

The HACCP system implementation in small businesses of Madrid's community

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Abstract

The main goal of this paper is addressed to evaluate the HACCP system implementation in small food industries of Madrid's autonomous community. Important practical barriers about HACCP development have been identified. There were investigated the manufacturing food industries of animal origin during 5 years, between 1999 and 2003. The research analyzed areas concerning business demand, legal requirements and quality management systems, food industry size, human resources, technical support and assessors, prerequisites, time scale and HACCP implementation official assessment. Conclusions have met the beginning of HACCP system implementation by food industries following the application of a strategic plan and public health program, as well as several difficulties in small food industries with regard to HACCP system applying, and the fundamental influence of prerequisites implementation and management commitment on effective HACCP system. To overcome such barriers, it is proposed a strategy, which includes all different stakeholders.

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1. Introduction

International organizations, such as the World Health Organization (WHO), the Food and Agriculture Organization of the United Nations (FAO) and several countries, particularly belonging to the European Union (EU), are promoting the implementation of Hazard Analysis Critical Control Point (HACCP) system. Its principles, detailed in the *Codex Alimentarius* guidelines (CAC, 1997), have been incorporated in the EU food legislations in the early 1990s, through Council Directive 93/43/EEC on hygiene of foodstuffs (OJL175, 19 July 1993). The 852/2004 EU regulation (OJL139, 30 April 2004) updates and reinforces its contents.

Spain adopted the 93/43/EEC Directive through the Royal Decree 2207/1995 on the hygiene of foodstuffs (BOE,

27 February 1996). Nevertheless, since 1980s, promotion efforts on HACCP system have been developed by academy institutions and public health administrations (Polledo, 1998). In relation to HACCP, several Council Directives have been incorporated to the Spanish food legislation on specific food sectors. On 1997, the Coordination and Cooperation Commission on Food Safety (COCOCOSA), from the Health Interterritorial Council, adopted an agreement of common actions on practical application of self-control systems into the food industry, in order to facilitate the fulfilment of the Royal Decree 2207/1995 in the Autonomous Communities (regions in which Spain government is organized). Particularly in Madrid's autonomous community, the Directorate General of Public Health, conscientious of the importance and difficulties to achieve a general implementation of HACCP system in its geographic region, designed in 1998 a strategic plan aimed to promote the implementation of self-controls based on HACCP by food industries (Dirección General de Salud Pública, 1999). This

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plan involved food businesses, public health authority, and included resources and actions to develop in a progressive way the implementation of the system in the community of Madrid's by food companies.

In practice, it is generally recognized that the application of the HACCP system is making headway in large food industries, while in small businesses finds important problems. This is a handicap for improving global food safety because small companies represent the most numerous food industrial sector in Spain with 33 207 enterprises (96.8%), 1674 of them (94.6%) in Madrid's autonomous community (MAPA, 2002). Moreover, an expert panel convened for WHO in collaboration with the Ministry of Health Welfare and Sports, the Netherlands (WHO, 1999), given the barriers to applying HACCP by small companies, governments and industry trade associations encouraged the development of specific strategies to facilitate its implementation. In the same way was pronounced a FAO/WHO consultation on the role of government agencies in assessing the HACCP system (WHO, 1998).

Small industries are bearing a complex mix of barriers that obstruct the effective HACCP implementation. Those are also described in different studies performed in Europe (Gilling, Taylor, Kane, & Taylor, 2001; Leitenberger & Röcken, 1998; Mortlock, Peters, & Griffith, 1999; Panisello, Quantick, & Knowles, 1999; Ramírez & Martín, 2003). In this context, the beginning of the Madrid's community strategy justified a research along 5 years (Celaya, 2004). The major aim of this investigation was to evaluate the HACCP system implementation and the interacting factors on the autonomous community of Madrid's businesses of the prioritised food sectors. The main objectives of the study were:

1. To identify practical barriers that small industries bear to prepare and implement a HACCP system. It was necessary to consider a set of variables about business demand, legal requirements and quality management, business size, human resources, technical support and assessors, HACCP prerequisites and time scale.
2. To evaluate the influence of these barriers in relation with the application of HACCP system.

2. Material and methods

- (1) *Population of study.* There were included the food industries of Madrid's region processing meat, dairy, fish, eggs products, as well as catering industries (those food sectors were identified as a priority in the strategy).
- (2) *Period of time.* From January 1, 1999 to December 31, 2003.
- (3) *Selected sample.* All food industries located in the Public Health V Area of Madrid's autonomous community participated. This Area is situated in the central and north zone of the region. Some interesting data are: it is the largest public health area

(2662 km²), 12% of region's population and contents 67 councils.

- (4) *Areas and variables of study.* There were considered different areas. Some of them were interesting fields included as potential barriers in the WHO consultation on strategies for implementing HACCP in small businesses (WHO, 1999):

1. *Business demand.* There were investigated some factors linked to food industries profile for encouraging HACCP system implementation, for example type of food sector and activities, HACCP system customer demand and level of trade association of industries.
2. *Legal requirements and quality management.* Variables are related to food legislation in place, development of HACCP system in food industries before it became a compulsory requirement, and the use of a quality management system (for example, ISO 9000 series).
3. *Food industry size.* Variables were referred to the number of employees, trade geographic scale and their turnover.
4. *Human resources.* There were considered managers and staff. Variables were the level of management's commitment and the availability of specialized personnel on food safety.
5. *Technical support and assessors.* Important matters were focused on the role of guides for the application of HACCP system and the support of external consultants on the system. Variables were aimed to the available guidelines for applying HACCP system, its usefulness to application by food industries and the participation of specialized assessors.
6. *Prerequisites.* There were evaluated those Prerequisites that the Madrid's community strategy had determined as a priority: training of personnel, maintenance of premises, rooms and equipments, cleaning and disinfecting, pest control and potable water supply.
7. *Time scale.* It was evaluated the period of time required to achieve a favourable official evaluation by the official authorities concerning both, HACCP plan design and implementation.
8. *HACCP system implementation.* In accordance with WHO's regulatory HACCP concept (WHO, 1998) the goal was to find evidences that HACCP principles have been effectively applied, HACCP plan correctly implemented and system maintained. In relation to Madrid's autonomous community, the regulatory assessment procedures were based on audit techniques (UNE-EN ISO, 1993). In case of non-compliance findings, these were categorized on a risk based evaluation. This evaluation considered the relationship between two parameters: likelihood of occurrence and severity of non-compliances (low, medium and high levels). These factors that FAO referred to the hazard

analysis (FAO, 1998), were adapted to regulatory assessment. Therefore, there were established 2 categories of non-compliances: minors and majors. Depending on the type of non-compliances the final result of the regulatory assessment was: approval (HACCP implementation compliance), conditional approval (minor non-compliances) or non approval (major non-compliances).

(5) *Procedure to collect data.* The process was made up by:

1. Managers of food industries, professional associations or assessors were contacted by letter and phone, then informed about the objectives of the research and finally they were asked for data of each analyzed area.
2. In certain studied areas, for example the variables associated to regulatory HACCP and Prerequisites assessment (documental and implementation evaluation), the V Public Health Area provided the data.
3. There were designed specific questionnaires for each area of study. When it was considered necessary to clarify or extend the information, the data collection was complemented with an interview.
4. The results are based on enough evidences and findings. They were collected through examination of documents and records, interviews and direct observation of activities performed in food industries.
5. Finally, all 67 food establishments have been visited by the authors of this research. Therefore, the same evaluators determined with homogeneous criteria the level of HACCP and Prerequisites implementation of plants.

(6) *Statistical analysis.* The collected data were analyzed with the Statistical Package for the Social Sciences

(SPSS) for Windows, version 10. Tests of significance were based on χ^2 statistics and logistic regression.

3. Results and discussion

3.1. Assessment of the HACCP system implementation

The regulatory assessment of each food industry was performed in two stages. In the first one, it was evaluated the HACCP plan, and in the second one, the HACCP system implementation. During 5 years of investigation on 67 food industries (Fig. 1) 38 HACCP plans had a favourable record (56.7%). The HACCP system regulatory assessment was completed on 25 food industries (37.3%), with the results of 19 of them (28.4%) being either approval or conditional approval on the implementation. The official controls outcomes, dealing with compulsory requirements, are included in Table 1. The data analysis shows a poor HACCP implementation level and, considering the period of time lapsed, substantial barriers to its application. Clearly, in every country, geographic area or food chain link, HACCP system development is influenced by a complex set of factors (Taylor & Kane, 2005). Some of these factors have been analyzed in this study and described below.

3.2. Business demand

WHO states that food safety should represent an important requirement in the food trade (WHO, 1999). Significant differences between different industry sectors and HACCP system implementation were not identified (Table 2).

The research did not investigate non industrial sectors, for example retail commerce or restaurants, usually consisting of microbusinesses and, probably, with less possibility to develop self-control systems. In this way

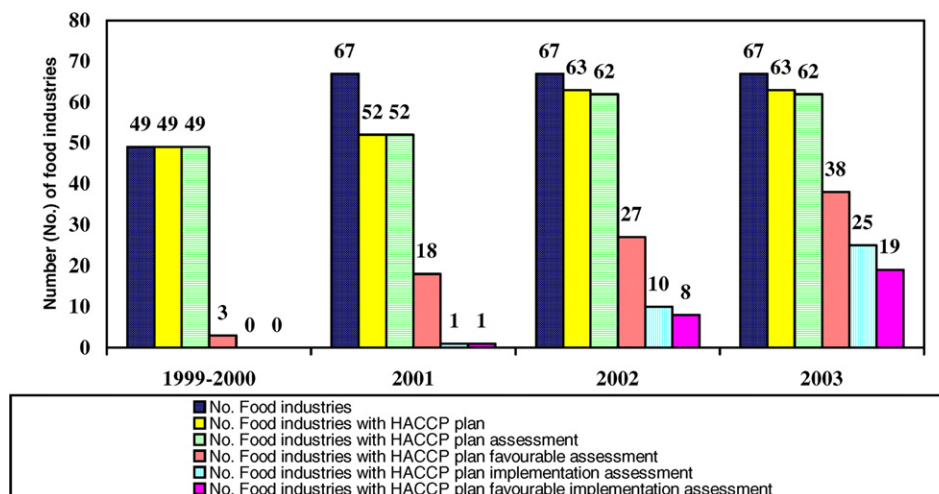


Fig. 1. Food industries and HACCP plan implementation official assessment in the Public Health V Area of Madrid's community (period 1999–2003).

Table 1

Compulsory requirements and results of HACCP system implementation official assessment of food industries located in Public Health V Area (community of Madrid)

Compulsory requirements	<i>F</i> ^a	%	<i>m</i> ^b	%	<i>M</i> ^c	% Taje
Results of HACCP system implementation official assessment (<i>n</i> = 25)						
HACCP team (IETR)	10	40.0	8	32.0	7	28.0
Describe product (IDPR)	24	96.0	1	4.0	0	0.0
Identify intended use (IUCR)	17	68.0	8	32.0	0	0.0
Flow diagrams (IDFR)	24	96.0	1	4.0	0	0.0
Hazard analysis (IAPR)	4	16.0	21	84.0	0	0.0
Control measures (IMPR)	11	44.0	14	56.0	0	0.0
Determine PCC (IPCCR)	9	36.0	15	60.0	1	4.0
Establish critical limits (ILCR)	11	44.0	13	52.0	1	4.0
Establish monitoring system (ISVR)	7	28.0	14	56.0	4	16.0
Establish corrective actions (IMCR)	8	32.0	11	44.0	6	24.0
Verification procedures (IPVR)	5	20.0	14	56.0	6	24.0
Documentation and records (ISDRR)	4	16.0	14	56.0	7	28.0

^a *F*: compliance.

^b *m*: minor non-compliances.

^c *M*: major non-compliances.

Mortlock et al. (1999) found significant differences between food industries, retailers and caterers in UK, with a higher implementation level by food industries. Little and De Louvois (1998) identified a low level of application by butchers in the same country. Leitenberger and Röcken (1998) described major barriers in Germany on Good Hygiene Practices and HACCP implementation by bakeries. These data aim to a limited development of HACCP system, especially in non industrial companies, what should not surprise because the HACCP methodology had its origin in food industries (Bauman, 1994, 1995).

With regard to customer demand, there was evidenced an increasing interest and recognition of HACCP system importance in the food sector. Although nowadays does not exist a strong general demand in food trade, it is certainly beginning to be an added value in the customer–supplier relationship. Twelve food companies (42.9%) with HACCP system customer demand achieved a favourable regulatory assessment on HACCP system implementation. Only seven companies without this customer demand obtained favourable regulatory assessments (18.0%). These rates identified

significant differences ($\chi^2 = 4.977$; $p = 0.0257 < 0.05$) and the logistic regression demonstrated (Table 3) that first companies had 3.1 times more probabilities to implement the system than those ones without customer demand. According to Panisello et al. (1999), Taylor (2001) and Taylor and Kane (2005), this study found that lots of small food industries are poorly encouraged by its customers to implement the HACCP system, because their food market are basically small scale, local client and on a high percentage of retailers.

There is a general recognition on the important role that trade associations play in HACCP system development (CCHA, 2001; WHO, 1998, 1999). In Spain in the 1990s, trade associations and public health administration collaboration have jointly encouraged development on self-control systems and good hygiene practices. However, the study identified some burdens linked to a poor association level in food companies (23 industries; 34.3%) and a limited support in the implementation of the HACCP system from these trade associations. The results suggest the need to promote a dynamic and stronger role of trade associations in this field. Associations should be a support, provide services and represent the sector with regard to other stakeholders, for example government. Jouve (1994) considered very important the trade association's role in supporting and promoting HACCP system on small businesses. In other countries, for example USA (FSIS, 1998), its influence and activities are being a key force about these issues.

3.3. Legal requirements and quality management

In Spain, as well as in the European Union, HACCP system implementation is mandatory since the early 1990s. The study investigated its implementation in 1999, previously to the enforcement requirement by Madrid's autonomous community, and the results met a poor HACCP

Table 2

Relationship between HACCP system implementation official assessment of food industries located in Public Health V Area and food sector (community of Madrid)

Food sector × IH ^a	1	2	3	4	5	Total	%
Meat products	0	10	1	10	8	29	43.3
Fish products	0	1	2	1	2	6	9.0
Eggs products	0	0	1	1	1	3	4.5
Dairy products	2	2	0	5	1	10	14.9
Catering	1	2	2	6	6	17	25.4
Ice cream	0	1	0	1	0	2	3.0
Total	3	16	6	24	18	67	100.0

1, approval; 2, conditioned approval; 3, non approval; 4, in process; 5, non implementation.

^a IH: HACCP system implementation.

Table 3
Multivariate analysis of logistic regression (model 1)

Variables	B coefficient	df	P value	Exp (B)	IC _{95%} for Exp (B)
TNT	2.464	1	0.015	11.754	1.613–85.624
IPRP	2.227	1	0.067	9.747	0.851–111.574
HCD	1.733	1	0.040	5.656	1.078–29.672
HSA	-1.371	1	0.141	0.254	0.041–1.578
DCLI	1.138	1	0.142	3.120	0.683–14.266
Constant	-4.602	1	0.001	0.010	-

-2 log likelihood = 59.175

DCLI, customer demand of HACCP system; LSGC, food industries with quality management systems; TNT, number of employees; HCD, appropriate management commitment of food industry; HSA, food safe specialized personnel; IPRP, prerequisites implementation.

system complying with the official requirements (1 food industry, 1.5%). Those rates could be attributed to a focus on promotion in the first period of the alleged strategy, in detriment of an enforcement approach. In addition, at the beginning of the strategy design did not include specific procedures and questionnaires for HACCP system regulatory assessment, neither any training on the matter for inspector personnel. At the end of the period of study, the number of food companies that had implemented HACCP system was 19 (28.4%). If we add those food industries that had initiated the implementation of HACCP systems, as it was verified through regular official inspections, the sum becomes 43 companies (64.2%). Significant differences between 1999 and 2003 were identified ($\chi^2 = 7.350$; $p = 0.0067 < 0.05$). One relevant data were that 38 food industries achieved a favourable HACCP plan assessment (56.7%). An important conclusion obtained from these results is that the HACCP system implementation strategy of Madrid Community promoted major improvements at food industries. Another interesting finding suggests that legal requirements by itself cannot guarantee a generalized fulfilment, without a simultaneous an effective regulatory control in place.

In relation with quality management systems implementation and, more specifically ISO 9000 series certifications, it was found that only a minor part of companies applied them (10 food industries, 14.9%). Probably, this can be due to a small food business predominance, which implies major difficulties and a lack of valuable need to use them (5 food industries, 8.8%). Data suggest a positive influence of ISO 9000 quality management system implementation on favourable evaluated HACCP system development, since 60% of certified companies had a favourable regulatory assessment in comparison with only 22.8% in non certified companies. These differences met statistically significant ($\chi^2 = 5.793$, $p = 0.0161 < 0.05$). The results are according to the other studies (Jouve, 1998; Jouve, Stringer, & Baird-Parker, 1999; Mortimore & Wallace, 2001). With regard to small industries, unfortunately, quality management systems are not frequently available for several reasons, for example economical, cultural and organizational aspects.

3.4. Food industry size

The research analyzed the relevance of food industry size through several variables: number of employees, turn over and purchase scope. The evaluation of those variables identified a predominant business profile with not much personnel (Table 4), local customers (Table 5) and little turn over (Table 6). It was found a favourable influence on HACCP system implementation when the number of employees was equal or higher than 50, in relation to food industries with less than 50 employees, and significant differences were met ($\chi^2 = 10.033$, $p = 0.0015 < 0.05$). Moreover, it was found that the effect of this variable was the most important for the

Table 4
Number of employees of investigated food industries located in Public Health V Area (community of Madrid)

Number of employees	Frequency	Percent Taje (%)	Accumulated percent Taje (%)
1–9	33	49.3	49.3
10–29	15	22.4	71.6
30–49	9	13.4	85.1
50–100	7	10.4	95.5
101–150	1	1.5	97.0
151–200	1	1.5	98.5
201–249	1	1.5	100.0
≥250	0	0.0	100.0
Total	67	100.0	100.0

Table 5
Trade geographic scale of food industries located in Public Health V Area (community of Madrid)

Trade geographic scale	Frequency	Percent Taje (%)	Accumulated percent Taje (%)
Community of Madrid	37	55.2	55.2
State	24	35.8	91.0
State, EU ^a	3	4.5	95.5
State, EU, TC ^b	1	1.5	97.0
State, TC	2	3.0	100.0
Total	67	100.0	100.0

^a EU = European Union.

^b TC = Third countries.

Table 6
Turnover of food industries located in Public Health V Area (community of Madrid)

Turnover (euros/annual)	Frequency	Percent Taje (%)	Accumulated percent Taje (%)
Up to 500,000	25	37.3	37.3
500,00–1,000,000	14	20.9	58.2
1,000,001–2,000,000	10	14.9	73.1
2,000,001–4,000,000	9	13.4	86.5
4,000,001–10,000,000	3	4.5	91.0
10,000,001–20,000,000	2	3.0	94.0
20,000,001–30,000,000	1	1.5	95.5
30,000,001–40,000,000	2	3.0	98.5
More than 40,000,000	1	1.5	100.0
Total	67	100.0	100.0

HACCP system implementation, given that food industries with 50 or more employees had 11.8 times more likelihood to implement a favourable HACCP system than those with less than 50 employees. The later are considered small businesses, and according to a general consensus by international organisms as WHO and FAO, as well as different studies (Leitenberger & Röcken, 1998; Little & De Louvois, 1998; Moreno, Otero, & García, 1999; Mortlock et al., 1999; Panisello et al., 1999; Taylor, 2001), bear much more difficulties to HACCP system development than large companies. One of main conclusions of this research is the necessity to strengthen the government strategies in order to support small businesses.

3.5. Human resources

WHO has recognized that human resources are key elements in every company and that many barriers to HACCP implementation are connected to human forces (WHO, 1999). Major hurdles to food companies, particularly small businesses, are the lack of management commitment, training and motivation (CCHA, 2001). The application of this system implies a considerable cultural and organizational change, involving both, managers and personnel.

With regard to management commitment, there were analyzed parameters related to management structure and responsibilities, available financial resources, HACCP system compliance and review. These parameters were gathered through audit techniques (UNE-EN ISO, 1993). The study met that food industries with a favourable assessment for HACCP system implementation had an appropriate management commitment (16 food industries, 84.2%). That figure increases to 100% (25 food industries) if those with conditional favourable assessment (only minor non-compliances found) are added. Food industries without management commitment (major non-compliances found) did not implement a HACCP system. Significant differences were identified ($\chi^2 = 5.253$, $p = 0.0219 < 0.05$), and showed that food industries with sufficient management commitment had 5.7 times more likelihood to implement an HACCP system than those without this commitment. This is a clear fact and different prestigious organizations (CAC, 2003; NACMCF, 1998) consider it as an essential requirement. According to Taylor (2001), in small companies may be more difficult to obtain an adequate commitment than in large companies, such it was found in the research, although non significant differences were found.

HACCP system application is also supported on suitable training of managers and staff. As it was expected, available personnel specialized in food issues was scarce in the companies investigated (21 food industries, 31.3%), because of the small industries predominant profile. The influence of this specialized personnel was positive to HACCP system implementation, although not enough to find significant differences ($\chi^2 = 3.165$, $p = 0.0752 > 0.05$). Perhaps, a low study sample can be blamed for it. According to Stevenson (1990) and Taylor (2001) the employment of experienced

and technically qualified personnel is probably a critical factor, because of their practical responsibilities on the implementation and maintenance of HACCP system.

3.6. Technical support and expertise

The research identified the existence of several HACCP system guidelines addressed to the food sectors investigated. However, it was identified a limited application and usefulness of these support, mainly because of inadequate updating. The Public Health Administration encouragement is recognized, at central and autonomous level, in promoting the elaboration of HACCP and prerequisites application guidelines. But we should acknowledge the need to undertake a regular revision and update of these guides according to current HACCP methodology focuses, new technical and scientific knowledge, legal requirements, etc.

The level of participation of technical assessors in food industries about HACCP system was high (42 food industries, 62.7%), specially in small businesses (40 food industries, 70.2%). However, benefits of assessor's contribution were not enough to reach a generalized HACCP implementation and no significant differences were found ($\chi^2 = 1.146$, $p = 0.2843 > 0.05$). Probably, many of the assessors involved had not the necessary knowledge and experience. Although Madrid's autonomous community authorities developed several activities of collaboration and communication with them, perhaps the absence of a specific official strategy has contributed to moderate improvements. In this sense, a FAO/WHO consultation on the role of government agencies in assessing HACCP system found some problems related to availability of technical expertises (WHO, 1998).

3.7. Prerequisites of the HACCP system

In relation to facilitate the successful implementation of HACCP system, Codex Alimentarius Commission has stated that prerequisites programmes should be well established and applied (CAC, 2003). Prerequisites for HACCP are defined as practices and conditions needed prior to and during the implementation of HACCP and which are essential for food safety (WHO, 1998). The study investigated some of the prerequisites programmes: training of personnel, maintenance of premises, rooms and equipments, cleaning and disinfecting, pest control and water supply. In order to make an overall evaluation, it was designed a specific variable (Table 7) which showed that most of food industries applied a suitable level of good hygiene practices (GHP) without major non-compliances (48 food industries, 71.7%). Training of food handlers was the prerequisite programme most difficult to develop (23.9%), probably because it is closely related with knowledge, attitudes and predispositions of personnel. This factor has showed as a special barrier in small industries (Ehiri, Morris, & Mc Ewen, 1995; Mortlock et al., 1999; Walker, Pritchard, & Forsythe, 2003). The relationship between a suitable prerequisites

Table 7
Results of the assessment of prerequisites implementation by food industries located in Public Health V Area (community of Madrid)

Variables	F ^a	%	m ^b	%	M ^c	%
<i>Results of prerequisites implementation assessment</i>						
Training of personnel	26	38.8	25	37.3	16	23.9
Maintenance of premises	31	46.3	29	43.3	7	10.4
Cleaning and disinfecting	39	58.2	23	34.3	5	7.5
Pest control	56	83.6	9	13.4	2	3.0
Potable water supply	63	94.0	3	4.5	1	1.5
Prerequisites overall assessment	17	25.4	31	46.3	19	28.4

^a F: compliance.

^b m: minor non-compliances.

^c M: major non-compliances.

application and favourable assessment of HACCP system implementation was closely connected and significant differences were identified ($\chi^2 = 6.963$, $p = 0.0083 < 0.05$). Because of this, food industries which operated according to appropriate prerequisites had 9.7 times more likelihood to implement a favourable HACCP system than those without suitable prerequisites. According to the results, it is reinforced the importance of prerequisites programmes on effective HACCP system. Small companies found less ability to operate with adequate prerequisites (39 food industries, 68.4%) than larger (nine food industries, 90.0%), although the study did not identify statistic significance ($\chi^2 = 1.950$, $p = 0.1626 > 0.05$). Probably, adequate prerequisites or GHP are not too dependent on business size.

3.8. Time scale

In any case, a temporal framework is needed to develop a HACCP system implementation strategy. The time scale may be dependent on several priorities, at both government and food sector level, and set a short, medium and long term (WHO, 1999). The research has identified that food industries consumed a long time to implement a HACCP system. In fact, it took more than 3 years in 15 of 19 food industries (78.9%). In the other 48 companies, the HACCP system was not implemented or was in progress at the end of the study. Therefore, it is clearly stated the existence of problems for industries related to HACCP system implementation. Although it is necessary to facilitate and improve the process, strong evidence is aimed to the importance of establish any strategy, particularly in mandatory framework, at medium and long term.

It can be deduced from an overall analysis of the results that the best strategy to impulse a successfully application of HACCP system should be to imply all different stakeholders: food companies, professional associations, governments, consultants, other interested parts, and as a support to all of them, consumers and society. Government and public administration have a key role in two ways: the promotion of HACCP system and the execution of mandatory assessment. In addition, an efficient official control needs a new focus based on audit techniques, which implies changes and facing up to new situations.

Nowadays, the autonomous community of Madrid has taken into account some of items studied in this research in the framework of a new programme on HACCP system implementation. Most of the objectives and activities of the HACCP system implementation programme include: a progressive approach sector by sector based on priorities and available resources, the design of specific official control procedures applying audit techniques, training programmes for official inspectors, the improvement of communication with trade associations and specialized assessors, and for the particular case of small businesses, a greater flexibility and support. Currently, it is soon to evaluate the advances of this new approach but it seems that the way is appropriate.

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