

## Entrepreneurial skills of the Millennials and Centennials generation in the North of state of Campeche, Mexico

### Competencias emprendedoras de la generación Millennials y Centennials en el Norte del estado de Campeche, México

SANTOS-VALENCIA, Raúl Alberto†\*, SOSA-ALCARAZ, Mayanin Asunción, MONFORTE-MÉNDEZ, Gustavo Adolfo and BACAB-SANCHEZ, José Rubén

*Tecnológico Nacional de México / IT Mérida, Yucatán, México*

*Tecnológico Nacional de México / IT Calkiní, Campeche, México*

ID 1<sup>st</sup> Author: *Raúl Alberto, Santos-Valencia* / ORC ID: 0000-0002-9824-8789, CVU CONAHCYT ID: 375284

ID 1<sup>st</sup> Co-author: *Mayanin Asunción, Sosa-Alcaraz* / ORC ID: 0000-0003-4237-9453, CVU CONAHCYT ID: 667797

ID 2<sup>nd</sup> Co-author: *Gustavo Adolfo, Monforte-Méndez* / ORC ID: 0000-0002-8556-5902, CVU CONAHCYT ID: 297137

ID 3<sup>rd</sup> Co-author: *José Rubén, Bacab-Sánchez* / ORC ID: 0000-0002-8861-0855, CVU CONAHCYT ID: 96835

DOI: 10.35429/JLDE.2022.13.7.14.20

Received August 21, 2023; Accepted December 17, 2023

#### Resumen

Many young people of working age find it necessary to leave their places of origin to find work due to the characteristics of the economic conditions of the moment, but also, it occurs over time between decades and generations. Mastering skills in the area of entrepreneurship is of vital importance today to mitigate migration from rural areas to urban areas, to self-employ and improve their abilities to know how to generate a business. The objective of this work is to compare the entrepreneurial skills of the Millennials and Centennials generations in the north of the state of Campeche, Mexico. It is a quantitative study, with a descriptive scope and non-experimental cross-sectional design, since the variables of entrepreneurial skills are compared at two different times, that is, the year 2011 and the year 2021. Some of the results found are that for the Millennial Generation, the least developed competencies were Previous technical experience with 3.7 and Tolerant society with 3.8. For the Centennials generation, it was observed that the most developed entrepreneurial competencies were Family Culture, Credibility and Need for the business to exist with a value of 4.4 each.

#### Resumen

Muchos de los jóvenes en edad de trabajar se ven en la necesidad de salir de sus lugares de origen para conseguir trabajo por las características propias de las condiciones económicas del momento, pero también, se da con el paso del tiempo entre décadas y generaciones. El dominio de las competencias en el área del emprendimiento es de vital importancia en la actualidad para mitigar la migración de las áreas rurales a las zonas urbanas, para auto emplearse y mejorar sus capacidades de saber generar una empresa. El presente trabajo tiene como objetivo comparar las competencias emprendedoras de las generaciones *Millennials* y *Centennials* en el norte del estado de Campeche, México. Es un estudio cuantitativo, con alcance descriptivo y diseño no experimental transversal, ya que se comparan las variables de competencias emprendedoras en dos momentos diferentes, es decir, el año 2011 y el año 2021. Algunos de los resultados encontrados son que para la Generación *Millennials*, las competencias menos desarrolladas fueron Experiencia técnica previa con 3.7 y Sociedad tolerante con 3.8. Para la generación *Centennials*, se observó que las competencias emprendedoras más desarrolladas fueron Cultura Familiar, Credibilidad y Necesidad de existir del negocio con un valor de 4.4 cada una.

**Entrepreneurial competencies, Millennials, Centennials**

**Competencias emprendedoras, Millennials, Centennials**

**Citation:** SANTOS-VALENCIA, Raúl Alberto, SOSA-ALCARAZ, Mayanin Asunción, MONFORTE-MÉNDEZ, Gustavo Adolfo and BACAB-SANCHEZ, José Rubén. Entrepreneurial skills of the Millennials and Centennials generation in the North of state of Campeche, Mexico. Journal- Labor and Demographic economic. 2023. 7-13: 14-20

† Researcher contributing first author.

## Introduction

In Mexico, as in many parts of the world, entrepreneurship is one of the tools with which many young people can have their own employment, better income, satisfaction, autonomy, personal satisfaction, and government support for entrepreneurship has been varied and of different scopes. In 2001, the National Programme of Financing for Micro-entrepreneurs (PRONAFIM) was created to help entrepreneurs to start their businesses until they reach consolidation through microcredits.

In 2013, a government programme called Instituto Nacional del Emprendedor (INADEM) was created with the aim of promoting and guiding everything related to entrepreneurs, and thus giving them the support they need, whether it be machinery or instruments and support in the implementation of projects with training courses; however, the number of entrepreneurs has been reduced in the last three years, until its disappearance in 2018.

Taking into account the aforementioned data, it has been seen that the *Millennials* and *centennials* are not attracted by the idea of entrepreneurship; it is perceived that a large percentage of them have become, to a certain extent, conformist, they no longer have as much ambition, that desire that past generations had to get ahead, and although a part of the generation seeks that desire to carry out an entrepreneurial project, this is only temporary and they do not give it the importance.

However, it is more feasible and there is more motivation to undertake an entrepreneurial project for people who already have a partner and children and for divorced women, but for those who already have a family, entrepreneurship is done to have an extra income and they are happy with that. Something similar happens with young people who want to start a business, in this generation, they see entrepreneurship as a way of not having the responsibility of working, of not having a boss and much less a timetable, they do it out of economic necessity.

In the Yucatan Peninsula, in the capital cities of the states of Yucatan, Quintana Roo and Campeche, people over 45 years of age have a better chance of making their entrepreneurship successful, as they have work experience, fiscal knowledge, acquaintances who can support the business and most importantly the capital for the initial investment, compared to young people, who have the desire but do not have many points than the other group of people who are more effective at carrying out the business, or entrepreneurship. For this reason, entrepreneurship is 50% more difficult than in other countries.

The objective of this paper is to present a comparison of the entrepreneurial competencies of Millennials in 2011 and *Centennials* in 2021 in the Mayan Region of Camino Real in the Yucatan Peninsula, Mexico.

## *Millennials and Centennials*

According to Cataldi and Dominighini, (2015), members of the Millennials generation, whose period of birth was from the early 1980s to the late 1990s, are attributed a childhood with activities and a culture of immediacy, which has marked their lives and consumption. They are young people who were born during the change from analogue to digital technology, therefore, they grew up with the birth of the internet, social networks and different styles of virtual entertainment, it is vital for them to be connected to electronic and communication devices where they socialise. They have a strong ability to multitask and seek personal and professional development. They are also very self-confident. They seek the quickest path to success and immediate gratification. For this reason, some are entrepreneurial and succeed in excelling. Kurz, García and McIlvena (2013).

As for the *Centennials* (Z) generation, this generation is totally linked to digital technology, they use different platforms to find friends, shopping or activities for entertainment, they are dependent on technology nowadays. Marc Prensky (2011), quoted by Villoria (2015), calls this generation "digital natives", this generation stands out because it is difficult for them to understand that there are other technologies that preceded the digital one, however, they understand that technological advances are made in relatively short periods of time, impacting the way of life of communities.

Ortega and Lara (2016), point out that this generation has made potential use of digital tools in different sectors such as the social, labour or cultural sectors; they are creative young people who are adaptable to changing environments, in particular, to labour, social and cultural ones.

They distrust the education system because, in their opinion, it does not respond to their development needs or guarantee them a more comfortable way of life; for this reason, they tend to be self-taught in the subjects of their interest and use different ways of learning; this generation is familiar with technology in real time, living virtually with family and friends through mobile devices, sharing and creating new content.

According to Fernández and Fernández (2016) the *Centennials* generation is represented by those born at the end of the 1990s, and is also called Generation V (for virtual), Generation C (for community or content), Silent Generation, Internet Generation or even Google Generation, taking into account that they are defined by information technologies (ICT). Ortega and Lara, (2016) mention that the *Centennials* generation groups together people born with the World Wide Web already fully developed and present in most homes.

This generation was born and grew up with smartphones and tablets, as well as using WhatsApp and other digital platforms intensively to communicate, which makes it more difficult for them to speak in public, write complex texts and stay concentrated for long periods of time.

### **Entrepreneurial skills and entrepreneurship**

During the review of the literature on Entrepreneurial Competences, we found the work of Céspedes, Pacheco and Vázquez (2020), who point out that entrepreneurship consists of the generation of ideas to take advantage of opportunities or to implement them in different contexts in order to generate a company or project. Entrepreneurial competences can be defined as the set of knowledge, skills, abilities, skills, experiences and values that people possess to successfully carry out a business Santos, Barroso and Ávila (2014).

Regarding entrepreneurship among young people in the Yucatan Peninsula, we found the work of Barroso, Santos and Patrón (2014), where they published the results obtained in knowledge management, entrepreneurial skills and organisational performance in micro and small entrepreneurs. This study was conducted in the interior of the State of Yucatan. These authors mentioned that the most developed competencies in entrepreneurs were Family and Values, desire to have a business and credibility, while the lowest scores were for previous technical experience and teamwork.

For their part, Santos, Barroso and Ávila (2014) measured and analysed entrepreneurial competences for the creation of agribusinesses in various Mayan areas of the state of Campeche, finding that the most developed competences were: Problem-solving orientation, Risk assessment, Family business formation; while the competences with the lowest scores were Knowledge and experience in business, Leadership and teamwork, and Competence orientation.

Chávez (2020), in a study of higher education students in the northern region of Mexico, found that the most developed competencies in these students were: leadership, creativity, teamwork and communication; results similar to those found by Barroso, Santos and Patron (2014).

### **Establishing the problema**

The Camino Real of the Yucatan Peninsula is the Mayan area between the capitals of the states of Campeche and Yucatan, and is made up of two parts; the upper Camino Real which includes the municipalities of Halachó, Maxcanú, Chocholá, Kopomá, Umán and Mérida, in Yucatan, and the lower Camino Real which corresponds to the municipalities of Campeche, Tenabo, Hecelchakán and Calkiní in Campeche. According to the National Council for the Evaluation of Social Development Policy (CONEVAL, 2020) this region is among the poorest in the country, as Campeche ranks ninth in poverty and Yucatan ranks twelfth out of thirty-two states.

It has been a decade (2011 - 2021) since there have been programmes to support entrepreneurship that include: training, economic support, advice and management by the different levels of government and private institutions, serving two generations. These programmes have been offered in governmental institutions, upper secondary schools (Bachilleratos) and higher education institutions. According to the National Institute of Statistics and Geography (INEGI, 2020), it mentions that 32.4 % of the Mexican population is made up of young people belonging to the Millennials and Centennials generations and, even when governments develop programmes for the creation of jobs, these do not usually have a significant impact on the productive sectors, for this reason, these generations have been relegated in obtaining a job, which translates into few opportunities for paid work.

The purpose of entrepreneurship is the creation or strengthening of new companies, the creation of products and services that can be relevant to society, for this reason, it is imperative to help these young people in the creation of their own sources of employment. However, even though various forms of support have been offered, there is a lack of information on the development of entrepreneurial skills in the Yucatan peninsula, as little research has been carried out in this regard.

This paper offers the results of comparisons of the entrepreneurial competencies of Millennials and Centennials in the Mayan region called Camino Real in the Yucatan Peninsula.

### **Methodology to be developed**

The study had a quantitative approach, descriptive scope and non-experimental longitudinal design of trend, since the entrepreneurial competences variables were compared at two different times: in 2011 the survey was conducted for 35 Millennials entrepreneurs and in 2021 the survey was conducted for 17 Centennials entrepreneurs; in both cases, the participating entrepreneurs lived in one of the towns that make up the northern area of the state of Campeche, Mexico. The method was the hypothetical deductive method carried out through fieldwork and the technique was the survey.

The subjects of the study were young people who had shown an interest in starting a business and had enrolled in a public or private institution supporting entrepreneurship.

The instrument administered was based on the eleven entrepreneurial characteristics proposed by Palacios (1999) and conditioned, using a Likert scale, by Santos and Barroso (2011). The eleven competences proposed were:

1. Entrepreneurial spirit: This refers to the business idea that entrepreneurs have with the desire to make it a reality.
2. Necessity of the business: This refers to the dispositions or sacrifices made by the entrepreneur in order to achieve the business.
3. Previous technical experience: This refers to the technical knowledge of the processes, products or services that the business requires in order to develop.
4. Risk tolerance: This refers to the entrepreneur's capacity to face calculated risks based on studies or through a previously established plan.
5. Hard work: This refers to the entrepreneur's willingness to dedicate time, effort and dedication to the achievement of the business, often without immediate reward.
6. Ability to bounce back and learn: This refers to the entrepreneur's tenacity and perseverance in order not to feel defeated in the face of failure.
7. Tolerant society: This refers to the ability of the entrepreneur to get along with partners or to listen to advice from people with knowledge of the business.
8. Credibility: This refers to the entrepreneur's ability to perform quality work that satisfies customers, suppliers and collaborators, and to act with principles and values.
9. Prioritising: It is the ability of the entrepreneur to establish priorities and to fulfil them in the agreed time.

10. Family culture: It is the capacity of the entrepreneur to adequately manage family relationships, as well as the capacity to establish the functions of each family member within the company and succession.
11. Professionalism of the entrepreneur: It implies the capacity to develop the necessary skills, practices and strategies to ensure the start-up and growth of the business.

The scale of values was carried out according to table 1:

Response	Value
Strongly Disagree (SD)	1
Disagree (D)	2
Indifferent (I)	3
Agree (A)	4
Strongly Agree (SA)	5

**Table 1** Scale of values used in the measurement of entrepreneurial skills

Source: Own Elaboration

The Hypotheses of this study were:

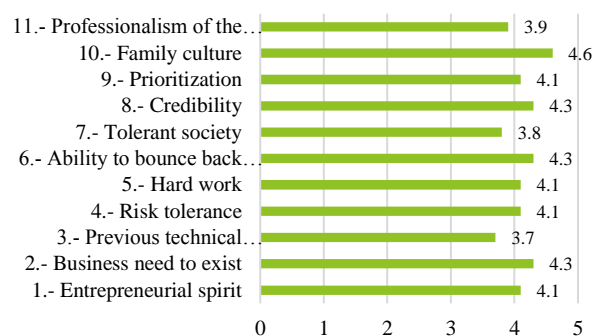
- H0: There are no significant differences in the entrepreneurial skills of Millennials and Centennials.
- H1: There are significant differences in entrepreneurial skills between Millennials and Centennials.

The Mann Whitney U test statistic was used to test the hypotheses, with a confidence level of 95%. The Minitab statistical package was used for the data analysis in its version.

## Results

According to the data obtained in 2011 from young Millennials, it was observed that the most developed entrepreneurial competencies were Family culture with a score of 4.6 on a scale of 1 to 5, Credibility, Ability to bounce back and learn, Need to exist of the business with a score of 4.3. The least developed competencies were Previous technical experience with 3.7 and Tolerant society with 3.8 (see figure 1).

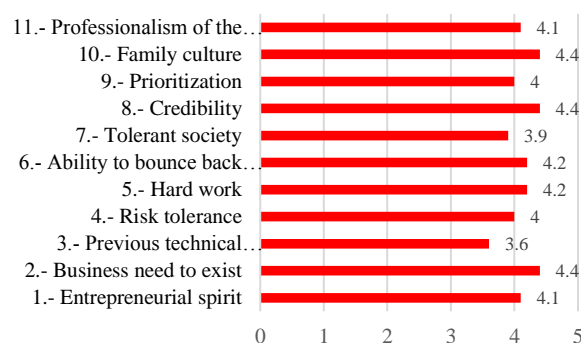
Entrepreneurial skills Millennials (2011)



**Figure 1** Entrepreneurial competencies of young Millennials. *Research data*

Regarding the data obtained in 2021 for young people of the Centennials Generation, it was observed that the most developed entrepreneurial competencies were Family Culture, Credibility and Need to exist of the business with a value of 4.4 each and the least developed were Previous technical experience with 3.6 and Tolerant society with 3.9 (see figure 2).

Entrepreneurial skills Centennials (2021)



**Figure 2** Entrepreneurial skills of young Centennials *Research data*

Table 2 shows the comparison between the entrepreneurial competences of the young people of the Millennials Generation and the Centennials. Differences can be observed in the averages of the competences of Professionalism of the entrepreneur, which increased 0.2, need to exist of the business 0.1, hard work 0.1 Tolerant society and Credibility 0.1, however, a decrease was also observed in the competences: family culture 0.2, Previous technical experience 0.1, Tolerance to risk and prioritisation 0.1 in the Centennials.

Entrepreneurial skills	Millennials (2011)	Centennials (2021)	Difference (C-M)
1.- Entrepreneurial spirit	4.1	4.1	0
2.- Business need to exist	4.3	4.4	0.1
3.- Previous technical experience	3.7	3.6	-0.1
4.- Risk tolerance	4.1	4	-0.1
5.- Hard work	4.1	4.2	0.1
6.- Ability to bounce back and learn	4.3	4.2	-0.1
7.- Tolerant society	3.8	3.9	0.1
8.- Credibility	4.3	4.4	0.1
9.- Prioritization	4.1	4	-0.1
10.- Family culture	4.6	4.4	-0.2
11.- Professionalism of the entrepreneur	3.9	4.1	0.2
<b>Averages</b>	4.1	4.1	

**Table 2** Differences between the entrepreneurial skills of Millennials vs. Centennials. Research data

As for the analysis of the averages of the two generations, it was observed that they have a mean of 4.11 (see table 3).

Descriptive statistics		
Sample	N	Median
Millennials (2011)	11	4.1
Centennials (2021)	11	4.1

**Table 3** Measures of central tendency for both groups. Research data

However, although some differences were observed between Millennials and Centennials in the development of competencies, these differences were not significant, as a p-value of the t-test for related samples of 0.922 was observed (see table 4).

Test		
Method	W-value	P-value
Null hypothesis		
Hypothesis alterna		
Unadjusted for ties	124.5	0.922
Adjusted for ties	124.5	0.921

**Table 4** Results of the Mann Whitney U test. Research data

The decision on hypothesis testing. It can be seen in table 5.

Hypothesis chosen	Level of significance	Interpretation
H0: There is no significant difference between the entrepreneurial skills of Centennials and Millennials in the Camino Real of the Yucatan Peninsula.	$\alpha = 5\%$	Since the calculated P-value is above the significance level, the null hypothesis is accepted, which means that no significant differences were found in the comparison of the Centennials and Millennials groups.

**Table 5** Interpretation of the Mann Whitney U test. Research data

## Discussions

As for the results obtained from young people of the Centennial Generation, these are in line with the results found by Barroso, Santos and Patrón (2014) and Santos, Barroso and Ávila (2014). In both studies, it was observed that the most developed competences were: family business formation and the desire to have a business, while the least developed were previous technical experience and teamwork, results similar to those found in this research.

## Acknowledgement

The TecNM is thanked for the support and facilities provided for this study.

## Conclusions

Even though increases were observed in Centennials' competencies in terms of entrepreneurial professionalism, hard work, tolerant society, and credibility, which implies that they find it more and more attractive to be owners of their business and their time. It is also true that there are competencies that are no longer growing, such as family culture, the ability to bounce back and learn, and previous technical experience, which indicates that they tend to be less dependent on family decisions, as is the case with the Millennial generation.

As for hypothesis testing. It was found that the t-test for independent samples had a p-value of 1.00 while the significance level was set at 0.5, for this reason, we accept H0, which means that there are no significant differences in the entrepreneurial competences of the Millennials Generation with the Centennials. This result leads us to reflect that, after a decade of supporting entrepreneurs with various programmes and despite the technological advances that exist and which allow information to be obtained at a global level, there is no difference in the entrepreneurial skills of the generations studied, which leads us to ask ourselves another series of questions such as: How effective have the entrepreneurship programmes been in this area? Are the current entrepreneurship programmes attractive to young Centennials? What should be considered to improve the entrepreneurial skills of Centennials? What factors should be considered in an entrepreneurship model to make it attractive to Centennials?.

**References**

- Barroso, Santos y Patrón (2014). Gestión del conocimiento, competencias emprendedoras y desempeño organizacional de micro y pequeños empresarios. Un estudio en el interior del estado de Yucatán. México. Universidad Anáhuac. The Anahuac Journal. Vol. 14 Núm. 1 <https://web.p.ebscohost.com/abstract?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=14058448&AN=97255770&h=vOOkARbluJqGJplBqSTJIQBinjCkRuzRobvu3KyoZSzoPb2oMrdGmheYgKdV5UsbM%2bTigd9J93NCz2d4aSKOvg%3d%3d&crl=c&resultNs=AdminWebAuth&resultLocal=ErrCrINotAuth&crlhashurl=login.aspx%3fdirect%3dtrue%26profile%3dehost%26scope%3dsite%26authtype%3dcrawler%26jrnl%3d14058448%26AN%3d97255770>
- Cataldi y Dominighini, (2015). La generación Millennials y la educación superior. Los retos de un nuevo paradigma. Recuperado de <http://www.codajic.org/node/3993>.
- Céspedes, S. Pacheco, E. y Vázquez, L. (2020). Análisis del modelo de competencias emprendedoras de Palacios en estudiantes de una IES. México. Recuperado de [http://www.web.facpya.uanl.mx/Vinculategica/Vinculategica6\\_1/56%20CESPEDES\\_PACHECO\\_VAZQUEZ.pdf](http://www.web.facpya.uanl.mx/Vinculategica/Vinculategica6_1/56%20CESPEDES_PACHECO_VAZQUEZ.pdf)
- Chávez, E. (2020). Análisis comparativo de competencias emprendedoras entre estudiantes de la UABC. México, Revista Iberoamericana para la Investigación y Desarrollo Educativo. Recuperado de: [https://www.scielo.org.mx/scielo.php?pid=s2007-74672020000100131&script=sci\\_arttext#:~:text=Las%20competencias%20empreendedoras%20mejor%20desarrolladas,se%20realizan%20en%20la%20Ecitec.](https://www.scielo.org.mx/scielo.php?pid=s2007-74672020000100131&script=sci_arttext#:~:text=Las%20competencias%20empreendedoras%20mejor%20desarrolladas,se%20realizan%20en%20la%20Ecitec.)
- CONEVAL, (2020). Estadística de pobreza en Yucatán. México. Recuperado de: <https://www.coneval.org.mx/coordinacion/entidades/Yucatan/Paginas/principal.aspx>
- Fernández y Fernández (2016). Los docentes de la generación Z y sus competencias digitales. Recuperado de: <http://ddfv.ufv.es/handle/10641/1177>
- INEGI (2020). Censo de población y vivienda 2020. México. Recuperado de: <https://www.inegi.org.mx/programas/ccpv/2020>
- Kurz, García y McIlvena (2013). La Generación de los Millennials. México. Recuperado de: [https://www.100research.com/boletines/10\\_1a\\_generacion\\_de\\_los\\_millennials\\_pdf.pdf](https://www.100research.com/boletines/10_1a_generacion_de_los_millennials_pdf.pdf)
- Marc Prensky (2011), citado por Villoria (2015). Estudiando a la generación Z de los estudiantes de las ciencias económicas y administrativas de la universidad pontificia bolivariana sobre el ingreso a la vida laboral. Pontificia Universidad Javeriana. Recuperado de: <https://repository.javeriana.edu.co/handle/10554/19709>
- Mengchen, W. (2012) Análisis de estrategia de comunicación con la Generación Z de Puma. Barcelona España, recuperado de: <https://repositori.upf.edu/handle/10230/55089>
- Ortega y Lara, (2016). Los consumidores de la Generación Z impulsan la transformación digital de las empresas. España. Recuperado de: [http://www.injuve.es/sites/default/files/2017/28/publicaciones/documentos\\_5.\\_los\\_consumidores\\_de\\_la\\_generacion\\_z.pdf](http://www.injuve.es/sites/default/files/2017/28/publicaciones/documentos_5._los_consumidores_de_la_generacion_z.pdf)
- Santos y Barroso (2011). Competencias emprendedoras y oportunidades para el desarrollo laboral en su región. Tesis doctoral no publicada. Universidad Anahuac Mayab. Recuperado de: <https://www.researchgate.net/publication/260037806>
- Santos, Barroso y Ávila (2014). Resultados de la medición y análisis de competencias emprendedoras para la creación de agroempresas. Experiencia de la zona maya de Campeche. México. Revista Mexicana de Agronegocios. Recuperado: <https://www.redalyc.org/pdf/141/14131676007.pdf>