Economic empowerment of Moroccan women: an analysis using Amartya Sen's capabilities approach

L'autonomisation économique des femmes marocaines : une analyse à travers l'approche des capacités d'Amartya Sen

Nabil EL HAMIDI

PhD; Cadi Ayyad University Marrakesh, Morocco

Mohamed ED-DIB

PhD; Hassan II University Casablanca, Morocco

Abstract

This paper analyzes the determinants of the economic empowerment of Moroccan women by relying on Amartya Sen's capability approach, which emphasizes a multidimensional vision of development centered on individuals' real freedoms. The study explores three key dimensions: individual capabilities, the socio-economic environment, and social inclusion. Through an empirical analysis based on a Tobit model, it evaluates the impact of several factors such as education, equal opportunities, access to productive resources, and public policies on women's economic autonomy. The sample of 264 Moroccan women, representative of geographical and socio-economic diversity, enabled an analysis of the interactions between explanatory variables (education, structural barriers, rights, economic participation, etc.) and the dependent variable measuring economic empowerment. The results show that access to education, the reduction of structural barriers, equal opportunities, favorable public policies, and improved living conditions have a significant and positive effect on women's empowerment. Conversely, access to financing and active participation in economic decision-making did not demonstrate a significant impact. The study highlights the importance of strategic investments in education, infrastructure, and institutional reforms to strengthen women's economic empowerment. It also calls for coordinated efforts between public, private, and civil society actors to overcome systemic barriers and build an inclusive and equitable society.

Keywords: Women's economic empowerment, Capability approach, Equal opportunities, Public policy, Social inclusion.
JEL classification : J16; O15; C34; I32; D63.

Résumé

Cet article analyse les déterminants de l'autonomisation économique des femmes marocaines en s'appuyant sur l'approche des capacités d'Amartya Sen, qui met l'accent sur une vision multidimensionnelle du développement centrée sur les libertés réelles des individus. L'étude explore trois dimensions clés : les capacités individuelles, l'environnement socio-économique et l'inclusion sociale. À travers une analyse empirique basée sur un modèle Tobit, elle évalue l'impact de plusieurs facteurs tels que l'éducation, l'égalité des chances, l'accès aux ressources productives et les politiques publiques sur l'autonomie économique des femmes. L'échantillon de 264 femmes marocaines, représentatif de la diversité géographique et socio-économique, a permis une analyse des interactions entre les variables explicatives (éducation, barrières structurelles, droits, participation économique, etc.) et la variable dépendante mesurant l'autonomisation économique. Les résultats montrent que l'accès à l'éducation, la réduction des barrières structurelles, l'égalité des chances, des politiques publiques favorables et l'amélioration des conditions de vie ont un effet significatif et positif sur l'autonomisation des femmes. En revanche, l'accès au financement et la participation active à la prise de décisions économiques n'ont pas montré d'impact significatif. L'étude souligne l'importance des investissements stratégiques dans l'éducation, les infrastructures et les réformes institutionnelles pour renforcer l'autonomisation économique des femmes. Elle appelle également à des efforts coordonnés entre les acteurs publics, privés et de la société civile pour surmonter les obstacles systémiques et construire une société inclusive et équitable.

Mots-clés : Autonomisation économique des femmes, Approche par les capacités, Égalité des chances, Politique publique, Inclusion sociale.
Classification JEL : J16, O15, C34, I32, D63.

Introduction

Women's economic empowerment is a major challenge for sustainable development and social equity. In many developing economies, including Morocco, women continue to face structural barriers that limit their effective participation in economic activities. These barriers, such as inequalities in access to education, financial resources, and professional opportunities, hinder not only their individual emancipation but also their contribution to economic growth and social progress. In this context, promoting women's economic empowerment is a priority to reduce gender inequalities and build an inclusive society. Amartya Sen's (1999) capability approach offers a relevant theoretical framework for analyzing the multiple dimensions of this empowerment. Unlike traditional economic indicators, this approach emphasizes individuals' real freedoms to choose and act according to their aspirations. It is based on three essential dimensions: individual capabilities, the socio-economic environment, and social inclusion, which interact to determine the opportunities available to individuals. This perspective underscores the importance of investing in integrated and inclusive policies to overcome existing barriers and expand economic opportunities for women.

In Morocco, despite significant progress in education and women's economic participation, challenges remain numerous. Restrictive social norms, systemic discrimination, and inequalities in access to resources and opportunities limit their potential to fully participate in the economy. These challenges call for an analysis to understand the key factors influencing their empowerment and identify effective levers for action. This paper aims to explore the determinants of Moroccan women's economic empowerment through the lens of Amartya Sen's capability approach. Through an empirical analysis, it examines how dimensions related to education, access to resources, equal opportunities, and social participation contribute to enhancing their economic autonomy. A Tobit econometric model is employed. The study is based on a sample of 264 Moroccan women from various regions, incorporating diverse profiles in terms of age, education level, and socio-economic status.

1. Literature review

Buvinić and Furst-Nichols (2014) identify specific social and familial constraints as major obstacles, limiting the impact of traditional interventions. They propose adjustments such as mobile accounts and in-kind transfers to alleviate these pressures and facilitate sustainable economic investments for women. Budig and Hodges (2010) explore the effect of the "motherhood penalty," showing how family responsibilities and career interruptions reduce women's professional and financial opportunities. They emphasize the importance of integrated policies to balance work and family life. Dejene (2007) highlights that structural and sociocultural inequalities exacerbate these barriers. She recommends institutional reforms to ensure better access to productive resources and investments in women's entrepreneurial initiatives. Mayoux (2001) underscores the potential of microfinance programs to enhance women's economic and social empowerment, emphasizing their ability to break the cycle of poverty while influencing gender dynamics. However, she warns of the risks associated with poorly designed programs, which can exacerbate social pressures.

Pereznieto and Taylor (2014) expand on these contributions by proposing a multidimensional transformation combining access to economic resources, strengthened decision-making power, and collaboration to advocate for economic rights. Their analysis highlights challenges related to evaluating progress, particularly the lack of suitable indicators and participatory methodologies. They advocate for approaches that integrate economic and sociocultural

dimensions to promote sustainable and equitable change. Kato and Kratzer (2013) stress the impact of microfinance institutions on women's economic empowerment. They show that these institutions provide opportunities for self-employment and enhance women's productivity while enabling them to develop management skills and self-confidence. These effects result in greater financial autonomy and improved capacity to manage both domestic and professional affairs. Mayoux (2004) complements this perspective by pointing out the limitations of traditional microcredit approaches, arguing that while microcredit can improve incomes, it remains insufficient to ensure sustainable empowerment. She advocates integrating microcredit with interventions such as community development and support services to strengthen women's autonomy.

Holloway, Niazi, and Rouse (2017) address the importance of financial tools, such as individual and secure savings accounts, in promoting women's economic empowerment. They highlight that these tools not only improve resource management but also increase bargaining power within households. They also identify the capacity of these tools to reduce structural inequalities, while stressing the need to adapt solutions to women's specific needs. Meanwhile, Kabeer (1999) proposes a comprehensive vision of economic empowerment as a transformative process encompassing resources, enhanced agency, and tangible outcomes. Kabeer emphasizes the importance of addressing social norms, equitable economic opportunities, and institutional frameworks to ensure sustainable transformation. Anderson and Eswaran (2009) examine the effect of women's access to the labor market on their economic empowerment. They demonstrate that income from paid work has a more significant impact on women's autonomy and decision-making power than other income sources such as transfers or inherited assets. They argue that policies aimed at improving women's earnings through paid work are essential to strengthening their participation in household decisions.

Abrar-ul-Haq et al. (2017) focus on the socio-cultural constraints limiting women's economic empowerment, particularly in Pakistan. They highlight the impact of patriarchal norms and economic barriers on women's access to education and employment opportunities, which reinforces their economic dependency and limits their ability to fully participate in socio-economic development. Mahmud and Tasneem (2014) emphasize the effects of paid work on women's empowerment in Bangladesh, noting that women who regularly work outside their homes experience increased mobility freedom and greater awareness of their rights. They also gain heightened respect within their households and communities. However, they observe negative effects such as physical insecurity and health impacts from long working hours, reflecting the complexity of the relationship between women's employment and empowerment. Blau and Kahn (2017) contribute to this discussion by focusing on systemic barriers such as implicit biases and wage inequality. They stress the importance of raising awareness about unconscious biases and implementing equitable pay policies to improve women's economic opportunities.

Addai (2017) highlights the transformative role of access to credit and training through microfinance, which enhances women's capacity to undertake entrepreneurial activities and manage their finances. These initiatives lead to increased income and assets as well as greater participation in decision-making within families and communities. Dupas and Robinson (2013) explore complementary solutions, demonstrating that innovative mechanisms such as secure savings spaces or pre-allocated savings enable women to invest more in their economic activities and improve family well-being. These simple tools help overcome challenges related to financial resource management in disadvantaged contexts. Yount et al. (2018)

underscore the importance of decision-making autonomy in women's economic empowerment. Their participation in household financial decisions and their ability to manage their earnings facilitate their economic inclusion, though these advances remain constrained by cultural norms and persistent structural inequalities. Donald et al. (2017) delve deeper into this issue by examining how unequal social norms and limited access to strategic resources hinder women's economic agency. They emphasize the need for structural and social reforms to strengthen women's control over their income and economic responsibilities, promoting equitable participation in economic decision-making.

Chhay (2011) highlights the central role of microfinance, particularly through initiatives like village banks, in promoting women's economic empowerment in rural areas. These programs enable women to generate income through job creation and self-employment, thereby improving family living conditions, particularly in terms of children's education and nutrition. However, Chhay points out challenges related to social and cultural pressures, persistent gender inequalities, and repayment constraints, which can sometimes exacerbate family tensions. Kabeer (2015) builds on this perspective by emphasizing the interdependence between gender equality and economic empowerment. Kabeer explains that access to financial resources must be accompanied by decision-making autonomy to be effective. Nonetheless, social norms and institutional biases continue to hinder women's access to these opportunities, requiring systemic transformation. Bandiera et al. (2013) add a complementary dimension by demonstrating that substantial capital transfers combined with intensive training and technical support enable the poorest women to transition from daily wage labor to self-employment. This shift results in notable income increases and broadens their professional choices. However, they highlight that the success of such programs depends on high costs and precise targeting, particularly for beneficiaries with a slight initial economic advantage. These contributions converge on the importance of overcoming structural constraints to maximize the benefits of economic initiatives targeted at women.

2. Methodology
2.1. Hypotheses and model

Amartya Sen's capability approach (1999) is a human development theory emphasizing the importance of individual and collective freedoms in enabling people to lead lives they value. Rather than being confined to traditional economic indicators, this approach assesses well-being through the real opportunities available to individuals to choose and act freely. It is based on three fundamental dimensions: individual capabilities, the socio-economic environment, and social inclusion.

i. Individual capabilities

Individual capabilities refer to the means and freedoms individuals have to achieve their personal and professional goals. Education is a central lever for increasing real freedoms, enabling the development of essential skills such as digital literacy, entrepreneurial abilities, and technical expertise. These competencies play a decisive role in accessing innovative and competitive economic opportunities. For instance, continuous education and lifelong learning facilitate adaptability to the rapid changes in labor markets. Economic autonomy is defined as the ability of individuals to meet their needs while making strategic decisions about their lives. This freedom includes the ability to choose employment, manage one's own resources, and actively participate in economic planning. It enhances dignity and reduces dependencies, thereby fostering greater personal and social stability.

Access to credit, subsidies, and productive infrastructure (such as land, technological tools, or workspaces) is essential for enabling individuals to contribute actively to the economy. Barriers to these resources, whether institutional or structural, limit equality of opportunity. Ensuring equitable access to these resources is therefore crucial for stimulating creativity and innovation. The freedom to choose from a variety of career paths is an essential component of capabilities. This assumes the existence of an inclusive labor market where everyone can access fulfilling jobs aligned with their personal aspirations, free from social or economic constraints.

ii. Socio-economic environment

The socio-economic environment shapes individuals' capabilities by influencing their opportunities and freedoms to act. A favorable socio-economic environment is characterized by conditions where everyone enjoys equal chances of success, regardless of social origin, geographical location, or other external factors. Equal opportunities also entail equitable access to education, healthcare, and public services, fostering active participation in economic and social life. Restrictive social norms, systemic discrimination, and institutional inequalities are major obstacles to the development of capabilities. Reducing these barriers requires structural reforms and increased awareness of inclusion issues. Removing these obstacles makes it possible to expand individuals' choices and freedoms, thereby promoting their autonomy. Public policies play a central role in creating an environment conducive to capability development. Tax incentives, subsidies, tailored infrastructure (such as efficient transportation networks and accessible digital platforms), and employment support mechanisms contribute to reducing inequalities and fostering innovation. These policies also provide support to vulnerable individuals, offering them opportunities for growth and development.

iii. Social inclusion

Social inclusion aims to ensure that every individual can actively participate in economic, social, and political life, overcoming marginalization and exclusion. Effective social inclusion requires that all individuals have the opportunity to participate in decisions affecting their economic and collective lives. This participation may include managing local resources, decision-making within businesses or public institutions, and contributing to the development of local policies. The legal recognition of individuals' fundamental rights and their representation in political and economic institutions are key pillars of social inclusion. These rights include access to property, the freedom to undertake entrepreneurial activities, and the ability to associate to defend their interests. Empowerment is the process through which individuals acquire the tools needed to improve their living conditions. This encompasses access to adequate housing, quality healthcare, and accessible transportation. By fostering empowerment, not only is individual well-being enhanced, but also that of the broader community, contributing to sustainable development.

Amartya Sen's capability approach offers a multidimensional perspective on development, focusing on individuals' real freedoms and their ability to lead lives they value. It emphasizes the interaction between individual capabilities, the socio-economic environment, and social inclusion, highlighting their interdependence. By investing in these three dimensions, societies can build an inclusive development model, particularly for women. Based on these elements, the following research hypotheses can be constructed:

- *H1: Access to education and training, particularly in entrepreneurial and digital skills, has a positive impact on women's economic empowerment.*
- *H2: Women's economic autonomy and decision-making power have a positive impact on their ability to actively participate in economic activities.*
- *H3: Access to financing and productive resources positively impacts women's economic empowerment by enabling them to create and grow businesses.*
- *H4: Gender equality in opportunities positively impacts women's economic empowerment.*
- *H5: Reducing structural barriers, such as restrictive social norms or discrimination, fosters women's economic empowerment.*
- *H6: Favorable public policies, such as subsidies, tax incentives, and adapted infrastructure, encourage women's economic empowerment.*
- *H7: Active participation of women in economic decision-making strengthens their economic empowerment.*
- *H8: Strengthening women's rights and representation in institutions positively impacts their economic empowerment.*
- *H9: Improving living conditions through economic empowerment stimulates women's involvement in economic activities.*

The econometric model specified to analyze the impact of these dimensions is as follows:

$$ACTIVECO_i = \beta 0 + \beta 1.EDUC_i + \beta 2.AUTO_i + \beta 3.FINC_i + \beta 4.EQOP_i \\ + \beta 5.OBST_i + \beta 6.POLI_i + \beta 7.PART_i + \beta 8.RGHT_i + \beta 9.COND_i \\ + \varepsilon i$$

The dependent variable, ACTIVECO, measures women's economic empowerment. EDUC assesses access to education and training, AUTO reflects economic autonomy and decision-making power, and FINC captures access to financing and productive resources. EQOP examines gender equality in opportunities, while OBSR evaluates the structural barriers faced by women. POLI measures the impact of favorable public policies, PART reflects women's active participation in economic decision-making, RGHT explores their rights and representation, and COND measures improvements in living conditions. All these main variables are measured on a scale from 1 to 5. Control variables include AGEW, representing women's age; EDLV, indicating their education level; and URBN, a binary variable distinguishing urban from rural areas.

2.2. Choosing Tobit regression ?

The use of a Tobit model is particularly suited to this study due to the characteristics of the dependent variable, ACTIVECO, which measures women's economic empowerment on a restricted scale from 1 to 5. This restriction creates a situation where the variable is censored, as no value can fall outside this interval. If a standard linear regression model were used, the estimates could be biased and inefficient, as such models implicitly assume that the dependent variable can take on infinite values. The Tobit model, however, is specifically designed to handle censored or truncated data, accounting for the limits imposed on the dependent variable.

In this study, the Tobit model allows for estimating the relationships between explanatory variables, such as access to education or structural barriers, and economic empowerment while respecting the constraints of the measurement scale. This ensures that predictions

remain within defined limits and that the estimated parameters more accurately reflect the underlying relationships. Furthermore, the characteristics of the scale used, which measures perceptions and economic outcomes on an ordinal scale, reinforce the relevance of the Tobit model. The model effectively handles situations where data frequently reach upper or lower limits, as in cases where a significant portion of respondents cluster at extreme scores (e.g., 1 or 5).

2.3.   Sample presentation

The sample for this study consists of 264 Moroccan women selected to analyze the determinants of their economic empowerment within the framework of Amartya Sen's capability approach. These women come from various regions of Morocco, encompassing both urban and rural areas to ensure geographic and socio-economic representativeness. Particular attention was given to the diversity of profiles in terms of age, education level, and socio-economic status to reflect the multiple dimensions influencing empowerment. The sample includes women engaged in different economic sectors, ranging from entrepreneurial and agricultural activities to formal and informal employment. This heterogeneity allows for the evaluation of how factors such as access to resources, participation in economic decision-making, and the impact of public policies influence their ability to achieve sustainable economic autonomy. Data were collected through a structured questionnaire measuring key variables such as access to education and financing, perceptions of structural barriers, and opportunities for economic engagement. Control variables, including age, education level, and place of residence (urban or rural), were also incorporated to capture contextual differences within the sample.

3. Results
3.1.   Robustness

The use of recursive coefficients instead of the Ramsey RESET test to analyze the specification of the Tobit model can be justified by the specific characteristics of censored models and the objectives of progressively verifying the stability and relevance of the estimated coefficients. Unlike the Ramsey test, which relies on adding powers of the predicted dependent variable to detect global specification errors in a standard linear model, recursive coefficients allow for the evaluation of the stability of estimated parameters as new data are incrementally incorporated into the model. This method is particularly useful for models like Tobit, where the distribution of the dependent variable is truncated or censored, potentially complicating the interpretation of results from traditional tests such as Ramsey's.

Recursive coefficients provide a graphical and dynamic approach to verifying whether the estimated parameters converge and remain stable as the sample size is gradually expanded. This feature is especially beneficial in the context of Tobit models, where relationships between explanatory variables and the dependent variable may vary depending on the proportion of censored observations or the specific characteristics of the sample. Additionally, recursive coefficients help detect specification issues related to data variability or specific effects within certain subpopulations, which is particularly relevant for a study involving women with heterogeneous profiles in terms of age, place of residence, or access to resources. This approach is also less sensitive to the strict linearity assumptions implicit in the Ramsey test, making it more suitable for nonlinear models like Tobit.

## Figure 1: Model specification using recursive coefficients
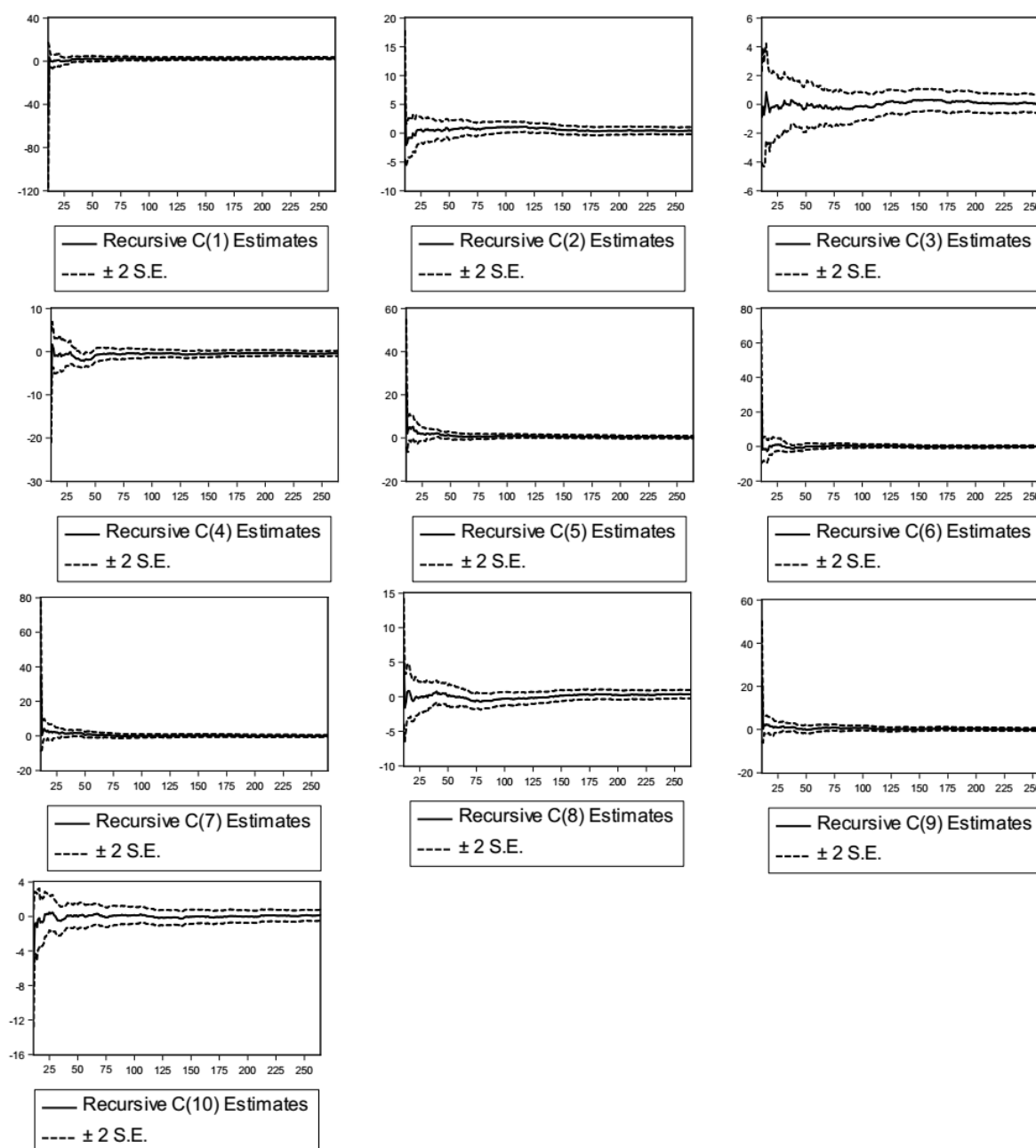
Source : authors

The analysis of Figure 1 highlights the stability of estimates as the sample size increases. The coefficients demonstrate a gradual convergence, with confidence intervals narrowing around fixed values. This indicates that the estimates become more precise as new data are incorporated, suggesting that the model is well specified. Initial fluctuations observed in the early estimates are normal, as they are based on a limited number of observations. However, these variations diminish rapidly, showing that the model becomes more robust with the growing sample size. The trajectories of the coefficients do not reveal any significant breaks or major fluctuations, confirming the absence of substantial specification errors. This also

suggests that the relationships between the explanatory variables and the dependent variable are adequately captured by the Tobit model.

The use of confidence ellipses instead of the Variance Inflation Factor (VIF) in the Tobit model is justified by the specificity of censored data and the nature of the relationships between explanatory variables. Confidence ellipses provide a visual analysis of the relationships between two variables by representing their correlation and interdependence in a two-dimensional space, which is particularly relevant in a censored model like Tobit, where censorship can introduce biases that the VIF, designed for standard linear models, does not account for. Unlike the VIF, which only provides a numerical indicator of collinearity, confidence ellipses offer an intuitive graphical representation that allows for the visualization not only of the strength of the correlation (indicated by the shape and orientation of the ellipse) but also of the uncertainty associated with the estimates. A narrow ellipse indicates strong collinearity, while a wide ellipse closer to a circle reflects weak or no correlation. This method is especially useful in the Tobit model, where the interactions between explanatory variables and the truncated or censored nature of the data necessitate a more nuanced approach than that offered by the VIF.

Figure 2: Confidence ellipses for analyzing collinearity
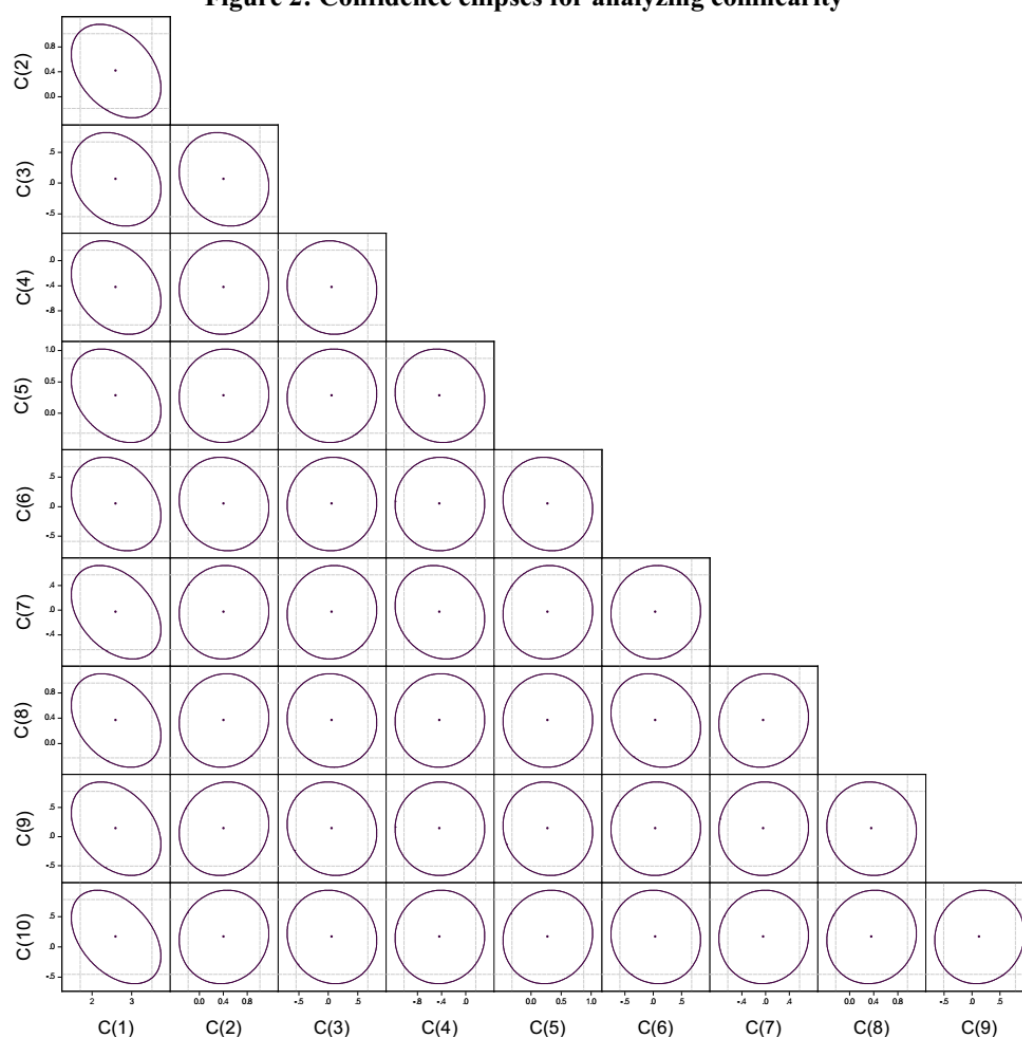
Source: authors

In Figure 2, the ellipses are close to a circular shape, indicating a weak correlation between the explanatory variables. Such a configuration is ideal as it reduces the risk of multicollinearity, which could bias the coefficient estimates. A perfectly circular ellipse reflects an absence of correlation between the variables, whereas a narrow and elongated ellipse would indicate strong collinearity, which does not appear to be the case here. The visual analysis also confirms a balanced distribution of relationships among the variables, with no evident signs of strong or systematic dependencies. This low level of collinearity is crucial in the context of the Tobit model, as it ensures that the parameter estimates are robust and not influenced by redundancies among the explanatory variables.

The use of the White test to detect heteroskedasticity within a Tobit model framework is justified by its flexibility and robustness. Unlike other tests, such as Breusch-Pagan, the White test does not rely on specific assumptions about the form of heteroskedasticity, making it particularly suitable for censored models like Tobit, where the distribution of errors can be affected by the censoring of the dependent variable. The Tobit model is often associated with error variance that varies depending on the explanatory variables, especially when some observations lie at the censoring limit. By examining quadratic or nonlinear relationships between the residuals and the explanatory variables, the White test can detect complex forms of heteroskedasticity without assuming strict linear relationships, as required by other tests. This approach ensures that coefficient estimates remain reliable and robust even in the presence of heteroskedasticity, while also allowing for adjustments to standard errors using robust variances if necessary. Due to this flexibility and its ability to address the specificities of the Tobit model, the White test is particularly suited to ensuring that econometric results are valid and unbiased.

Table 1: white's heteroscedasticity test

Heteroskedasticity Test: White			
F-statistic	0.874004	Prob. F(54,209)	0.7162
Obs*R-squared	48.63382	Prob. Chi-Square(54)	0.6807
Scaled explained SS	18.29553	Prob. Chi-Square(54)	1.0000

Source: authors

The results of the White heteroskedasticity test, presented in Table 1, indicate the absence of heteroskedasticity in the Tobit model. The F-statistic (0.874) with a probability of 0.7162 far exceeds the 5% threshold, implying that the null hypothesis of homoskedasticity cannot be rejected. Similarly, the Obs*R-squared statistic (48.63382) with a probability of 0.6807 confirms that there is no significant relationship between the residuals and the explanatory variables or their nonlinear combinations. Finally, the Scaled Explained SS statistic, with a probability of 1.0000, reinforces this conclusion, suggesting a complete absence of heteroskedasticity in the model. These results demonstrate that the error variance is constant, validating the homoskedasticity assumption and confirming the robustness of the coefficient estimates in the Tobit model used in this study.

Figure 3 : Hat Matrix
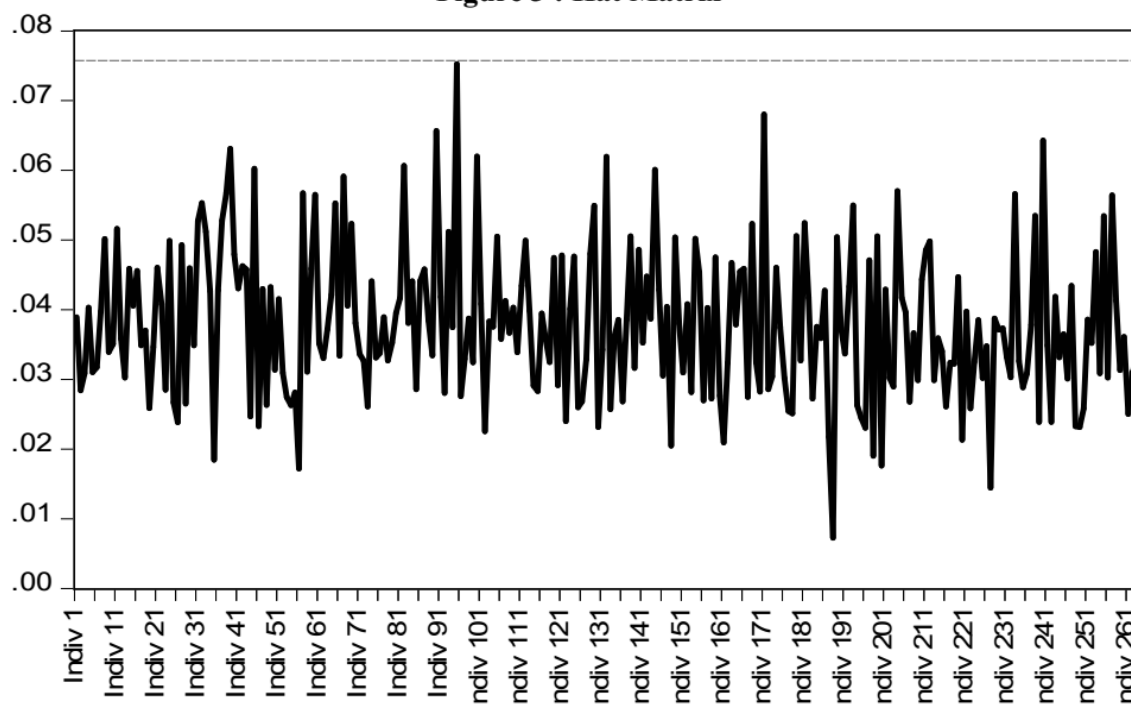
Source: authors

Figure 3, representing the Hat matrix, highlights the stability of the Tobit model by assessing the influence of each observation on the parameter estimates. The values of the Hat matrix remain generally below the critical threshold. This suggests that no observation exerts a disproportionate influence on the results and that the model is not affected by outliers or problematic data points. The variations in values are homogeneous, with no extreme peaks, indicating good stability and an adequate specification of the model.

3.2. Results

This study adopts Amartya Sen's capability approach to analyze the economic empowerment of Moroccan women through three interdependent dimensions: individual capabilities, the socio-economic environment, and social inclusion. A Tobit model was employed due to its suitability for the censored nature of the dependent variable (ACTIVECO, measured on a scale from 1 to 5). Robustness analyses, including recursive coefficients, confidence ellipses, and the White test, confirm the stability and validity of the estimates. The sample comprises 264 Moroccan women, representative in terms of geographic and socio-economic diversity. The regression results are presented in Table 2 below:

Table 2: Tobit Regression Results

Dependent Variable: ACTIVECO				
Method: ML - Censored Normal (TOBIT) (Newton-Raphson / Marquardt steps)				
Sample: 1 264				
Included observations: 264				
Left censoring (value) series: 1				
Right censoring (value) series: 5				
Convergence achieved after 6 iterations				
Coefficient covariance computed using observed Hessian				
Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-2.346732	0.768757	-3.052632	***0.0025
EDUC	1.539580	0.504714	3.050401	***0.0025
AUTO	0.853025	0.507737	1.680052	*0.0941
FINC	-0.799397	0.499068	-1.601780	0.1104
EQOP	1.150361	0.502041	2.291369	**0.0227
OBSR	1.443270	0.532469	2.710524	***0.0072
POLI	1.333990	0.508782	2.621929	***0.0093
PART	-0.575895	0.498785	-1.154596	0.2493
RGHT	0.996648	0.537719	1.853474	*0.0649
COND	1.447372	0.518990	2.788824	***0.0057

Source: authors; ***Significant at 1%; **Significant at 5%; *Significant at 10%.

Access to education and training (EDUC) shows a positive and significant effect at the 1% level, validating hypothesis H1. This demonstrates that skill development, particularly in digital and entrepreneurial areas, plays a central role in strengthening individual capabilities and improving women's economic opportunities. Economic autonomy and decision-making power (AUTO) also exhibit a positive and significant effect at the 10% level, confirming hypothesis H2. This result highlights that women's ability to make strategic decisions and manage their resources fosters their economic integration. Similarly, gender equality in opportunities (EQOP) has a positive and significant effect at the 5% level, supporting the acceptance of hypothesis H4. Reducing inequalities between men and women enhances equitable access to resources and opportunities, thereby boosting empowerment. The reduction of structural barriers (OBSR) shows a positive and significant effect at the 1% level, validating hypothesis H5. This result indicates that eliminating systemic discrimination, restrictive social norms, and institutional inequalities expands women's freedoms, enhancing their economic autonomy. Favorable public policies (POLI) also have a positive and significant effect at the 1% level, supporting the acceptance of hypothesis H6. Adapted infrastructures and support mechanisms contribute to reducing structural inequalities and promoting women's economic innovation.

Rights and representation (RGHT) present a positive and significant effect at the 10% level, validating hypothesis H8. This result underscores that the legal and institutional recognition of women strengthens their capacity to access economic opportunities and advocate for their interests. Improved living conditions (COND) display a positive and significant effect at the 1% level, confirming hypothesis H9. This indicates that favorable living conditions, such as access to housing, healthcare, and transportation, directly support economic empowerment. Conversely, access to financing and productive resources (FINC) and active participation in economic decision-making (PART) do not show significant effects. Therefore, hypotheses H3 and H7 are rejected.

4. Discussion

Access to education and training, particularly in areas such as digital technologies and entrepreneurship, serves as a catalyst for improving women's professional prospects. This highlights the need for targeted educational policies to reduce regional and social disparities, especially in rural areas where access to educational opportunities remains limited. By investing in training programs aligned with the demands of the Moroccan market, women could contribute more significantly to the country's economic growth. Women's ability to make strategic decisions and manage their own financial resources is also crucial for their economic participation. However, in Morocco, these capabilities are often hindered by social norms and structural barriers. This calls for initiatives to increase women's access to property, credit, and other economic assets. Awareness campaigns are also necessary to transform traditional models and promote a more equitable distribution of economic responsibilities within households.

Gender equality in opportunities between men and women in Morocco plays a critical role in fostering balanced participation in economic sectors. Although progress has been made, disparities persist, particularly in terms of wages and access to leadership positions. Policies such as enforcing pay equity and creating support mechanisms for women working in male-dominated sectors could help bridge these gaps. Additionally, incentives for companies adopting inclusive practices could accelerate these changes. Structural barriers, such as institutional discrimination and restrictive social norms, continue to limit Moroccan women's access to economic opportunities. Reforming legal and institutional frameworks, combined with efforts to shift societal perceptions, is essential. Improving basic infrastructure, such as public transportation and childcare services, could also ease the constraints women face and facilitate their access to the labor market.

Public policies in Morocco play a central role in reducing structural inequalities and expanding economic opportunities for women. Initiatives such as targeted subsidies for female entrepreneurs, low-interest loans, and collaborative workspaces tailored to women's needs offer promising pathways. These measures should be accompanied by rigorous monitoring mechanisms to ensure their effectiveness, particularly in marginalized areas where women are often most vulnerable. Strengthening women's legal and institutional rights is a priority in Morocco to support their economic inclusion. Equal access to property, financial services, and greater representation in decision-making bodies contributes to their integration into the country's economic activities. Accelerated reforms in this area, coupled with mechanisms ensuring their effective implementation, could bolster women's economic roles while consolidating their participation in decision-making processes. Improving the living conditions of Moroccan women, particularly in terms of access to housing, healthcare, and social infrastructure, plays a key role in their ability to participate in the economy. Targeted public investments in these areas could significantly reduce practical barriers that limit their economic opportunities. Such improvements would benefit not only women but also their families and, by extension, Moroccan society as a whole.

Conclusion

This study, grounded in Amartya Sen's capability approach, highlights the multiple dimensions of Moroccan women's economic empowerment and emphasizes their interdependence. The analysis revealed that women's autonomy is not limited to their participation in economic activities but also depends on a combination of factors such as access to educational opportunities, favorable socio-economic environments, and inclusive frameworks that enable their full social participation. The empirical findings underscore that education and training play a fundamental role in strengthening individual capabilities, particularly by developing entrepreneurial and digital skills that meet the demands of an evolving labor market. Public policies promoting education, especially in rural areas, are thus crucial for reducing gender and regional disparities. Similarly, equitable access to resources such as financing and infrastructure remains essential, although the findings indicate an underutilization of these levers, calling for better integration of women into formal and informal economic circuits.

The reduction of structural barriers, such as restrictive social norms and systemic discrimination, has shown its positive impact on expanding women's choices and freedoms. This underscores the need for structural reforms to transform institutions and mindsets while establishing strong legal and institutional mechanisms to ensure women's access to property, economic rights, and greater political representation. A key finding of this research is the interconnection between improving living conditions and economic empowerment. Access to adequate housing, quality healthcare, and suitable infrastructure, such as public transportation and childcare services, acts as a catalyst for women's participation in the labor market and entrepreneurship. These elements, often overlooked in public policies, represent strategic levers for fostering their economic inclusion.

However, the lack of significance of variables related to access to financing and active participation in economic decision-making raises important questions. This may reflect persistent systemic obstacles in financing mechanisms and the underrepresentation of women in decision-making spheres. These results call for a rethinking of financial support policies and governance initiatives to better address the specific needs of women. Thus, the capability approach provides a framework for understanding and promoting the economic empowerment of Moroccan women. This perspective emphasizes the need for strategic investments in education, infrastructure, and institutional reforms while advocating for a redesign of public policies to make them more inclusive and equitable. By fostering active economic participation and strengthening women's rights, Morocco can not only reduce gender inequalities but also fully harness women's potential as drivers of sustainable development. This requires coordinated efforts among public, private, and civil society actors to build a resilient, inclusive, and equitable society where the real freedoms of every individual are valued and supported.

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