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Gender differences in the evolution of haute cuisine chef's career.

Abstract

This article reviews gender differences in the career paths of successful chefs, including barriers, success factors, and the entrepreneurial path. The research was developed in 2016-17, using an international survey carried out in Spain, France, and the United States among culinary students, cooks, and chefs who responded to a structured questionnaire based on pre-selected topics. The results show that a chef's career requires various sets of skills. They should be leaders, mentors, and entrepreneurs. They work in a hard and competitive environment where building their brand and achieving public recognition is a must. Their professional satisfaction depends on learning, evolving, and launching their restaurant. There were two main differences between the sample of women chefs and the general sample of chefs: they required more mentoring, and they achieved greater job satisfaction when they were self-employed.

Keywords: gender career differences; women chefs; barriers to women's haute cuisine progression; success factors in women's haute cuisine progression; hospitality entrepreneurship

Introduction

Researchers today are increasingly stressing the importance of gender variables and a feminine approach in the social sciences. Hurley (1999) argues that considering gender relations and building new organizational theories that are non-male-dominated could lead to social changes. She claims that early studies of entrepreneurship during the nineteenth century were mainly about men and that it is necessary to include case studies of women. Orser and Leck (2010) add that both individual and organizational level components have an impact on results and insist on the need to include gender as a moderating element of these results.

Due to the unequal gender distribution of jobs in certain occupations and decision-making positions, many authors claim that promotion criteria are gender sensitive. Starting from the fact that men benefit from higher salaries and faster professional evolution, Eagly and Carli (2007) found that women have a lesser record of experiences in senior positions and that there is specific resistance to women leaders. They added that women have problems of leadership style, have more difficulties managing work-life balance, and under-invest in social capital.

This research uses the ‘Haute Cuisine’ culinary branch to assess the gender barriers and facilitators faced by women aspiring to chefs’ positions from a holistic point of view. The first research question identifies the barriers faced by aspiring female chefs and whether there are facilitators which promote the overcoming of these barriers. Domestic cooking is very often a female task but, professionally, it is a male domain (Meah & Jackson 2012; Supski, 2011). Rationales have been offered for this difference, and they raise some research questions. What career paths must women follow to achieve a chef position, and are these different from those taken by men? What are the effects of the kitchen environment and the learning skills required for both genders? Finally, given the indications in the literature, what is the role of entrepreneurial activity in expediting the promotion of women in haute cuisine?

Academic records in this area are scarce, although there are numerous examples and testimonies on the internet. A search in the Web of Science for women’s barriers to promotion found 40 articles in the hospitality industry, versus 160 in overall occupations. We assessed the apparent gender variables and the female point of view.

Literature review.

As noted, the literature concerning discrimination against women working in haute cuisine is limited; however, this section includes all that academic research offers in this respect.

Haute cuisine

Haute cuisine originated in France, and its techniques, work organization, and professional values have been imported to other cultures (Reynolds, 2009; Trubek, 2000). It was differentiated from home cooking since its inception, and many definitions have been advanced.

The idea of haute cuisine was born, according to some authors, in the seventeenth century, and marked by two episodes: the publication of “Cuisinier Francois” by Francois La Varenne in 1651, and the conflict of Louis XIV with the nobility and the aspirations of a middle class (Wheaton, 1983). One of the fathers of haute cuisine, Escoffier, wrote in 1907 that “cooking is undoubtedly a fine art, and an accomplished chef is as much of an artist in his particular branch of work as a painter or a sculptor” (Trubek, 2000, p. 125). The emergence of recipe books and gastronomic journals and the rise of culinary schools and syndicates have contributed to the spread

of haute cuisine and the chefs' profession (Trubek, 2000). Cooking evolved from a craft to become an art requiring high expertise and creativity (Ferguson & Zukin, 1998).

Haute cuisine can be defined as “that type of cuisine that marks the status of the consumers and the identity of those who cook and serve and the expertise that makes the cooks masters of hauteness” (Trubek, 2000; p.201; Mintz, 1989, p.186). An associated discipline, Culinology® has been defined as “the blending of culinary arts and the science of food” (Blanck, 2007).

Why is haute cuisine important? According to the World Tourism Organisation, gastronomy plays a significant role in tourism. As a consequence, it is essential in national economies. Six percent of the Spanish tourism turnover, for example, can be attributed to gastronomy (WTO, 2018).

The Michelin Guide is a globally recognized guide exercising both symbolic and material power, particularly over chefs, compared to other guides such as the Gault & Millau or the British Good Food guide (Vincent, 2016; Lane 2013). Some 3,100 restaurants worldwide are recognized by the Michelin Guide (Michelin, 2018). It is a long-lived quality selection guide for haute cuisine restaurants (Vincent, 2016).

To achieve status and differentiate them from domestic cooking, which in general was associated with women as part of their family and caring responsibilities, male chefs emphasized cooking as an art and then dominated the industry (Harris & Giuffre, 2015; Trubek, 2000). As a consequence, women were excluded from their circles, and the divergence was strengthened, although many famous male chefs mention their mothers or grandmothers as a source of inspiration and motivation to pursue a cooking career (Cairns, Johnston & Baumann, 2010).

Career paths for chefs

What are the steps to, and broad requirements for, becoming a renowned chef? Various authors, notably from a practical or professional point of view, have analyzed the different paths and competencies required to attain a chef's status in haute cuisine. The position of “Chef” has its origin in the Chef de Cuisine or Chief of the Kitchen. It is a title attributed to the highest-ranking worker within the kitchen hierarchy (Ferguson & Zukin, 1998; Trubek, 2003).

Questions related to career paths for chefs have been raised in the past. Gender discrimination in job quality has been noted in general, and in the hospitality industry, (Santero Sanchez et al. 2015). Various studies have also reported wage differences in

tourism and hospitality based on gender (Casado-Diaz & Simon, 2016; Ferreira, Guimaraes & Silva, 2016).

The academic literature outlines the importance of on-the-job experience versus formal education for food managers in high-quality restaurant hotels, the crucial need for sound food knowledge, and a high level of aptitude and motivation (Allen & Mac Con Iomaire, 2016, 2017; Nebel, Braunlich & Zhang, 1994). Exposure to an haute cuisine environment is crucial for career expectations among students (Yen, Cooper & Murrmann, 2013).

Zopiatis (2010) researched the skills that contributed to reaching a top chef position and found that haute cuisine required individuals with an array of skills. A chef must be both a culinary craftsman and an active business manager (Guyette, 1981, p.5; Pratten, 2003a; 2003b). The skills required to be a head chef differ from those required to be just a cook (Pratten, 2003a; 2003b). Technical culinary-specific competencies are considered critical, followed by team leadership and management skills (Pratten, 2003a; 2003b). In contrast with other studies that linked cuisine innovation to job commitment and satisfaction, technical skills were ranked low (Pratten, 2003a; 2003b; Ko, 2012; Sherlock & Williamson, 2014). Carvalho et al. (2018) have emphasized effort, hard work, dedication love and education as well as intrinsic characteristics such as competence and talent from the individual point of view. Finally, significant differences were found according to demographics and cultural factors.

Some studies have followed a quantitative approach to the subject. Gergaud, Smeets, & Warzynski (2011) analyzed the career success of more than a thousand top French chefs and found that the determinant success factors were linked to the reputation of the restaurants where they started their career and had worked. They also stressed the importance of the quality of apprenticeship and mentoring received during their career. Mac Con Iomaire (2008) reported that restaurants which provide excellent learning and working environments find it easier to recruit and retain talented staff. Allen and Mac Con Iomaire (2016) reviewed the profiles of 170 Irish head chefs in an attempt to explain why few women progress to the top in restaurant kitchens. These authors analyzed the age factor and found different perceptions of work-related expectations, values, attitudes, and behaviors depending on the age of the individual (Allen & Mac Con Iomaire, 2016, 2017). Another factor was the intrinsic motivation to advance professionally (Allen & Mac Con Iomaire, 2016, 2017). The length of a chef's

career was fundamental to achieving a higher position, and academic education seemed to play an increasing role in career progression (Allen & Mac Con Iomaire, 2016, 2017). Again, a duality of experience versus education was observed.

Some authors have analyzed the chef's entrepreneurial path. An international survey among culinary students, cooks, and chefs showed that both women and men chose to work in the culinary field to become a chef and launch their restaurant (Haddaji, Albors-Garrigos & Garcia-Segovia, 2017b). Being a chef is considered gratifying since it implies individual initiative and creativity (Haddaji et al., 2017b). Success requires the development of many skills. Workplace learning is significant in the process of becoming a chef (Haddaji et al., 2017b). Having responsibilities, taking the initiative, and developing confidence were also crucial (Haddaji et al., 2017b). Finally, business acumen is critical in a chef's career. Participants who have, or are willing to open, their restaurant, counted on their skills, their recognition and on having sufficient business and financial resources (Haddaji et al., 2017b). From a behavioral point of view, attitude to work is an essential construct for professional competence (Haddaji et al., 2017b).

Professional expertise significantly affects job satisfaction, predicting professional career development (Ko, 2012; Leschziner, 2007). The chefs' profession has a strong professional identity and culture (Cooper, Giousmpasoglou & Marinakou, 2017). Strict regulations and discipline are followed in kitchen teams (Cooper et al., 2017). Becoming a renowned chef is a long and painful process that has been compared to joining the military (Cooper et al., 2017).

Finally, Dornenburg and Page (2003) and O'Brien (2010) have carried out studies among internationally known Michelin chefs, interviewing them on their career development. They outlined the following factors as essential. Chefs are driven by attitude and constancy, and are sure of the best way to fulfill their objectives; they pay attention to everything including details. They have an intuitive, experiential, and complete view of the kitchen and are focused on execution. Their success is a 'never-ending learning process. Both technical and managing skills, such as leading people, are essential. The studies showed the importance of mentoring and teamwork. Outstanding chefs build their brand. That is how others view them and define who they wish to employ, support, or work in their kitchen. It must be stressed that they have an international focus and must be prepared to advance at the expense of family life.

The experience of women chefs

Do women and men have the same experience in their haute cuisine careers? The published data suggests the opposite. According to recent figures, of the fifty best restaurants worldwide in 2015, women ran fewer than 4% (Day, 2015) and based on the Michelin Guide classification, out of 110 restaurant chefs awarded three Michelin stars in 2017, there were only six women chefs (Sanders, 2015). Despite this, Telerama (2018) identified 370 women leading restaurants in France. Initially excluded from both culinary schools and professional circles, the number of women enrolled in culinary schools and entering the culinary profession has now increased tremendously, but the number of women chefs remains very low. In the USA for example, less than 20% of ‘chefs or head cooks’ were women, according to the Bureau of Labour Statistics for 2017 (USA Today, 2018). In the same year, the female enrolment rate in the Culinary Institute of America was 48.1% (USA Today, 2018). In 2007, Anne-Sophie Pic was the first female chef to be awarded three stars in fifty years, and ‘to be voted The Best Chef of the year by over 1800 of her peers’ (Reynolds, 2009, p. 65). Studies have also pointed out that in spite of women’s association with domestic cooking, in both public and private environments, there is still a discontinuity to the professional context, despite cultural changes (Cairns & Johnson, 2015, p.10).

Although men and women have the same views on a chef’s career, gender constitutes a “glass ceiling” for women’s progress in the hospitality industry (Boone, Veller, & Nikolaeva, 2013; Segovia-Pérez et al. 2018). Women face barriers hampering their success in this sector (Lloyd-Fore, 1988; Woods & Viehland, 2000). Notwithstanding this, how do potential women chefs acquire the needed skills, competencies, and knowledge to be a great chef?

In haute cuisine, as in any male-dominated field, women face the challenge of being an outsider who has to adapt to the traditional work environment (Harris & Giuffre, 2015). According to Harris & Giuffre (2015, p.215), women chefs have to “lean in and fit” according to current occupational arrangements. They also had to demonstrate their physical and mental strength by adhering to work rules and culture, such as long working hours, not asking for help, avoiding emotions or feminine traits, and not challenging the masculine culture. While these integration strategies are valid for some women, they were criticized because they don’t disrupt the traditional masculinity and gender inequality that is robust in male-dominated environments in

general (Druckman, 2012, p.208; Bourdain, 2013, pp.44-45; Harris & Giuffre 2015; Heilman & Haynes, 2005). In a broad context gender role has been reported to influence tourism management discourse (Costa et al., 2017).

To succeed, most authors reported the need for practical learning in known restaurants with great chefs (Dornenburg & Page, 2003; Gergaud et al., 2011; Sherlock and Williamson, 2014). It is also essential to be dedicated and committed, be prepared to make sacrifices, have a passion for food, having a mentor, be ambitious, and focused on achieving success (Bartholomew & Garey, 1996). Interestingly, these criteria have not been considered 'sufficient' without chefs also taking risks and seizing opportunities (Bartholomew & Garey, 1996).

Through overcoming challenges, being successful, and reaching public recognition and achievement, women in male-dominated occupations can be confident about their skills, stay motivated and remain in their jobs while facing various obstacles (Druckman, 2010; Martin & Bernard, 2013).

Barriers and facilitators

Work-life balance

Women cooks face various obstacles in haute cuisine and experience a great deal of strain balancing work and family, which becomes even harder in Michelin-starred restaurants (Haddaji, et al., 2017a; Bartholomew & Garey, 1996; O'Brien, 2010). According to Boone et al. (2013), the most significant barriers for women are self-imposed and are related to family, household, work-life balance and the general perception of feminine traits in kitchen work (Druckman, 2010). The steadfast dedication the profession requires acts as a hindrance to developing their social life (Guerrina, 2002).

Household responsibilities condition women chefs' job involvement. They are forced to accommodate their personal and professional choices (Harris & Giuffre, 2010; Bartholomew & Garey, 1996). According to Glauber (2011), flexibility for adjustment in mixed-gender work environments is achieved more easily than in homogeneous working fields. An increased presence of women in the restaurants' kitchen would create more balanced work schedules. Husband support acted as a facilitator but family commitments could be also a barrier (Carvalho et al., 2018).

Finally, the traditional perception and distribution of family roles should be challenged to achieve an improved allocation of household tasks, enhanced work-life

balance and, as a consequence, a ‘happier union’ (Harris & Giuffre, 2015). For the same purpose, social policies should be tailored to encourage more women in the profession and to help both men and women cope with the demands of their personal and professional life (Guerrina, 2002; Harris & Giuffre, 2015)

Public recognition

Public media is an essential means by which female chefs increase their visibility and promote their skills (Harris & Giuffre, 2015). Publicity and media presence are crucial factors in becoming visible (Druckman, 2010). Other players in the field can also contribute to this, such as the James Beard Foundation or the Michelin Guide (Bartholomew & Garey, 1996; Harris & Giuffre, 2015). This situation is typical in most advanced gender cultures, such as in the USA, which has the best female chef awards (Childers & Kryza, 2015).

At the individual level, according to Eagly & Carli (2007), self-promotion could negatively impact women aspiring to leadership positions. Following an earlier conclusion, that women are in general linked to ‘communal qualities’ and that men are related to ‘agentic qualities,’ they argue that self-promotion is not ‘communal’ and that women are expected to show modesty (Eagly & Carli, 2007). As a result, men and women cannot promote themselves in the same way (Eagly & Carli, 2007). While men can use bluster to gain attention and to be noticed, women cannot, although it is necessary to create status and prove expertise (Eagly & Carli, 2007). This situation may apply to women chefs, who are also restrained by gender roles and expectations. Having more women visible and giving credit to their work would not only help them succeed as a chef but also challenge the masculine culture of the industry (Heilman & Haynes, 2005).

Leadership and mentoring

In general, leadership and leader-member communication have been considered critical elements in a chef’s success (Lee, 2011; Balazs, 2001). Many studies have shown that the leadership of women and men are associated with different traits and that men satisfy more leadership requirements (Haddaji et al., 2017a; Boone et al., 2013). Different perceptions, and stereotypes about gender roles and expectations are responsible for this. Men, for example, perceive themselves as better political leaders and business executives (Kiser, 2015).

Gender stereotypes link women to care, relationships, and conciliation (Heilman & Haynes, 2005). As a result, they are perceived as deficient in male-type tasks, which affect their performance expectations and evaluation. Women's skills are also considered less suitable for top-level positions (Burgess, 2003).

In another study, Eagly & Carli (2007) found that women leaders were more transformational than men leaders because they showed more support and encouragement to their subordinates. Women leaders were also more rewarding than men. On the other hand, men were more transactional and took more corrective and disciplinary action (Eagly & Carli, 2007). Finally, the transformational style has been argued as challenging leadership effectiveness stereotypes (Eagly & Carli, 2007; Tims, Bakker & Xanthopoulou, 2011).

In the field of haute cuisine, women chefs must "acknowledge their differences and find ways to capitalize on their strengths as chefs and potential leaders" (Harris & Giuffre, 2015, p. 196). Acting in a masculine way can bring criticism and questions about their authenticity (Harris & Giuffre, 2015). Even when they occupy leadership roles and match the best worker ideals, women chefs face criticism and are discriminated against because of their gender (Harris & Giuffre, 2015). This is why some female chefs choose to run their kitchens according to their personalities and feminine traits and to challenge current stereotypes about women being weak or not good leaders. They focused on building consensus and supporting their staff instead of being confrontational or bullying them (Williams & Dellinger, 2010). As a result, they were more successful in creating and using their style (Bartholomew & Garey, 1996).

Drawing on other success strategies for women in management positions, we found that women in the hospitality industry had to be diplomatic and determined to succeed. They also had to create a consensus between their personal and professional identity and to manage their gender while exercising authority (Purcell, 1996). Women's leadership, as a result, has different complexities and subtleties, many of them informal. So, how can aspiring women chefs cope with them?

Mentoring in this context could be crucial for women to advance in the hierarchy of the restaurant workplace (Harris and Giuffre 2015). It is considered 'vital' and 'constructive' in helping women cope and adapt in male-dominated occupation (Martin & Bernard, 2013). Mentoring has been signaled as a critical factor in job satisfaction (Abdullah et al., 2009). Women chefs could contribute to challenging the 'gender

dynamic of the gastronomic field' by mentoring other female chefs or cooks (Harris & Giuffre, 2015). Mentors could also play a significant role in facing gender inequality by introducing mentees to new contacts from the workplace, and outside it (Harris & Giuffre, 2015). They can also share informal work culture related to norms, roles, and relationships and facilitate their access to exclusive or restricted networks (Harris & Giuffre, 2015, p. 199).

An effective mentorship helps identify long term goals and means to achieve them. It also demonstrates a relevant interest in their mentees' careers encouraging them, and signalling opportunities (Knutson & Schmidgall, 1999). However, it has been pointed out that female chefs prefer female mentoring and its absence may be a potential barrier for success (Remington & Kitterlin-Lynch, 2018; Harris & Giuffre, 2015).

Finally, mentoring will not lead to women's advancement unless it is coupled with professional opportunities to assume greater responsibility (Ibarra, Carter & Silva, 2010). Mentors, organizational influence, and sponsorship are vital to advance in the hierarchy (Ibarra et al., 2010). Mac Con Iomaire (2008) reflects on the role of mentoring in nurturing culinary talent and finds that it is an under-researched area despite its importance.

Entrepreneurship initiative

Does entrepreneurship play a role in this field, as in other careers? The entrepreneurial course forms part of chefs' career (Balazs, 2002). One of the primary constraints women chefs face when they want to open their restaurants is obtaining the required financial resources (Harris & Giuffre, 2015). Successful women chefs who were able to do so were recognized because they had worked with renowned chefs or because they had won awards or been featured in the media (Harris & Giuffre, 2015). Aspiring women chefs thus benefit from mentoring and sponsorship, as well as from media coverage and awards, to advance in their career and to be an active player in the culinary empire.

Entrepreneurship via restaurant ownership and management has many benefits for women chefs (Anderson, 2008). It gives more freedom to manage work time and family responsibilities, which is difficult in many paid occupations (Bartholomew & Garey, 1996). It can also increase their influence in the culinary industry by challenging

the traditional culture and business models, so far successfully and widely spread by famous men chefs (Harrington & Herzog, 2007).

Research hypotheses and proposed model

A chef's career development thus relies upon the skills required in the haute cuisine kitchen workplace and a high level of aptitude and motivation (Allen & Mac Con Iomaire, 2016; Nebel, Braunlich & Zhang, 1994). Chefs must be not only culinary craftsmen and active business managers (Guyette, 1981, p.5; Pratten, 2003a; 2003b) but also acquire unique skills to achieve the position of the head chef (Pratten, 2003a; 2003b). A multinational career is seen as a must (Dornenburg & Page, 2003; O'Brien, 2010). A professional approach will determine their career (Ko, 2012; Leschziner, 2007; Sherlock & Williamson, 2014; Zopiatis, 2010).

The first hypothesis is thus derived:

H1: The skills needed in the workplace have a direct influence on a chef's career development.

Both, the modality of in site learning as well as the similar work environments a chef has experienced will influence the course of a future chef's career. The fame of their previous employers may also be a critical factor in a chef's career and in his curriculum vitae (Mac Con Iomaire, 2008; Allen & Mac Con Iomaire, 2016; Dornenburg & Page, 2003; Gergaud et al., 2011; Sherlock and Williamson, 2014; Black, 2016; Guyette, 1981; Boone et al., 2013; Cooper et al., 2017). Therefore, the second hypothesis would be:

H2: Workplace learning and environment have an immediate impact on a chef's career development

Various authors have discussed gender factors that act as facilitators or barriers in the progression of a female chef's career. Work-life balance has been one of the most commonly discussed (Haddaji, et al., 2017a; Bartholomew & Garey, 1996; O'Brien, 2010; Boone et al., 2013; Harris & Giuffre, 2010; Bartholomew & Garey, 1996). Additionally, accommodating female role models and family needs have also been considered (Crafts & Thompson, 2007). However, the perception of feminine traits in kitchen work continues to act as a barrier (Druckman, 2010). Social policies and changes in attitude could operate positively as facilitators (Harris & Giuffre, 2015; Guerrina, 2002; Harris & Giuffre, 2015; Martin & Bernard, 2013; O'Brien, 2010). The third hypothesis is thus presented:

H3: Barriers and facilitators act as moderators to the careers of women chefs.

What have other factors been described as influencing a female chef's career? One of the most commonly cited is mentoring. Harris and Giuffre (2015) and Martin and Bernard (2013) stress it as a decisive factor in advance of females as professional chefs. It is also a critical factor in haute cuisine as regards job satisfaction (Abdullah et al., 2009), and helps women to face inequality (Harris & Giuffre, 2015). Mentoring has the side effect of supporting culinary talent (Mac Con Iomaire, 2008).

Leadership style has also been noted as having a crucial effect on female advances as chefs. Whether this leadership is transformational, charismatic, conciliating, or encouraging, it plays a vital role in the promotion of females in the kitchen (Lee, 2011; Balazs, 2001; Haddaji et al., 2017a; Boone et al., 2013; Kiser, 2015; Heilman & Haynes, 2005; Burgess, 2003; Eagly & Carli, 2007) . Thus a fourth hypothesis could be as follows.

H4: Mentoring and the kitchen dominant leadership culture moderate the development of women's careers as chefs.

The entrepreneurial approach to a chef's career has also received attention from researchers. As in other professions, overcoming barriers of gender or race requires a person to be enterprising or starting his/ her own business. According to Balazs (2002), entrepreneurship is essential to a chef's progression. Entrepreneurship is also linked to search for financial resources and media exposition (Harris & Giuffre, 2015). The entrepreneurial course forms part of a chef's career. One of the primary constraints women chefs face when they want to open their restaurants is obtaining the required financial resources (Harris & Giuffre, 2015). Successful women chefs, who were able to do so, were recognized because they worked with renowned chefs or because they won awards or were featured in the media (Harris & Giuffre, 2015; Anderson, 2008). It is also an alternative way to achieve Michelin recognition (Harrington & Herzog, 2007).

Thus, it could be hypothesized that:

H5: Entrepreneurship is a moderator in a chef's career, and plays a critical role in a women chef's progression.

How can a chef obtain satisfaction, motivation, and recognition for their progression? How can we measure the level of a chef's professional advancement? As the literature has pointed out repetitively, being recognized by the Michelin Guide means worldwide recognition (Vincent, 2016; Lane, 2013). A presence on public media

(journals, television, *internet*) has also been recognised as a crucial factor in becoming visible (Druckman, 2010). Conversely, within the “glass ceiling” labyrinth, it has been stressed that women self-promotion could have adverse effects on women’s aspirations to head positions due to adverse stereotype effects (Hoyt & Simon, 2011; Eagly & Carli, 2007). The visibility of female chefs, on the other hand, is useful for challenging the male haute cuisine culture (Heilman & Haynes, 2005). Extrinsic motivation plays an important role (Zopiatis, Theocharous & Constanti, 2018).

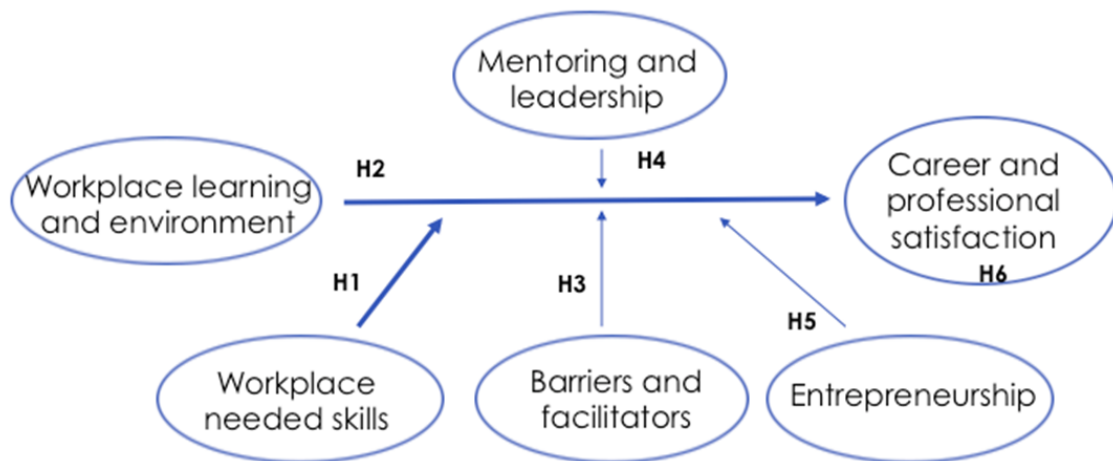
The final hypothesis could be then proposed in the following way:

H6. For measuring a chef’s progression, her/ his success and career satisfaction various approaches could be followed including public media recognition awarded Michelin stars and the fact of owning a thriving restaurant.

Based on the literature analysis, Figure 1 depicts a construct to reflect the path of a chef’s career progression and the relationships between different variables (Dornenburg & Page, 2003; Gergaud et al., 2011; Ko, 2012; Leschziner, 2007; Zopiatis, 2010).

In Figure 1, the output is the career evolution and self-satisfaction of an haute cuisine chef. Requirements include workplace learning, a supportive environment and the skills needed by the workplace. Four moderating factors are proposed: (a) their past mentoring experience; (b) their dominant leadership style; and (c) the barriers and facilitators that have been hindering factors in a chef’s career. A fourth element, entrepreneurship, is also a moderating factor contributing to a chef’s professional career success. Figure 1 reflects the model and its associated hypotheses.

Figure 1. Proposed model of a chef’s career progress (authors based on Dornenburg & Page, 2003; Gergaud et al., 2011; Ko, 2012; Leschziner, 2007; and Zopiatis, 2010).



Research Methodology

A survey was conducted in Europe and the USA, and 202 correct questionnaires were finally collected. All respondents were professionally involved in cooking, and their responses were gathered with the support of various culinary associations. In France, the Association of Maîtres Cuisiniers, a prestigious Paris-based association of chefs with 300 members. In Spain, the hospitality college, Basque Culinary Center with a staff of 40 instructors and 250 students, and in the United States, the International Association of Culinary Professionals composed of more than 2,000 members. The respondents included both genders, professionals at different career stages and of all ages. Their replies included a variety of opinions on the elements that contributed to a chef's career and whether there were factors that contributed to their career progression, including those related to gender differences. The apprentices and students were approached to analyze their cultural perceptions after having worked in a kitchen environment with more experienced chefs. Previous culinary research has shown the value of examining student views (Zhong & Couch, 2007).

The survey was distributed online in English, French, and Spanish. Pre-tests were carried out with interviews to check that the translation of the various questions was correct and well interpreted. Tables 2a/b show the profile of the sample. The complete survey may be supplied at request.

Table 2a. Survey final sample.

Category	Female	Male	Subtotal	%
Students & Apprentices	8	12	20	9,9
Cooks/ Chefs de partie	12	20	32	15,8
Chefs	43	107	150	74,3
Total	63	139	202	100,0

Table 2b. Survey output.

Center	Language	Members	Sent	Received	Correct & complete questionnaires			Total	% Response
					Students	Cooks/ Chefs Partie	Chefs/		
Basq Culinary Center	Spanish	250	100	80	16	16	42	74	74%
Association des Maîtres Cuisiniers de France	French	300	100	35	2	4	21	27	27%
International Association of Culinary professionals	English	2000	400	121	2	12	87	101	25%
			600	236	20	32	150	202	34%

Instrument

The study initially included 85 questions, of which only 28 offered a final statistical significance. A Likert scale of 1 to 5 was used for each issue, where the individual agreed with the item (5) or disagreed with it (1). This measure was adopted for reasons of simplicity, based on the pre-test experience. The questionnaire was tested in 2016 with a focus group of women chefs (Haddaji et al., 2017a). The main sections of the survey were:

- I. General information about respondents: such as information about gender, age, profession, and nationality.
- II. Workplace learning and kitchen environment, including the following questions: (a) Career expectations (no expectations, to learn cooking, be a chef, launch own restaurant, necessity, family tradition), (b) Knowledge, skills and attitudes that facilitated your integration in the kitchen (academic knowledge, professional skills, and leadership skills); (c) Kitchen work environment: hard,

smooth, collaborative, competitive, flexible, hierarchical, challenging, or encouraging.

III. Workplace-required skills, including skills needed to succeed and to evolve as a chef. (a) Professional qualifications (human resource management, innovation, financial management); (b) Personal attitudes (curiosity, ambition, competitiveness); (c) Leadership skills (to give explicit instruction, authoritarian, communicative, look for public recognition, entrepreneurial drive); (d) Personal and professional development: to accept diverse responsibilities, use more initiative, challenge self and have more confidence, to develop innovation skills, to improve communication skills, to develop management and negotiation skills, to gain more professional contacts.

IV. Barriers and facilitators, including (a) Sacrifices made for professional career (having children, family-oriented life, entertaining activities, travelling, and social activities with friends), (b) Facilitators of career success: family and partner support, more professional development opportunities, leadership skills, inclusive and fair work culture, flexible work time.

V. Mentoring and leadership, these included (a) Mentoring (it is essential to have a mentor?, who are better mentors?); (b) Common leadership style in the kitchen: authoritative vs. participative, concerned by subordinates, supporting subordinates, give clear instructions.

VI. Career evolution and satisfaction, including (a) Satisfaction from the learning process and professional growth; (b) Future career move: move to another restaurant, obtain Michelin stars, have a presence in the media, own a restaurant, move to another hospitality profession.

VII. Entrepreneurial initiative. Only for those who had or wanted to open their own restaurant, including (a) Motives behind this choice (to be their personal chef, to advance in their career, to make more money, to have a better work-life balance, to develop their own business); (b) How essential the following elements are for restaurant competitiveness and promotion financial support, Michelin stars, a strategic location, visibility in media, public recognition, professional contacts, a good team in the restaurant.

Table 3. Survey questions and sources.

Section	Questions	Sources
I	4	Haddaji et al., 2017a; Zhong & Couch, 2007.
II	18	Haddaji et al, 2017a; Yen et al., 2013; Gergaud et al., 2011; Dornenburg & Page, 2003; O'Brien, 2010; Druckman, 2012; Bourdain, 2013
III	18	Haddaji et al., 2017a; Allen & Mac Con Iomaire, 2016; Nebel et al., 1994; Zopiatis, 2010; Guyette, 1981; Pratten, 2003a; 2003b
IV	15	Haddaji et al., 2017a; Bartholomew & Garey, 1996; O'Brien, 2010; Boone et al., 2013; Druckman, 2010; Harris & Giuffre, 2010; Bartholomew & Garey, 1996; Glauber, 2011; Harris & Giuffre, 2015; Guerrina, 2002
V	11	Haddaji et al, 2017a; Lee, 2011; Balazs, 2001; Eagly & Carli, 2007; Harris & Giuffre; Williams & Dellinger, 2010; Bartholomew & Garey, 1996); Abdullah, et al., 2009; Ibarra et al., 2010; Mac Con Iomaire, 2008
VI	11	Haddaji et al., 2017a; Zhong & Couch, 2007; Harris & Giuffre, 2015; Druckman, 2010; Bartholomew & Garey, 1996; Childers & Kryza, 2015; Eagly & Carli, 2007; Heilman & Haynes, 2005
VII	8	Haddaji et al., 2017a; Balazs, 2002; Harris & Giuffre, 2015; Anderson, 2008; Bartholomew & Garey, 1996

Websites such as those for professional groups of kitchen chefs on LinkedIn and Facebook and forums in Chef Talk.com were used to promote the survey and collect the answers.

Factor Analysis was used as a first step in interpreting and analyzing the results (see Haddaji et al., 2017b)

Results

Measurement and appraisal of the model

The Partial Least Squares (PLS) method was used for this analysis rather than the SEM alternative because the research goal was predictive rather than structural, following the recommendations of Jöreskog and Wold (1982; p. 266), Ainuddin et al. (2007); Lee, Yang & Graham (2006), Hair et al. (2011; p. 144).

The SmartPLS software was used to analyze the data (Ringle, Wende & Becker, 2015). PLS can appraise, both the consistency and soundness of the instrument. According to Hair, Hult, Ringle & Sarstedt (2013) and Chin (2010), the sample size should be ten times the most significant number of formative indicators used to measure

a single construct or ten times the most substantial part of a structural path directed at a particular construct in the structural model. The sample and subsample sizes are acceptable according to the cases per dependent variable.

As suggested by Chin (1998), we used separate item loadings to appraise individual item reliability. Values with loadings higher than 0.7 are considered acceptable, meaning the subject explained about 50% of the variance in a particular element. This precaution ensures that items in the measurement construct to measure the same model. Composite reliability evaluated the internal consistency of each construct. The minimum acceptable composite reliability level is 0.7 for each item loading (Nunnally & Bernstein, 1994). Finally, the discriminant validity was checked using average variance extracted (AVE) and the squared inter-correlations. AVE values should be higher than 0.5, and the crossed correlations among the latent variables should not exceed the square root of the AVE values to justify the discriminant validity (Chin, 1998; Fornell & Larcker, 1981). The results shown in Table 3 demonstrate that the measurement models are assessed with confidence.

There were two resulting models as the outcome: one with the complete sample (men and women) and the second with the women’s replies subsample. The reason was due to the size of subsamples. Differences were calculated between path coefficients built on PLS-SEM bootstrapping results. The PLS MGA multi-group analysis was followed to compare both groups (Sarstedt, Henseler & Ringle, 2011).

Table 3. Reliability measurements

	AVE		Composite Reliability		R Square		Cronbach Alfa	
	General	Women	General	Women	General	Women	General	Women
BARRIERS & FACILITATORS	0.643	0.783	0.8778	0.935			0.815	0.908
CAREER SATISFACTION	0.780	0.701	0.876	0.824	0.149	0.218	0.720	0.587
ENTREPRENEURSHIP	0.519	0.546	0.896	0.805			0.868	0.881
MENTORING & LEADERSHIP	0.501	0.507	0.683	0.692			0.601	0.663
WORKPLACE SKILLS	0.555	0.546	0.831	0.825	0.196	0.456	0.725	0.712
WORKPLACE LEARNING & ENVIRONMENT	0.517	0.582	0.842	0.874	0.323	0.497	0.766	0.820

Figure 2 shows the results of the structural model proposed for the whole sample and Figure 3 shows the construct obtained for the women’s subsample. Observable questionnaire items are represented in rectangles and unobservable latent factors with circles. Partial regression coefficients, corresponding to endogenous variables, are indicated next to the arrows, and the ratio of determination (R^2) for the corresponding regression is inside the circles.

Figure 2. Estimated structural equations model using the general sample (all respondents)

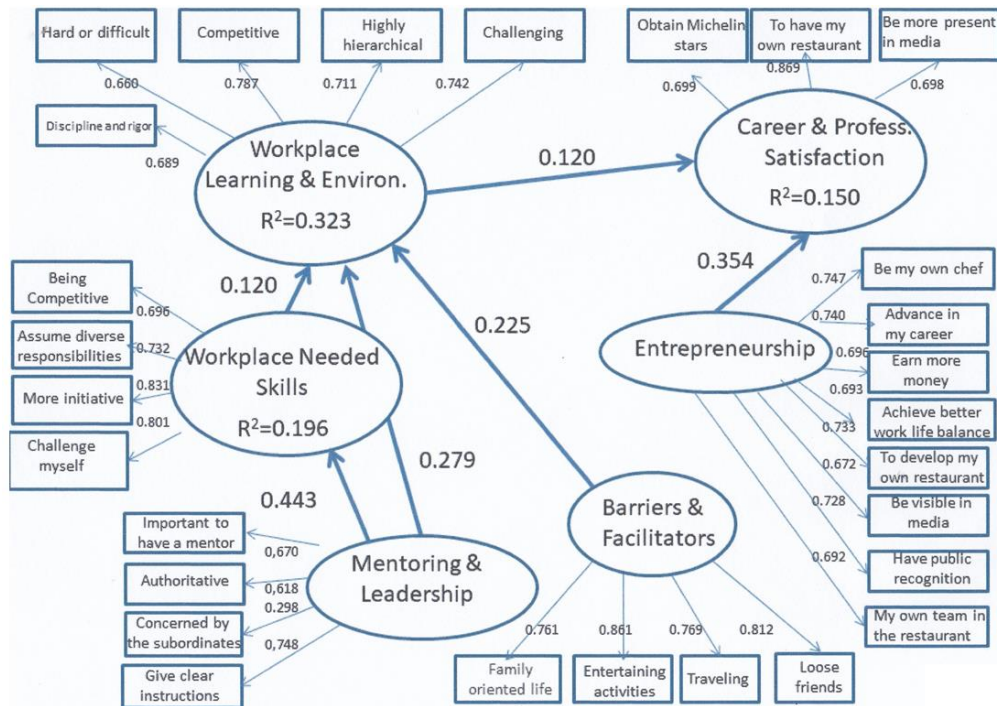
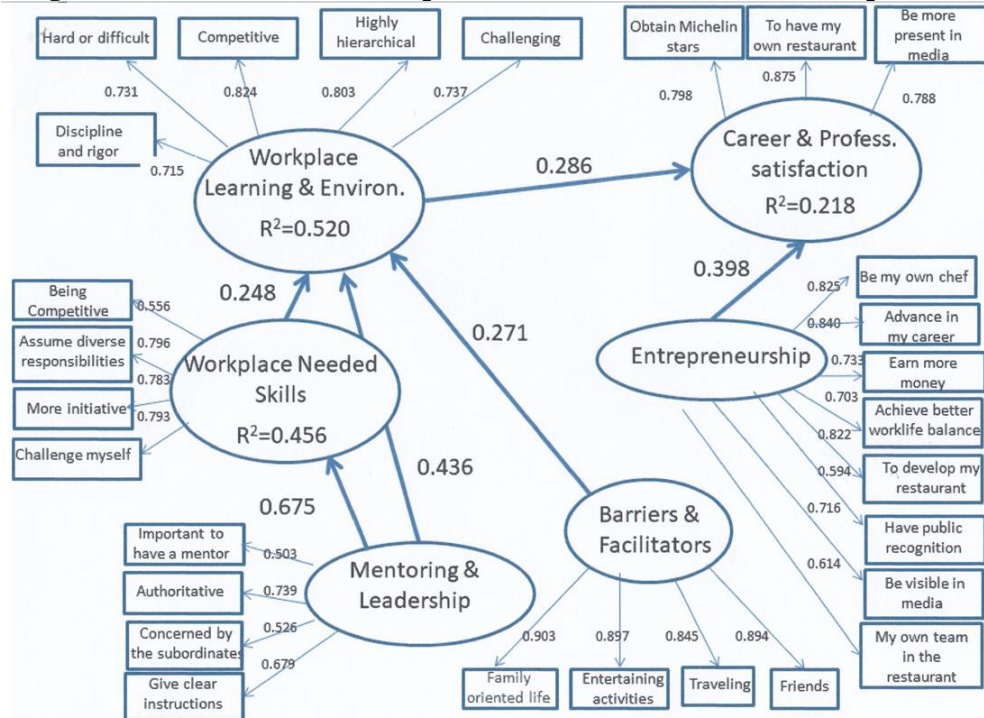


Figure 3. Estimated structural equations model based on women respondent subsample



The standardized betas or path coefficients indicate the strength of the causal associations between two latent variables. To test the significance of these relationships, we estimated regression coefficients between latent factors, their t-statistics, and p-values, using bootstrapping and blindfolding procedures with 5,000 samples (see Table 4 and Table 5). The Stone Geiser coefficients (Q²) are greater than zero indicating that the model has real predictive relevance. The women’s model seems to be stronger according to R² and Q² parameters (see Table 6).

Table 4. Matrix of correlation between latent variables (general sample)

	BARRIERS	CAREER	ENTREPR.	MENTORING	WORKPLACE SKILLS	WORKPLAC E LEARNING
BARRIERS	0.802					
CAREER	0.134	0.883				
ENTREPRENEURSHIP	-0.027	0.367	0.720			
MENTORING	0.150	0.074	0.185	0.707		
WORKPLACE SKILLS	0.157	0.153	0.163	0.443	0.745	
WORKPLACE LEARNING	0.312	0.161	0.115	0.441	0.448	0.719

Note: Square root of AVE on diagonals in bold.

Table 5. The matrix of correlation between latent variables (women’s sample)

	BARRIERS	CAREER	ENTREPR.	MENTORING	WORKPLACE SKILLS	WORKPLACE LEARNING
BARRIERS	0.885					
CAREER	0.046	0.837				
ENTREPR.	-0.139	0.369	0.739			
MENTORING	0.187	0.197	0.140	0.712		

WORKPLACE SKILLS	0.079	0.246	-0.101	0.675	0.763	
WORKPLACE LEARNING	0.360	0.264	0.102	0.627	0.567	0.739

Note: Square root of AVE on diagonals in bold.

Table 6. Direct effects, explained variances and Stone Geiser Q² test for the endogenous variables.

Effects on endogenous variables	Direct effect (t-value)		Variance explained		Path Coeff. Diff. p Value
	General	Women	General	Women	
EFFECTS ON CAREER	R ² =0.149	R ² =0.218	Q ² =0.102	Q ² =0.110	
ENTREPR. -> CAREER	0.354***(4.495)	0.398*** (4.322)	0.083	0.127	0.044/ <u>0.048</u>
WORKPLACE LEARNING -> CAREER	0.120**(1.398)	0.286** (2.395)	0.067	0.092	0.166/ <u>0.039</u>
EFFECTS ON WORKPLACE LEARNING	R ² =0.323	R ² =0.497	Q ² =0.148	Q ² =0.261	
BARRIERS -> WORKPLACE LEARNING	0.225***(2.850)	0.271** (2.819)	0.080	0.141	0.046/ 0.380
WORKPLACE SKILLS -> WORKPLACE LEARNING	0.120***(2.805)	0.248**(2.391)	0.088	0.149	0.128/ 0.490
MENTORING -> WORKPLACE LEARNING	0.279**(4.108)	0.436*** (3.312)	0.155	0.207	0.157/ 0.598
EFFECTS ON WORKPLACE SKILLS	R ² =0.196	R ² =0.456	Q ² =0.087	Q ² =0.230	
MENTORING -> WORK PLACE SKILLS	0.443***(4.55)	0.675** (7.389)	0.196	0.456	0.232/ <u>0.051</u>

*** Significant at p<0.001, ** Significant at p<0.01, *Significant at p<0.1

The results show a significant and positive effect on the proposed relations. The positive impact of both entrepreneurship and workplace learning on career satisfaction ($\beta = 0.398$, $p < 0.0001$, $\beta = 0.287$, $p < 0.01$) was confirmed. In the women's subsample, the impact is higher ($\beta = 0.354$, $p < 0.001$, $\beta = 0.286$, $p < 0.01$) and the entrepreneurship factor plays a more important role. Entrepreneurship explains most of the variance in the careers in both samples (8.3 and 12.7%), being higher in the women's sample. The difference between both coefficients is significant according to MGA.

The effects on workplace learning are also fully verified, as are the relationships between barriers and workplace learning ($\beta = 0.225$, $p < 0.001$), the links between workplace skills and workplace learning ($\beta = 0.248$, $p < 0.001$) and those between mentoring and workplace learning ($\beta = 0.436$, $p < 0.01$). These results suggest that mentoring has a determinant and more significant impact on workplace learning (15.5% explained variance) than the perception of barriers and workplace skills (8.0 and 8.8%).

The women's subsample follows a similar pattern: there are relationships between barriers and workplace learning ($\beta = 0.265$, $p < 0.01$), between workplace skills and workplace learning ($\beta = 0.280$, $p < 0.01$), and between mentoring and workplace learning ($\beta = 0.388$, $p < 0.001$). Their explained variance is higher than in the case of the general sample, especially when it comes to mentoring (14.1, 14.9 and 20.7 %). However the difference between the coefficients is not significant according to the MGA.

Finally, mentoring and leadership positively and significantly impact workplace skills ($\beta = 0.443$, $p < 0.001$) with a variance explanation of 19.6%. Again, mentoring is more relevant in the women's subsample ($\beta = 0.675$, $p < 0.01$), with an excellent variance explanation (45.65%). The difference between the coefficients in both samples is significant according to the MGA.

The questions with a substantial impact on these variables were examined. Respondents considered a competitive attitude, being able to assume various responsibilities, initiative, and confidence and self-challenge the skills required in the workplace.

Workplace learning shows that discipline and rigor are vital factors for haute cuisine education, which is considered a hard, competitive, hierarchical, and challenging environment. Barriers reflect the need to renounce to family life, entertainment, or leisure activities, traveling, and friends. Travelling is conditioned to work events. Mentoring and leadership include the critical factor of having a mentor, being an authoritarian rather than a participative leader, although concerned by subordinates, and with the capacity to give clear instructions to assistants. Entrepreneurship is a complete outcome as a latent variable. It includes the aim of being a chef, to advance professionally, earn more money, have a better work-life balance, own a restaurant, be visible in the media, have public recognition, and have a good team. When it comes to

career satisfaction, respondents linked their success to having their restaurant, being awarded Michelin stars, and being recognized by the media.

Resulting model

H1. Workplace-required skills have a direct influence on a chef's career development. This assumption is partially supported since the kitchen learning environment moderates the required skills.

H2. Workplace learning and environment have a direct impact on a chef's career development. This hypothesis is partially demonstrated. Workplace learning and kitchen environment have a clear and direct effect on a chef's career development and are themselves influenced by mentoring and the leadership style, as well as the working skills needed by chefs. The latter has a moderating effect on this influence.

H3. Barriers and facilitators in the careers of women chefs act as a moderator in their development. This hypothesis has been demonstrated since barriers and facilitators have an effect on workplace learning and environment and therefore have an indirect moderating impact on a chef's career and satisfaction.

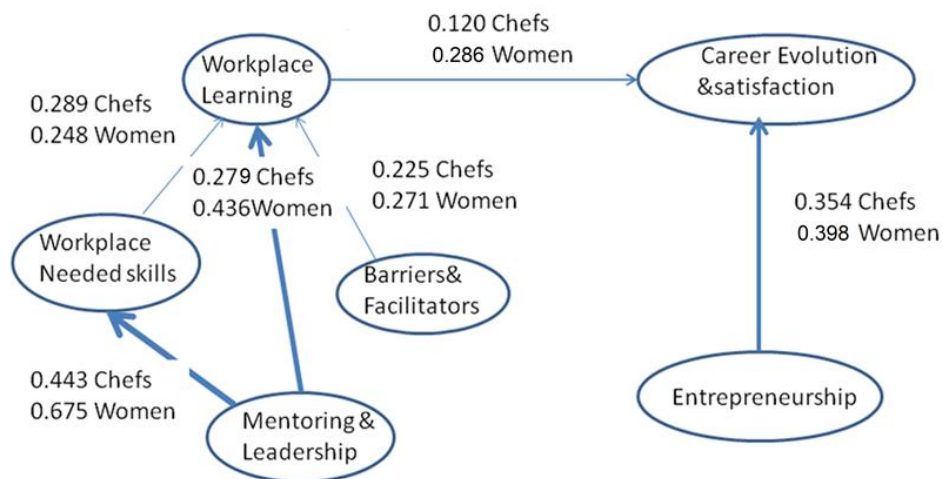
H4. Mentoring and kitchen prevalent leadership moderate the development of a women chef's career. This hypothesis proved right. Again, these variable influences workplace-required skills and workplace learning, with a higher impact on improving workplace-required skills as well as workplace learning and influencing a chef's career evolution.

H5. Entrepreneurship has a direct effect on a chef's career, playing a critical role in a woman chef's job. This hypothesis has therefore not been proved as entrepreneurship has a direct impact on career evolution and satisfaction, which is higher for women.

H6. Public media recognition, Michelin stars and having their restaurants are measures of career satisfaction and a chef’s success. This hypothesis was verified for the general sample and women, with a higher impact on their career evolution model.

From the previous results, it can be concluded that the proposed model should be modified following Figure 4 below. The beta coefficients of the PLS model have been revealed to compare the career path differences of chefs in general and the subset of women chefs.

Figure 4. A Chef’s career: Research resulting model



According to this model, workplace learning and environment have an impact on career evolution, but it is lower than entrepreneurial drive. Mentoring and leadership style have a strong influence on required skills and workplace learning and environment. Barriers and facilitators have less impact on workplace learning and environment. When considering gender, women need further efforts in workplace learning and environment and are better empowered by mentoring while barriers have a slightly more significant impact on them. Entrepreneurship is also a more substantial facilitator for women chefs.

Discussion

Haute cuisine is a branch of gastronomy that reflects excellence and innovation. The respondents confirmed the excellence brand image set up by the Michelin Guide, as noted by various authors (Vincent, 2016; Lane 2013). The survey also confirms that many skills and a long learning process are required to be a Chef de Cuisine. It also

points out that a chef's career is a highly demanding and lengthy (Zopiatis, 2010; Cooper et al., 2017). The research confirmed the proposals of Pratten (2003a, 2003b), Dornenburg and Page (2003) or O'Brien (2010). According to the research outcome although chefs must possess the technical and managerial skills as posed by Guyette (1981) or Pratten (2003a, 2003b), women stressed that specifically they required management skills more than men, such as being competitive, having more initiative in the kitchen and having enough confidence and self-challenging or assuming various responsibilities in the kitchen. This result supports the idea that there is a gender divide in the careers of chefs, where women have always been a minority as multiple authors such as Boone et al. (2013) or Harris & Giuffre (2015) pointed out. On the other hand, this result predisposes the controversy between the prevalence of human management versus technical skills in favor of the former.

This study aimed to identify how chefs built their career in general, and whether women have specific barriers or need to develop particular skills. The results confirmed this as a perception of the surveyed women chefs, as some authors have previously noted (i.e. Woods & Viehland, 2000). It established that female chefs had to overcome, primarily, certain obstacles such as work-life balance and family orientation as well as other barriers, less discussed in the literature, such as personal social life development and amusement (Guerrina, 2002). Other obstacles which were also outlined were renouncing to social entertainment and traveling.

Women emphasized the kitchen workplace environment as a significant hindering factor in their career as chefs. It appears to be a hard and stressful, challenging, highly competitive career, requiring discipline and rigor. But, what would be an ideal kitchen environment for women chefs? The survey confirmed what a previous focus group research had advanced (Haddaji et al., 2017a). Women chefs think that for learning and developing inside an innovative and challenging kitchen, it is essential to have a flexible and adjusted atmosphere at the same time while keeping learning, doing a good job and striving to advance. Satisfaction from work environments depends on the kitchen chefs and their colleagues. It helps by reducing masculinity dominance in the kitchen and reduces hostility by having mixed gender teams and promoting competent chefs. This conclusion confirms some of the literature findings on cooking, lifelong learning and a positive enhancing kitchen culture (i.e., Sherlock & Williamson, 2014; Cooper et al., 2017) and some specific masculine

contexts (Druckman, 2012, pp. 208; Bourdain, 2013, pp.44-45; Harris & Giuffre, 2015; Heilman & Hayes, 2005).

Women respondents emphasized the crucial role that mentoring played for their career ascension, confirming the theories of Ibarra et al. (2010) and Mac Con Iomaire (2008) in a chef's career. In contrast, the global sample didn't outline the mentorship role in a chef's career. About the dominant leadership style, the global sample reflected a more authoritarian and related to the task leadership style of the chefs. However, the women chefs sample showed a precise balance between strict task-oriented and employee-oriented forms of kitchen leadership styles, confirming both Black (2016) and Purcell (1996) or Williams and Dellinger (2010) conclusions.

The research underlines the role of entrepreneurship for women wishing to access a chef's position. This activity meant starting and developing their restaurant and bringing together their team. Female respondents explained that this approach helped them to overcome specific obstacles, advance in their career, improve their work-life balance, earn more money and that it facilitated public recognition. This issue confirms the proposals of some authors (Balazs, 2002; Harris & Giuffre, 2015; Anderson, 2008; and Harrington & Herzog, 2007). This proposal was more crucial for women than for chefs in general.

But how could we measure a chef's success and career satisfaction? Male and female chefs were asked how they could attain gratification in their career or how their success could be measured. Both agreed on three essential aspects: achieving Michelin stars, owning their restaurants and being recognized by media: television, radio, journals, the internet, and gastronomy prizes. This aspect confirms some of the adopted paradigms (Childers & Kryza, 2015) and proposals in the literature for female chef recognition (Bartholomew & Garey, 1996; Eagly & Carly, 2007).

The research also identified a high correlation between entrepreneurship, workplace learning, and career satisfaction, which is a significant holistic result. The women's answers showed an even higher impact on this construct.

Practical implications

The results highlight new findings that complement the body of literature. The haute cuisine work environment emerges as hard, competitive, masculine, hierarchical, and challenging. It requires a high level of discipline and rigor, and it affects family and social life, which is almost sacrificed to learn and evolve. Kitchen professionals must

also be competitive, assume various responsibilities and challenge themselves continuously.

However, how relevant do these obstacles seem for women chefs? It must be emphasized the relevance of certain elements that could undermine them. It must be noted the role that mentoring plays in a female chefs career. Mentors possessing leadership and professional excellence skills contribute to a kitchen environment that facilitates women access to chef positions. Having a mentor is necessary, especially for women to promote their learning and enhance their leadership. It has to be noted that previous work experiences mark a chef's progression more than in other professions. Women should be mentored to strengthen their leadership skills. Managerial skills should form part of the curriculum at culinary schools.

To avoid harassment in general and gender discrimination mixed gender teams are crucial to prevent forcing women to adopt masculine traits to survive as practitioners have pointed out (Bourdain, 2013; Druckman, 2012).

The typical leadership style in the kitchen is considered authoritarian; however, chefs should also show concern for subordinates and give clear instructions. Authority is shown in the hierarchy and the organization of the kitchen, but it does not necessary exclude continuous communication and care for the team. This conclusion suggests that leadership requirements based on masculine traits are somewhat cultural and that communal quality is also needed, such as consensus building and showing concern for the staff. It has been pointed out (George & Hancer, 2004) that the relationship between chefs and subordinates improves with the former's career advancement.

Chefs reported finding satisfaction in their job from owning their restaurant, obtaining Michelin stars and achieving public recognition. To succeed in an entrepreneurial project, chefs needed to have the drive to be their boss, to open their restaurant, to be ambitious, to have a better work-life balance, to achieve public recognition and visibility, and to have a good team working with them. Entrepreneurship is thus an excellent strategy for higher career satisfaction and evolution. Female chefs associations (e.g., Women Chefs and Restaurateurs, New York Women's Culinary Alliance, Association des Feminine chefs Restaurateurs, etc.) support the progression and public image of female chefs.

The above implications are conclusive for the desired curricula of culinary schools. Additional emphasis should be given to subjects related with managerial skills

such as communication, motivation or leadership as it has already pointed out by some authors (Müller, et al., 2009). Entrepreneurial activity and skills should be added to the actual culinary schools curricula which is absent in most programs. It also could be offered for lifelong learning courses.

Limitations

The survey results do not show a significant gender difference in the answers, and this should be further researched. In a previous factor analysis (Haddaji et al., 2017b), we found that replies from women and men were perhaps too similar, and after questioning selected individuals (in the sample), this was found to be due to the political correctness of questions and responses. Items that did not include gender consideration led to a “correct” answer without the previously mentioned limit (i.e., “sacrificing family-oriented life”) and resulted in a significant statistical difference between the responses of men and women. It may be objected the inclusion of students, cooks and apprentices. However, their perception of the kitchen environment influenced their career orientation.

Finally, due to the available resources, the length of the questionnaire, and the busy agendas of chefs in general, we were only able to collect 202 answers. A future survey has been planned among the 174 Michelin restaurants in Spain to review the subject more thoroughly

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