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DIGITAL TECHNOLOGIES AND RURAL WOMEN'S ENTREPRENEURSHIP

TECNOLOGÍAS DIGITALES Y EMPRENDIMIENTO DE MUJERES RURALES

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ABSTRACT

Digital technologies are a great opportunity for rural women to compensate for their environment deficiencies in order to join the labor market and/or carry out actions of entrepreneurship. However, the use made of these technologies is detached from these objectives but instead focused on social relations, searching for information, and spending time in leisure or in the acquisition of consumer goods. In the present article, it is analyzed the role played by the socializing agents who are closer to rural women from Extremadura and their influence in the process of digital inclusion for business entrepreneurship. The empirical evidence is based on a survey work made by a sample of 400 women living in municipalities of less than 2.000 inhabitants in Extremadura (Spain), to whom it is applied a Likert scale of one hundred items from which we have studied the responses of 13 of them, specifically those related to employment and entrepreneurship. Among the highlighted results we verify the hypothesis that the scarce use that rural women make of technologies for employment and entrepreneurship is linked to the limited or no support they get from the other family members and, in particular, from their partners, at least for these purposes.

KEYWORDS

Rural Women; Information and Communication Technologies; Rural Sociology; Rural Entrepreneurship; Employment.

RESUMEN

Las tecnologías digitales son una gran oportunidad para que las mujeres del mundo rural puedan compensar las carencias que el propio medio tiene para acceder al mercado laboral y/o llevar a cabo acciones de emprendimiento empresarial. Sin embargo, el uso que hacen de estas tecnologías no se relaciona con la generación de oportunidades en el mundo laboral sino que, en cambio, se centra en mantener relaciones sociales, en la búsqueda de información, en invertir tiempo de ocio o en la adquisición de bienes de consumo. En el presente artículo se analiza el papel que juegan los agentes de socialización más próximos a las mujeres rurales extremeñas y su influencia en el proceso de inclusión en las tecnologías para el emprendimiento empresarial que estas mujeres desarrollan. La base empírica se fundamenta en un trabajo de encuesta a una muestra de 400 mujeres residentes en municipios menores de 2.000 habitantes de Extremadura (España), a las cuales se aplica una escala Likert de cien ítems, de los que se han estudiado las respuestas a 13 de ellos, concretamente los relacionados con el empleo y el emprendimiento. Entre los resultados destacados se verifica la hipótesis de que el escaso uso que las mujeres rurales hacen de las tecnologías para el empleo y el emprendimiento está asociado al escaso o nulo apoyo de otros miembros de la familia y, en particular, de sus parejas, al menos para estos propósitos.

PALABRAS CLAVE

Mujer Rural, Tecnologías de la Información y Comunicación, Sociología Rural, Emprendimiento Rural, Empleo.

1. INTRODUCTION. RURAL WOMEN AND DIGITAL TECHNOLOGIES: A BINOMIAL IN RECONCILIATION

Despite the fact that in recent times changes brought about by the technological transformation and the promotion of public policies for incorporating ICTs in rural areas have enforced the emergence of new forms of production, new activities and new social agents, the investigation continues to show how the geographic location linked to variables such as sex, education, labor situation and age accentuates the digital divide in rural areas (Castaño, 2005; Castaño, 2008; Gargallo, Esteban & Pérez, 2010).

On the other hand, in the current scenario of national and international research in digital inclusion we can observe that the studies focus their attention on the incorporation of certain sectors of population in the use of digital technologies, especially among women (Castaño, Martín & Vázquez, 2008; Del Prete, Calleja and Gisbert, 2011; Mosharaf, Farhadi & Ebrahimi, 2015; NovoCorti, VarelaCandamio & GarcíaÁlvarez, 2014; Vergés, 2012). As reflected in these studies women, especially the eldest ones, those who live in rural areas or those with a low educational level are still the ones who present difficulties with accessing and limited digital competence, which prevents the satisfaction of their training needs, health and leisure and the use of digital services. If we focus on women who live in rural areas, studies establish a combination of access problems, lack of digital skills and negative attitudes as the main problems for the effective incorporation of rural women into digital technologies. In addition, there is the low representation of women in strategic sectors related to engineering and technologies (Booth, Goodman & Kirkup, 2010; Castaño, 2008; Verges, 2012) and the need to involve them in the process and the correspondent training for technological innovation (Wajcman, 2012).

Although the binomial rural women and digital technologies seem to be irreconcilable, other studies show more positive visions which reflect movements of change about these issues. Studies like the ones from Vega, Vico & Rebollo (2015), Fernández & Fueyo (2014) or even from Jiménez, Rebollo, García & Buzón (2015) and Jiménez (2016) show how social networks are opening an important window to social participation of rural women having a direct impact on their personal welfare and on the commitment to improve cultural and social life in their communities. Regarding international studies, they refer to the creation of a new scope of sociability, new spaces of privacy provided by digital technologies, new practices and discourses especially concerned to young rural women (García & Barreto, 2014) . Besides, they are the age group who perceives more social support when using social networks for leisure and social relations (Rebollo & Vico, 2013). These women are aware of the fundamental role of ICTs on their way to achieve participation in

decision-making as well as in social life and, especially in their working lives (NovoCorti, VarelaCandamio & GarcíaÁlvarez, 2014).

If we talk about women's undertaking in the rural world, European politics still bet for developing laws to promote entrepreneurship and introducing gender perspective in each corporate project. (Pastor, Pontón, Acosta, Belzunegui, Aguado, Poveda, Blanco & Rodríguez, 2015). For a long time researches about undertaking incorporate variables related to gender in creating business with the women's need of reconciling both work and family life. Nowadays, entrepreneurship is considered the key for the economy development. (Alameda, 2017; Baumol & Strom, 2007; Pérez, 2010; Wong, Ho & Autio, 2005). En la actualidad se destaca el emprendimiento femenino como elemento clave del desarrollo de las economías (Ruiz, 2017).

Concerned to feminine entrepreneurship and the agents of socialization, Alvarez, Noguera and Urbano's studies indicate that informal factors such as the perception of skills to undertake, social networks and family role are relevant, opposing to the formal aspects like financing, non- support policies and training. In this aspect our research tries to relate a formal element such as self-tuition processes of incorporation in the technologies to entrepreneurship...

In Extremadura, according to a study carried out by García & Gregory in the year 2015, the use of ICTs made by rural women is very high. The use of computers achieves 81,25%, which in the case of younger women (in the case of rural women from 20 to 30 years, its use reaches 97,3%). Internet availability is 57.2%, which in the case of younger people reaches 87,8%. Mobile phones are used by 98,4%. The use of email is 61%, reaching a higher percentage among rural women from 30 to 40 years than among younger ones (86,6%). The percentage of women who participate in social networks is just 33%, but in the age group from 20 to 30years it reaches up to 78,6%. Regular managing of a blog has a very limited use in this group, 3,25%; although the section from 30 to 40 years is the one who uses it the most, 11,11%. Finally, the ones who shop online are 21,3%, but the range from 20 to 30 reaches 48% and from 40-50, 47.4%.These last uses may be associated to the activities linked with the labor spectrum (work, entrepreneurship and economy), and it is evident that the percentages are lower than other uses (for example social networks) and the age groups from women over 30 years old are the one who use them the most for these purposes once they are more involved in the labor market.

Brush, De Bruin and Welter (2009) claim that women are increasingly more involved in business development through entrepreneurship initiatives. However, there are significate differences among women in rural and urban world. Some authors (Hernández, Díaz, Sánchez, Díaz & Almodóvar, 2013) say that when it comes to brakes that hinder entrepreneurial activity in the rural area, the first one refers to social and cultural norms, followed

by government policies and financial support. These same authors found out, referring to Extremadura, that «among men, those from rural environments have undertaken more (62% vs. 56,2%), while among women the ones who live in urban areas have undertaken more than those from rural areas (43.8% vs. 34.9%)»(p. 14).The creation of these social and cultural norms have a strong link with social relationships in the family context and the role that different agents play, in this case, in fostering a culture of entrepreneurship (Rocher, 1980). To the extent that those play a role apart and even contrary to entrepreneurship we can understand that, in the case of rural women, they are less entrepreneurial than men. In a study about environmental factors that may influence women's entrepreneurial activity (Álvarez, Noguera & Urgano, 2012) it is concluded that informal factors (perception of skills to undertake, social media and family role) have the most significant effect on the probability of being an enterprising woman facing formal factors (financing, non-economic support policies and training). It means that technologies and family support with the development of certain skills are key determinants in the possibilities of entrepreneurship of women.

This study is part of a broader research whose goal is to understand the processes of self-inclusion of rural women in Information and Communication Technologies (ICT)[1]. On the basis of a survey made to 400 women resident in 16 locations of less than 2.000 inhabitants with 100 items, there were selected 13 which are directly related to the inclusion in ICTs and labor and economical exploitation that rural women do. It emphasizes that from the set of 100 items, those who get lower scores are those relating to employment applications and entrepreneurial initiative. For example, the item72, «The use of ICTs has developed my entrepreneurial attitude», the average is 1,7 (Standard deviation(SD): 1,18) from a Likert scale, where 1 is «nothing» and 5 is «a lot». Another example is the item 33: «Since I have been using ICTs I managed to improve my work situation increasing my income». (Average 1,866 andsd.1,25). The overall analysis of the information provided by this survey also showed the fact that «the family» is the agent that «socializes» rural women in the use of ICTs. «My family is the context where I have learned to use ICTs» as average 3.4 over 5 on the Likert scale (something + quite + a lot=75,1%). However, this support is lower if family roles are broken down: the support from «the partner» is low (2,2 over 5). 63% of women said that they do not receive any support from their partner. Nor is the support greater from their children (2,6 over 5), since 50% said they don't receive any support from them.

Firstly, we present the percentage distributions from the 13 items indicated which are grouped into three categories: the ones related to «ICTs and satisfaction of economic and labor needs»; issues relating to «achievements made by ICTs» and finally, «Employment and entrepreneurship». Then we studied the relationship between the different items from these scales and the variables «having or a partner and children or not» in order to see if this

1 Research "Processes of self-inclusion of rural women in ICTs": Financed by the Office of Research, Transfer and Innovation under the Initiation Plan to Research, Technological Development and Innovation of the University of Extremadura 2015. Call for Action Research Projects VII. IP María Rosa Fernández Sánchez.

factor somehow influences the use of ICTs for work purposes and entrepreneurship of rural women. At last we analyzed the correlation between the variable which highlights the support they get from «the family» for work uses: «My family is the context where I have learned to use ICTs.» This is correlated with the main employment/ICT variables, where rural women get higher scores. Finally, the latter are related to some independent variables such as the education level, social class, age, etc. to characterize the influence these elements have over predisposition to economic and work uses of ICTs from this segment of female population.

2. OBJECTIVE

The aim of this project is to analyze how rural women use modern technologies and how these uses are related to entrepreneurship and job search. Likewise, it aims to check the weight social reinforcement that these women perceive has for the economic uses of ICTs.

3. METHODOLOGY

Between the end of 2015 and the beginning of 2016,we performed 400 personal surveys among rural women from a sample of municipalities of less than 2.000 inhabitants in the province of Cáceres (Extremadura, Spain). The characteristics of the sample were as follows; the population universe (N) consisted of 8.271 women from fifteen years old and over. The sample size (n) established was of 400 surveys to a confidence level (cl.) of 95% and a margin of error of ±4.8%, assuming the maximum variability in the proportion (p/q=50%).The sampling was stratified randomly with proportional allocation of the sample, according to the criterion number of women per locality/ages. The sampling fraction responded to 0,044 (Fm= n/N= 0,0449792).The questionnaire applied (W&R-ICT)[2] is a validated scale with a value from alpha Cronbach of 0,8.

For the analysis of the problem concerned to the use made by rural women to ICTs for employability and entrepreneurship, we have selected the scale items that address this problem and they have been grouped into three blocks:

- Block I «ICTs and satisfaction of economic needs and labor»,
- Block II «Achievements made through ICTs»
- And Block III, «Employment and entrepreneurship».

Finally, we have adopted a model of descriptive type for data analysis, which use some works from Perdue (Perdue, Long, & Allen, 1987) as reference. In this case, the table 1 pro-

2 W&R-ICT (Women and Rural - Information & Communication Technology) is a questionnaire developed and validated by several researchers from the Research Groups Nodo Educativo (SEJ035- IP) and Delsos

vides information for each block, on statistical dispersion and percentage distribution; the table 2, 3 and 4, confronts the categories of the three blocks, referred to the use of ICTs by rural women with the fact of having a partner and having children; as statistical synthesis for association of variables, it is used the V of Cramer. Tables 5 and 6 offer correlations (rho of Pearson) between the variables related to employment/ICT where rural women get higher scores and the variable referred to the support that these women receive from the family context.

Our hypothesis is that, the limited use that rural women make of digital technologies for employment and entrepreneurship is because they do not have the support from the other family members and, particularly, from their partners, at least for those purposes. Throughout this article we will try to confirm this hypothesis.

4. RESULTS

4.1. ICTs "are not for entrepreneurship".

Table 1 shows answers to the different questions under study in this article. The averages of the scale (1, «nothing»; 5, «a lot»), is indicating that the category with a higher position is «I think that ICTs may offer me opportunities for my working life that I hadn't considered before» (item 4), with an average of 3 points. In general, the rest of the items have medium or lower scores. Some items have particularly low scores, for example the scale categories referred to work and entrepreneurship (Block III, items 11, 12 y 13).

If we look at the average values of the three scales in table 1, we can verify that the items referred to Block I: «ICTs and satisfaction of economic needs and labor» gets higher scores (average: 2.7), against block III «Employment and entrepreneurship» with an average of 1,8.

All of that is indicating that, on the whole, the utilities of ICTs for jobs and entrepreneurship are low, if compared to other uses; but even lower if we consider the usage for business entrepreneurship by these women.(block III).

(GR15126) from the University of Extremadura (Spain).

Table 1. Percentage distribution of answers about the usage of ICTs to work

Block I: ICTs and satisfaction of economic and labor needs. (Alpha Cronbach 0,92). (n=397)	*Average*	*SD*	**Nothing**	**Little**	**Something**	**Quite**	**A lot**
1. I have discovered that ICTs may satisfy **my working needs**. (n=399)	*2,75*	*1,57*	36,8	9,3	16,8	**18**	19
2. I have discovered that ICTs may satisfy **my economic needs.**(n=397)	*2,07*	*1,40*	54,9	12,1	15,1	7,1	10,8
3.The usage of ICTs allows me to be more independent and autonomous **in my working life**. (n=397)	*2,77*	*1,57*	35,5	9,8	18,1	15,9	20,7
4. I think that ICTs may offer opportunities for my working life that I hadn't considered before. (n=395)	*3,01*	*1,56*	29,4	8,4	14,9	25,3	22
5. I'm interested in the usage of ICTs to perform activities related to my working life. (n=396)	*2,97*	*1,56*	28,5	12,9	15,7	18,7	24,2
Scale average	*2,72*	*1,53*	*37,02*	*10,5*	*16,12*	*17*	*19,34*
Block II: Achivement through ICTs. (Alpha Cronbach 0,88). (n=391)	*Average*	*SD*	**Nothing**	**Little**	**Something**	**Quite**	**A lot**
6. Since I have been using ICTs I could improve my labor situation on the jobs seek.(n=391)	*2,30*	*1,39*	43,7	14,6	18,9	13	9,7
7. Since I have been using ICTs my labor situation improved , increasing my incomes. 390	*1,87*	*1,26*	59	16,7	9,7	8,2	6,4
8. The use of ICTs facilitated to find/improve employment. (n=384)	*2,20*	*1,43*	50,8	11,5	15,6	12,2	9,9
Scale average	*2,12*	*1,36*	*51,17*	*14,27*	*14,73*	*11,13*	*8,67*
Block III: Employment and entrepreneurship. (Alpha Cronbach 0,82.)	*Average*	*SD*	**Nothing**	**Little**	**Something**	**Quite**	**A lot**
9. The usage of ICTs is a basic requirement of my current job.(n=389)	*2,48*	*1,55*	45,8	8.2	14.4	17	14,7
10. The use of ICTs has allowed me to develop self-employment.(n=387)	*1,96*	*1,37*	59,9	9,6	13,4	8,8	8,3
11. The use of ICTs has developed my entrepreneurship attitude. (n=388)	*1,73*	*1,19*	65,5	11,9	11,3	6,7	4,6
12. I started using technologies to create my own company. (n=389)	*1,38*	*0,94*	83	4,9	6,2	3,6	2,3
13. I had to learn to use the technologies to work from home.(n=390)	*1,79*	*1,32*	68,7	6,9	9,7	6,9	7,7
Scale average	*1,87*	*1,27*	*64,58*	*8,325*	*10,15*	*8,6*	*7,52*

4.2. Children help a little, partners nothing

Surveyed rural women say they receive little support in the process of digital socialization, both from «the partner» and from their kids. Consequently we have tried to analyze in tables 2, 3 y 4 the level of association of these items with having a partner and children or not. We use the statistic V of Cramer for this purpose[3].

In table 2, regarding the use of ICTs in the attempt to solve labor and economic problems, generally we appreciate that the level of association of this utility with having a partner or not is very low or has no relation. We can see that the V of Cramer, in most of the items, it is less than 0,1. However, this association is higher in the case of having children or not, on the whole the V of Cramer takes up a position around 0,25.

In table 3, referred to the II Block of questions «Achievements made through the ICTs», it seems that the association of these categories with having a partner or not is higher than in

3 Created from the chi-square, with the advantage of having standardized scores, having the unit as the upper limit and inferior to zero, when there is no association (Mateos Rivas & García Ferrando, 1989:172).

the previous case (average 0.13 in the V of Cramer) and regarding the children, it keeps the positions of association from the previous block (V of Cramer around 0,25).

Table 4 associates the categories of block III (ICT, employment and entrepreneurship attitude) and having children and a partner or not. Items showing greater association are referred to descent, but not in all cases, especially when referring to «The usage of ICTs is a basic requirement of my current job» and «The usage of ICTs has allowed me to develop self-employment». A particular separation between these needs and having children or a partner is seen in the last of these items: «I had to learn to use technologies to work from home», which intends to point out that this learning has been carried out totally apart from their children and partner.

On the whole, the analysis we have to make from the values of the V of Cramer shows that there is little or no association between the usage of the ICTs by rural women and having a partner and to a lesser extent to have children or not. This lack of connection or association is particularly relevant between the categories of «ICTs and satisfaction of economic and labor needs» (Table 2) and the partner, indicating that this use of digital technologies is totally alien to their partner or they remain apart from it.

Table 2. Block I: ICTs and satisfaction of economic and labor needs with the ICTs and the fact of having a partner or not /having children or not

	Partner			Children		
	Yes (n=193)	No (n=205)	V of Cramer	Yes (n=270)	No (n=130)	V of Cramer
1. I have discovered that the ICTs may satisfy **my labor needs**. (n=399)	Yes	No		Yes	No	
Nothing	35,40%	38,00%	0,05	43,90%	22,30%	0,25
Little	10,40%	8,30%		9,70%	8,50%	
Something	18,20%	15,60%		17,50%	15,40%	
Quite	17,20%	18,50%		14,50%	25,40%	
A lot	18,80%	19,50%		14,50%	28,50%	
Total	100,00%	100,00%		100,00%	100,00%	
2. I have discovered that the ICTs may satisfy **my economic needs.**(n=397)	Yes	No		Yes	No	
Nothing	53,40%	56,40%	0,07	60,30%	43,80%	0,18
Little	14,10%	10,30%		12,00%	12,30%	
Something	15,20%	15,20%		13,90%	17,70%	
Quite	5,80%	7,80%		6,00%	9,20%	
A lot	11,50%	10,30%		7,90%	16,90%	
Total	100,00%	100,00%		100,00%	100,00%	
3. The use of ICTs allows me to be more independent and autonomous **in my labor life**. (n=397)	Yes	No		Yes	No	
Nothing	35,90%	35,00%	0,11	42,20%	21,70%	0,22
Little	10,90%	8,90%		9,70%	10,10%	
Something	15,60%	20,70%		17,90%	18,60%	
Quite	13,50%	17,70%		12,30%	23,30%	
A lot	24,00%	17,70%		17,90%	26,40%	
Total	100,00%	100,00%		100,00%	100,00%	
4. I think ICTs may offer opportunities for my labor life that I had not considered before. 395	Yes	No		Yes	No	
Nothing	30,20%	28,90%	0,06	36,80%	14,00%	0,26
Little	6,90%	9,80%		9,00%	7,00%	
Something	14,80%	15,20%		12,40%	20,20%	
Quite	24,30%	26,00%		24,40%	27,10%	
A lot	23,80%	20,10%		17,30%	31,80%	
Total	100,00%	100,00%		100,00%	100,00%	

Table 3. Block II Achievements thanks to ICTs and the fact of having a partner/children or not

	Partner			Children		
Achievements through ICTs	Yes (n=193)	No (n=205)	V of Cramer	Yes (n=270)	No (n=130)	V of Cramer
6. Since I have been using the ICTs I have improved my labor situation to seek for jobs.391	Yes	No	0,12	Yes	No	0,24
Nothing	48,40%	39,60%		51,70%	27,30%	
Little	13,30%	15,80%		13,70%	16,40%	
Something	14,90%	22,30%		15,20%	26,60%	
Quite	14,40%	11,90%		11,80%	15,60%	
A lot	9,00%	10,40%		7,60%	14,10%	
Total	100,00%	100,00%		100,00%	100,00%	
7. Since I have been using the ICTs I have improved my labor situation increasing my incomes. 390	Yes	No	0,14	Yes	No	0,21
Nothing	64,40%	53,70%		65,40%	45,70%	
Little	12,80%	20,40%		13,30%	23,60%	
Something	7,40%	11,90%		8,00%	13,40%	
Quite	9,60%	7,00%		8,70%	7,10%	
A lot	5,90%	7,00%		4,60%	10,20%	
Total	100,00%	100,00%		100,00%	100,00%	
8. The use of ICTs has facilitated to find/improve my job. 384	Yes	No	0,15	Yes	No	0,28
Nothing	56,80%	45,50%		59,10%	33,60%	
Little	8,40%	14,50%		11,70%	10,90%	
Something	13,20%	17,50%		11,40%	24,20%	
Quite	13,70%	10,50%		11,40%	14,10%	
A lot	7,90%	12,00%		6,40%	17,20%	
Total	100,00%	100,00%		100,00%	100,00%	

Table 4. Block III. ICT, employment and entrepreneurship attitude and the fact of having a partner or not /having children or not

	Partner			Children		
Employment	Yes (n=193)	No (n=205)	V of Cramer	Yes (n=270)	No (n=130)	V of Cramer
9. The use of ICTs is a basic requirement of my current job.372	Yes	No	0,09	Yes	No	0,24
Nothing	47,10%	44,70%		52,70%	31,50%	
Little	7,90%	8,50%		7,30%	10,20%	
Something	16,40%	12,60%		14,90%	13,40%	
Quite	16,90%	16,60%		15,30%	20,50%	
A lot	11,60%	17,60%		9,90%	24,40%	
Total	100,00%	100,00%		100,00%	100,00%	
10. The use of ICTs has allowed me to develop self-employment.372	Yes	No	0,13	Yes	No	0,24
Nothing	64,60%	55,30%		67,80%	43,70%	
Little	8,50%	10,70%		7,70%	13,50%	
Something	9,50%	17,30%		10,30%	19,80%	
Quite	9,50%	8,10%		8,40%	9,50%	
A lot	7,90%	8,60%		5,70%	13,50%	
Total	100,00%	100,00%		100,00%	100,00%	
11. The usage of ICTs has developed my entrepreneurship attitude.	Yes	No	0,13	Yes	No	0,18
Nothing	70,00%	61,40%		71,40%	53,20%	
Little	11,60%	11,70%		9,90%	15,90%	
Something	7,90%	14,70%		10,30%	13,50%	
Quite	5,30%	8,10%		5,00%	10,30%	
A lot	5,30%	4,10%		3,40%	7,10%	
Total	100,00%	100,00%		100,00%	100,00%	
12. I started to use technologies to create my company.	Yes	No	0,12	Yes	No	0,1
Nothing	85,20%	80,90%		84,00%	81,00%	
Little	3,20%	6,50%		4,20%	6,30%	
Something	4,20%	8,00%		5,30%	7,90%	
Quite	4,80%	2,50%		4,60%	1,60%	
A lot	2,60%	2,00%		1,90%	3,20%	
Total	100,00%	100,00%		100,00%	100,00%	
13. I had to learn to use the technologies to work from home.	Yes	No	0,05	Yes	No	0,15
Nothing	69,80%	67,50%		72,50%	60,90%	
Little	5,80%	8,00%		6,50%	7,80%	
Something	9,00%	10,50%		7,30%	14,80%	
Quite	6,90%	7,00%		7,30%	6,30%	
A lot	8,50%	7,00%		6,50%	10,20%	
Total	100,00%	100,00%		100,00%	100,00%	

4.3. Family context and the usage of ICTs for employment and entrepreneurship

If there isn't a real association between the use of ICTs by rural women for occupational purposes and entrepreneurship and having a partner; and little bond with their children in this topic, where do they get support from? The general survey showed that this support comes from the "family". The statement was formulated in the following terms: «My family is the context where I have learnt to use the ICTs» the statement is supported as measuring 3.4 on 5 Likert scale, in percentages 75,1% (*something + quite + a lot*).

From the set of 13 items on which this work is based, we have selected the 5 highest scores obtained in Table 1. They indicate that within the low level of the ICTs use for employment and entrepreneurship needs by this segment of women, there are some applications which get higher rating. These have been correlated with these women's perception of the support they have from their "family" to check the relevance of this generic agent in the process of socialization in ICT. The "family" has to be understood in this context as the relations between relatives in a broad sense developed in a local environment, which are usually frequent and intense and exceed the nuclear family.

These five items selected to be correlated with the variable "family" have simultaneously a high degree of association with the fact of having children or not, but very low when it comes to the fact of having a partner or not.

The statistical rho (r) of Pearson[4] analysis indicate the following considerations, always within the framework of a low level of correlation between the variables under study.

- There is a negative correlation between variable 1 "I have found that ICTs can satisfy my business needs" and the control variable "the family as the context in which support for the management of ICTs is received". That is, to the extent that the need to meet the labor needs through ICTs increases, family support decreases.
- There is a positive correlation between categories 3 and 4 and the fact of receiving support from the family. This could suggest that families support women to be more independent in labor using ICTs.
- Finally, the variables 6 and 8 related to job search and improvement of their employment situation through ICTs, have absolutely no correlation with the family support.

4 The statistics rho (r) of Pearson can be easily interpretable, since its route ranges from -1.0, to indicate a perfect negative association to +1.0, to indicate a perfect positive association. In correlations we have obtained it is possible to interpret r = 0 as the absence of relationship since, in all cases, the approximate distribution is linear and therefore, not curvilinear (Mateos Rivas & García Ferrando, 1989:187).

The correlation is significant at level 0,01 (bilateral), as observed in table 5.

Table5. Correlation between variables related to employment /ICTs, where rural women score higher and family context as an environment where learning to use ICTs.»(n=390)

	rho de Pearson
1. I have discovered that ICTs may satisfy **my labor needs (n=389)**	-0,04
3. The usage of ICTs allows me to be more independent and autonomous **in my labor life**. (n=397)	0,09
4. I think the ICTs may offer opportunities that I haven't considered for my working life before. (n=395)	0,07
6. Since I have been using the ICTs I have managed to improve my work situation for job search.(n=391)	0,00
8. The use of ICTs has facilitated to find/improve job. (n=384)	0,00

The Table 5 shows the high level of correlation between independent variables or the classification ones (academic level, social class ...), and the variables we have selected as the most related to rural women's employment and ICTs.

The correlation is high and positive, mainly and prominently with the variable academic level (around 0.5 rho Pearson), in such a way that the higher the academic level of women is, the more they use ICTs in employment and entrepreneurship.

There is no correlation with the variables "place of residence" of women, it is irrelevant. We can also say, accordingly to what was explained in the previous sections, there is no correlation between having a partner and meeting the labor needs through ICTs.

Both in the case of social class membership (social class auto positioning) and having a child or not, there is a moderate and positive correlation (around 0.2 or 0.3 Pearson r). We mean that in the average the social class increases, it also increases the use of ICTs for meeting the labor needs.

Finally the correlation is clearly negative in the case of the age variable (around -0.4 rho Pearson). In this case the correlation is indicated that as a variable grows, the other decreases in the same average; in the case we analyzed, as the age of the surveyed women increases, the use of ICTs to satisfy labor needs and entrepreneurship is reduced.

Correlation is significant at the 0.01 level (bilateral), as shown in Table 6.

Table6. Variables related to employment /ICTs, where rural women score higher and variables of routine or sample classification

Correlation of Pearson (r)	Academic Level	Social Class*	Place of residence **	Partner	Children	Age
1. I have discovered that ICTs may satisfy **my labor needs (n=389)**	0,559	0,3	0,056	-0,001	0,25	-0,451
3. The usage of ICTs allows me to be more independent and autonomous **in my labor life**. (n=397)	0,561	0,288	0,032	-0,014	0,205	-0,471
4. I think ICTs may offer opportunities that I hadn't considered for my working life before. (n=395)	0,505	0,301	0,147	-0,02	0,241	-0,513
6. Since I have been using the ICTs I have managed to improve my work situation for job search.(n=391)	0,475	0,259	0,021	0,055	0,212	-0,413
8. The use of ICTs has facilitated to find/improve job. (n=384)	0,503	0,303	0,046	0,076	0,251	-0,447

***Self-positioning of social class**
****Town where the interview is made.**

5. CONCLUSIONS

According to some studies that have been emphasized in the initial part, the use rural women make of ICTs is more associated with social relations and leisure than with job searching, the satisfaction of economic needs or entrepreneurship (Pérez Rubio, Sánchez-Oro Sánchez & García García, 2015); Barragán Sánchez & Ruiz Pinto, 2013). For this reason, we have studied the characteristics that define this aspect. We have found out that, within the variables related to this issue, the dimensions that make up the association between ICTs and satisfaction of economic and labor needs is the highest value obtained. Specifically 2.7 points on average with scores on the Likert scale of five categories, while the dimensions framed in ICT applications specifically for seeking employment or engaging in the business world have an average of 1.8.

The main issue is that when these women were asked about what agents favor their socialization and use of technologies, they emphasize the "family context" as the most supportive, but they also point out that their partners and children, especially the first ones, do not support this involvement in ICTs at all. Therefore it seemed interesting to analyze the role that these three agents of socialization play in these processes. In general we discovered that the surveyed women's partners are irrelevant agents in the process they carried out to self-enroll in technologies for employment and entrepreneurship. Although their sons and daughters may be a supportive factor in some cases, it does not reach the level of support in which it could be called, in a somewhat generic term, "family context". The family is mentioned, however, the score obtained by the partner (2.2 average) and children (2.6 average) is significantly low. It is striking that 50% of women say that their partner has

helped "nothing" in that inclusion in technologies. In the case of the children, 43.5% also claim it works likewise. Neither their brothers nor their sisters helped in that process.

However, we have specifically correlated variables which have higher scores related to employment and entrepreneurship, and the support these women say they obtain from their family environment and these correlations are practically nonexistent (Table 5). The interpretation of this situation from our point of view is that rural women use ICTs for these purposes on the sidelines, or even against the rural family context. This verified fact is corroborated when these variables are correlated with independent ones, which in this model are: having a partner, having children, social class, educational level and age. Pearson's rho shows high positive correlations only with the academic level, to a lesser extent with the class position and no correlation with whether having a partner or not.

With these arguments, it can be verified that women tend to self-include in technologies for employment and entrepreneurship without any help from their family context.

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