Innovativeness in food small business: What is its relationship with marketing?

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Abstract: Small businesses often do not have a sufficient capacity to put the appropriate R&D activities into action. Nevertheless, they are able to be innovative towards their products, processes, distribution channels, and geographical markets. Therefore, even for small and medium-sized enterprises (SMEs), the level of innovativeness can be high. The literature shows that the firm marketing capabilities are very important for innovation in the food industry, to guarantee that innovation reflects the market needs. The purpose of this paper is to analyse the relationship between the level of firm innovativeness and different steps of the marketing management process, to understand if good marketing capabilities can affect the firm innovativeness. An interactive questionnaire available on the web was used for the data collection. The survey was conducted on 468 European SMEs. Linear Regression was run to assess the link between marketing activities and the level of firm innovativeness. Our empirical analysis reveals that the SME marketing capabilities show significant and positive relationships with firm innovativeness.

Key words: traditional food products, innovation, marketing management capabilities, linear regression model

Innovation represents a source of competitive advantage for firms, allowing them to face the growing competition in both national and international markets. Over the last ten years in the food industry, product innovation has played a crucial role in meeting the changes in the pattern of demand, which has become oriented towards the product quality attributes. Such innovation includes healthy attributes, sensory characteristics, convenience features, and new formats for traditional and specialty products.

At the same time, process and organizational innovations allow firms to enhance efficiency and to reduce production costs, enabling them to increase their competitive performance. Indeed, the capacity to innovate is a key way for firms wanting to preserve and improve their competitive position in the market (De Jong et al. 2004; Laforet and Tann 2006; Capitanio et al. 2010).

Alongside the product, process and organizational innovation, in the food industry an innovative conduct of firms is playing a relevant role connected to new commercial solutions, such as the new distribution channels and new geographical markets. Therefore, to consider also this issue in our analysis, we use the concept of innovativeness.

Small businesses, which are the majority of European food firms (Spillan and Parnell 2006); do not often possess sufficient capacities to put into action the appropriate R&D activities to create new products. Nevertheless, such firms can carry out an innovative conduct of their products, processes, distribution channels and geographical markets. Therefore, the level of innovativeness could be high also for small and medium-sized enterprises (SMEs).

In the food sector, the innovativeness of SMEs should be oriented to satisfy the consumer preferences. Thus, the more a firm is market oriented, the more it is able to develop a successful innovative conduct.

As marketing is the firm function closest to the market environment, firm marketing capabilities are important in complying with changing consumer preferences and supporting the development of appropriate innovations, in order to allow the increasing competition to be faced (Traill and Grunert 1997; Hughes 2009).

The purpose of this paper is to understand whether there is a significant relationship between marketing capabilities and the SME innovativeness level, thus evaluating the ability of SMEs to adapt their strategies to market changes.

The paper was carried out within the research project "Traditional United Europe Food" (TRUEFOOD), which is an Integrated Project financed by the European Commission under the 6th Framework Programme for RTD.

A self registered interactive questionnaire was developed, and published on the web in order to collect data across the European SMEs. The objective of the questionnaire is to assess the traditional food SME marketing capabilities and innovativeness capacity. A sample of 468 European firms was used in the analysis. This paper lies within the context of a European research project.

The paper is organised as follows: the economic framework is reported in the next section; then, the methodology is outlined, followed by the analysis of the results; finally, concluding remarks are set down.

ECONOMIC FRAMEWORK

Innovativeness in food SMEs

The current literature shows that the way SMEs often take to survive and grow in the market is to introduce new ideas, products and processes (Wagner and Hensen 2005; De Jong and Marsili 2006). Innovativeness is a strategic tool for firms aiming at maintaining their competitiveness in the marketplace. Moreover, several empirical analyses have highlighted a link between innovativeness and firm profitability (De Jong et al. 2004; Laforet and Tann 2006).

Nevertheless, SMEs producing traditional food products, particularly the micro-sized ones, are often subject to constraints that restrict the possibility of introducing innovation in the firm, especially with regard to the development of new products. Such constraints are connected to financial resources and to specific product characteristics. Indeed, very small firms frequently do not have adequate financial capabilities to implement the R&D activities within the firm (Carson 1990; Gilmore et al. 2001; Poolton et al. 2006). At the same time, the intrinsic nature of food products linked to tradition leads to difficulties in carrying out the product innovation.

Therefore, our analysis does not focus strictly on product innovation, but makes reference to the concept of innovativeness, which is a broader approach concerning the firm aptitude in implementing innovative conducts, such as the investment in product and process improvement, search for new markets and exploration of innovative distribution channels (Banterle et al. 2009).

The relationship between innovativeness and marketing

According to Traill and Grunert (1997), in order for any introduced innovation to reflect the market needs,

the firm should be market-oriented. Indeed, a good level of market orientation has a positive effect on innovativeness, supporting improvement in the firm competitiveness. Market-oriented firms will be more successful in responding to environmental needs through a greater capacity to innovate, leading to competitive advantage and a superior performance (Atuahene-Gima 1996; Appiah-Adu and Singh 1998).

A firm's market orientation is strictly connected to its marketing activities, particularly the marketing capability; as such activities are considered a strategic key to meet the consumer needs (Kohli and Jaworski 1990; Kara et al. 2005). Moreover, there is an empirical evidence of a link between market orientation and marketing capability for food firms (Banterle et al. 2009, 2010; Gellynck et al. 2011). Consequently, our analysis focuses on the relationship between marketing capability and innovativeness of small food businesses.

With reference to Kotler (2004), marketing capabilities are connected to the implementation of a marketing management process, which comprehends different steps: assessment of market changes (Day 1994; Gofton 1997; Bagozzi 1998), identification of the firm marketing aims and the choice of a marketing strategy (Albisu 1997; Bagozzi 1998; Knight 2000), planning of the activities, control of the results achieved (Carson 1990; Narver and Slater 1990). Therefore, the marketing management process is composed by four steps: market research, marketing strategy, planning and implementation, and control and evaluation.

With regard to this conceptual framework, the hypotheses the empirical analysis aims to test are three:

- (1) innovativeness is relevant for small businesses to compete in the food market;
- (2) marketing management capability has a positive effect on the SME innovativeness;
- (3) among the four steps of the marketing management process, some have a stronger correlation with the SME innovativeness than others.

METHODOLOGICAL ISSUES

We conducted a survey in order to assess the innovativeness capacity and the marketing capability of SMEs producing the traditional food products. We elaborated an on-line questionnaire that includes questions related to innovativeness, general data of the firms, market research, marketing strategy, planning and implementation, control and evaluation.

We ran a linear regression model in order to analyse the relationship between innovativeness and marketing

Table 1. Variables' definition

Variable name	Description	Variable type	N	Mean	SD
Innovativeness					
Investment in product improvements	The company invests in improving its traditional products	scale (1–5)	443	3.93	1.06
Search for new markets	The company searches for new markets	scale (1–5)	447	3.91	1.05
Innovative distribution channels	The company sells its product with innovative distribution channels	scale (1–5)	440	2.94	1.17
General data of firms					
Membership to a consortium	If the company is member of a consortium or cooperative value 1, otherwise 0	dummy (0-1)	401	0.59	0.49
Employees	Number of employees (< 10; 10–49; 50–249; > 250)	scale (1-4)	467	2.28	1.00
Voluntary quality certifications	Number of voluntary certification schemes that the company has implemented	scale (1-5)	425	2.16	1.25
Distribution channels (Supermarkets)	Most important distribution channel is the Supermarket value 1, otherwise 0	dummy (0-1)	456	0.42	0.49
Distribution channels (Specialised shop)	Most important distribution channel is the Specialised shop value 1, otherwise 0	dummy (0-1)	456	0.11	0.31
Distribution channels (Direct sale)	Most important distribution channel is the Direct sale value 1, otherwise $\boldsymbol{0}$	dummy (0-1)	456	0.16	0.37
Distribution channels (Wholesalers)	Most important distribution channel is the Wholesaler value 1, otherwise 0	dummy (0-1)	456	0.15	0.36
Distribution channels (Small grocery shop)	Most important distribution channel is the Small grocery shop value 1, otherwise 0	dummy (0-1)	456	0.06	0.23
Sale markets (local)	Major market is the local one value 1, otherwise 0	dummy (0-1)	451	0.15	0.35
Sale markets (regional)	Major market is the regional one value 1, otherwise 0	dummy (0-1)	451	0.17	0.38
Sale markets (national)	Major market is the national one value 1, otherwise 0	dummy (0-1)	451	0.53	0.50
Sale markets (international)	Major market is the international one value 1, otherwise $\boldsymbol{0}$	dummy (0-1)	451	0.15	0.36
Market research					
Brand analysis	The company investigates the position of its brand in the market	scale (1–5)	464	3.23	1.26
Supplier analysis	The company investigates the competencies/skills of its suppliers before it selects them	scale (1–5)	468	3.84	1.11
Retailer analysis	The company investigates the requirements of its retailers	scale (1–5)	463	3.82	1.11
Competitor analysis	The company investigates the marketing strategy of its competitors	scale (1–5)	468	3.38	1.18
Market analysis	The company analyses any data and information about the market	scale (1–5)	468	3.73	1.08
Consumer analysis	The company analyses the requirement of its consumers	scale (1–5)	467	3.87	1.04
Marketing strategy					
Existence of clear objectives	The company has measurable objectives presented in its marketing strategy	scale (1–5)	457	3.71	1.14
Strategy well-known inside firm	The company implements very strictly its marketing strategy	scale (1–5)	459	3.46	1.10
Product tailoring according the consumer needs	The company tailors its products according to the needs of the consumer	scale (1–5)	457	3.82	1.03
Product differentiation	The company seeks to make its product different from that of competitors	scale (1–5)	459	3.92	1.08
Influence on price setting	The company strongly influences the price of its products	scale (1–5)	456	3.44	1.14

Table 1 to be continued

Variable name	Description	Variable type	N	Mean	SD
Investment in dynamic and qualified sales forces	The company invests in dynamic and qualified sales force	scale (1–5)	457	3.53	1.19
Choice of distribution channel	The company chooses the type of distribution according to its sales objective	scale (1–5)	452	3.75	1.10
Investment in promotion and advertising	The company invests in promotion and advertising	scale (1–5)	455	3.23	1.19
Planning & Implementati	on				
Planning in advance	The company applies detailed marketing planning in advance	scale (1–5)	451	3.43	1.19
Adaptation of promotional activities to changes in market	The company adapts its promotional activities to changes of the market	scale (1–5)	454	3.41	1.21
Adaptation of budget to changes in market	The company adapts easily the budget for marketing activities if necessary	scale (1–5)	452	3.18	1.19
Control & Evaluation					
Evaluation of results	The company reviews whether or not the objectives of the promotional activities were realized	scale (1–5)	451	3.49	1.27
Cost analysis	The company reviews the marketing costs in comparison to the results achieved	scale (1–5)	453	3.47	1.25
Benchmarking with competitors	The company collects information about the results of competitors	scale (1–5)	452	2.71	1.26

Source: own calculation based on our survey

capability and to understand whether good marketing results lead firms to be more innovative.

The dependent variable is innovativeness, i.e. the index created by the mean score of the three questions included in the section dedicated to the innovative level (Table 1). The concept of innovativeness we used is a little wider than the common concept of innovation, as the SMEs often do not have a specific functional area connected to R&D. Therefore, our

Table 2. Firms of the sample per country

	SMEs producing TFPs			
	number	%		
Austria	36	7.7		
Belgium	56	12.0		
Czech Republic	86	18.4		
France	28	6.0		
Greece	5	1.1		
Hungary	26	5.6		
Italy	129	27.6		
Norway	8	1.7		
Spain	74	15.8		
Turkey	20	4.3		
Total	468	100.0		

Source: own calculations based on our survey

analysis also considers the aspects related to the choice of innovative distribution channels and new geographical markets, as well as the general aspects concerning product improvement.

The independent variables regard the general data of the firms and their marketing capability, reported in Table 1, including definitions, means, and standard deviations of all variables employed in the model. The majority of the variables connected to the general data are dummy, whereas all the variables regarding marketing capability have a Likert-scale from 1 to 5, reflecting capability from the worst to the best.

Before estimating the Linear Regression Model, we reduced the variables to factors by using the Principal Components Analysis (PCA). The number of cases in this analysis is the 468 firms of the sample. All of them produce the traditional food products and are located in Austria, Belgium, the Czech Republic, France, Greece, Hungary, Italy, Norway, Spain, and Turkey (Table 2).

RESULTS AND DISCUSSION

Descriptive analysis

The firms constituting the sample are characterized by the micro, small and medium dimensions (86.3%). In particular, following the classification

Table 3. Size of the firms of the sample (%)

	Austria	Belgium	Czech Republic	France	Greece	Hungary	Italy	Norway	Spain	Turkey	Total
Employees											
< 10	2.8	50.0	17.4	14.3	20.0	53.8	41.9	12.5	4.1	20.0	26.7
10-49	25.0	28.6	30.2	32.1	40.0	15.4	37.2	25.0	29.7	15.0	30.1
50-249	44.4	16.1	43.0	35.7	20.0	19.2	14.7	37.5	36.5	55.0	29.5
> 250	27.8	3.6	9.3	17.9	20.0	7.7	4.7	12.5	29.7	10.0	12.6
n.d.	0.0	1.8	0.0	0.0	0.0	3.8	1.6	12.5	0.0	0.0	1.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Turnover											
< 2 M	2.8	17.9	8.1	25.0	20.0	3.8	35.7	25.0	4.1	20.0	17.5
2-10 M	11.1	21.4	12.8	32.1	20.0	11.5	22.5	0.0	21.6	10.0	18.6
11-50 M	22.2	12.5	14.0	25.0	20.0	3.8	13.2	25.0	29.7	15.0	17.1
51–100 M	30.6	3.6	10.5	3.6	0.0	0.0	2.3	12.5	17.6	10.0	9.0
> 100 M	22.2	7.1	43.0	14.3	20.0	0.0	5.4	25.0	18.9	10.0	16.9
n.d.	11.1	37.5	11.6	0.0	20.0	80.8	20.9	12.5	8.1	35.0	20.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: own calculations based on our survey

of firms according to the European Union criteria, micro firms with less than 10 employees represent 26.7%, small firms with employees between 10 and 49 form 30.1%, and medium sized firms with employees between 50 and 249 represent 29.5% (Table 3). In the sample, we found also 12.6% of large firms, with more than 250 employees, as the questionnaire were available on the web.

The Hungarian, Belgian and Italian firms of the sample are mainly constituted by the micro sized

firms, with the percentage of 53.9%, 50%, and 41.9%, respectively. Small firms are predominant in Greece (40%), whereas medium firms are found in Turkey (55%), Austria (44.4%) and the Czech Republic (43%), where they represent a large part of the firms having filled the questionnaire.

With regard to firm innovativeness, as shown in Figure 1*a*, the most developed innovative activities of the firms are product improvement and the search for new markets, whereas the choice of in-

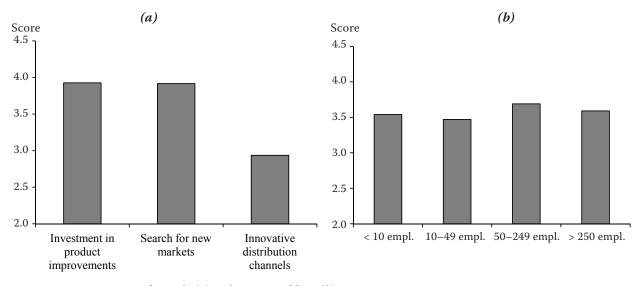


Figure 1. Innovativeness of sample (a) and per size of firm (b)

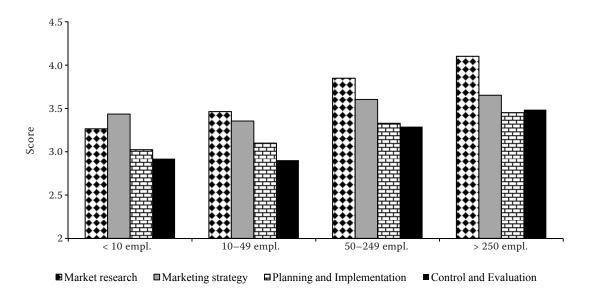


Figure 2. Marketing management capabilities of the sample per size of firms

Source: own calculations based on our survey

novative distribution channels does not reach high scores. Moreover, regarding the innovativeness per size (Figure 1b), even though there are no big differences among the firms, we can consider the sample divided into two sub-groups: up to 50 employees, and more than 50 employees. In the first subgroup, micro firms innovate more than the small ones, whereas in

the second subgroup, medium firms perform better than the large ones.

Concerning the marketing capabilities of the firms of the sample, the results show a fair market orientation of the SMEs. Indeed, Figure 2 outlines that only medium and large firms have good capabilities in marketing, in particular related to market research and marketing

Table 4. Distribution channels and geographical market of the firms of the sample (%)

	Austria	Belgium	Czech Republic	France	Greece	Hungary	Italy	Norway	Spain	Turkey	Total
Distribution channels											
Supermarkets	83.3	25.0	26.7	50.0	60.0	19.2	35.7	25.0	66.2	35.0	41.2
Specialised shops	5.6	12.5	15.1	7.1	0.0	15.4	14.0	0.0	4.1	5.0	10.7
Direct sale	2.8	23.2	19.8	14.3	0.0	34.6	15.5	12.5	4.1	20.0	15.4
Wholesalers	5.6	12.5	10.5	14.3	40.0	23.1	19.4	25.0	9.5	25.0	14.7
Small grocery shops	0.0	3.6	17.4	7.1	0.0	0.0	3.9	12.5	1.4	15.0	6.2
Others	2.8	10.7	8.1	7.1	0.0	3.8	10.1	25.0	13.5	0.0	9.0
n.d.	0.0	12.5	2.3	0.0	0.0	3.8	1.6	0.0	1.4	0.0	2.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sale markets											
Local	8.3	23.2	17.4	3.6	20.0	50.0	11.6	25.0	1.4	10.0	14.1
Regional	2.8	12.5	25.6	32.1	20.0	11.5	16.3	37.5	10.8	10.0	16.5
National	75.0	28.6	39.5	53.6	60.0	30.8	53.5	37.5	67.6	70.0	51.1
International	13.9	25.0	5.8	10.7	0.0	3.8	17.8	0.0	18.9	10.0	14.3
n.d.	0.0	10.7	11.6	0.0	0.0	3.8	0.8	0.0	1.4	0.0	4.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

strategy. On the opposite, micro and small firms of the sample reach in average low scores in all the activities, as they do not go over 3.5 in any step.

The activities of marketing management revealing the worst performance are represented by planning and implementation of the strategy, and controlling and evaluating the results achieved. The performances in these steps appear weak also for the medium-sized and large firms.

These results underline that in average the SMEs carry out marketing activities in a little organised way, as often they face time and financial constraints which do not allow them to consider marketing a key point of their business. Therefore, marketing is not conducted with a periodical organisation of the activities, but often it constitutes an occasional and not structured event.

Regarding other features of the sample, it is interesting to investigate which are the distribution channels chosen by the firms, and how wide is the geographical sale market. In table 4, it is shown that 41.2% of the sample firms sell through supermarkets, whereas a lower percentage applies the direct sale on premises (15.4%) or deliver their products to whole-salers (14.7%). A smaller part of the sample (10.7%) sells their traditional foods to specialised shops. In almost all the countries analysed, supermarkets constitute the most frequent choice for the firms, except in Hungary, where firms mainly sell through direct sale (34.6%).

The fact that the supermarket is the main distribution channel is directly connected with the width of the geographical sale market; indeed, most of the firms of

Table 5. Factor analysis concerning market research

Variables		Factor 1 market research (f_1)
Brand analysis		0.751
Supplier analysis		0.730
Retailer analysis		0.711
Competitor analysis		0.766
Market analysis		0.775
Consumer analysis		0.660
Cronbach's Alfa:	0.827	
Keiser Meyer Olkin test:	0.840	
Rotation method:	Varimax	
Total Explained variance:	53.734%	
Bartlett Test: 880	0.066 (0.000)	

Source: own calculations based on our survey

the sample sell in the national market (51.1%). 16.5% of the sample reduces the sale area to the region, and 14.1% just to the local one. In particular, the local market plays an important role for Hungarian firms (50%). Only 14.3% of the sample firms export their products in the international market.

Estimation results

The survey instrument has 28 questions, measured on the Likert scale (1 to 5 or 1 to 4) or dummy scale (0, 1). Due to the numerous questions employed, we needed a statistically reliable way to consolidate the questions into groups. Therefore, according to the recent literature (Day 1994; Bagozzi 1998), for same variables we used PCA. One of the strengths of PCA is that it is a simple tool to consolidate many variables, in our case 14, into a smaller number of variables. The smaller number of variables (components) can be viewed as providing a description for the overall variables employed.

From the PCA, 2 factors emerged: market research (f_1) and marketing strategy (f_2) . The factor f_1 consists of six items and the second factor (f_2) of eight items (Tables 5 and 6).

In order to obtain these factors, we use the orthogonal rotation (Varimax), and the Cronbach's Alpha shows that the items contribute well to each factor.

Table 6. Factor analysis concerning market strategy

Variables	Factor 2 marketing strategy (f_2)
Existence of clear objectives	0.782
Strategy well-known inside firm	0.761
Product tailoring according the consumer needs	0.559
Product differentiation	0.560
Influence on price setting	0.448
Investment in dynamic and qualified sales forces	0.750
Choice of distribution channel	0.683
Investment in promotion and advertising	0.619
Cronbach's Alfa: 0.803	
Keiser Meyer Olkin test: 0.836	
Rotation method: Varimax	
Total Explained variance: 42.868%	
Bartlett Test: 963.898 (0.000)	

After the PCA, the 2 factors obtained are employed with other variables, described in Table 1, in estimating the Linear Regression Model to test which elements regarding marketing can affect innovativeness.

We verified if some variables are linear functions of one another through the multi-collinearity test and, as shown in Table 7, the VIF coefficient for all the variables is less than 10 (O'Brien 2007).

Estimates of the model show that the firm size is significant, and negatively correlated with the dependent variable (Table 7). This is in line with the recent literature stating that small firms are more innovative than large firms, due to their flexibility and their great capacity to rapidly adapt to the market change and needs.

Selling at the regional level constitutes a significant and negative variable for the firm's innovativeness as the reference market is relatively small, and, thus, the marketplace needs are quite restricted.

With regard to marketing capability, the factors representing market research and marketing strategy

reveal significant and positive relationships with innovativeness. This aspect reinforces our assumptions about the strategic role of marketing activities on the firm's capacity to understand the consumer needs to be innovative and market-oriented.

Finally, a variable concerning benchmarking with competitors reveals a significant and positive relationship with innovativeness, showing that, besides the firm's knowledge of its consumers, a comparison with competitors is also very important in order to be innovative and to develop innovation different from that of the competitors. In this way, the firms can achieve a competitive advantage that allows them to survive in the market.

CONCLUSION

This paper aims to evaluate the relationship between marketing capabilities and innovativeness with reference to small businesses in the food sector.

Table 7. Estimate of the model

	Innovativeness	Collinearity statistics		
	β	. 1	ME	
α	3.908***	tolerance	VIF	
Membership to a consortium	0.101	0.862	1.160	
Employees	-0.134***	0.654	1.529	
Voluntary quality certifications	0.003	0.861	1.161	
Distribution channel (supermarket)	-0.045	0.286	3.492	
Distribution channel (specialized shops)	0.041	0.510	1.959	
Distribution channel (direct sale)	-0.117	0.444	2.252	
Distribution channel (wholesalers)	-0.194	0.407	2.458	
Distribution channel (small grocery shops)	0.019	0.530	1.886	
Sale market (local)	-0.175	0.641	1.559	
Sale market (regional)	-0.300***	0.669	1.495	
Sale market (international)	0.073	0.868	1.151	
Market research (f_1)	0.121**	0.393	2.546	
Marketing strategy (f_2)	0.341***	0.295	3.388	
Planning in advance	0.008	0.420	2.380	
Adaptation of promotional activities to changes in market	-0.006	0.399	2.505	
Adaptation of budget to changes in market	-0.067	0.425	2.350	
Evaluation of results	-0.009	0.335	2.981	
Cost analysis	0.008	0.364	2.745	
Benchmarking with competitors	0.099***	0.603	1.659	

^{*}significance at the 0.1 level; **significance at the 0.05 level; ***significance at the 0.01 level

Regarding our first hypothesis about the importance of innovativeness for SMEs to compete in the food market, the survey highlighted that the firms consider innovativeness quite relevant, especially with reference to the investment in the product improvement and the search for new markets. However, with regard to distribution, firms show a very little attention to the innovative distribution channels.

Relative to our second hypothesis, the results of the linear regression model underline the existence of a positive correlation between the firm's marketing capability and its innovativeness. Therefore, this evidence confirms the hypothesis that good skills in marketing activities lead to a high propensity in adopting the innovative conduct, such as the product improvement and the search for new markets. By acting in this way, the SMEs could reinforce their competitiveness.

Finally, responding to our third hypothesis, the analysis reveals that not all the steps of the marketing management process affect the firm innovativeness. Market research and marketing strategy are the two steps that showed a significant and positive correlation with the firm innovativeness, whereas the variables connected with planning and implementation, and control and evaluation were not significant, the only exception being the variable concerning benchmarking with the firm's competitors.

This result appears quite logical, as market research is the step of the marketing management process that allows the firm to know the economic environment in which it operates, while marketing strategy aims at identifying the marketing objectives and outlining the product differentiation. These two parts of marketing activities lead the firm to become consumer focused. Thus, the firm achieves an understanding of its need for innovation and the implementation of the innovative conduct. Note that the variable concerning the competitor benchmarking highlights the importance of comparing the firm's performance with that of its competitors in order to come up with innovative choices.

With regard to the relation between innovativeness and the firm size, the regression revealed a significant and negative link, underlining that the SMEs can innovate more highly than large companies in the food sector, better adjusting their business to the market evolution and consumer preferences.

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