

Individual Innovativeness of Chefs*

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Abstract

The purpose of this study is to evaluate individual innovativeness of chefs. Data were collected through a questionnaire developed based on Hurt, Joseph and Cook's (1977) "Individual Innovativeness Scale", from the chefs attending to the 15th *International Istanbul Gastronomy Festival* organized by the *Federation of Turkish Chefs* in Istanbul in *TUYAP Fair and Exhibition Center* between the dates 2nd and 5th February 2017, through the convenience sampling technique. In return, among 103 questionnaires, 101 of them were usable for statistical analysis. The reliability analysis of Cronbach's Alpha showed highly acceptable result ($\alpha=.96$) and explanatory factor analysis extracted two factors; (a) resistance to innovation and (b) familiarity (tendency) to innovation. These two factors have similar mean values indicating the midpoint level of individual innovativeness of chefs both in resistance and tendency to innovation. Further to that, resistance and tendency to innovation differ by business type, term of employment in the current business and total term of employment in the sector.

Keywords: Chefs, Individual Innovativeness, Survey

*This study was presented in the First International Congress on Future of Tourism: Innovation, Entrepreneurship and Sustainability (Futourism 2017) Congress.



**Journal of Business
Management and
Economic Research**
Vol.1, Issue.1, 2017
pp.26y 38

Doi: 10.29226/jobmer.2017.2

Suggested Citation:

Karamustafa, K., Kılıçhan, R., Çalhan, H., (2017) Individual Innovativeness of Chefs, *Journal of Business Management and Economic Research*, Vo.1, Issue.1, pp.26-38.

Introduction

Globally increasing competition and rapidly changing technologies make businesses more open to failure in an unprecedented manner. Therefore, being innovative and adaptive to changes is gaining more and more importance in today's competitive business environment. In the future, the only way to grow as a successful business is related with innovativeness, which, in fact, makes significant contribution to the performance and competitiveness of businesses (Tajeddini and Trueman, 2014: 62). As any other businesses, tourism businesses also act in a completely competitive business environment and therefore competitiveness of tourism enterprises depends on satisfying the potential customers' new product needs with the ability of producing high quality and low cost products (Zehrer, Pechlaner and Reuter, 2013: 12). The most significant benefit of innovation for the food and beverage enterprises is its contribution to increase the business competitiveness. However, innovation in food and beverage sector can easily be replicated by competitors. When innovation is considered as a continuous business process in food and beverage sector, it is expected to make a contribution to increase the barriers against me-tooism in competition. By this way, innovation helps food and beverage enterprise to gain competitive advantage in the long run (Ottenbacher and Harrington, 2007: 444). Today professional human resources management applications, as being source of organizational success, lead a business to be long term innovation oriented (Balazs, 2002: 248). As being one of the most important segments of human resources for food and beverage operations, chefs play significant roles in innovativeness and successful innovation applications of food and beverage operations. Although there is a quite number of studies on innovation and innovativeness and also their benefits to businesses, there is a lack of focus on innovation and innovativeness in tourism businesses (Erdem, Gökdeniz and Met, 2011: 79; Coşkun, Mesci and Kılınç, 2013: 103; Küçük and Kocaman, 2014: 38), particularly studies on innovation and innovativeness focusing on food and beverage operations are very limited (Ottenbacher and Harrington, 2009: 236; Çakıcı, Çalhan and Karamustafa, 2016: 53). Some researchers studying innovation in food and beverage operations (Ottenbacher and Harrington, 2007; Stierand and Lynch, 2008) believe that studying chefs' innovativeness, innovation behaviors, beliefs on and perceptions of innovation in different samples, places and market segments will make contribution to the related body of knowledge representing the importance of the study. In this context, the aim of this study is to evaluate individual innovativeness of chefs.

1. Literature Review

The importance of innovation and its necessity in gaining competitive advantage by the businesses have been emphasized by both the academic environments and practitioners. In this respect, businesses focus on development in products, processes, techniques and procedures, and change managerial systems continuously. Activities of businesses considering innovation are not only to satisfy continuously changing needs and wants of consumers but also to facilitate increase of product quality and reduction of costs (Tüzünkan and Albayrak, 2015: 447). The word innovation has its roots in Latin which is "innovare" meaning doing new things; it is also seen as a process of transforming opportunities into ideas and putting these ideas into practice (Tidd, Bessant and Pavitt, 2005: 66). Organization of Economic Cooperation and Development (OECD) Oslo Manual (2005: 46) defines the term innovation as "the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations". The concept of innovativeness is defined as supporting and adoption tendency to new ideas, originality, experiments and creative processes which result in new goods, services or technological processes (Lumpkin and Dess, 1996: 142). Innovativeness is discussed and defined by Garcia and Calantone (2002: 113) both from the macro and micro perspectives. From the macro perspective,

innovativeness is seen as the capacity of creation of innovation geared to changes in science, technology and or an industrial market structure while it is described as the capacity of creation of innovation which is expected to affect a business' existing marketing and technologic sources as well as its capabilities, knowledge and capacity or strategies from the micro perspective.

Gebert, Boerner and Lanwehr (2003: 42) define the innovativeness concept as the capacity of a firm to improve its existing products and or processes and also its ability to benefit from its creative resources. According to Hult, Hurley and Knight (2004: 430), innovativeness can be expressed as the capacity of a firm to develop new products, processes or ideas. Another definition of innovativeness is that it is an organizational culture which represents openness to new ideas and willingness and adoption of innovations by the owners particularly in small businesses (Verhees and Meulenber, 2004:138). Based on these definitions, it can be said that innovativeness is defined from the business perspective and seen as the capacity and adoption of innovation. Within the context of food and beverage sector, in terms of innovativeness it is possible to say that the individual innovativeness of employees determines the innovation capacity of a business. In fact, as Crotts and Gupta (2013: 25) argue, in labor intensive sectors such as tourism, having highly qualified human resources is significantly important for innovativeness; hence the importance of individual innovativeness is apparent.

1.1. Individual Innovativeness

While some individuals tend to take experience risk of an innovation more, others can be skeptical to new ideas and reluctant to any change in the current applications. Because of various differences each person has, people react differently to a new idea, application or object, or adopting an innovation. In the case of an innovation an individual acts in accordance with his or her personality, culture and personal situation (Yi, Fiedler and Park, 2006: 394). In this context, the concept of individual innovativeness is seen as a period of willingness to change, and its adoption within the limits of personal situation (Hurt, Joseph and Cook, 1977: 58). Rogers (1983: 22) defines individual innovativeness as an adoption level of new ideas by one person in advance of comparing to others. Agarwal and Prasad (1998: 206) define the concept of individual innovativeness in the context of technology; according to them individual innovativeness is individual's willingness to try out a new information technology.

In fact, the roots of individual innovativeness go back to the Rogers' (1962) Diffusion of Innovations Theory. According to this theory, as Rogers argues in his later study (1983: 241), all individuals within a social system do not adopt an innovation at the same time. Moreover, adoption occurs within a time span and depending on the individuals' time to start to use an innovation. Individuals' level of innovativeness can be classified by adoption categories. Defining each individual one by one based on their innovation adoption levels is impossible; therefore, grouping them based on their similarities on innovativeness adoption levels is a requirement. For this purpose, based on their innovativeness levels, Rogers (1983) distinguishes individuals into five groups as follows; innovators, early adopters, early majority, late majority and laggards. Innovators (2.5%) are the self-confident and aggressive ones who are eager to try out new ideas and new things. Early adopters (13.5%) are seen as opinion leaders in a social system, and potential adopters value their knowledge and recommendations on innovations. Early majority (34%) and late majority (34%) are the critical mass that ensures adoption. The former group looks for productivity and practical benefits more than coolness and reputation; they adopt innovations earlier than average level of adoption. The latter group (34%) is similar to early adopters but also expects a lot of help and support before they are willing to commit; they are suspicious and they do not tend to adopt any innovation before seeing others adopted. Laggards (16%), as the term implies, are slow to

adopt. They are the most resistant group to change; and they do so only when forced to adopt because everyone else has (already adopted innovation). In other words, they are the last individuals to adopt an innovation. They generally take the past as reference and they make decisions based on traditional values and communication with others such as reference groups (Rogers, 1983: 248-250). Rogers' (1962) classification of individual innovativeness was used by Hurt, Joseph and Cook (1977) who developed a scale consisting of 20 statements to measure individual innovativeness. They indicate that this scale is found to be consistent to measure the individual innovativeness. In this study, the scale developed by Hurt, Joseph and Cook (1977) has been adapted and applied to measure the individual innovativeness of chefs.

1.2. The Importance of Innovativeness of Chefs

To create successful food and beverage products and sustain them, it is inevitable to make adjustments and improvements based on technical capabilities of food and beverage operations and of course businesses, and most importantly chefs' experiences, knowledge and ideas consistent with continuously changing customer expectations and wants (Presenza, Abbate, Casali and Perano, 2017: 82). Chefs are qualified employees who give an opportunity of tasty and unexpected experiences to their customers and they can also be called as artificers and creators due to their qualifications (Hu, Horng and Teng, 2016: 194). Chefs affect gastronomic customs by creating new food innovations with their ideas and accumulation of knowledge and also act as charismatic leaders to their subordinates (Stierand and Lynch, 2008: 3). Chefs' charismas play an important role in forming business strategy and innovation culture in the organization (Balazs, 2002: 249). Chefs' leadership, innovativeness and motivation are the determinants of food related innovations in food and beverage operations. The main element of chefs' innovativeness is related to their search of new things to differentiate from the competitors (Albors-Garrigos, Barreto, García-Segovia, Martínez-Monzó and Hervás-Oliver, 2013: 33). Food and beverage enterprises, seeking to be successful both in the short-run and long-run, have to act with the chefs who are adaptable to changes and innovations. In addition to this, for chefs to be successful it is a need to develop innovations systematically (Ottenbacher and Harrington, 2007: 444). Innovative chefs have common characteristics of professionalism, loyalty, curiosity and willingness to learn, foresightedness, ambitiousness, trustiness, risk taking, decisiveness, determination and charisma (Horng and Lee, 2007: 7).

2. Methodology

In this section, objectives, sampling and data collection techniques, data analyses and results are presented.

2.1. Objectives

It is possible to distinguish the objectives of this study into two: (a) conceptual objectives and (b) empirical objectives. In the case of the former, as mentioned before, while the aim is to make contribution to the body of knowledge (current knowledge accumulation), in the case of the latter, as this study is carried out to evaluate the individual innovativeness of chefs working through primary data, it is expected to provide some practical implications.

2.2. Sampling and Data Collection

By using convenience sampling technique, primary data was collected from the chefs attending to the 15th *International Istanbul Gastronomy Festival* organized by the *Federation of Turkish Chefs* in Istanbul in *TUYAP Fair and Exhibition Center* between the dates 2nd and 5th February 2017. Primary data collection tool was a questionnaire consisting of 20 items developed by Hurt, Joseph and Cook (1977). However, these items were adapted to chefs and appropriate questions on demographics were also added. According to De Vellis (2014: 157), a healthy data analysis requires a sample size that equals to five to ten fold of each item on

the scale. In this context, since the scale used in this study has 20 statements, it was calculated that a sample of 100 chefs would be satisfactory for the data analysis. Considering the non response rate, 150 questionnaires were distributed, in total 103 of them returned, and 101 of which were usable for the data analysis, representing approximately 67% response rate.

2.3. Analysis and Findings

Data were analyzed by a statistical package program. Mainly descriptive statistics, analysis of variances and explanatory factor analysis were used in the data analysis. Before applying appropriate statistics, *Shapiro-Wilk* and *Kolmogorov Smirnov* tests as normality tests of distribution were used.

Table 1. Shapiro-Wilk, Kolmogorov Smirnov Significance Levels and Skewness and Kurtosis Values

Individual	n	Skewness	Kurtosis	ShapiroWilk (p)	Kolmogorov Smirnov (p)
Innovativeness	101	-1,004	-,466	,000	,000

The results indicate that the data is not distributed normally and it is also argued that Likert type ordinal scales produce nonparametric data (Karamustafa and Biçkes, 2003). However, as normality tests can be affected by the sample size, before deciding to use nonparametric tests, skewness and kurtosis values were calculated. As given in Table 1, skewness and kurtosis values are between ± 2 indicating normal distribution of the data (George and Mallery, 2010), hence it is more appropriate to apply parametric tests to the primary data collected from the chefs through the questionnaires. Considering this issue, parametric tests of two independent samples of *t-test* and ANOVA were used to indicate the differences among demographics if any, and explanatory factor analysis was applied to explore the dimensions related to individual innovativeness of chefs. Reliability analysis results are given in Table 2.

Table 2. Reliability Analysis

Methods	Value
Cronbach's Alpha Method	.96
Split-half Method: (a) First Half	.92
Split-half Method: (b) Second Half	.94
Guttman's Method	Lambda 1: .91 Lambda 2: .96 Lambda 3: .96 Lambda 4: .92 Lambda 5: .94 Lambda 6: .97
Parallel Method	.96 Unbiased: .96
Strict Parallel Method	.96 Unbiased: .96

Reliability analyses of Cronbach's Alpha, Split-half, Guttman's, Parallel and Strict Parallel methods were calculated and all reliability values are above 0.80. Given this, it is possible to say that the scale is highly reliable (Kalaycı, 2010: 405-406). In order to evaluate if the data is appropriate for factor analysis or not, *Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy test* and *Bartlett's sphericity test* were applied. The KMO coefficient (0.93) of the scale is greater than 0.90 which shows excellent sampling adequacy (Kalaycı, 2010: 322). According to *Bartlett's sphericity test*, another test of appropriateness for factor analysis, the value for this test is found to be 1742.143 at $p \leq .000$ level of significance. Based on these appropriateness results, explanatory factor analysis was carried out. The results of factor analysis for the scale consisting of 20 items are given in Table 3.

Table 3. Explanatory Factor Analysis

Factors / Items	Factor Loading Values		Extraction	Eigenvalue	Variance Explained	Mean	Cronbach's Alpha
	1	2					
Familiarity (Tendency) to Innovation							
I consider myself to be creative and original in my thinking and behavior.	.823		.730	11.198	62.211	3.54	.961
I enjoy trying new ideas.	.819		.819			3.48	
I feel that I am an influential member of my peer group.	.813		.760			3.52	
I enjoy taking part in the leadership responsibilities of the group I belong to.	.791		.779			3.60	
I am challenged by unanswered questions.	.790		.696			3.64	
My peers often ask me for advice or information.	.789		.830			3.44	
I am an inventive kind of person.	.775		.758			3.57	
I seek out new ways to do things.	.770		.738			3.53	
I am receptive to new ideas.	.738		.676			3.65	
I am challenged by ambiguities and unsolved problems.	.669		.688			3.49	
I find it stimulating to be original in my thinking and behavior.	.588		.599			3.55	
Resistance to Innovation							
I rarely trust new ideas until I can see whether the vast majority of people around me accept them.		.775	.693	1.239	6.882	3.49	.895
I tend to feel that the old way of living and doing things is the best way.		.756	.667			3.50	
I am suspicious of new inventions and new ways of thinking.		.714	.539			3.50	
I am aware that I am usually one of the last people in my group to accept something new.		.686	.598			3.39	
I must see other people using new innovations before I will consider them.		.675	.604			3.36	
I am generally cautious about accepting new ideas.		.637	.605			3.51	
I often find myself skeptical of new ideas.		.612	.657			3.56	
Factor Extraction Method: Principal Components Method; Rotation Method: Varimax Kaiser-Meyer-Olkin Measure of Sampling Adequacy: %93.500 Bartlett's Test of Sphericity: 1742.143; sd: 153; p<0.000 Total Variance Explained: %69.094 Cronbach's Alpha (Whole Scale): .96 Scale Values: 1= Strongly Disagree, 2= Disagree, 3= Neither Agree Nor Disagree, 4= Agree, 5= Strongly Agree.							

Principal component analysis (PCA) was chosen as a method of data reduction (factor analysis) to determine factor structure and identify significant interpretable factors, varimax which is one of the orthogonal rotation methods was used and factor loadings above 0.50 are given in Table 3. As a result of the factor analysis the scale consisting of 20 items gathered under two different dimensions: "familiarity (tendency) to innovation" and "resistance to innovation". The statement of "I am reluctant about adopting new ways of doing things until I see them working for people around me" was loaded to "familiarity (tendency) to innovation"

dimension and the statement of "I frequently improvise methods for solving a problem when an answer is not apparent" was loaded to "resistance to innovation" dimension. The factor analysis was carried out based on 18 items excluding the abovementioned statements of "I am reluctant about adopting new ways of doing things until I see them working for people around me" and "I frequently improvise methods for solving a problem when an answer is not apparent" since they were thought to be loaded to incorrect dimension.

According to the results of factor analysis, dimension of "familiarity (tendency) to innovation" consists of 11 statements and explains 62.211 of total variance with the eigenvalue of 11.198; dimension of "resistance to innovation" consists of seven statements and explains 6.882% of total variance with the eigenvalue of 1.239. Explained variance ratios between 40% and 60% are expected satisfactory in the analysis carried out in social sciences (Tavşancıl, 2010: 48 quoting Scherer, Luther, Wiebe and Adams, 1988). In this research, the ratio of total variance explained of the scale is 69.094% which is above the expected level.

Table 4. Demographics

Characteristics	n	%	Characteristics	n	%
Gender			Business Type		
Female	14	13.9	Hotel	48	47.5
Male	87	86.1	Restaurant	34	33.7
Total	101	100	Other (Public/Private Sector)	19	18.8
Age			Total	101	100
35 years old and less	22	21.8	Position		
36 to 40 years old	22	21.8	Executive Chef	34	33.7
41 to 45 years old	13	12.9	Sous Chef	37	36.6
46 to 50 years old	24	23.8	Chef de Partie	30	29.7
51 years old and more	20	19.8	Total	101	100
Total	101	100	Number of Staff		
Marital Status			Less than 10	32	31.7
Married	72	71.3	10 to 19	40	39.6
Single	29	28.7	More than 20	29	28.7
Total	101	100	Total	101	100
Education Level			Term of Employment in the Current Business		
Secondary school	18	17.8	Less than 5 years	50	49.5
High school	64	63.4	5 to 9 years	27	26.7
Associate's degree	8	7.9	More than 10 years	24	23.8
Bachelor's degree	9	8.9	Total	101	100
Graduate degree	2	2	Total Term of Employment in the Sector		
Total	101	100	10 years and less	25	24.8
Vocational Training/Education			11 to 20 years	33	32.7
Hygiene-sanitation-cleaning	30	29.7	21 to 30 years	35	34.7
Work safety	49	48.5	31 years and more	8	7.9
Presentation-decoration	18	17.8	Total	101	100
Academy/Chef training	2	2	Overseas (Abroad) Experience		
In house training	2	2	Yes	26	25.7
Total	101	100	No	75	74.3
Efforts for Professional Career Development			Total	101	100
Attend a seminar or course	40	39.6			
Internet research	34	33.7			
Literature review	1	1			
Get service from competitors	4	4			
All	22	21.8			
Total	101	100			

Most of the participating chefs are male (87 out of 101 representing 86.1%), between the ages of 46 and 50 (24 out of 101 representing 23.8%), married (72 out of 101 representing 71.3%) and high school graduate (64 out of 101 representing 63.4%). Around half of the participating

chefs attended a work safety course (49 out of 101 representing 48.5%) and a career development seminar or course (40 out of 101 representing 39.6%). Most of the participating chefs are working at hotels (48 out of 101 representing 47.5%), as *sous chefs* (37 out of 101 representing 36.6%); and the number of staffs working in their department is between 10 and 19 (40 out of 101 representing 39.6%). They have been working in the current business for less than five years (50 out of 101 representing 49.5%), have professional work experience of 21 to 30 years (35 out of 101 representing 34.7%) and do not have any overseas experience (75 out of 101 representing 74.3%).

In order to understand whether the dimensions of chefs "*familiarity (tendency) to innovation*" and "*resistance to innovation*" differentiate in terms of demographics and other personal features or not, two independent samples of *t-tests* and ANOVA tests were applied as appropriate. As the results of the statistical tests imply, these two dimensions of chefs do not differentiate significantly in terms of gender, age, marital status, education level, career development, work position, number of staff and overseas experience. Tables 5, 6 and 7 indicate the two dimensions of chefs, i.e. "*familiarity (tendency) to innovation*" and "*resistance to innovation*", differentiate in terms of three personal features.

Table 5. Results of ANOVA regarding Type of Business*

Individual Innovativeness	Type of Business		n	Mean	s.d.	F	p	Multiple Comparisons
Familiarity (Tendency) to Innovation	A	Hotel	48	3,79	,720	3,608	,031	Tukey HSD A > B
	B	Restaurant	34	3,28	1,056			
	C	Other (Public/Private Sector)	19	3,42	,865			
Resistance To Innovation	A	Hotel	48	3,61	,815	1,740	,181	No difference
	B	Restaurant	34	3,41	,860			
	C	Other (Public/Private Sector)	19	3,23	,582			

*: n= 101; Confidence Interval: %95; Significance Levels: p<0.05; Scale Values: 1= Strongly Disagree, 2= Disagree, 3= Neither Agree Nor Disagree, 4= Agree, 5= Strongly Agree.

In order to understand whether chefs' innovativeness differentiates in terms of their business type or not, an ANOVA test was carried out. As the results given in Table 5 indicate, chefs' "*familiarity (tendency) to innovation*" dimension differentiates considering their business type, though "*resistance to innovation*" dimension does not. In this context, it can be stated that chefs working at hotels are more innovative than those working at independent food and beverage enterprises (restaurants).

Table 6. Results of ANOVA regarding the "Term of Employment in the Current Business"

Individual Innovativeness	Term of Employment at Current Business		n	Mean	s.d.	F	p	Multiple Comparisons
Familiarity (Tendency) to Innovation	A	Less than 5 years	50	3,49	,926	1,858	,162	No difference
	B	Between 5 to 9 years	27	3,82	,673			
	C	More than 10 years	24	3,37	1,009			
Resistance to Innovation	A	Less than 5 years	50	3,38	,779	4,026	,021	Tukey HSD B > A and C
	B	Between 5 to 9 years	27	3,83	,754			
	C	More than 10 years	24	3,26	,797			

*: n= 101; Confidence Interval: %95; Significance Levels: p<0.05; Scale Values: 1= Strongly Disagree, 2= Disagree, 3= Neither Agree Nor Disagree, 4= Agree, 5= Strongly Agree.

In order to understand whether chefs' innovativeness differentiates regarding the “term of employment in the current business type” or not, an ANOVA test was carried out. As the results given in Table 6 indicate, chefs' “resistance to innovation” dimension differentiates regarding the “term of employment in the current business”, though “familiarity (tendency) to innovation” dimension does not. In this context, it can be stated that chefs employed in the current business between 5 and 9 years are more resistant to innovation than those employed less than 5 years and more than 10 years.

Table 7. Results of ANOVA regarding Total Term of Employment in the Sector*

Individual Innovativeness	Total Term of Employment		n	Mean	s. d.	F	p	Multiple Comparisons
Familiarity (Tendency) to Innovation	A	10 years and less	25	3,55	,824	2,915	,038	Tamhane's T2 C > B
	B	Between 11 to 20 years	33	3,21	1,037			
	C	Between 21 to 30 years	35	3,81	,749			
	D	31 years and more	8	3,78	,732			
Resistance to Innovation	A	10 years and less	25	3,30	,671	1,140	,337	No difference
	B	Between 11 to 20 years	33	3,40	,894			
	C	Between 21 to 30 years	35	3,66	,749			
	D	31 years and more	8	3,46	,950			

*: n= 101; Confidence Interval: %95; Significance Levels: p<0.05; Scale Values: 1= Strongly Disagree, 2= Disagree, 3= Neither Agree Nor Disagree, 4= Agree, 5= Strongly Agree.

In order to understand whether chefs' innovativeness differentiates regarding the “total term of employment” in the sector or not, an ANOVA test was carried out. As the results given in Table 7 indicate, chefs' “familiarity (tendency) to innovation” dimension differentiates regarding the “total term of employment”, though “resistance to innovation” dimension does not. In this context, it can be stated that chefs employed in the sector between 21 and 30 years are more innovative than those employed between 11 and 20 years.

3. Conclusion

Food, as a tourist product, is important for those travelling for the purpose of gastronomy. Quality of gastronomy tourism depends on food culture, appropriate climate for food cultivation, technology and qualified human resources as known chefs. Chefs are the decision makers in the creation, preparation and even serving food. Innovation is important for food and beverage enterprises as in any other businesses. However, individual innovativeness of chefs are more important in creating attractive and competitive food menus. In this context, the aim of this study was to evaluate individual innovativeness of chefs. Statistical analyses were carried out on the data collected through a questionnaire developed based on Hurt, Joseph and Cook's (1977) "Individual Innovativeness Scale", from the chefs attending to the 15th International Istanbul Gastronomy Festival organized by the Federation of Turkish Chefs in Istanbul in TUYAP Fair and Exhibition Center between the dates 2nd and 5th February 2017, by using the convenience sampling technique. In return, among 103 questionnaires, 101 of them were usable for statistical analysis. The reliability analysis of Cronbach's Alpha showed highly acceptable result ($\alpha=.96$) and explanatory factor analysis extracted two factors; (a) resistance to innovation and (b) familiarity (tendency) to innovation. These two factors have similar

mean values indicating the midpoint level of individual innovativeness of chefs both in resistance and tendency to innovation. Further to that, resistance and tendency to innovation differ by business type, term of employment in the current business and total term of employment in the sector. For rigorous analyses, the number of questionnaires is not adequate, therefore replication of this study can be done in larger samples in different places and a comparative study can be more productive for the individual innovativeness knowledge available in the current literature.

Acknowledgement

We appreciate the significant proof reading contribution of Ms. Zeynep Tasdemir who works as an English instructor at the Faculty of Tourism, Erciyes University, Kayseri, Turkey.

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