

MEASURING WOMEN'S EMPOWERMENT: RURAL-URBAN COMPARISON IN THE ECUADORIAN ANDES

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ABSTRACT

The research aimed to analyze the levels of female empowerment by comparing rural and urban parishes in the Canton of Latacunga, which is part of the province of Cotopaxi in the Ecuadorian Andes. The methodology proposed by Hernández & García (2008) was applied to a sample of 384 women over 15 years of age, of whom 151 reside in rural areas and 233 in urban areas. The instrument was composed of two parts: the initial one

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associated with questions on socio-demographic components, and the second with 34 reactive ones on the perception of empowerment, with four possible answers on a Likert-type scale. The levels of empowerment were analyzed in both, urban and rural areas, validating the possible existence of statistically significant differences. In addition, the factor analysis methodology was used to group the approaches into dimensions. It possible to validate the idea of a higher level of empowerment in the urban area (96.67) compared to the rural sector (93.46). However, in both cases they are medium, with a statistically significant difference of 1%. Secondly, the results related to the factors into which the empowerment reagents could be grouped allowed for extracting of seven dimensions associated with security, self-esteem, boldness, equality, independence, external influences, and leadership. These factors presented different behaviors between both study areas, being superior in the urban environment – except for boldness, which was greater in the rural area, and external influences, which presented similar values. External influences score low, security and independence are in the middle ranges, while social value, equality and leadership are at the upper end of the proposed scales. Therefore, women consider that their work and effort are recognized socially or, at least, by their families.

Key words: women empowerment, rural women empowerment, urban women's empowerment, gender roles, gender equality, Cotopaxi, Ecuador

RESUMEN

La investigación tuvo como objetivo analizar los niveles de empoderamiento femenino comparando parroquias rurales y urbanas del cantón Latacunga, perteneciente a la provincia de Cotopaxi, en los Andes ecuatorianos. Se aplicó la metodología propuesta por Hernández & García (2008) a una muestra de 384 mujeres mayores de 15 años, de las cuales 151 residen en el área rural y 233 en el área urbana. El instrumento estuvo compuesto por dos partes: la inicial, asociada a preguntas sobre componentes sociodemográficos, en tanto que la segunda incluía 34 reactivos sobre la percepción de empoderamiento, con cuatro posibles respuestas en una escala tipo Likert. Los niveles de empoderamiento fueron analizados tanto en las zonas urbanas como en las zonas rurales, validando la existencia de diferencias estadísticamente significativas entre ellas. Además, se utilizó la metodología de análisis factorial para agrupar los planteamientos en dimensiones. Fue posible validar la idea de un mayor nivel de empoderamiento en el área urbana (96,67) en comparación con el sector rural (93,46). Sin embargo, en ambos casos se ubican en niveles medios, con una diferencia estadísticamente significativa de 1%. En segundo lugar, los resultados relacionados con los factores en los que se podían agrupar los reactivos de empoderamiento permitieron extraer siete dimensiones asociadas a la seguridad, autoestima, confianza, igualdad, independencia, influencias externas y liderazgo. Estos factores presentaron comportamientos diferenciados entre ambas áreas de estudio, siendo superiores en el ámbito urbano; las excepciones fueron la confianza, que fue mayor en el ámbito rural y las influencias externas, que presentaron valores similares. Las influencias externas se ubican en un nivel bajo, la seguridad y la independencia se sitúan en los rangos medios, mientras que el valor social, la igualdad y el liderazgo se valoran en el extremo superior de las escalas propuestas. Por tanto, las mujeres consideran que su trabajo y esfuerzo son reconocidos socialmente o, al menos, por sus familias.

Palabras clave: empoderamiento femenino, empoderamiento rural, empoderamiento urbano, roles de género, igualdad de género, Cotopaxi, Ecuador

RÉSUMÉ

L'objectif de cette recherche était d'analyser les niveaux d'autonomisation des femmes en comparant les paroisses rurales et urbaines du canton de Latacunga, appartenant à la province de Cotopaxi, dans les Andes équatoriennes. La méthodologie proposée par Hernández et García (2008) a été appliquée à un échantillon de 384 femmes âgées de plus de 15 ans, dont 151 vivent dans des zones rurales et 233 dans des zones urbaines. L'instrument était composé de deux parties : la première partie était associée à des questions sur les composantes sociodémographiques et la seconde comprenait 34 questions sur la perception de l'autonomisation, avec quatre réponses possibles sur une échelle de type Likert. Les niveaux d'autonomisation ont été analysés dans les zones urbaines et rurales, ce qui a permis de valider l'existence de différences statistiquement significatives. En outre, la méthodologie de l'analyse factorielle a été utilisée pour regrouper les déclarations en dimensions. Il a été possible de valider l'idée d'un niveau d'autonomisation

plus élevé dans la zone urbaine (96,67) que dans le secteur rural (93,46). Toutefois, dans les deux cas, il s'agit de niveaux moyens, avec une différence statistiquement significative de 1%. Les résultats relatifs aux facteurs dans lesquels les items d'autonomisation pouvaient être regroupés nous ont permis d'extraire sept dimensions associées à la sécurité, l'estime de soi, la confiance, l'égalité, l'indépendance, les influences externes et le leadership. Ces facteurs ont montré des comportements différents entre les deux zones d'étude, avec des meilleurs résultats dans les zones urbaines, à l'exception de deux d'entre eux : la confiance, qui a été plus élevée dans les zones rurales, et les influences externes, qui ont montré des valeurs similaires aussi bien au milieu rural qu'urbain. Les influences externes sont placées à un faible niveau, la sécurité et l'indépendance se situent dans la moyenne, tandis que la valeur sociale, l'égalité et le leadership sont évalués à l'extrémité supérieure des échelles proposées. Ainsi, les femmes ont le sentiment que leur travail et leurs efforts sont reconnus socialement ou au moins par leur famille.

Mots-clés : autonomisation des femmes, autonomisation rurale, autonomisation urbaine, rôles de genre, égalité des genres, Cotopaxi, Équateur

RESUMO

O objetivo da investigação foi analisar os níveis de empoderamento feminino, comparando as freguesias rurais e urbanas do cantão de Latacunga, pertencente à província de Cotopaxi, nos Andes equatorianos. A metodologia proposta por Hernández e García (2008) foi aplicada a uma amostra de 384 mulheres com mais de 15 anos de idade, 151 das quais vivem em zonas rurais e 233 em zonas urbanas. O instrumento era composto por duas partes: a parte inicial associada a questões sobre componentes sociodemográficos, e a segunda com 34 itens sobre a percepção do empoderamento, com quatro respostas possíveis numa escala de tipo Likert. Os níveis de empoderamento foram analisados nas zonas urbanas e rurais, validando a existência de diferenças estatisticamente significativas. Além disso, foi utilizada a metodologia da análise fatorial para agrupar as afirmações em dimensões. Foi possível validar a ideia de um maior nível de empoderamento na zona urbana (96,67) em comparação com o sector rural (93,46). No entanto, em ambos os casos, encontram-se em níveis médios, com uma diferença estatisticamente significativa de 1%. Em segundo lugar, os resultados relativos aos fatores em que os itens de empoderamento podem ser agrupados permitiram-nos extrair sete dimensões associadas à segurança, auto-estima, confiança, igualdade, independência, influências externas e liderança. Estes factores revelaram comportamentos diferentes entre as duas áreas de estudo, sendo mais elevados nas áreas urbanas, com exceção da confiança, que foi mais elevada nas áreas rurais, e das influências externas, que apresentaram valores semelhantes. As influências externas são colocadas num nível baixo, a segurança e a independência situam-se nos intervalos médios, enquanto o valor social, a igualdade e a liderança são valorizados no extremo superior das escalas propostas. Assim, as mulheres sentem que o seu trabalho e esforço são reconhecidos socialmente ou, pelo menos, pelas suas famílias.

Palavras-chave: empoderamento das mulheres, empoderamento rural, empoderamento urbano, papéis de género, igualdade de género, Cotopaxi, Ecuador

1. INTRODUCTION

Empowerment can be considered one of the conditions that contribute achieving of the United Nations (UN) sustainable development goals outlined in the 2030 Agenda, since the gender dimension is reflected in each of them. Specifically, goal number 5 proposes the need to achieve gender equality and to empower girls and women (UN Women, 2017).

In this context, empowerment as a strategy for achieving gender equality and ultimately

sustainable development objective represents (...) power conceived as the ability to materialize desires, produce change and meet needs. It is manifested in the force, hierarchies, control of resources, roles, and definition of spaces for women and men, present in the social and political structures and the customs. (Escudero, 2014, p. 34)

Therefore, the study of empowerment is not only associated with economic independence.

However this is a contributing factor, but also with decision-making capacities within families, security, self-esteem, political or community participation, and leadership or its role in society (Schuler, 1997).

In this way, empowerment must be analyzed from different angles: the cognitive, the psychological, the political, and the economic. All these conditions the development of gender equality and sustainable development since they demand the overcoming of elements such as the subordination of women, dependence, and even the imposition of decisions associated with sexuality, procreation, and the education of children (Stromquist, 1997).

These edges defined by Stromquist (1997) are currently considered by Aguayo & Lamelas (2012) and Sánchez (2017) as the levels of empowerment. Therefore, it is regarding the personal level (self-esteem), the social or community level (management in the community), political (participation in decision-making), economic (paid work), and cultural level (social norms).

On a personal level, empowerment supports the process of individual assessment and self-confidence, including family or close relationships, which are complemented by the cultural level, focusing on women's position vis-à-vis social norms and stereotypes (Aguayo & Lamelas, 2012).

For their part, the community and political levels (the former linked to community management mainly of basic services and the latter to participate in decision-making in the public sphere) interact to help improve living conditions and guarantee women's human rights.

Specifically, at the community level, this empowerment process also involves strengthening participation in groups that try to respond to the main social problems so that women feel useful and important in achieving their demands.

This leads to the idea raised by Ochman (2016) that distinguishes between individual empowerment (personal level) and collective empowerment (community level). This individual empowerment «implies the increase of self-confidence and inner strength»

(p. 35). Collective empowerment, «translates into the ability to take joint action to change broader social and political structures» (Ochman, 2016, p. 35).

Specifically, Robinson, Díaz-Carrión & Cruz (2019) indicate that support and relationships are fundamental for collective empowerment. This justifies that many support programs for women, especially the most vulnerable, focus their work on the creation and consolidation of networks through associations or groups with different objectives.

Thus, the strengthening of empowerment, whether at the individual or collective level, will depend to a large extent on the existing conditions in the environment, which may or may not be inhibiting and over which women have little influence in most cases. These conditions are associated with existing norms, society's system of values and relations, the educational and health possibilities to which they have had access and the gender roles that are developed.

In some cases, these are basic needs that must be met and, in others, strategic interests that are linked to gender equality and the roles for both men and women, which therefore require long-term processes for their achievement.

Studies carried out by Botello-Peñaloza & Guerrero-Rincón (2017) in Colombia show that especially in rural areas there is an urgency to solve these basic needs associated with education and health as preconditions for achieving any development or increasing the capacity for decision-making. The limited access to a formal education system or to health and nutrition constitutes the first obstacle in addressing empowerment in rural areas.

The status of these environmental factors that inhibit or enhance empowerment often differs depending on the area of residence or ethnicity. For instance, in terms of residence, difficulties in accessing education or opportunities limit and control even more.

In countries such as Ecuador, where this study was carried out, reducing the inequality gap means not only considering the factors indicated, but also the need to overcome the patriarchal system, which tends to be

predominant in rural areas and especially in indigenous communities (León, 1997). Specifically, in the province of Cotopaxi, where indigenous participation is relevant, the study of empowerment poses additional challenges. These challenges are linked to patriarchal behaviors, power relations, as well as the system of beliefs and values, which limit women's empowerment.

Studies such as Mosquera (2018) reiterate these challenges, particularly in the province of

Cotopaxi. Mosquera (2018) indicates that the role of indigenous women differs from that of men, largely because of the agrarian reform process developed since 1964. This process caused the displacement of indigenous communities to less fertile areas with limited irrigation and lower temperatures. As a result of these changes, men migrated to other areas in search of work and better wages, forcing women to take on agricultural work, in addition to caring for the home and children.

In this context, women had to remain in the areas to which they were displaced to preserve their culture and devote themselves to tending the land, in what Mosquera (2018) calls «the feminization of agriculture.» This characterization implies an approach to the economic angle, which requires, as it was proposed, the overcoming of a series of factors associated with education and health as preconditions or basic needs and the transformation of gender roles, linking women to paid and formal jobs (UN Women, 2017). Vega & Vascónez (2016) confirm this reality in Ecuador, indicating the precariousness of female employment in rural areas, mostly informal, which limits economic empowerment.

In this sense, Aguayo & Lamelas (2012) establish that economic empowerment requires understanding gender roles. These gender roles relate women to mainly reproductive and community activities, leaving aside the productive ones or simply associating them with the care of the field or informal activities.

In many cases the linkage of women to productive activities, far from generating benefits, implies an additional effort to fulfil of responsibilities in the home, which translates

into over utilization and not underutilisation, as could be considered socially (UN Women, 2017). In fact, Cruces & Palenzuela (2006) state that in rural areas, the invisibility of domestic work, the difficulties in making family and personal decisions, and the limitations in seeking work opportunities other than mostly agricultural work prevail.

In rural areas, women, therefore, seek to rely on collective empowerment as a process that reinforces individual empowerment to form networks that can generate economic initiatives or create associations that fight for social improvements for their communities, as proposed by Pérez, Vázquez, & Zapata (2008). In the case of indigenous women, the success of these organizations and their projects is limited by age, educational level and time availability, as they must respond to multiple activities. These responsibilities are linked to the care of the home, their children and agricultural activities. Any other activity must, in most cases, have the permission of her partner, which limits her decision-making and thus her empowerment. This differentiation between the urban and rural sectors, especially regarding indigenous communities, in terms of environmental and family conditions includes their system of beliefs and values. It could lead to different levels of empowerment linked to gender roles and how these are developed in each area.

As proposed by Manzanera & Lizarraga (2013), reproductive, productive and community roles generate not only inequalities owing to gender, but also among women by area. In the rural environment, the possibilities of developing a productive role are limited both by the environment and by family relationships, which reduces women's capacity for independence, security, self-esteem, and decision-making.

Therefore, this research aimed to measure the level of empowerment in Cotopaxi's urban and rural sector and determine any causes and factors that could condition women's empowerment in this context. The contribution of this research is associated with three elements, firstly the quantitative approach on which the study was based, secondly the stratification in rural and urban areas, which

allowed for comparison, and thirdly the micro perspective, which tried to integrate the greatest number of factors that allow for the assessment of empowerment.

Regarding the quantitative approach, it is important to point out that most studies on empowerment have been developed from a qualitative analysis, with measurement being a topic that has been little addressed, although, as proposed by Nahar & Mengo (2022), it has been increasing in recent years. Indeed, in their literature review study on the measurement of empowerment in developing countries, these authors identified 17 studies, most of them at a macro level.

In terms of the rural-urban comparison, for the specific case of Ecuador, the analysis in both areas is relevant. The reasons are associated with the presence of indigenous peoples and nationalities predominantly located in rural areas, where there is evidence of more conservative behavior and a patriarchal system that limits empowerment.

In addition, quantitative research is scarce and more at the micro level, which requires a differentiated analysis between rural and urban areas. Most studies have been limited to aggregate settings, based on gender equality using gender gap indices. These indexes address the phenomenon in a limited way (Cueva, 2007), as they only include factors associated with education and income level (Isamail, Mohd & Nadriah, 2011; Mahmud, Shah & Becker, 2012; Hameed *et al.*, 2014).

In this sense, it is necessary to consider other factors. In fact, Peterman, Schwab, Roy, Hidrobo & Gilligan (2021) highlight that factors such as decision-making in different areas should be incorporated in the analysis of empowerment, which is corroborated in the proposal for measuring empowerment developed by Richardson (2018).

Thus, this study sought to carry out a quantitative approach, comparing at the micro level, rural and urban areas in a comprehensive manner. This comprehensiveness lies in the inclusion of the measurement factors referred to in the literature, adding partial analyses, considering education, economic characteristics, decision making, leadership, self-

esteem, community participation, among other dimensions.

2. METHODOLOGY

This study was carried out in the province of Cotopaxi (Ecuador), specifically in the Canton of Latacunga, which is in the Ecuadorian highlands and has the largest population. It consists of 15 parishes, of which five are urban (La Matriz, Eloy Alfaro, Ignacio Flores, Juan Montalvo, and San Buenaventura), and ten rural parishes (comprising Toacaso, San Juan de Pastocalle, Mulaló, Tanicuchí, Guaytacama, Aláquez, Poaló, Once de Noviembre, Belisario Quevedo and Joseguango Bajo).

To determine the level of women's empowerment, and possible differences between the urban and rural sectors of the Latacunga canton, an instrument developed by Hernández & García (2008) was used. It was applied in November 2018 to a sample of women over 15 years old, following the methodology for finite populations and unreplaced sampling with a 95% confidence level.

The instrument was composed of two parts: the initial one associated with questions on socio-demographic components, and the second with 34 reactive ones on the perception of empowerment, with four possible answers on a Likert-type scale. Specifically, these approaches had a maximum score of 136 points, which for analysis were grouped into three ranges according to the proposal by Hernández & García (2008). The low range was up to 89 points, the medium one between 90 and 104 points, and the high above 105 points.

Once the sample and the instrument had been defined, their reliability and consistency were verified. Thus, the Cronbach's Alpha was applied to determine whether the questions or reagents formulated have internal coherence and help to explain the empowerment, which occurs when the value obtained is closer to one. Therefore, the results of the application of the instrument allowed: first, to have a general vision of the characteristics of women associated with social and economic aspects. Secondly, to assess the average empowerment of the sample for each zone and estimated the

possible differences between the rural and urban areas, using the contrasting hypotheses of differences of means or proportions according to the case. Thirdly, to identify the factors that explain the levels of empowerment through a factor analysis by extracting the dimensions that explain the largest possible proportion of the total variance.

This analysis is based on the idea that there is not one sole explained variable and one set of explanatory variables. On the contrary, a series of strongly correlated variables. The research intended to group them into a series of factors or components expressed as a linear combination of these variables. For the factorial analysis, it started by estimating the correlation matrix to determine whether the degree of relationship between the variables is high, which would allow us to make sense of the method. Then, based on this analysis, the extraction of factors by the principal component's method was carried out, for which it would be necessary to guarantee the ease of interpreting these factors.

For this to happen, the factor must comply with three basic characteristics: the factor's weights must be close to one; they must be high for a variable (that is, only one factor explains a variable to a greater degree); and the factors must not have similar weights. To achieve this, the matrix of rotated components was used. Hence, the results obtained allowed to extract the factors whose eigenvalues are greater than unity. These factors give rise to a factorial structure that allows a significant percentage of the total variance to be explained. The elements of this factorial structure are identified using the results of the Varimax rotated component matrix.

3. RESULTS

3.1. SOCIOECONOMIC CHARACTERISTICS

As previously discussed, the instrument proposed by Hernández & García (2008), was applied in November 2018 to a sample of 384 women over 15 years of age (151 in rural areas, and 233 in urban areas). The sample size was chosen based on a population of 62,231 women (INEC, 2012a, 2012b).

In general terms, the women under study are characterized by having an average age of

31 years, 74.47% have a long-term partner, with the average age of the couple being 35.53 years, and the number of children being 2.43 for each woman. Specifically, 31.25% indicate that they are single, and the rest informed that they are or were in a relationship, whether it be cohabiting (14.32%), married (49.22%), separated (3.85%) or widowed (1.82%).

When analyzing the results obtained about unions before marriage, only 17.71% stated that they had maintained them. However, the low proportion of affirmative responses could be linked to the cultural and social patterns still observed about this aspect, and therefore this value could be biased.

Although this situation occurred, respondents who reported having a current partner were much higher, with 74.47% indicating a current relationship, 62.24% of whom have the same level of schooling. In only 13.29% of cases did the women have more years of education, and in 19.93%, it was the man who was better educated.

It is striking that 4.55% of women do not know their partner's level of education, probably based on their belief system and cultural factors in which communication and knowledge between the two is not a priority, but rather different rules apply. Of the relationships indicated, 69.01% report having children, and in 93.36% of cases, the woman's partner works.

Regarding the women's level of education, the results for the sample indicate that over half have more than 13 years of schooling (53.13%), which means that they have received at least a secondary-level baccalaureate. In contrast, only 4.17% have no schooling at all. The rest of the women had one to six years of schooling (16.67%) or seven to twelve years (26.04%).

When detailing the economic and employment characteristics of the women, it is worth noting that more than half of them work (62.24%), and a significant proportion have links to their own or family businesses, which appears relevant to the dynamics of income generation. 45.05% indicated the existence of family businesses run mainly by their parents. Moreover, this idea of entrepreneurship has been passed on to the

children, as 40.36% currently have their own business, which they have managed to start through support (in 59.35% of cases), especially from the family nucleus.

Considering these results, the question that arises is whether the characteristics change when rural women are compared with those in urban areas. The answer to this question seems to be «yes» for most variables, but only in some cases do the differences become statistically significant.

Considering the calculation of both the difference in averages and in proportions depending on the variable to be analyzed, it can be seen in Table N° 1 that the numbers of women with children, with a partner, and who are married are higher in urban areas. Meanwhile, the numbers are higher in rural areas for women who work, have a family business, have their own business, have more years of education, and have a higher average age.

These differences are not in all cases statistically significant. This only occurs in the proportion of women with children and in the existence of family and personal enterprises, whose differences in favor of women in rural areas are 19.61% and 32.79%, respectively. These variables could be related in the sense that an entrepreneurial woman must dedicate more hours and effort to productive activity, which would affect the couple's number of children.

3.2. ESTIMATING THE VALUES OF EMPOWERMENT

Having analyzed the socioeconomic characteristics of the women surveyed, the next step was to estimate the average level of empowerment for the canton, and in each area. The internal consistency of the questions associated with the perception of empowerment was verified to respond to this objective.

Table 1
Differences in characteristics by area of residence

	Urban	Rural	Differences
Differences in Proportions			
	n = 233	n = 151	
Children	0,7253 (0,0292)	0,6357 (0,0392)	0,0895 * (0,0489)
Work	0,5965 (0,0321)	0,6622 (0,0385)	-0,0656 (0,0501)
Has a partner	0,7682 (0,0276)	0,7086 (0,0370)	0,0596 (0,0462)
Family business	0,3733 (0,0317)	0,5695 (0,0403)	-0,1961 *** (0,0513)
Own business	0,2746 (0,0292)	0,6026 (0,0398)	-0,3279 *** (0,0494)
Differences in averages			
Age	31,2446 (0,7256)	30,708 (0,8824)	0,536 (1,1476)
Educational level	3,2575 (0,0565)	3,3178 (0,0754)	-0,0603 (0,0928)
Marital status	2,2875 (0,0879)	2,3245 (0,0629)	-0,0369 (0,1054)

Note: Significant at: 1% (***), 5% (**), 10% (*). The values in brackets represent standard errors

The value of Cronbach's Alpha for the 34 reagents measured on the Likert-type scale was 0.9327, which exceeds the minimum acceptable value (0.70), making the instrument an adequate measure of empowerment. Based on the results of this second part of the instrument, a total score for the sample of 95.59 was obtained, which gives the Ecuadorian Latacunga Canton an empowerment score of medium. In contrast, the urban area scored 96.97, and the rural area 93.46, as shown in Table N° 2.

According to these results, rural empowerment is lower than urban empowerment, with a difference of 3.52 and a statistical significance of 1%. However, in both cases, the level of empowerment is medium, considering the ranges established by Hernández & García (2008).

3.3. FACTORS THAT EXPLAIN EMPOWERMENT

To complete the study, a factorial analysis was carried out, using the principal components method, which allowed seven factors with values greater than 1 to be selected and which explained 60.82% of the total variance. The first factor is related to aspects associated with security, self-esteem, or personal satisfaction. It is composed of four reagents or questions of the instrument, which includes reagents 31, 32, 33, and 34. The second factor is associated with women's social value or satisfaction, structured from the reagents 24, 25, 26, 27,

29 and 30. The third factor, linked to boldness or decision-making without insecurity, comprises of six reagents: 1, 2, 4, 5, 6, and 29. The fourth factor comprises of five reagents associated with equal opportunities between men and women in the different facets of politics or participation, as well as in the economy, including the reagents 3, 10, 12, 14, and 16. The fifth factor relates to independence because women can make good decisions and is structured by three reagents: 18, 19, and 20. The penultimate factor is linked to external influences, or the environment's role in women empowerment, associated with items 7, 11, 13, 15, 17. Finally, the factor linked to women's leadership or sociopolitical participation is made up of five items 8, 9, 21, 22, 23.

According to the values obtained, each factor can be categorised into three ranges: low, medium, and high, as presented in Table N° 3. They depend on the number of reagents they contain, and the maximum and minimum values obtained.

Based on the assessment of these factors, the score for the entire sample was obtained along with each score associated with the rural area and the urban area. These results are shown in Table N° 4, which also considers the differences in the factors estimated for women in rural and urban areas.

If the aggregate results for the whole sample are analyzed, according to the scales set out above, it becomes clear that boldness and external influences or the environment

Table 2
Level of empowerment by area of residence

	Level of Empowerment			
	Rural Area	Urban Area	Both areas	Difference
No.	151	233	384	
Average	93,46 (6,4112)	96,97 (7,0826)	95,59 (7,0316)	3,52 *** (0,7132)
Maximum	115	125	125	
Minimum	76	83	76	

Table 3
Ranges for each factor

Factor		Ranges/Values		
		High	Medium	Low
First	Security, self-esteem, or personal satisfaction	Over 14	10 to 13	Up to 9
Second	Women's social value or satisfaction	More than 20	16 to 19	Up to 15
Third	Decision-making without insecurity	More than 20	16 to 19	Up to 15
Fourth	Equal opportunities between men and women	Over 15	11 to 14	Up to 10
Fifth	Make good decisions	More than 10	6 to 9	Up to 5
Sixth	External influences	Over 15	11 to 14	Up to 10
Seventh	Leadership or sociopolitical participation	Over 15	11 to 14	Up to 10

Table 4
Factors that determine empowerment

	Rural Area	Urban Zone	Both Areas	Difference
	n = 151	n = 233	n = 384	
Security	13,21 (0,1918)	14,04 (0,1273)	13,72 (0,2210)	0,83 *** (0,2210)
Social evaluation	19,69 (0,2582)	20,43 (0,1837)	20,14 (0,3087)	0,74 (0,3087)
Boldness	13,5 (0,2629)	12,7 (0,1928)	13,02 (0,3196)	-0,8 ** (0,3196)
Independence	7,31 (0,1117)	7,49 (0,1057)	7,42 (0,1592)	0,18 (0,1592)
Equality	14,67 (0,1599)	15,74 (0,1206)	15,32 (0,1976)	1,07 *** (0,1976)
External influences	9,11 (0,2243)	9,1 (0,1945)	9,1 (0,1471)	-0,01 (0,3016)
Leadership	15,96 (0,2204)	17,48 (0,1410)	16,88 (0,2492)	1,52 *** (0,2492)

Note: Significant at 1% (***), 5% (**), 10% (*). The values in brackets represent standard errors

scored low, in the sense that women perceive that the environment affects their decisions and conditions their achievements. Moreover, they also feel affected by their family members and partners opinions in terms of their daily behavior, affecting their self-esteem and self-fulfilment.

Regarding the security and independence factors, the values obtained for the whole sample were medium, suggesting that women depend to some extent on others for decision-making, economic matters, and community or political participation. Despite this, social value, equality, and leadership are at the top end of the proposed scales. Hence, women consider that their work and effort are socially recognized or at least recognised by their families. It shows that women feel there are opportunities that promote gender equality and that women can become leaders despite the limitations which may be generated in the environment, such as lack of preparation, obstacles in accessing formal education, or the barriers established by the family itself.

These results in terms of the ranges (low, medium or high) do not change substantially when the comparison is made between urban and rural areas. In the case of the security dimension, the situation is different, in the sense that in the rural sector it remained in the medium range, but in the urban sector it was in the high range.

Although the ratings remained relatively the same in rural and urban areas, it can be estimated that differences exist for all factors. In some cases, they are statistically significant, such as for the factors of safety, boldness, equality, and leadership. Specifically, safety is more highly rated in the urban area, with a difference of 0.83 points, statistically significant at 1%. The opposite is true for boldness, which scores higher in the rural area. Hence women in those areas are considered more courageous, with a difference in the results of -0.80 with a statistical significance of at least 5%. With respect to equality and leadership, in both factors the scores are higher in the urban zone, with differences of 1.07, and 1.52 respectively, and differences being significant at 1%.

4. DISCUSSION

The traditional approach to the study of empowerment has been a qualitative approach through case studies, both in urban and rural areas. The quantitative approach to empowerment process, at least locally, has been limited. However, studies such as those by Hernández & García (2008), and subsequently by Manuel, Paredes, España & Quintal (2019) and Saldaña, Echerry, Madrigal & Madrigal (2019) tried to assess the level of empowerment and extract the factors that can explain the results obtained.

Based on the instrument proposed by Hernández & García (2008), which was also used by the authors mentioned above, this research project aimed to contribute for the first time towards characterising empowerment from a quantitative approach in the canton of Latacunga in Cotopaxi (Ecuador). In Ecuador's case, this quantitative approach to empowerment provides additional elements for understanding the difficulties in achieving sustainable development goals.

Empowerment is a strategy for achieving gender equality that cuts across the objectives set out in the United Nations' 2030 Agenda.

Achieving higher levels of empowerment at all levels facilitates the achievement of gender equality and, with identifying low values in the perception of women's empowerment, the determination of the factors that explain this behavior. Female empowerment allows for generating intervention programs or policies focused on reinforcing aspects that represent a weakness. These programs or policies can even be evaluated in terms of their impact. For this, it is necessary to take into account the evaluation of empowerment before and after the intervention. This approach would make it possible to identify the most effective programs depending on the cultural context of each community.

In this sense, the results presented are like studies that applied the same instrument, but in Mexico, such as those by Hernández & García (2008), Manuel, Paredes, Spain & Quintal (2019) and Saldaña, Echerry, Madrigal & Madrigal (2019). The assessments obtained in those three cases allow in the

present study to speak of an average level of empowerment, as in this study, but did not present comparisons between rural and urban environments, whereas this article does compare the two. Thus, the results show that the urban areas in Latacunga (Ecuador) have higher levels of empowerment compared to rural areas.

Higher levels of empowerment in urban areas are linked to greater power in both domestic and public decision-making. This may be since in urban areas patriarchal relations are not as dominant, economic conditions are more favorable and personal relationships are not as determined by social patterns, norms, or values (Artieda, 2001). Additionally, as Mosquera (2018) states, the presence of an indigenous population in the rural areas of the canton establishes differences on cultural, political, and personal levels associated with patriarchal systems, which limit women empowerment and gender equality.

In urban areas, it is evident that the presence of traditional gender roles, unpaid work, precarious working conditions, and the low valuation of domestic work. This reality imposes the need to combine the care of the land and the home, which leads to little economic independence (Cruces & Palenzuela, 2006; Aguayo & Lamelas, 2012; UN Women, 2017). It is reinforced by factors associated with the community level or collective empowerment. Although community management is notable in rural areas, women's political participation in public decision-making is not (Pérez et al., 2008).

In the research, these levels are associated with the factors that explain the perception of empowerment, among which are: security, social value, independence, equality, external influences, and leadership. As might be expected from what has been presented, these valuations are significantly different between the two areas. However, except in the cases of external influences, in which the values are practically the same, and boldness, which is greater in the urban area, they all register better results in the urban environment.

The valuation of independence and equality is related to the economic level. In contrast,

social valuation, external influences, and leadership are all associated with the political and community level, both determined by gender roles in the rural and urban environment.

In this regard, Manzanera & Lizarraga (2013) indicate that women have three roles to play: i) the reproductive role associated with raising children and caring for the home; ii) the productive role, which in the case of working to earn an income, allows them to contribute to the sustenance of the home; and, iii) the community role, linked to the satisfaction of needs and services through managing and participating in activities in their environment. In the first two cases, behavior directly impacts on the economic level, while in the case of community management, it affects the community and political levels (collective empowerment).

Thus, the first group of factors mentioned is less valued in rural areas, because the reassignment of roles or responsibilities within the family is much more complex in these environments (Ospina, 1998). The reasons for this situation are linked, on the one hand, to the dynamics of family relations, associated with patriarchal relationships as indicated above, and on the other, to the dynamics of economic development in these areas. These economic conditions reduce the possibilities of labor insertion, due to the scarcity of jobs, the limited experience and the restrictions established by the couple. The family and environmental conditions mentioned above limit empowerment, especially in rural areas where domestic work, crop and animal care, and reproductive activities are undervalued, affecting personal appreciation and self-confidence. After all, the prevailing idea is that they do not contribute economically to the household's livelihood. Therefore, if empowerment in rural areas is to be enhanced, attention must be paid to the possibility of women's effective integration into the labor market, reducing overwork and duplication (Ochman, 2016; Saldaña, Echerry, Madrigal & Madrigal, 2019).

The second group of factors –social valuation, external influences, and leadership– are more related to the role of management

and community care. The role of women in the political arena, especially in rural areas, has opened a space in the daily activities of the household and reproductive functions for them to participate in community management. Such role, according to Massolo (2003), focuses on solving the problems of the community to respond to essential requirements, especially services by improving living conditions. This context could imply, in terms of empowerment, a greater and better perception of social value and of their contribution to the community. The downside of this is that it is limited to community management and not to political participation, which has traditionally been in the hands of men.

In this sense, Emami (2012) considers it necessary to establish five criteria to achieve women's empowerment in the rural environment and insists on the need to guide public policies in these areas, highlighting access to resources that are linked to work and financial support, as well as training, which in the case of the rural parishes of the Canton are of vital importance in order to support the undertakings and consolidate them as an alternative for overcoming poverty.

The lessons learned seem to indicate that the way to consolidate empowerment in rural areas is not only to guarantee access to health and education, but also to generate equal

opportunities at all levels and economic alternatives to improve independence and contribution towards the household's decision-making.

5. CONCLUSIONS

This study focused on determining the level of empowerment in a representative sample of women in the Canton of Latacunga (Ecuador), considering both the rural and urban sectors and under the hypothesis of significant differences between both groups of women in favor of those in the urban sector. In addition, some explanatory factors of this behavior were identified, by using factorial analysis.

The first approach to the problem was through characterizing the socioeconomic variables of the sample, where significant

differences between the rural and urban sectors are clear, concerning the proportion of children and the existence of family businesses and the enterprises owned by women. In the first case, the difference was in favor of the urban environment, while the proportion of family and women's enterprises was greater in the rural areas.

About the results of empowerment, firstly, an average level was obtained for the entire sample in the canton. It was possible to validate the idea of a higher level of empowerment in urban areas (96.67) compared to the rural sector (93.46). However, in both cases, they are medium levels of empowerment, with a statistically significant difference of 1%.

These factors presented different behaviors between both study areas, being superior in the urban environment –except for boldness, which was greater in the rural area, and external influences, which presented similar values–. As aforementioned, the reasons that could explain this differentiated behavior are related to gender roles and how family and social relations are built in both areas. The search for a fair reassignment of these roles, supported by greater opportunities in the rural environment, increased levels of access to services (education and health), and greater possibilities of employment or otherwise self-employment through sustainable ventures, are elements that must be considered to improve women's perception of empowerment and to achieve the sustainable development goals and gender equality.

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