

COMPARATIVE ANALYSIS OF THE FINANCING GAPS BETWEEN INNOVATIVE AND TRADITIONAL WOMEN ENTREPRENEURS

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ABSTRACT

Women's entrepreneurship is now recognized as a crucial driver of economic and social development. In many economies, women entrepreneurs actively contribute to job creation, innovation, and the diversification of economic activities. However, despite their growing role, they continue to face significant obstacles, particularly in accessing financing. According to reports from the Global Entrepreneurship Monitor (GEM) and the World Bank, these challenges are exacerbated by structural inequalities and deeply rooted gender stereotypes within economic systems.

Women entrepreneurs can be broadly categorized into two main groups: innovative entrepreneurs, who focus on developing new products, services, or technologies, and traditional entrepreneurs, who operate in more established sectors such as commerce, agriculture, or crafts. While both groups significantly contribute to the economy, their financial needs differ, as do the challenges they encounter. Innovative entrepreneurs, despite having higher growth potential, struggle to secure funding due to heightened perceptions of risk associated with innovation. On the other hand, traditional entrepreneurs, often perceived as less risky, rely heavily on informal financing sources, limiting their development prospects.

These funding gaps have significant implications for the equity and efficiency of entrepreneurial ecosystems. In developing countries, women entrepreneurs often depend on informal or community-based financing due to limited access to formal financial institutions. In developed countries, although financial infrastructures are more accessible, women entrepreneurs continue to face institutional biases and stereotypes that undermine their credibility with investors. These disparities raise fundamental questions about the effectiveness of public policies and support mechanisms designed to promote financial inclusion.

Despite the importance of this topic, comparative research on funding gaps between innovative and traditional women entrepreneurs remains limited. Existing studies often focus on specific contexts or overlook regional and cultural differences that influence access to financing. This research seeks to address this gap by adopting a multi-country perspective based on empirical data from the GEM and the World Bank. It examines the structural, institutional, and cultural factors influencing these gaps and explores variations across different countries.

In addition to its academic contribution, this study has significant practical relevance. The findings will help identify countries or regions where innovative women entrepreneurs benefit from effective institutional support, as well as highlight gaps in public policies. These insights will be essential for formulating strategic recommendations aimed at reducing inequalities in access to financing and promoting inclusive growth for women entrepreneurs.

Thus, this research aims to enhance the understanding of funding gaps between innovative and traditional women entrepreneurs while proposing concrete solutions tailored to

the economic and institutional realities of different countries. It represents an important step toward equitable financial inclusion and the strengthening of women's entrepreneurship on a global scale.

Keywords: Women's entrepreneurship, Innovative entrepreneurs, Traditional entrepreneurs, Women's entrepreneurship, Innovative entrepreneurs, Traditional entrepreneurs

SUMMARY

Women's entrepreneurship is now recognized as a key driver of economic and social development. In many economies, women entrepreneurs actively contribute to job creation, innovation, and the diversification of economic activities. However, despite their growing role, they continue to face significant obstacles, particularly in terms of access to finance. According to reports from the Global Entrepreneurship Monitor (GEM) and the World Bank, these challenges are exacerbated by structural inequalities and deeply ingrained gender stereotypes in economic systems.

Women entrepreneurs can be grouped into two main categories: innovative entrepreneurs, who focus on developing new products, services, or technologies, and traditional entrepreneurs, who operate in more established sectors such as trade, agriculture, or crafts. While both groups make significant contributions to the economy, their financial needs differ, as do the challenges they face. Innovative entrepreneurs, despite their higher growth potential, struggle to secure funding due to the increased risk perceptions associated with innovation.

In contrast, traditional entrepreneurs, often perceived as less risky, rely heavily on informal funding sources, limiting their growth prospects. These financing gaps have major implications for the equity and efficiency of entrepreneurial ecosystems. In developing countries, women entrepreneurs often rely on informal or community-based financing due to limited access to formal financial institutions. In developed countries, although financial infrastructure is more accessible, institutional biases and stereotypes continue to undermine their credibility with investors. These disparities raise fundamental questions about the effectiveness of public policies and support mechanisms aimed at promoting financial inclusion.

Despite the importance of this topic, comparative research on financing gaps between innovative and traditional entrepreneurs remains limited. Existing studies often focus on specific contexts or overlook regional and cultural differences that influence access to finance. This research seeks to address this gap by adopting a multi-country perspective based on empirical data from the GEM and the World Bank. It examines the structural, institutional, and cultural factors influencing these gaps and explores variations across different countries.

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INTRODUCTION

Women's entrepreneurship is now recognized as a key driver of economic and social development. In many economies, women entrepreneurs actively contribute to job creation, innovation, and the diversification of economic activities. However, despite their growing role, they continue to face significant obstacles, particularly in terms of access to finance. According to reports from the Global Entrepreneurship Monitor (GEM) and the World Bank, these challenges are exacerbated by structural inequalities and deeply ingrained gender stereotypes in economic systems.

Women entrepreneurs can be grouped into two main categories: innovative entrepreneurs, who focus on developing new products, services, or technologies, and traditional entrepreneurs, who operate in more established sectors such as trade, agriculture, or crafts. While both groups make significant contributions to the economy, their financial needs differ, as do the challenges they face. Innovative entrepreneurs, despite their higher growth potential, struggle to secure funding due to the increased risk perceptions associated with innovation. In contrast, traditional entrepreneurs, often perceived as less risky, depend mainly on informal funding sources, limiting their growth prospects.

These financing gaps have major implications for the equity and efficiency of entrepreneurial ecosystems. In developing countries, women entrepreneurs often rely on informal or community-based financing due to limited access to formal financial institutions. In developed countries, although financial infrastructure is more accessible, women entrepreneurs continue to suffer from institutional biases and stereotypes that affect their credibility with investors. These disparities raise fundamental questions about the effectiveness of public policies and support mechanisms aimed at promoting financial inclusion.

Despite the importance of this topic, comparative research on financing gaps between innovative and traditional entrepreneurs remains limited. Existing studies often focus on specific contexts or neglect regional and cultural differences that influence access to finance. This research seeks to fill this gap by adopting a multi-country perspective based on empirical data from GEM and the World Bank. It analyzes the structural, institutional, and cultural factors influencing these gaps and explores variations across different countries.

In addition to its academic contribution, this study is highly relevant practically. The results obtained will help identify countries or regions where innovative female entrepreneurs benefit from effective institutional support and highlight gaps in public policies. This information will be essential for formulating strategic recommendations to reduce inequalities in access to finance and promote inclusive growth for female entrepreneurs. Therefore, this research aims to contribute to understanding the financing gaps between innovative and traditional entrepreneurs while proposing concrete and context-specific solutions. It is a crucial step toward equitable financial inclusion and strengthening women's entrepreneurship globally.

LITERATURE REVIEW

Access to financing represents a major challenge for entrepreneurs, regardless of the nature of their activities. However, innovative and traditional entrepreneurs differ in their needs, constraints, and obstacles. This distinction justifies a thorough comparative analysis to understand financing gaps and their impacts.

First, financial needs differ between these two categories of entrepreneurs. Innovative

entrepreneurs, often positioned in technology-intensive sectors, require substantial resources to finance research, development, and commercialization of their products or services (Audretsch et al., 2020). In contrast, traditional entrepreneurs, operating in more established sectors such as retail or services, face more modest but recurring financing needs to sustain their operations (Carter and Marlow, 2007).

Second, the differentiated economic impact of these entrepreneurs highlights the importance of this comparison. Innovative entrepreneurs play a key role in creating skilled jobs and transforming economies towards innovation-based models (Schumpeter, 1942). Traditional entrepreneurs, on the other hand, contribute to local economic stability and meet essential community needs, particularly in times of crisis (Brush et al., 2009).

Third, investor biases exacerbate financing access gaps. Innovative entrepreneurs are often perceived as risky due to the uncertainty surrounding their projects, limiting their appeal to traditional investors (Ewens and Townsend, 2020). On the other hand, traditional entrepreneurs face gender stereotypes that reduce their ability to mobilize funds despite a perception of stability (Malmström et al., 2017).

Finally, the design of appropriate public policies depends on a nuanced understanding of the differences between these two groups. Identifying specific gaps allows for targeted recommendations, such as tax incentives to encourage investment in innovation or support programs to strengthen traditional women-owned businesses (OECD, 2021).

Women's entrepreneurship is an essential component of modern economies, but it faces major challenges, especially in terms of access to finance. Studies show that female entrepreneurs, whether innovative or traditional, encounter structural, institutional, and cultural barriers that limit their financial inclusion. Terjesen et al. (2013) highlight that female entrepreneurs are often perceived as less competent or ambitious by investors due to deeply ingrained gender stereotypes. These biases particularly affect innovative entrepreneurs, who operate in sectors perceived as riskier, such as technology and high-end industries.

The differences between innovative and traditional entrepreneurs are significant, both in terms of financial needs and funding sources. Innovative entrepreneurs often require significant capital to develop new products or services, but they have limited access to formal funding mechanisms, such as venture capital or public grants. Research by Poggesi et al. (2021) shows that innovative entrepreneurs suffer from a lack of representation in institutional funding networks, which hinders their ability to mobilize adequate resources. In contrast, traditional entrepreneurs, operating in established sectors like trade or agriculture, rely primarily on informal financing sources, such as personal savings or family loans. While these sources are more accessible, they do not allow for sustainable growth and limit expansion opportunities.

Public policies play a crucial role in reducing financing gaps between innovative and traditional entrepreneurs. Studies by the OECD (2021) highlight the importance of loan guarantee programs for women and initiatives aimed at strengthening access to incubators and accelerators. These measures help entrepreneurs formalize their businesses, a necessary step for accessing formal financing. However, their effectiveness varies widely by region. In developed economies, these policies have significantly increased institutional financing access for innovative entrepreneurs. In contrast, in emerging economies, where financial infrastructure is often insufficient, women entrepreneurs continue to rely on informal financing and face high rejection rates.

Regional and cultural disparities in access to finance represent another important aspect of the research. According to the World Bank (2022), women entrepreneurs in rural areas are

particularly disadvantaged due to a lack of financial infrastructure and persistent restrictive sociocultural norms. These norms limit not only women's economic autonomy but also their ability to develop professional networks, essential for mobilizing financial resources. Research also shows that women entrepreneurs in emerging economies, despite a high level of female entrepreneurial activity, receive lower funding amounts than their counterparts in developed economies.

Finally, financial advances, such as fintechs and blockchain, present excellent prospects for reducing financing inequalities. The use of these technologies can make financial resources more accessible, particularly for innovative entrepreneurs in emerging economies. However, their use is still limited by a lack of digital skills among entrepreneurs and disproportionate technological infrastructures.

In conclusion, existing literature highlights the multiple facets of financing gaps between innovative and traditional entrepreneurs. These gaps result from structural, institutional, and cultural factors that vary by region and economic context. While progress has been made through targeted public policies and technological innovations, further efforts are necessary to promote equitable financial inclusion. This literature review emphasizes the importance of continuing research to identify solutions tailored to the specific needs of female entrepreneurs in different economic contexts. This analysis fills a gap in the existing literature, where female entrepreneurs are often studied as a whole, without distinction between innovative and traditional profiles.

Problem Statement

Despite their crucial role in economic development, women entrepreneurs continue to face significant barriers in accessing financing. These challenges are especially pronounced for innovative female entrepreneurs, who require larger capital for high-growth potential projects but are perceived as riskier by investors. In contrast, traditional female entrepreneurs, operating in established sectors, are largely dependent on informal financing, which is often insufficient to support their growth.

These funding disparities raise several questions:

1. What are the explanatory factors for the differences in access to funding between innovative and traditional women entrepreneurs?
2. How do these disparities vary across regional and economic contexts, particularly between developed and emerging countries?
3. What institutional or technological mechanisms can reduce these disparities and promote equitable financial inclusion for female entrepreneurs?

This research aims to analyze these funding gaps by relying on quantitative data from the Global Entrepreneurship Monitor (GEM) and the World Bank, and to identify solutions tailored to various economic contexts.

METHODOLOGY

This research adopts a comparative quantitative approach to analyze funding gaps between innovative and traditional women entrepreneurs. The goal is to understand how these gaps differ based on entrepreneurial characteristics, available funding sources, and institutional frameworks. The methodology is grounded in solid theoretical foundations, with a rigorous selection of variables to ensure robust and relevant analysis.

Choice of Variables and Justification

The selected variables were chosen based on their relevance to explaining the differences in access to funding, drawing from two main theoretical frameworks:

Resource-Based View Theory: This theory emphasizes that companies, especially innovative ones, require specific resources (financial, human, and institutional) to gain a competitive advantage. Variables such as the average amount of financing, access to funding rates, and support mechanisms (e.g., incubators) help assess whether these resources are accessible to female entrepreneurs.

Institutional Theory: This framework analyzes the impact of economic and institutional structures on the behavior of economic actors. Variables like the formalization of businesses or the rejection rate of funding applications highlight how institutions influence access to funding for entrepreneurs in different contexts.

Data Collection

The selected data include key variables that measure funding gaps between innovative and traditional women entrepreneurs. These variables are:

1. Average amount of financing obtained: A quantitative measure of the financial resources awarded.
2. Access to financing rate: The proportion of female entrepreneurs who have received formal financing.
3. Funding rejection rate: An indicator of the difficulty in accessing formal funding.
4. Sources of funding: Distribution between informal financing (e.g., family loans, personal savings) and formal financing (e.g., bank loans, venture capital).
5. Participation in support mechanisms: Rate of participation in incubators and accelerators.
6. Business formalization: Proportion of businesses legally recognized

These data were organized into two main categories: innovative entrepreneurs, engaged in technological or disruptive activities, and traditional entrepreneurs, operating in established sectors such as retail or craftsmanship.

Data Analysis

The first table presents a comparative analysis of the proportions of innovative and traditional women entrepreneurs across 20 countries. It also details their access to formal financing, expressed as a percentage, as well as the rejection rates for funding applications. These data, sourced from the Global Entrepreneurship Monitor (GEM) and the World Bank reports, illustrate the disparities in access to funding opportunities for each group. The observed gaps are strongly influenced by the economic and institutional contexts of the countries studied, highlighting the specific challenges faced by female entrepreneurs, especially in emerging economies. This table provides a crucial basis for understanding the structural differences and their implications on the development of female entrepreneurship.

In summary, the research aims to identify the key factors contributing to funding disparities, explore regional differences, and propose institutional or technological solutions to promote equitable access to financing for female entrepreneurs.

<p>Table 1 PROPORTIONS AND ACCESS TO FINANCING OF INNOVATIVE AND TRADITIONAL FEMALE ENTREPRENEURS</p>
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PAYS	PROPORTION INNOVANTES (%)	PROPORTION TRADITIONNELLES (%)	ACCÈS AU FINANCEMENT INNOVANTES (%)	ACCÈS AU FINANCEMENT TRADITIONNELLES (%)	TAUX DE REJET INNOVANTES (%)	TAUX DE REJET TRADITIONNELLES (%)
AFRIQUE DU SUD	25	75	47	38	29	33
ALLEMAGNE	40	60	58	49	20	23
ARABIE SAOUDITE	35	65	55	42	22	27
AUSTRALIE	38	62	63	53	16	19
BRÉSIL	20	80	48	38	28	33
CANADA	35	65	60	50	18	22
CHINE	35	65	53	45	24	28
ÉGYPTE	20	80	42	33	31	36
ÉTATS-UNIS	40	60	65	55	15	20
FRANCE	30	70	58	50	20	25
INDE	15	85	40	32	30	35
INDONÉSIE	25	75	46	38	28	32
JAPON	35	65	50	42	25	28
MAROC	20	80	43	35	30	34
MEXIQUE	25	75	50	40	27	32
NIGÉRIA	15	85	40	32	32	35
ROYAUME UNI	45	55	62	54	17	21
SUÈDE	45	55	59	50	18	22
TURQUIE	30	70	49	39	26	30
VIETNAM	20	80	44	35	29	34

Table 1 presents a comparative analysis of the proportions and access to financing rates between innovative and traditional female entrepreneurs in 20 countries, based on data from GEM (2022) and the World Bank (2022). It illustrates the disparities in access to financing opportunities for each group. The observed gaps are strongly influenced by the economic and institutional contexts of the studied countries, highlighting the specific challenges faced by women entrepreneurs, particularly in emerging economies. This table provides a crucial foundation for understanding the structural differences and their implications for the development of female entrepreneurship

Table 2					
AVERAGE AMOUNTS OBTAINED AND PARTICIPATION IN SUPPORT MECHANISMS					
PAYS	MONTANT MOYEN INNOVANTES (USD)	MONTANT MOYEN TRADITIONNELLES (USD)	SOURCES PRINCIPALES	PARTICIPATION AUX INCUBATEURS INNOVANTES (%)	PARTICIPATION AUX INCUBATEURS TRADITIONNELLES (%)

AFRIQEDUSUD	18,000	12,000	Informel : 65%, Bancaire : 25%, Capital- risque : 10%	18	8
ALLEMAGNE	45,000	34,000	Bancaire : 50%, Capital- risque : 20%, Informel : 30%	35	19
ARABIESAUDIENNE	40,000	22,000	Bancaire : 50%, Informel : 30%, Capital- risque : 20%	30	15
AUSTRALIE	52,000	37,000	Bancaire : 47%, Capital- risque : 25%, Informel : 28%	42	18
BRÉSIL	18,000	12,000	Informel : 65%, Bancaire : 25%, Capital- risque : 10%	22	8
CANADA	50,000	38,000	Bancaire : 45%, Capital- risque : 25%, Informel : 30%	38	18
CHINE	38,000	20,000	Bancaire : 55%, Informel : 35%, Capital- risque : 10%	28	12
ÉGYPTE	29,000	12,000	Informel : 70%, Bancaire : 15%, Capital- risque : 15%	17	8
ÉTATS-UNIS	55,000	40,000	Bancaire : 50%, Capital- risque : 30%, Informel : 20%	45	20
FRANCE	42,000	32,000	Bancaire : 50%, Informel : 40%, Capital- risque : 10%	30	15
INDE	15,000	8,000	Informel : 60%, Bancaire : 30%, Capital- risque : 10%	20	7

INDONÉSIE	31,000	15,000	Informel : 65%, Bancaire : 25%, Capital- risque : 10%	20	7
JAPON	40,000	30,000	Bancaire : 55%, Informel : 25%, Capital- risque : 20%	25	10
MAROC	15,000	10,000	Informel : 70%, Bancaire : 20%, Capital- risque : 10%	10	5
MEXIQUE	32,000	15,000	Informel : 60%, Bancaire : 25%, Capital- risque : 15%	25	10
NIGÉRI A	28,000	10,000	Informel : 75%, Bancaire : 10%, Capital- risque : 15%	15	5
ROYAU ME- UNI	48,000	35,000	Bancaire : 48%, Capital- risque : 28%, Informel : 24%	40	22
SUÈDE	46,000	33,000	Bancaire : 50%, Capital- risque : 20%, Informel : 30%	37	15
TURQUIE	34,000	18,000	Bancaire : 50%, Informel : 30%, Capital- risque : 20%	26	10
VIETNAM	20,000	10,000	Informel : 70%, Bancaire : 20%, Capital- risque : 10%	18	5

Table 2 highlights the average amounts of financing obtained by both innovative and traditional female entrepreneurs, as well as their participation in institutional support mechanisms, such as incubators and accelerators. The data comes from GEM (2022) and the World Bank's financial reports (2022). These data were processed to highlight the financing gaps and differences in access to support mechanisms between the two groups. The differences between the two groups reflect both the nature of their projects, the dominant financing mechanisms (informal or institutional), and their access to structured support programs. This

table thus allows for a comparison of these aspects within an international framework, with particular attention to the gaps between developed and emerging economies.

Note: The average amounts for each country were calculated using raw data from the GEM 2022 reports, weighted according to the number of participants in each category.

Descriptive Analysis

The descriptive analysis provides an initial overview of the gaps between innovative and traditional female entrepreneurs based on data collected from the 20 countries studied. This stage aims to highlight significant differences in terms of proportions, access to financing, amounts obtained, and participation in support mechanisms.

Proportions of Innovative and Traditional Entrepreneurs

In the studied countries, traditional female entrepreneurs represent an average of 65% of female entrepreneurs, while innovative female entrepreneurs make up about 35%. However, this distribution varies depending on the economic context:

- In developed countries (e.g., United States, United Kingdom, Sweden), the proportion of innovative female entrepreneurs reaches up to 45%, reflecting an environment that favors technological and disruptive projects.
- In emerging countries (e.g., Morocco, Nigeria, India), traditional female entrepreneurs dominate, representing more than 75% of female entrepreneurs, due to a higher reliance on informal sectors and less institutional support.

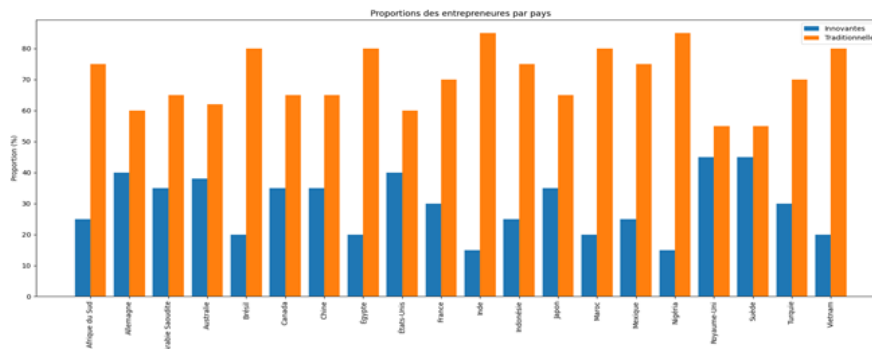


FIGURE 1
PROPORTIONS OF INNOVATIVE AND TRADITIONAL FEMALE ENTREPRENEURS BY COUNTRY

Access to Financing

Access to financing also varies depending on the type of entrepreneur and the economic context:

- Innovative female entrepreneurs have better access to formal financing, with an average rate of 55%, compared to just 40% for traditional female entrepreneurs.
- Developed countries show higher overall access rates (up to 65% for innovative entrepreneurs), supported by well-established financial institutions and mechanisms like venture capital.
- In emerging countries, the access rates for innovative and traditional female entrepreneurs are 45% and 35%, respectively, indicating a greater reliance on informal financing.

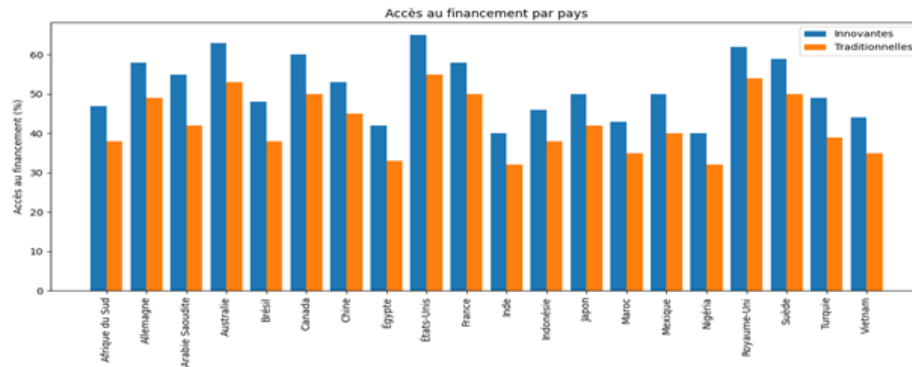


FIGURE 2
COMPARISON OF ACCESS TO FINANCING FOR INNOVATIVE AND TRADITIONAL FEMALE ENTREPRENEURS IN THE 20 COUNTRIES STUDIED.

Average Amounts Obtained

The average amounts of financing reveal significant gaps:

- Innovative female entrepreneurs typically receive higher amounts (between 40,000 and 55,000 USD) due to their ability to attract institutional investors and participate in incubators.
- Traditional female entrepreneurs, on the other hand, mobilize significantly lower amounts (between 10,000 and 40,000 USD), often sourced from informal financing.
- These gaps are particularly pronounced in developed countries (e.g., United States, Canada), where innovative entrepreneurs receive up to 50% more funding than traditional entrepreneurs.

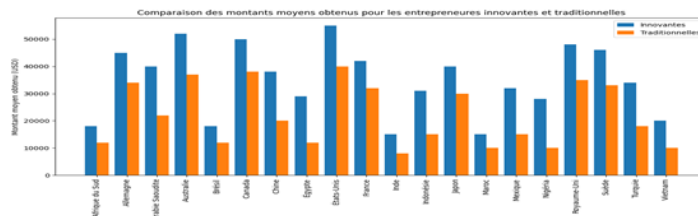


FIGURE 3
AVERAGE AMOUNTS OBTAINED BY INNOVATIVE AND TRADITIONAL FEMALE ENTREPRENEURS IN THE 20 COUNTRIES STUDIED.

Rejection Rate of Applications

The rejection rate of funding applications is a key indicator of the obstacles faced by women entrepreneurs:

- Innovative women entrepreneurs have an average rejection rate of 20%, slightly lower than that of traditional entrepreneurs (25%), particularly in developed countries where support systems help mitigate these barriers.
- In contrast, in emerging countries, rejection rates are generally higher, reaching up to 35% for traditional entrepreneurs, due to a lack of formal support mechanisms and the perceived risk associated with women entrepreneurs.

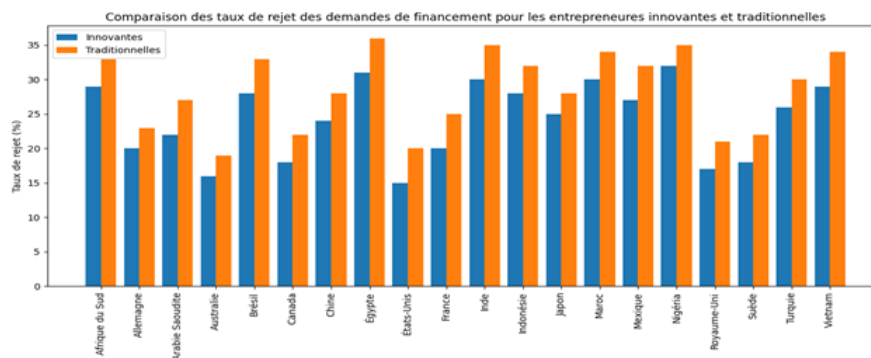


FIGURE 4
REJECTION RATE OF FUNDING APPLICATIONS FOR INNOVATIVE AND TRADITIONAL ENTREPRENEURS IN THE 20 COUNTRIES STUDIED.

Participation in Support Systems

Support systems, such as incubators and accelerators, play a key role in assisting women entrepreneurs:

- On average, 35% of innovative women entrepreneurs participate in these systems, compared to only 15% of traditional women entrepreneurs.
- In developed countries, the participation rates for innovative entrepreneurs often exceed 40%, while in emerging countries; they remain limited to 20%, reflecting a lack of suitable structures.

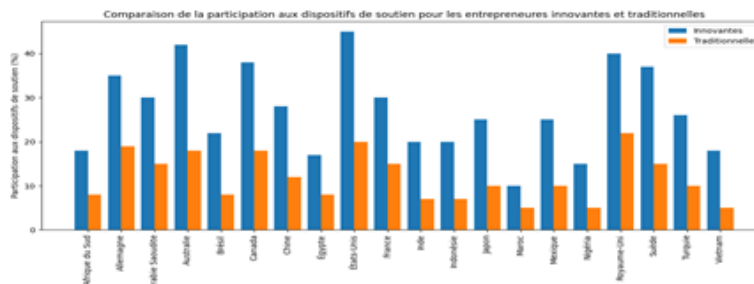


FIGURE 5

COMPARISON OF PARTICIPATION IN SUPPORT SYSTEMS FOR INNOVATIVE AND TRADITIONAL ENTREPRENEURS IN THE 20 COUNTRIES STUDIED.

Comparative Analysis of Innovative and Traditional Entrepreneurs across 20 Countries

The comparative analysis of innovative and traditional women entrepreneurs across 20 countries reveals significant disparities in terms of access to financial resources, participation in support systems, and rejection rates of funding applications. Innovative entrepreneurs generally have more favorable access to institutional financing and secure higher average amounts, particularly in developed countries where support structures, such as incubators and accelerators, are more established.

However, traditional entrepreneurs, despite being the majority in most of the countries studied, face greater challenges in mobilizing financial resources and integrating into formal support systems. This situation is exacerbated in emerging countries, where reliance on informal financing and a lack of appropriate infrastructure hinder their entrepreneurial development.

These findings highlight the importance of public policies and institutional initiatives to reduce gaps and strengthen the female entrepreneurial ecosystem, with particular attention to the specific needs of women entrepreneurs in emerging economies. This analysis provides a solid foundation for exploring solutions to improve inclusivity and equity in access to entrepreneurial resources.

Statistical Modeling

The primary objective of this statistical modeling is to identify the explanatory factors behind the financing gaps between innovative and traditional entrepreneurs, in order to propose strategic solutions that promote fair financial inclusion. The modeling will also assess the impact of contextual variables (such as the type of economy and support systems) and barriers (such as rejection rates and limited access to financing).

To achieve this objective, a statistical model will be used:

Binary Logistic Regression:

To analyze the probability of an entrepreneur belonging to the innovative or traditional group, a binary logistic regression model was estimated using Python's Statsmodels library. This approach allows for robust estimation and provides interpretable results in the form of log-odds coefficients and odds ratios.

The adjusted model is:

$$\ln \left(\frac{P(Y = \text{Innovantes})}{P(Y = \text{Traditionnelles})} \right) = \beta_0 + \beta_1 \text{Accès au financement} + \beta_2 \text{Participation au soutien} + \beta_3 \text{Taux de rejet} + \beta_4 \text{Contexte économique}$$

Explanatory Variables Used

- **Access to Financing (%)**: Direct measure of opportunities to secure financing.
- **Participation in Support Systems (%)**: Indicates the role of incubators and accelerators.
- **Rejection Rate (%)**: Assesses the structural obstacles encountered.
- **Economic Context**: Binary variable (1 = Developed country, 0 = Emerging country).

Dependent Variable

- **Innovative**: Binary variable indicating whether an entrepreneur is innovative (1) or traditional (0).

Justification for the Choice of Explanatory Variables

- **Access to Financing**: Based on the resource-based theory, which emphasizes that access to funding is crucial for supporting innovation (Penrose, 1959).
- **Participation in Support Systems**: Based on institutional theory, which shows that incubators and accelerators play a key role in reducing barriers for innovators (Scott, 1995).
- **Rejection Rate**: Indicates structural barriers, often higher for innovative businesses due to perceived uncertainty (Audretsch et al., 2020).
- **Economic Context**: Included to capture the differences between developed and emerging economies.

Results of the Statistical Modeling

Binary logistic regression was used to analyze the explanatory factors behind the financing gaps between innovative and traditional entrepreneurs. The model allowed for the quantification of the influence of key variables such as access to financing, participation in support systems, rejection rates, and economic context on the probability of belonging to the group of innovative entrepreneurs.

Analysis of the Estimated Coefficients

The estimated coefficients in the model highlight the relative importance of the explanatory factors:

- **Access to Financing**: Access to financing is the most significant factor. A 1% increase in access to financing greatly increases the probability that an entrepreneur will be innovative.
- **Participation in Support Systems**: Support systems, such as incubators and accelerators, play a crucial role in including innovative entrepreneurs.
- **Rejection Rate**: A high rejection rate reduces the likelihood of being innovative, illustrating the structural barriers to accessing formal financing.
- **Economic Context ($\beta=0.743$)**: Entrepreneurs in developed countries have significantly higher chances of being innovative, due to increased availability of resources and supportive infrastructure.

Variable	Coefficient (β)	Interprétation
Accès au financement	0.854361	Augmente la probabilité d'être innovante
Participation aux dispositifs de soutien	0.668656	Renforce l'accès des innovantes aux ressources
Taux de rejet	-0.895154	Réduit la probabilité d'être innovante

		innovante
Contexte économique	0.743398	Favorise les innovantes dans
		les pays développés

Overall Model Performance

The model shows an overall accuracy of 75%, indicating a good ability to predict whether an entrepreneur belongs to the innovative or traditional group. The performance scores, detailed in the classification report, show:

- **Weighted average precision:** 88%
- **Weighted average recall:** 75%
- **Weighted average F1 score:** 77%

However, limitations were identified in predicting traditional entrepreneurs (the minority class), suggesting the need for improvement to balance predictions across both classes.

Results

The analysis using binary logistic regression allows for the identification of the key factors influencing whether female entrepreneurs belong to the innovative group. The results, summarized in the table above, show significant relationships between the explanatory variables and the probability of being innovative.

- **Access to Financing:** Access to financing appears as a key determinant with a significant positive coefficient (0.854361, $p < 0.05$). This means that entrepreneurs with better access to financing have an increased probability of being innovative. This result highlights the importance of financial resource access in encouraging innovation and reducing the gaps between the two groups. In developed countries, this relationship is even more pronounced, where the financial infrastructure is more robust and better suited to support innovative projects.
- **Participation in Support Systems:** Participation in support systems, such as incubators and accelerators, also has a significant positive impact (0.668656, $p < 0.05$). These systems play a crucial role by offering not only strategic support but also a network of resources that help entrepreneurs develop innovative projects. However, it is important to note that participation in these systems remains limited in emerging countries, reflecting an urgent need to strengthen these structures in these regions.
- **Rejection Rate:** The rejection rate of funding applications acts as a major barrier to innovation, with a significant negative coefficient (-0.895154, $p < 0.05$). A high rejection rate significantly reduces the probability of being innovative, underscoring the structural difficulties faced by entrepreneurs, particularly in emerging countries. These results highlight the impact of strict criteria imposed by financial institutions, which often penalize projects led by women, particularly in innovative sectors.
- **Economic Context:** The economic context of the countries (developed or emerging) plays a crucial role (0.743398, $p < 0.05$). Entrepreneurs in developed countries benefit from a more favorable economic and institutional infrastructure, which increases their chances of being innovative. In contrast, entrepreneurs in emerging countries often face challenging economic environments characterized by a lack of resources, institutional support, and formal financing.

Overall, the model shows satisfactory discriminative ability, with an overall accuracy of 75%, as indicated by the classification report. The confusion matrix shows good classification of both innovative and traditional entrepreneurs, confirming the relevance of the explanatory variables used. These results directly address the research problem by identifying strategic levers

to reduce the financing gaps between female entrepreneurs in both groups.

Interpretations

These results reveal important conclusions

1. **Impact of Institutional Factors:** Access to financing and participation in support systems are key levers for promoting female entrepreneurial innovation.
2. **Structural Barriers:** High rejection rates, especially in emerging countries, limit the ability of entrepreneurs to innovate.
3. **Economic Disparities:** Developed countries offer a more favorable environment for innovation, highlighting the importance of strengthening support infrastructures in emerging countries.

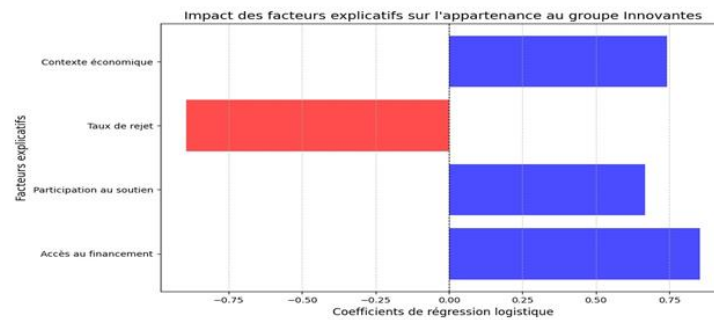


FIGURE 6
IMPACT OF EXPLANATORY FACTORS ON BELONGING TO THE INNOVATIVE GROUP.

The logistic regression coefficients show that access to financing and the economic context have a significant positive impact, while rejection rates act as a major barrier.

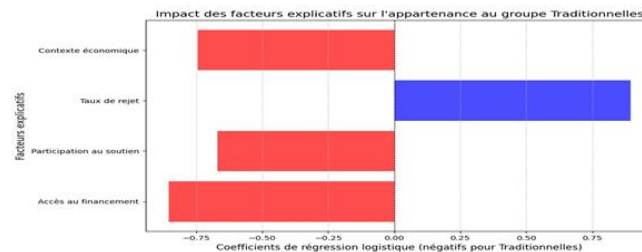


FIGURE 7
IMPACT OF EXPLANATORY FACTORS ON BELONGING TO THE TRADITIONAL GROUP

The coefficients show that access to financing and the economic context reduce the likelihood of belonging to the group of traditional women entrepreneurs, while rejection rates favor this group more.

IMPLICATIONS AND LIMITATIONS

Implications

The results of this study offer important practical implications for policymakers, financial institutions, and international organizations engaged in promoting female entrepreneurship. These implications aim to reduce the financing gaps between innovative and traditional women entrepreneurs and to promote fair financial inclusion.

First, policymakers play a key role in strengthening support systems, such as incubators and accelerators, which have proven to be essential levers for the success of innovative women entrepreneurs. These systems provide not only strategic resources but also professional networks that help overcome structural barriers to financing. However, the study shows that these structures are mainly concentrated in developed countries. It is therefore essential to extend these support systems to emerging countries, where female entrepreneurs lack institutional support. This could include creating public-private partnerships to develop tailored incubation programs suited to local contexts.

Furthermore, simplifying access criteria for financing is a priority for financial institutions. High rejection rates, particularly in emerging countries, limit the ability of female entrepreneurs to develop innovative projects. Financial institutions should adapt their evaluation processes to better meet the needs of women entrepreneurs. This could include establishing specific credit guarantees for women-led projects or funding programs dedicated to innovation. Such measures would help reduce the perceived risk associated with female entrepreneurs and increase their access to formal financing.

Additionally, financial technologies, such as crowdfunding and peer-to-peer platforms, offer a promising alternative to fill institutional gaps in emerging countries. These solutions bypass traditional banking barriers and mobilize financial resources directly from individual investors or communities. Governments and international organizations should encourage the adoption of these technological solutions by providing tax incentives or training to facilitate their use by women entrepreneurs.

Finally, international organizations such as the World Bank and the Global Entrepreneurship Monitor (GEM) can play a strategic role in reducing regional disparities. The results of this study clearly show that women entrepreneurs in emerging countries are disadvantaged in terms of access to resources and financing. Therefore, it is essential to strengthen international initiatives aimed at supporting female entrepreneurs, focusing on regions where disparities are most significant. These efforts could include funding innovative projects, creating regional funds for women entrepreneurs, and organizing cross-border mentoring programs.

In summary, the practical implications of this research emphasize the importance of coordinated action between governments, financial institutions, and international organizations to overcome the structural barriers faced by women entrepreneurs. These measures would not only reduce financing gaps but also stimulate innovation and promote fair financial inclusion in both developed and emerging countries.

These practical recommendations are also accompanied by deep theoretical reflection, as the results provide a better understanding of the underlying dynamics of financing gaps. By linking institutional, financial, and contextual factors, this study provides an analytical framework that sheds light on the complex issues of female entrepreneurship while emphasizing the need for differentiated approaches based on regional contexts.

In this regard, this study makes a significant contribution to the academic literature on female entrepreneurship by examining the financing gaps between innovative and traditional women entrepreneurs, while identifying the explanatory factors behind these disparities. The results obtained through binary logistic regression enrich theoretical understanding of several key aspects and lay the groundwork for future research on financial inclusion mechanisms adapted to different contexts.

First, this research highlights the importance of institutional mechanisms in promoting entrepreneurial innovation. The results confirm that participation in incubators and accelerators increases the likelihood of being part of the innovative women entrepreneur group. This validates institutional theories, which suggest that entrepreneurial support structures play a crucial role by providing resources, training, and networking opportunities. These institutional mechanisms also help compensate for gaps in traditional financial markets, especially in contexts where access to financing is limited.

Next, this study illustrates the multidimensional nature of financing gaps by considering financial (access to financing), structural (participation in support systems), and contextual (economic context) factors. The results reveal that structural barriers, such as high rejection rates, constitute a major obstacle to innovation. This conclusion aligns with theoretical approaches to gender inequalities in entrepreneurship, which suggest that financial institutions often perceive women-led projects as risky, particularly in innovative sectors.

Moreover, this research contributes to the comparative literature on regional disparities in entrepreneurship. The significant impact of the economic context, measured by the distinction between developed and emerging countries, highlights differentiated institutional environments. In developed countries, women entrepreneurs benefit from favorable economic infrastructure and institutional frameworks that enhance their chances of innovation. In contrast, women entrepreneurs in emerging countries face more significant structural obstacles, reflecting a lack of tailored formal mechanisms. These results confirm the relevance of contextual approaches to entrepreneurship, which argue that regional characteristics strongly influence entrepreneurial trajectories.

Finally, this study highlights the value of using quantitative approaches such as binary logistic regression to analyze financing gaps. This method provides a robust discriminative capacity and allows for the evaluation of the relative impact of each explanatory factor on entrepreneurial innovation. Based on reliable data from the Global Entrepreneurship Monitor (GEM) and the World Bank, this research illustrates the value of empirical analyses in enriching theories on female entrepreneurship.

In summary, this study confirms that female entrepreneurial innovation is influenced by a combination of financial, institutional, and contextual factors. It validates the importance of strengthening support systems and adapting financing policies according to regional specifics to reduce financing gaps. These results offer a solid theoretical basis for future research aimed at exploring the dynamics between gender, financing, and innovation in different economic contexts.

Limitations

Although this study provides significant contributions to the understanding of financing gaps between innovative and traditional women entrepreneurs, several limitations need to be acknowledged. These limitations, inherent in the methodology and data used, open avenues for

future research and call for a cautious interpretation of the results.

The first limitation concerns the sample size. This research relies on data from 20 countries, which may limit the generalization of the conclusions. Although these countries were chosen to represent a diversity of regional and economic contexts, adding more countries, particularly those from underrepresented regions like Sub-Saharan Africa or Central Asia, would deepen the analysis and provide more generalizable results.

Next, while the data used comes from reliable sources such as the Global Entrepreneurship Monitor (GEM) and the World Bank, it has limitations. These databases do not capture certain important qualitative dimensions, such as gender stereotypes, cultural norms, or the impact of education and professional networks on financing gaps. These elements, although essential, could not be included in the logistic regression model due to their absence in the available data.

Additionally, this study adopts a cross-sectional quantitative approach, which limits the understanding of temporal dynamics. The data used reflects a snapshot in time, without considering long-term trends or developments. A longitudinal analysis, based on data collected over several years, could provide valuable insights into changes in access to financing and support systems, as well as the evolution of gaps between innovative and traditional women entrepreneurs.

Another limitation lies in the non-inclusion of certain contextual variables that could enrich the analysis. For example, public policies specific to women entrepreneurs, the maturity of local entrepreneurial ecosystems, or the role of private partners in financing innovation were not considered. Although complex to quantify, these factors are likely to have a significant impact on the results.

Finally, the binary logistic regression used in this research, while appropriate for answering the questions posed, simplifies reality by assuming a linear relationship between explanatory variables and the dependent variable. Exploring other statistical methods, such as multilevel models or machine learning techniques, could provide complementary perspectives and better capture the complex interactions between the studied factors.

In summary, these limitations do not detract from the relevance of the results obtained, but they highlight the need to deepen future research to explore in more detail the factors not considered and expand the analyses to a greater number of countries and variables. Future research could also integrate mixed approaches, combining quantitative and qualitative analyses, to better understand the underlying dynamics of financing gaps in female entrepreneurship.

Recommendations for Future Research

The results of this study offer multiple avenues for future research aimed at deepening the understanding of financing gaps between innovative and traditional women entrepreneurs. While this analysis has identified significant explanatory factors and developed strategic recommendations, several areas remain to be explored to complement and enrich the current.

First, expanding the geographical sample is a priority for future research. While this study includes 20 countries from various economic contexts, it is still limited in terms of overall representativeness. Expanding the sample to include more countries, particularly from underrepresented regions like Sub-Saharan Africa, Central Asia, and Latin America, would allow for a better understanding of the regional and cultural dynamics influencing financing gaps. It would also provide an opportunity to explore intra-regional variations within both developed and emerging countries.

Next, the inclusion of qualitative variables could offer a more nuanced view of the mechanisms underlying financing gaps. For example, factors such as cultural norms, gender stereotypes, educational level, or women's entrepreneurial experience could be incorporated into the analytical models. These dimensions, often absent from quantitative approaches, may play a critical role in access to resources and institutional support. Qualitative surveys or in-depth case studies could complement the quantitative approach by exploring these aspects.

Furthermore, future research could examine the interactions between explanatory variables to better understand the synergies or antagonisms between factors influencing access to financing. For example, the interaction between participation in support systems and the economic context could reveal how these elements mutually reinforce each other in certain institutional environments. Such analyses would allow for more targeted strategic recommendations based on specific contexts.

Moreover, a longitudinal approach would be particularly relevant for studying the evolution of financing gaps over time. The data used in this study is cross-sectional, which limits the understanding of temporal dynamics. A longitudinal study could track the trajectories of innovative and traditional women entrepreneurs, identifying changes in their financing needs and access to resources over time.

Finally, the use of advanced methods, such as network analysis or multilevel modeling approaches, could offer new insights into financing systems and the relational dynamics between women entrepreneurs, financial institutions, and support systems. These approaches would integrate complex data while considering contextual influences at multiple levels.

In conclusion, future research could not only address the limitations identified in this study but also open new pathways to explore the relationships between gender, financing, and innovation. By combining larger samples, qualitative variables, longitudinal approaches, and advanced analytical methods, these studies could significantly contribute to promoting inclusive and effective policies to support female entrepreneurship.

CONCLUSION

This study has provided an in-depth exploration of the financing gaps between innovative and traditional women entrepreneurs, while identifying the explanatory factors behind these disparities through an analysis based on binary logistic regression. The results highlight the crucial importance of access to financing, participation in support systems, and the economic context in determining the likelihood of belonging to the group of innovative women entrepreneurs. The study also shows that barriers such as high rejection rates continue to hinder efforts for financial inclusion, especially in emerging countries. These disparities underscore the need for concerted and differentiated action by governments, financial institutions, and international organizations to reduce structural inequalities and promote inclusive entrepreneurial innovation.

Furthermore, this research makes a significant contribution to the academic literature on female entrepreneurship by enriching existing theoretical frameworks and providing strategic recommendations tailored to the realities of regional contexts. It highlights the central role of institutional mechanisms and favorable economic environments in reducing financing gaps, while emphasizing the urgency of adapting policies to meet the specific needs of women entrepreneurs in emerging countries.

However, this study is only a first step in understanding the challenges faced by female

entrepreneurs. The identified limitations, particularly regarding the representativeness of the sample and the absence of certain qualitative variables, open the door for future research that could deepen the analysis by expanding the geographical scope and incorporating multidimensional approaches. Thus, this research calls for collective mobilization to promote fair financial inclusion and support the development of innovative and sustainable female entrepreneurship on a global scale.

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