

Journal of Engineering Research

GENDER AND ITS IMPACT ON THE BURNOUT LEVEL OF FOOD AND BEVERAGE MSME MANAGERS IN THE STATE OF SONORA

Martin Cadena-Badilla

Arturo Vega-Robles

Agustin Mejias Acosta

Joaquin Vasquez Quiroga

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



Abstract: The global economic integration of recent years has caused the need for MSME managers to increase their efforts to grow their companies and achieve better results. These demands have led them to suffer physical and mental exhaustion. This mental exhaustion is known as Burnout Syndrome (SB) or Burnout Syndrome, which today greatly affects the good performance of these people at the head of their companies. This work is part of an investigation in this construct carried out in the state of Sonora, Mexico. The objective is to determine the influence of the gender of the Directors of these companies on the Burnout Level, for which a random sample of 342 companies was taken and a significance level of 5% was used. When determining the relationship between gender and Burnout Level, It was found that there is no significant difference between them. Subsequently, it was analyzed by its dimensions and there was no difference either, but when doing it for each item (22 items) it was found that men rated themselves higher than women in an item referring to Better Personal Achievements and in another referring to Emotional Exhaustion. In the Global Statistical Validation it can be concluded that the influence of gender on the Burnout Level and on the results is not significant.

Keywords: Gender – MSMEs – Burnout Syndrome – MBI Instrument

INTRODUCTION

A growing participation of women in business in recent years shows the importance of how gender is increasingly becoming a factor influencing company results. The case of the USA can be cited, where one in eleven women is the owner and manager of businesses, with which it can be estimated that approximately nine million are owners of their own businesses (Hopkins, 2003; Vega-Robles, Romero and Cadena- Badilla, 2013).

The National Women's Foundation (2004) reports that women were generating twice as many new businesses as men.

In the last decade, entrepreneurial researchers have conducted studies on the relationship between gender leadership as a key demographic variable in business results. When comparing the results of businesses led by men versus women, it was found that on the one hand there are significant differences in business performance according to gender (Du Rietz and Henrekson, 2000; Fasci and Valdez, 1998; Rosa, Carter, and Hamilton, 1996), while other researchers state that there are no significant differences between men and women (Johnson & McMahan, 2005; Watson, 2002; Anna, Chandler, Jansen, & Mero, 2000). In this review of the state of the art, no studies after these years were found.

GENDER AND MSMES

In Mexico, the participation of women has increased in recent decades, according to the National Institute of Statistics and Geography (INEGI) that the total percentage of women entrepreneurs is 21.1 and they direct 48% of Micros, Small and Medium Enterprises (INEGI, 2015).

Studies carried out reveal that more than 98% of the universe of formal and informal companies in many countries are located in the group of MSMEs, having a high participation in total sales, exports, GDP and employment (Carrasco, 2005). From this it can be deduced that any problem that this type of company is going through has a directly proportional unfavorable effect on the macroeconomic and social indicators of the country of reference (Cadena-Badilla, 2013).

MSMEs are a fundamental element for the economic development of countries, both for their contribution to employment and for their contribution to the Gross Domestic Product, constituting, in the case of Mexico,

more than 99.8% of the total economic units. of the country, representing around 52% of the Gross Domestic Product and contributing to generate more than 72% of formal jobs, (INEGI, 2015); (Calderon, 2016). MIPYMES in Mexico are established under business stratification criteria according to the Official Gazette of the Federation (DOF) of June 30, 2009, which classify micro, small and medium-sized enterprises (MIPYMES) according to the number of people employed and the sector they belong to (Table 1).

This study contributes to a better understanding of the effects of gender on Burnout Levels and on the results of these companies. When reviewing the state of the art, studies on gender and Bournout were found in the health area (Aranda, 2006); and in the teaching area (Aldrete, González and Preciado, 2008); but no studies were found in Mexico applied to MSMES with sufficient scientific rigor (multifactorial analysis, high reliability, content validity, criterion validity, concurrent validity, predictive validity and construct validity) where gender is related to the level of Burnout, so a field study was used in companies (MSMEs) in the state of Sonora, in order to know this relationship. There is only one previous study applied to market orientation in the hotel sector (Vega-Robles, Romero and Cadena-Badilla, 2013).

BURNOUT SYNDROME

Freudenberger (1974) defined Burnout as “a feeling of failure and an exhausted or spent existence that results from an overload due to energy demands, personal resources or the spiritual strength of the worker”, which locates the negative feelings and emotions produced by Burnout in the work context, since it is the one that can cause such reactions. It is considered a “emptying of oneself” caused by the exhaustion of physical and mental resources after excessive effort to achieve a

certain unrealistic expectation imposed by him, from the organizational context.

Gil-Monte and Peiró, (1999), define this Burnout Syndrome (SB) as a syndrome of “burning out from work”, mental wear and tear in daily activities and the problems of dealing with these activities.

Through different studies, different definitions have been proposed. The best developed and most accepted definition of Burnout to date has been the one elaborated by Garcia, (1995); Maslach, Schaufeli and Leiter, (2001); Carpio, (2008); Claro, (2009) and defined it as “a syndrome composed of three symptoms: low personal fulfillment at work, mental and emotional exhaustion, and depersonalization.” burnout syndrome (Maslach and Jackson, 1981), is a process that arises as a consequence of chronic work stress, in which individual, social and organizational variables are combined. It is therefore a syndrome with negative affective connotations that affects workers at different levels (personal, social and work) (León, 2006); (OIT, 2014).

The Burnout construct is made up of 3 factors or dimensions: Emotional Exhaustion (EA), Depersonalization (DP) and Personal Achievement (RP). Each of these factors, in turn, has a measurement scale that can be subdivided into low, medium and high. The scales of the first two factors are directly proportional to the intensity of the Burnout; and the third (RP) is inversely proportional, that is, the lower the score, the more Burnout affectation the person will have.

The justification for this study is based on the fact that the rapid growth in women’s participation, whether as small business owners or executives, has important implications for the economy and for entrepreneurship. For the International Labor Organization (ILO), currently a third of the companies in the world are run by women, and their management

Size	Industry	Trade	Services
Micro Business	0-10	0-10	0-10
Small company	11-50	11-30	11-50
Medium Company	51-250	31-100	51-100
Big company	251 onwards	101 onwards	101 onwards

Table 1. Classification of MSMEs.

Source: Ministry of Economy and Official Gazette of the Federation of June 30, 2009.

	Components			
	1	2	3	4
V14	0.825			
V13	0.817			
V20	0.676			
V15	0.680			
V26	0.670			
V18	0.520			
V29		0.716		
V30		0.674		
V16		0.645		
V19		0.632		
V31		0.622		
V21		0.604		
V24		0.591		
V17		0.523		
V23				0.633
V22				0.623
V32				0.602
V28				0.528
V34				0.507
V25				0.502
V27				0.497

Table 1. Array of rotated components

Source: Own elaboration obtained from SPSS 20.

capacity is increasingly recognized (ILO, 2015). Despite the limitations of some theoretical frameworks for understanding gender differences (Fischer, Reuber, & Dyke, 1993), the effect of the sex and/or factor on the prevalence of this syndrome is still widely discussed and uncertain. gender. Studies in this regard, lacking sufficient scientific rigor mentioned on the previous page, they are not yet sufficiently conclusive and require further attention. In any case, the higher incidence of work stress in women, in particular, due to the double workload that professional practice and family tasks entail, could suggest that it also has a greater presence with respect to BS. But it must be stressed that this is an area that requires further analysis (UGT, 2006).

In addition, for Davis, Babakus, Englis and Pett, (2010), the empirical research carried out on gender as a basis to establish the difference in business performance is not enough. For all this, the academic literature offers convincing reasons to carry out this study and analyze to what degree gender makes a difference in business results.

The objective of this study is to replicate a study carried out previously by the same authors in order to determine the influence of the gender of the Middle Managers of the MSMEs food and beverage companies on the level of Burnout, since this pathology causes psychophysiological and It affects them to a great extent in their good performance at the head of their companies and in their results.

MATERIAL AND METHODS

This statistical information is the result of the Burnout Measurement Research Project for Middle Management of MSMEs in Sonora, the design of this study is cross-sectional, exploratory, descriptive, but also explanatory. Exploratory studies are normally carried out when the objective is to examine a topic or research problem that has not been studied

much, as in this case it is the measurement of SB in a profession other than the well-studied healthcare professions, a situation that occurs when developing this research in the business environment of MSMEs, since, in a previous study, it was determined that this condition exists among this population (Cadena, Romero and Vega, 2013).

SAMPLE SIZE

The Population of MIPYMES in the Food and Beverage branch with a Transformation Process for the State of Sonora, according to the Ministry of Economy (SE) was 3068 (SE, 2013) and the size of the sample that yielded the simple random sampling It was 342 MSME managers to survey which were randomly distributed in the state of Sonora. This sample size has a confidence level of 95% and an estimated error of 5%, used for validity conditions when the parameter estimator behaves normally (Barón and Téllez, 2004).

INSTRUMENT

The questionnaire known as MASLACH BURNOUT INVENTORY (MBI) has been used in this work because it has already been validated and applied in countries such as Spain, Chile and Argentina (Carpio, 2008). It was developed by Maslach and Jackson (1981). Professors Pedro Gil-Monte and José María Peiró have put this instrument to the test in previous studies (Gil-Monte, 2005; Gil-Monte and Peiró, 1999), adapting it to Spanish and validating it for use in the Latin American context.

The questionnaire consists of 34 items (12 referring to the executive and organization profile and 22 referring to the MBI). The 22 MBI items that, according to the manual, are distributed in three scales called Personal Achievement (LP) (8 items), Emotional Exhaustion (EA) (9 items) and Depersonalization (DP) (5 items).

The response format used in the study was frequency. According to this mode of response, the subjects evaluated each item of the questionnaire with a Likert-type scale in which they indicated how often they had experienced the situation described by the item in the last year. The frequency scale covers five grades ranging from 1 (never) to 5 (always).

ANALYSIS OF DATA

Once the values of the surveys were obtained, these same data were registered in a database; then the Factor Analysis was applied. Factor Analysis aims to simplify the multiple and complex relationships that may exist between a set of observed variables, trying to find common dimensions or factors that link the apparently unrelated variables. Specifically, it is about finding a set of factors that are not directly observable F_1, F_2, \dots, F_k that sufficiently explain the observed variables (X_1, X_2, \dots, X_p) losing the minimum amount of information, so that they are easily interpretable <Principle of Interpretability> and that they be as few as possible, that is, small k <Principle of Parsimony> (Pérez, 2004).

Data analysis was carried out using the statistical package SPSS 20 for Windows. To determine the construct validity, Factorial Analysis was applied with the Principal Components method with Varimax rotation for the extraction of factors. Then descriptive statistics were used (mean and standard deviation to determine the parameters of each dimension, as well as the Burnout Level). Reliability was determined using Cronbach's Alpha test, to evaluate the internal consistency of the scale and, finally, Analysis of Variance (ANOVA) was performed to determine the effects of gender on Burnout suffering with a significance of 5. %. The Likert scale from 1 to 5 was used, classifying the averages of the

values of each of the three dimensions that fall in values less than 1, 25 are considered low level. Averages greater than 1.25 and less than or equal to 2.5 are considered medium level. The averages that fall between 2.501 and 3.75 are considered to be of a medium high level and the averages of the dimensions that exceed 3.75 are considered to be of a high level (Maslach and Jackson, (1981); endorsed by Mansilla, (2011) and restated by Reyes, (2012)).

The hypothesis around which the present work was developed is the following:

Ho: There is no significant difference in the Burnout Level in the Managers of the Food and Beverage MSMEs in Sonora directed by men or by women.

ANALYSIS OF RESULTS

The measurement of Burnout and the determination of its levels in terms of its measurement scale was carried out to determine the levels that are presented below.

- The sample analyzed showed that 100% of the total companies surveyed are MSMEs. On the other hand, 54.2% of the managers of these companies are men and 45.8% are women.
- **42.7%** of those surveyed suffer from Burnout, of which 22.6% suffer from men, mostly in the age range of more than 45 years, followed closely by the range of 25 to 35 years. 20.6% correspond to women, mostly between 35 and 45 years of age.
- **42.7%** of respondents with burnout syndrome:
 - **16.83%** of those surveyed suffer from it at high levels with chronic work stress
 - **25.87%** of those surveyed suffer from it at medium to high levels (closer to high on the scale), (Maslach and Jackson, 1981; Gil-Monte and Peiró, 1999; Carpio,

2008; Claro, 2009; Cadena, 2013).

- **36.1%** of those surveyed are in danger of suffering from Burnout since their measurements fall at the medium level, thereby marking levels of stress that if it becomes chronic it will become SB.
- **22.2%** of those surveyed do not present evidence of suffering from Burnout.

Factor Analysis explains a set of observed variables by a small number of latent or unobserved variables (Peña, 2002). Study the structure in the relationships between a group of variables to reduce their number; it assumes that the correlations between variables are due to the underlying existence of common factors between them (Garmendia, 2007). Given the need to know the relationships between the variables, the need to carry out a Factor Analysis arises (Cadena, 2013). The factorial validity was carried out in a separate study to determine the reliability and the different types of validity of instruments that mark the factorial analysis (Cadena, Romero and Table 1 shows the results of the matrix of rotated components. This matrix was obtained using the Varimax criterion as rotation method (Kaiser, 1958). Table 2 shows the factors obtained.

The internal consistency of the instrument was determined using Cronbach's Alpha, to later carry out the statistical analysis (means and standard deviations to determine the indices of each dimension), as well as the Burnout Level through the Pearson coefficients, because their covariance It is independent of the scale of measurement of the variables. Finally, the analysis of variance was applied to determine the effects of gender in SB.

The reliability of the instrument by gender was determined, resulting in a Cronbach's Alpha of 0.811 for men and 0.865 for women. Reliability for the instrument was also determined globally (total study and not

by sum of scales or dimensions) yielding an Alpha of 0.868, as shown in Figure 1. This value indicates that there is an instrument with a good level of internal consistency (Oviedo and Campos-Arias, 2005).

Cronbach's Alpha was also determined for the Burnout dimensions, observing acceptable values in all cases, which indicates that there is a good level of reliability (Figure 2). Cronbach's Alpha values between 0.7 and 0.9 indicate good internal consistency (Oviedo and Campos-Arias, 2005).

GLOBAL DESCRIPTIVE ANALYSIS OF BURNOUT

The MBI Instrument was used in this study. This questionnaire is made up of three dimensions with 22 items (P13 to P34). It was determined that the Burnout Level for these MSMEs is 2.26, which indicates that the Burnout Level in general is at the medium level. This global level for men was 2.22 against 2.31 for women. As can be observed numerically, there is a higher mean score for women than for men.

DESCRIPTIVE ANALYSIS BY DIMENSIONS OF BURNOUT

Figure 2 shows the SB Levels of the dimensions that make up its construct, so it can be seen that women had a numerically higher mean than men in the dimensions: Emotional Exhaustion (2.35 vs 2.23), in Depersonalization (2,034 vs 2,032) and in Personal Achievements (2.44 vs 2.31). With this it can be observed that women, although in a very little older way, are more prone to suffer from BS.

CONTRASTING THE HYPOTHESES

The hypothesis was verified by analysis of variance, where the grouping variable was gender, for which the SPSS20 program was used with a confidence level of 95% and the

SA 14	When I finish my workday I feel tired
SA 13	I feel emotionally exhausted from my work
AE 20	I feel like my job is wearing me down
SA 15	When I get up and find myself facing another day of work, I feel fatigued
SA 26	I feel like I'm working too hard
SA 18	Working all day with a lot of people is an effort
PS 29	I can easily create a relaxed atmosphere with my clients
SP 30	I feel stimulated after working with my clients
PS 16	I easily understand how customers feel
LP 19	I deal very effectively with customer problems
PS 31	I have achieved many valuable things with my work
PS 21	I believe that I positively influence people's lives with my work
PS 24	I feel very energetic in my work
LP 17	I treat some clients as if they were unthinkable objects
PS 23	I worry that this job is hardening me emotionally
PS 22	I've become more insensitive to people since I've been in this profession.
PS 32	I feel finished
PS 28	I feel that working directly with people causes me stress
PS 34	I feel that clients blame me for some of their problems
PS 25	I feel frustrated in my work

Table 2. Factors that determine the level of Burnout

Source: Own elaboration obtained from SPSS 20.

	items	Half	Cronbach's alpha	No. of elements
global burnout	P13-P34	2.26	0.868	22
Burnout Men	P13-P34	2.22	0.811	22
burnout women	P13-P34	2.31	0.865	22

Figure 1. Global reliability statistics (Items P13 to P34 correspond to MBI).

Source: Own elaboration.

No.	Dimensions	Cronbach's Alpha	Socks	
			Men	Women
1	Emotional Exhaustion (EA)	0.871	2.2319	2.3511
2	Depersonalization (DP)	0.794	2.0325	2.0345
3	Personal achievements	0.865	2.3140	2.4393

Never (2) Rarely (3) Sometimes (4) Often (5) Always

Table 2. Reliability statistics by dimension and Likert scale

Source: Own elaboration.

following was found:

Ho: There is no significant difference in the Burnout Level of Food and Beverage MSMEs run by men or women.

When applying the analysis of variance (ANOVA), it can be seen in Figure 4, in the significance column the values are greater than the reference value, which is 0.05, with which it can be concluded that there is no significant difference in the Burnout Level of these MIPYMES directed by men or by women. There was also no significant difference between each of the dimensions (Figure 3). Finally, the analysis was carried out breaking down the SB construct by items, it was found that men rated themselves higher than women in an Item referring to commitment and involvement at work and women rated themselves higher in an Item referring to Level of stress (Level of Significance < 0.05). (Figure 4).

DISCUSSION

The results of this study contribute to the understanding of gender, Burnout Level and its consequences for the person and companies taking into account the context of MSMEs of Food and Beverages in the State of Sonora. According to the literature, there are researchers who have shown that there is an influence of gender both in Burnout and in the results of its performance measurement. There are studies where women are slightly more prone to emotional exhaustion and low personal achievement while men are more prone to depersonalization, these being the three dimensions of Burnout (Du Rietz and Henrekson 2000; Rosa, Carter, and Hamilton 1996; Golembieski, Munzenrider, 1988;). On the other hand, there are investigations carried out in which no significant difference was found in terms of gender, Burnout and outcomes (Cadena Badilla, 2013; Johnson and McMahon 2005; Watson 2002; Anna et

al. 2000; Zabel and Zabel, 1982); (Aranda, 2006) and Aldrete et. Al. 2008. These latest studies do not present sufficient scientific rigor such as multifactorial analysis, high reliability, content validity, criterion validity, concurrent validity, predictive validity, and construct validity; Sufficient and necessary requirements to be able to relate gender to Burnout Level.

When analyzing the hypothesis (Ho: There is no significant difference in the Burnout Level of the MSMEs studied directed by men or women) it can be seen in Figure 3 that there is no significant difference in Burnout Levels with respect to gender. Although it is true that men had a numerically higher mean, but statistically with a significance level of 5% there was no difference.

CONCLUSIONS

In the results of this work it can be seen that women day by day are increasing their participation in the economic life of Mexico, in this study 45.8% of the leaders of the MIPYMES studied in the state of Sonora, are of the sex female and 54.2% are men, so it can be thought that very soon they will equal men in number as businesswomen.

Women presented slightly higher scores than men in the dimensions that make up the Burnout construct. Also in the analysis by Items, in one Item (P24) men presented a slightly higher average score than women; in one Item (P28) women scored slightly higher than men, but they were not statistically significant in the overall results.

The contribution of this work is to provide knowledge about gender to contribute to equal opportunities for both men and women. It can also be seen here that the idea that women, due to their duplication of workload and responsibilities in attending to their job and home, is more likely to have fewer professional achievements and greater stress, which would

One Factor ANOVA for Burnout Level and its Dimensions

		Sum of squares	gl	root mean square	F	Next.
AE	Inter-groups	1,189	1	1,187	2,234	0.136
	intra-groups	180,347	341	0.533		
	Total	181,530	342			
LP	Inter-groups	1,331	1	1,332	2,536	0.112
	intra-groups	177,925	341	0.525		
	Total	179,255	342			
PD	Inter-groups	0,000	1	0,000	0.001	0.981
	intra-groups	169,419	341	0.500		
	Total	169,419	342			
NB	Inter-groups	0.758	1	0.758	2,411	0.121
	intra-groups	106,686	341	0.315		
	Total	107,445	342			

Table 3. ANOVA of one factor for Burnout Level and its dimensions

Source: Own elaboration.

ANOVA of One Factor per Item for Burnout						
		Sum of squares	gl	root mean square	F	Next.
Q13	Inter-groups	1,918	1	1,918	2,236	0.136
	intra-groups	290,797	339	0.858		
Q14	Inter-groups	0.020	1	0.020	0.019	0.890
	intra-groups	352,696	339	1,040		
Q15	Inter-groups	1,560	1	1,560	1,662	0.198
	intra-groups	318,252	339	0.939		
P16i	Inter-groups	1,511	1	1,511	1,322	0.251
	intra-groups	387,574	339	1,143		
Q17	Inter-groups	0.017	1	0.017	0.015	0.902
	intra-groups	376,839	339	1,112		
Q18	Inter-groups	1,706	1	1,706	1,204	0.273
	intra-groups	480,189	339	1,416		
P19i	Inter-groups	2,586	1	2,586	1,655	0.199
	intra-groups	529,766	339	1,563		
P20	Inter-groups	0.101	1	0.101	0.071	0.790
	intra-groups	482,532	339	1,423		
P21i	Inter-groups	0.140	1	0.140	0.103	0.748
	intra-groups	460,558	339	1,359		
Q22	Inter-groups	0.010	1	0.010	0.007	0.932
	intra-groups	453,439	339	1,338		
Q23	Inter-groups	0.132	1	0.132	0.099	0.753
	intra-groups	450,842	339	1,330		
P24i	Inter-groups	6,873	1	6,873	5,997	0.015
	intra-groups	388,535	339	1,146		

Q25	Inter-groups	2,533	1	2,533	2,698	0.101
	intra-groups	318,294	339	0.939		
Q26	Inter-groups	0.030	1	0.030	0.025	0.873
	intra-groups	400,832	339	1,182		
Q27	Inter-groups	0.011	1	0.011	0.007	0.931
	intra-groups	512,341	339	1,511		
Q28	Inter-groups	5,710	1	5,710	4,559	0.033
	intra-groups	424,601	339	1,253		
P29i	Inter-groups	1,672	1	1,672	1,300	0.255
	intra-groups	436,099	339	1,286		
P30i	Inter-groups	0.435	1	0.435	0.381	0.538
	intra-groups	386,973	339	1,142		
P31i	Inter-groups	0.115	1	0.115	0.098	0.755
	intra-groups	400,682	339	1,182		
Q32	Inter-groups	1,570	1	1,570	1,549	0.214
	intra-groups	342,442	338	1,013		
P33i	Inter-groups	1,214	1	1,214	0.927	0.336
	intra-groups	443,912	339	1,309		
Q34	Inter-groups	0.025	1	0.025	0.019	0.890
	intra-groups	436,972	339	1,289		

Figure 4.ANOVA Summary by Item for Burnout Level

Source:Own elaboration.

lead them to suffer burnout. It is evident that this work is not capable of providing the complete panorama of the mental health of those who are in charge of these companies on a daily basis. It is advisable to recommend

that this type of study be carried out on professionals from different occupational branches, since BS affects more and more work environments.

REFERENCES

- Anna, A. L., G. N. Chandler, E. Jansen, y N. P. Mero (2000). "Women Business Owners in Traditional y Non-Traditional Industries," *Journal of Business Venturing* 15, 279–303.
- Adrete, González y Preciado. (2008). Factores psicosociales laborales y el Síndrome de Burnout en docentes de enseñanza media básica (secundaria) de la zona metropolitana de Guadalajara, México. *Revista Chilena de Salud Pública* 2008; Vol 12 (1): 18-25.
- Aranda, C. (2006). Diferencias Por Sexo, Síndrome de Burnout y Manifestaciones Clínicas, en los Médicos Familiares de dos Instituciones de Salud, Guadalajara, México. *Revista Costarricense de Salud Pública* Año 15. No. 29. 1-7- 2006. <http://www.scielo.sa.cr/pdf/rcsp/v15n29/3316.pdf>
- Barón, F., Téllez, F. (2004). *Apuntes de Bioestadística: Tercer Ciclo en Ciencias de la Salud y Medicina*. Departamento de Matemáticas Aplicada. Universidad de Málaga. <http://www.bioestadistica.uma.es/baron/apuntes/ficheros/cap02.pdf>
- Cadena-Badilla, J. (2013). *Estrategias Propuestas para Reducir el Nivel de Burnout en los Mandos Medios de las MIPYMES del Sector de Alimentos y Bebidas con un Proceso de Transformación, en el Estado de Sonora*. Tesis Doctoral. Universidad Popular Autónoma del Estado de Puebla (UPAEP). Puebla, México. Septiembre de 2013.
- Cadena-Badilla, J., Romero, L. y Vega, R. (2013). Validez Factorial del MBI Aplicado a un Estudio de Medición del Nivel de Burnout en los Mandos de las MIPYMES de Alimentos y Bebidas en el Estado de Sonora, México. VI Simposio Internacional de Ingeniería Industrial: Actualidad y Nuevas Tendencias 2013 Universidad de Carabobo, Pontificia Universidad Javeriana, Universidad de los Andes y Red Internacional de Investigadores en Ingeniería Industrial. Bogotá, Colombia. *Memorias* ISSN: 1856-8351.
- Calderón, B. (2016). *Importancia de las PYMES en México*. Ensayo. Doctorado en Administración, Universidad del Sureste. México 2016. Recuperado 15 de mayo de 2017. <https://es.slideshare.net/BlancaLiliaCalderonE/importancia-de-las-pymes-en-mxico-formato>
- Carpio, D. (2008). "Comparación de Tres Instrumentos de Medición para la Evaluación del Burnout" Tesis de Licenciatura no publicada. Universidad de Sonora, Hermosillo Sonora, México. Septiembre de 2008.
- Claro, V., 2009 *Comprobación De La Estructura Trifactorial Del Inventario General Maslach Para Burnout Y De La Escala Holandesa Para Compromiso Laboral*. Tesis De Maestría. Hermosillo, Universidad de Sonora. Recuperado de http://www.bibliotecadigital.uson.mx/bdg_tesisIndice.aspx?tesis=21156
- Carrasco A. (2005). La micro y pequeña empresa mexicana, *Observatorio de la Economía Latinoamericana*, Número 45, julio 2005. En <http://www.eumed.net/coursecon/ecolat/index.htm>
- Davis, P., Babakus E., Englis, P. y Pett, T. (2010). The Influence of CEO Gender on Market Orientation and Performance in Service and Medium-Sized Service Businesses. *Journal of small Business Management*, 48(4), 475-496.
- Diario Oficial de la Federación. (2009). *Diario Oficial de la Federación* 25 de Junio de 2009. Extraído en Diciembre de 2011 desde http://dof.gob.mx/nota_detalle.php?codigo=716999&fecha=30/12/2012
- Du Rietz, A., y M. Henrekson (2000). Testing the Female Underperformance Hypothesis, *Small Business Economics*, 14, 1–10.

- Fasci, M. A., y J. Valdez (1998). A Performance Contrast of Male- y Female-Owned Small Accounting Practices, *Journal of Small Business Management* 36(3), 1-7.
- Fischer, E. M., A. R. Reuber, y L. S. Dyke (1993). A Theoretical Overview y Extension of Research on Sex, Gender, y Entrepreneurship, *Journal of Business Venturing* 8, 151-168.
- Freudenberger, H. (1974). Saff burn-out. *Journal of Social Issues*, 30, 1974, pp. 159-166.
- García M. (1995). Evaluación del burnout: estudio de la fiabilidad, estructura empírica y validez de la escala EBP. *Ansiedad y Estrés*, 1(2-3), 219-229.
- Garmendia, M. (2007). Análisis factorial: una aplicación en el cuestionario de salud general de Goldberg, versión de 12 preguntas. *Revista de Salud Pública de Chile*. 11(2). 57-65.
- Gil-Monte, P. (2005). Factorial Validity of the Maslach Burnout Inventory (MBI-HSS) among Spanish professionals. *Revista de Saúde Pública*, 39(1), 1-8. http://www.scielo.br/scielo.php?pid=s0034-89102005000100001&script=sci_arttext DOI: S0034-89102005000100001
- Gil-Monte, P, y Peiró, J. (1999). Validez factorial del Maslach Burnout Inventory en una muestra multiocupacional. *Psicothema*, 11(3), 679-689.
- Golembiewski, R., Munzenrider, R. (1988). *Phases of Burnout: Development in Concepts and Occupations*. New York. Ed. Praeger.
- Hair, J., Anderson, R., Tatham, R. y Black, W. (2010). *Análisis Multivariante*. 5ta. Ed. Ed. Pearson Prentice Hall Madrid 2010.
- Hopkins, J. (2003). Female Owned Businesses Flourish, *USA Today* [electronic version]. http://www.usatoday.com/money/smallbusiness/2003-05-05-women_x.htm (Extraído en Feb 10, 2013).
- Instituto Nacional de Estadística y Geografía (2015). Instituto Nacional de Estadística y Geografía (INEGI) es un organismo del Gobierno federal de México. Censos Económicos 2014.Resultados corregidos a 2015. <http://www.inegi.org.mx/est/contenidos/proyectos/ce/ce2014/>
- Johnson, G., y R. G. McMahon (2005). Owner-Manager Gender, Financial Performance y Business Growth Amongst SMEs from Australia's Business Longitudinal Survey, *International Small Business Journal* 23, 115-142.
- León, J. (2006). Metodología Cuantitativa Para La Clasificación Y Evaluación Del Síndrome Burnout En Actividades Industriales Específicas. *Job Burnout. Annual Review Of Psychology*, (10), 52, 397-442.
- Mansilla, F. (2011). Riesgos Psicosociales en el trabajo. Teoría y práctica. *Revista de Psicología on Line*, <http://hdl.handle.net/10401/3030>
- Maslach, C. y Jackson, S. (1981). «The measurement of experienced burnout», *Journal of Occupational Behavior*, 2, 99- 113.
- Maslach, C., Schaufeli, W. y Leiter, M. (2001). Job Burnout. *Annual Review of Psychology*, 52, 397-422.
- National Women's Foundation (2004). "Capturing the Impact: Women-Owned Businesses in the United States," Center for Women's Business Research. <http://www.nfwbo.org/pressreleases/nationalstatetrends/capturingtheimpact.htm> (Extraído en Feb 10, 2013).
- OIT (2014). Organización Mundial del Trabajo. XX Congreso Mundial sobre Salud y Seguridad en el Trabajo. <http://www.ilo.org/global/about-the-ilo/newsroom/lang--es/index.htm>
- OIT (2015). La mujer en la gestión empresarial: Cobrando impulso.Informe Mundial. ILO - Bureau for Employers' Activities (ACT/EMP). ISBN: 978-92-2-328874-7. Suiza 2015.

Oviedo H. y Campos-Arias (2005). Metodología de la Investigación y lecturas críticas: Aproximación al uso del coeficiente de Alpha de Cronbach. *Revista Colombiana de Psiquiatría*, 34(4), 572-580.

Peña, D. (2002). *Análisis de datos multivariantes*. Madrid: McGraw-Hill.

Rosa, P., S. Carter, y D. Hamilton (1996). "Gender as a Determinant of Small Business Performance: Insights from a British Study," *Small Business Economics* 8, 463–478.

Reyes, C. (2012). *Burnout y Engagement y sus Efectos en Estudiantes de Posgrado de la Universidad de Sonora que Conllevan a la Determinación de su Eficiencia Terminal*. Tesis de Maestría no publicada. Universidad de Sonora, Departamento de Ingeniería Industrial. Posgrado en Ingeniería Industrial.

Secretaría de Economía (2015). *Catálogo Bianual de Empresas MIPYMES y sus Giros Comerciales*. http://www.gob.mx/cms/uploads/attachment/file/84433/Informe_Sonora_2015.pdf

UGT. (2006). *Guía sobre el Síndrome del Quemado Burnout*. *Revista Observatorio Permanente y Riesgos Psicosociales*. Edita: Comisión Ejecutiva Confederal de UGT.. Madrid 2006

Vega-Robles, A., Romero, L., y Cadena-Badilla, J. (2013). Efecto del género de los gerentes en la orientación al mercado y los resultados de las MIPYMES (hoteles) en el Estado de Sonora, México. Ponencia. *Memorias del VI Simposio Internacional de Ingeniería Industrial: Actualidad y Nuevas Tendencias 2013*. Universidad de Carabobo, Pontificia Universidad Javeriana, Universidad de los Andes y Red Internacional de Investigadores en Ingeniería Industrial Bogotá, Colombia, Julio 24, 25 y 26, 2013. ISSN: 1856-8351

Watson, J. (2002). "Comparing the Performance of Male- and Female-Controlled Businesses: Relating Outputs to Inputs," *Entrepreneurship Theory y Practice* 26(3), 91–101.

Zabel, R., y Zabel, M. (1982). Factors involved in burnout among teachers of exceptional children. *Exceptional Children*. Vol. 49, 261-263.