, 2013).

This research contributes to shed light on the correspondence between what constitutes value for consumers and their relative satisfaction. Given the essential roles of trust and direct relationships among the actors, the results suggest useful indications and managerial implications which might promote consumers' participation and improve farmers' communication strategies. With respect to AFN consumers, the seek for credence goods in food products raises the need for producers to effectively communicate intangible features, such as their social and environmental commitment, which could hardly be experienced and evaluated otherwise. These considerations find support in the literature on food choice: Hsu and Chen (2014) demonstrate that framing communication to be coherent with consumers' regulatory focus positively influences their purchase intention toward organic food; similarly, Teng and Wang (2015) confirm the importance of the adoption of alternative communication channels to provide customers with correct and reliable information over organic food and production methods.
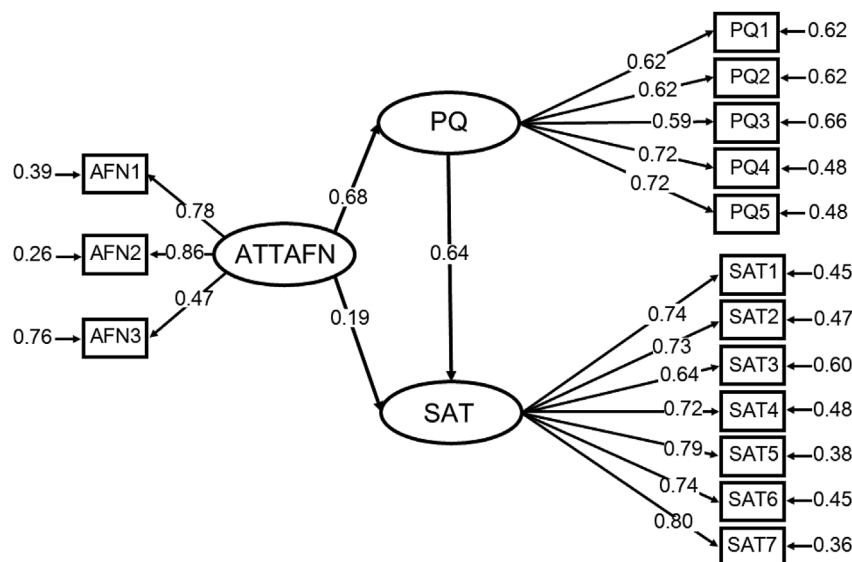

Fig. 2. Path analysis of the proposed model.

In practical terms, the results may support the adoption of alternative, participatory guarantee systems (PGS). In fact, PGSs may provide structural support to AFN initiatives and promote rationalization and sustainability in local food systems (Nelson et al., 2016). Being grounded on collective action, mutual learning, and relationship building, PGSs may foster consumer trust, and at the same time reduce indirect and bureaucratic costs for producers, as indicated in previous studies (Nigh and González Cabañas, 2015; Sacchi et al., 2015).

While this study focuses on a specific category of consumers, already sensitive to certain topics and issues, a generalization of the results should target conventional consumers as well. Future work will focus on traditional consumers' attitudes towards AFNs: a clear understanding of consumers' priorities, their interest over intangible features of food products, and the relative influence on consumption behaviors, is mandatory to develop efficient strategies to mainstream AFNs.

Further research on perceived quality assessment is desirable to extend our knowledge of customer satisfaction over AFN affiliation. Notwithstanding the limitations of our study in terms of sample size and composition, the analysis contributes to the rural and social science literature by attempting to empirically measure the social and economic effectiveness of AFN involved farmers' consumer engagement strategies.

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