

# An Assessment of Women Entrepreneurship in the Service Sector of Assam with Special Reference to Darrang District

**Aparupa Sarma<sup>1</sup> and Dr. Suresh Kumar Nath<sup>2</sup>**

<sup>1</sup>Research Scholar, Department of Economics, Cotton University, Guwahati, Assam

<sup>2</sup>Associate Professor, Department of Economics, Cotton University, Guwahati, Assam

<sup>1</sup>Corresponding Author Email Id: [mailaparupa77@gmail.com](mailto:mailaparupa77@gmail.com)

<sup>2</sup> Email id: [sureshkumarnath3@gmail.com](mailto:sureshkumarnath3@gmail.com)

## **ABSTRACT**

*Women entrepreneurship has emerged as a key driver towards inclusive development and economic sustainability, especially in the service sector of developing nations. This paper has made an attempt to examine the performance of women-owned service enterprises in Assam with special reference to the Darrang district in terms of profitability and employment generation. This work uses descriptive statistics and multiple regression model. The study is conducted among 160 women entrepreneurs and sample size is determined by using a sampling formula developed by Yamane. Profitability is calculated in the form of Net Profit Ratio and Return on Investment whereas the employment generation is calculated based on the variations in the workforce. The results demonstrate that there is a significant difference in enterprise performance in terms of activities, level of investment, location, training, and level of adoption of digital platforms. The food and beverage, retail trade, and apparel services are found to be more profitable, and overall creation of employment opportunities is not very large. Regression analysis has shown that the use of digital platforms and age of the entrepreneur have a significant and positive impact on profitability, whereas an increase in capital investment and the experience of the enterprise have a negative impact on net profit ratios, which could indicate a decreasing effect and inefficiency in operations over time. There is no significant effect of training and employment creation on profitability.*

**Keywords:** Women entrepreneurs, Profitability, Digital platform, Investment

## **Introduction**

Entrepreneurship refers to the process of introducing new combinations of production factors, such as new technologies, methods of production, or new products and services, into the market (Schumpeter, 1939). It also plays an important role in the creation and growth of businesses, as well as in the growth and prosperity of regions and nations (Hisrich et. al., 2020). Consequently, entrepreneurial function becomes the vital component in the process of economic growth (Baumol, 1968). In the present context, there are growth of entrepreneurial activities among women worldwide. Women entrepreneurship has become an

indispensable component of inclusive economic growth and sustainable development specially in developing economies. Women-owned enterprises lead to income generation and reduction in poverty as well as creating employment and greater social spillovers by virtue of women embeddedness within households and local communities, thus augmenting social empowerment (Brush et al., 2009; Minniti, 2010). In India, there are innumerable cases of expansion of participation of women in entrepreneurial activities in recent decades. Now a days, there are growth of service sector and it has become one of the promising ventures that women have started to venture into since the MSME data indicate that the majority of the enterprises are characterized by micro enterprises and they are concentrated in the trade and other service-oriented ventures, which are usually run at relatively lower capital cost (Ministry of MSME, 2021). In addition, enterprises in the service sector generally permit women to balance work and household responsibilities, which encourages them to engage in more entrepreneurial endeavours. Assam is a state of North East India which is characterized by a limited industrial base, dominance of micro and small enterprises and a growing dependence on the service sector. Economic Survey, 2023-24 reveals that the service sector is the largest contributor with 45.25% towards the State Gross Domestic Product of Assam. Within this economic structure, women entrepreneurship becomes significant mechanism for all round economic development of Assam. In this context, the Government of Assam has taken various initiatives for stimulating the entrepreneurial activities among women. Despite this, women entrepreneurs continue to confront a number of obstacles, such as restricted market access, inadequate managerial and technical skills, limited financial resources, and socio-cultural constraints (Huzuri, 2018; Mahanta, 2016). These difficulties often hinder the growth of women-owned enterprises and its long-term economic viability. In the present study, Darrang district is chosen for studying the service sector enterprises as it is located in the central region of Assam. Service-sector activities like retail trade, education-related services, tailoring, beauty and personal services, and small hospitality businesses have gradually expanded, although agriculture is the primary source of income in the district, which is primarily rural (Government of Assam, 2020; Census of India, 2011). The total number of women owned establishments in Darrang district is only about 1.2% of total women owned establishments as per the Sixth Economic Census, 2016. Most of the literature presently available on women entrepreneurs in the Northeast region focuses on participation, challenges, motivations, and empowerment outcomes and relatively limited empirical studies consists of district-level evidence on enterprise performance, particularly within the service sector (Bhatta & Borpujari, 2023; Kashyap & Bordoloi, 2021; Hazarika & Kalita, 2019). To address this research vacuum, the present study explores the performance of women entrepreneurship in terms of profitability and employment generation in Assam's service sector, with particular emphasis on the Darrang district. Consequently, the study's aim is to determine the region's women-owned service enterprises' economic viability.

## **Objectives**

1. To study the socio-economic profile of women entrepreneurs of service sector in Darrang district.
2. To evaluate the performance of women-owned service enterprises in terms of employment generation and profitability.

## Methodology

The study adopts a quantitative method. Quantitative methods enable objective and systematic measurement of variables such as profitability and employment generation. This improves the comparability and reliability of the data in one region to another (Creswell, 2014). The study is based on primary and secondary data. It is conducted in Darrang district of Assam, India. The lowest three districts in the total number of women owning establishments in Assam described by the report of Sixth Economic Census, Assam were Chirang(0.6), Darrang (1.2) and Hailakandi (1.3). Consequently, one of the districts of the state having very low level of entrepreneurial development among women were purposively selected for conducting the study. The secondary data are collected from the District Industries and Commerce Centre of Darrang district. The **total sample size** is 160 women entrepreneurs selected using **Yamane's formula** for a finite population at a 95% confidence level. The collection of data is done using a well-structured questionnaire. A structured questionnaire provides consistency in the collection of data and reduces the bias of the researcher and enhances the reproducibility of the research (Bryman, 2016). Profitability and employment generation were performance indicators that were examined. The analysis was done using **descriptive statistics and multiple regression model**.

## Results and Analysis:

### Socio-Economic Profiles of Women Entrepreneurs in Service sector:

According to Carter and Shaw (2006), socio-economic background refers to the economic conditions that determine an individual's position and prospects in society. It takes into account factors that together determine an individual's access to financial and social resources, such as education, income, occupation, caste, and family status (Verheul et al., 2006). The socio-economic characteristics of the women entrepreneurs can be explained with the help of following table:

**Table 1:** Socio-Economic profile of women entrepreneurs in the Service Sector

Socio-economic Variables	Category	Number of Respondents	Percentage (%)
<b>Age Group (Years)</b>	Below 30	6	3.8
	31–40	36	22.5
	41–50	102	63.7
	51 and above	16	10.0
<b>Educational Qualification</b>	No formal education	12	7.5
	Below HSLC	31	19.4
	HSLC to HS	71	44.4
	Graduate and above	46	28.7
<b>Caste / Community</b>	General	76	47.5
	Scheduled Tribe (ST)	9	5.6
	Scheduled Caste (SC)	15	9.4
	Other Backward Classes (OBC)	60	37.5

<b>Marital Status</b>	Married	143	89.4
	Unmarried	15	9.4
	Widow	2	1.2
<b>Religion</b>	Hindu	118	73.8
	Muslim	42	26.2
	Others	0	0.0
<b>Type of Family</b>	Nuclear	105	65.6
	Joint	55	34.4
<b>Economic Category</b>	BPL	40	25.0
	APL	120	75.0
<b>Use of Digital Platform</b>	Not utilize	42	26.3
	Partly Utilize for business	62	38.7
	Fully utilized for business	56	35.0
<b>Access to credit</b>	No Loan Availed	56	35.0
	Loan Fully Repaid (Completed)	44	27.5
	Loan Currently Being Repaid	60	37.5
<b>Ownership of Dwelling House</b>	Own house	132	82.5
	Rented house	28	17.5
<b>Total</b>		<b>160</b>	<b>100.0</b>

Source: Survey data

In the above table, the socio-economic profiles of women entrepreneurs in the service sector of Darrang district are presented. Age-wise distribution shows that there is dominance of middle-aged women in entrepreneurial activities, with 63.7 percent of respondents belonging to 41–50 years age group, followed by 22.5 percent in the 31–40 years category. The mean age of women entrepreneurs is 43.43 years, which shows that service-sector entrepreneurship is largely driven by women in economically mature stages of life due to accumulated experience and household stability. The level of education indicates that 44.4 percent of the respondents have education between HSLC and Higher Secondary, 28.7 percent are graduates and over with a distinguishing proportion (26.9 percent) with education below HSLC or having no education. The average education level of 2.94 supports the fact that the secondary-level education is predominant among the women entrepreneurs. The composition of castes divulges that General (47.5 percent) and OBC (37.5 percent) communities' women dominate in entrepreneurial activities though there is less representation of Scheduled Castes and Scheduled Tribes (15 percent) women. Marital status is highly dominated by married women (89.4 percent), and indicates that marriage is not a limiting factor to entrepreneurship, in fact it can be economically stimulating and support household business. Family structure displays that 65.6 percent of the women entrepreneurs live in nuclear families, which might have more autonomy and flexibility in making business decisions. Economic category analysis denotes that 75 percent of women entrepreneurs are Above Poverty Line (APL) household and 25 per cent are Below Poverty Line (BPL), which exhibits a comparatively improved economic status among the majority of women entrepreneurs. The level of using

digital platforms is considerable, as 73.7 percent of the women entrepreneurs use digital tools partially or fully, and 26.3 percent do not use them at all. The accessibility of credit is also average with 65 per cent having borrowed loans or borrowing loans at the time. High house ownership pattern is observed with 82.5 percent which is indicative of a comparatively stable economy. In general, the findings reveal that women's entrepreneurship in Darrang district is influenced by age, education, social background, and financial stability.

## **Performance of women-owned service enterprises in terms of employment generation and profitability:**

Performance is defined as an act of completing something successfully (Huzuri, 2018). Respectively, an enterprise's performance is a multidimensional phenomenon that involves both non-financial elements like innovation, employment creation, social value creation, and the entrepreneur's personal satisfaction and financial elements like profit, revenue growth, and productivity (Brush et al., 2009, Brush et al., 2006). According to Hasan & Almubarak (2016), entrepreneurial performance can be defined in terms of the entrepreneur's production and degree of success in operating a firm. They use both non-financial and financial metrics to assess women's entrepreneurship success. Besides that, the success of women-owned enterprises can be measured using three metrics like sales growth, market share growth, and net profit after taxes (Shakeel et al., 2020). In the present study, profitability is assessed by using Net Profit Ratio (NPR) and Return on Investment (ROI). Employment generation is determined by using the number of initial employees and number of current employees in women owned enterprises (Hanoteau & Talbot, 2019; Liedholm & Mead, 1999; McPherson, 1996).

In the present study, the following categories are used to evaluate the performance of women-owned businesses

1. Category of Enterprises (Huzuri, 2018)
2. Classification on the basis of Capital Investment (Huzuri, 2018)
3. Enterprises in Rural and Urban Areas (Huzuri, 2018)
4. Enterprises with and without Training (Huzuri, 2018)
5. Enterprises with or without using digital platform
6. Enterprises with or without availing government schemes
7. Classification of enterprises on the basis of tenure

Now, the performance of women owned enterprises can be explained with the help of following tables

**Table 2:** Performance of different categories of enterprises in terms of profit and employment

Name of Activity	Nature of activities	Net Profit		Employment per unit		Return on Investment	
		Initial	Survey	Initial	Survey	Initial Year	Survey Year
Agribusiness	Agricultural product selling, Agri input business and Livestock trading	45588	76242	0.82	1.65	129.4	35.8
Beauty Services	Beauty Parlors, make up studio and professional makeup artist	144351	142272	1.38	1.84	87.3	40.2
Apparel and fashion services	Boutiques, garments shop, Tailoring and digital clothing store	169436	164492	0.78	1.36	153.7	36.9
Educational	Tuitions, Coaching center and Schools	40100	47200	0.25	0.25	200.5	60.5
Food and Beverage service	Hotel, Bakery, Tea Stall and Restaurant	129246	173225	0.63	0.84	825.5	40.5
Retail trade services	Stationary shops, vendors, grocery shops, sports items, Commercial retail complex, etc	107112	146990	0.69	1	248.7	30.7
Health Sector	Home health care services and yoga centres	20000	72000	0	0	100.0	100.0
Information and communication technology services	Internet browsing centres and Printing and design services	55800	62800	0.5	1	48.3	39.0

Source: Survey data

The above table 2 reveals the performance of different categories of enterprises in terms of profit and employment. It divulges that there exists substantial dissimilarity in profitability, employment generation as well as efficiency across service-sector activities. The highest net profit in the survey year is seen in the food and beverage services (₹1,73,225) as compared to the initial year net profit of ₹1,29,246, and there is

employment growth of 0.63 to 0.84 workers per unit. However, ROI deteriorated drastically from 825.5 to 40.5, demonstrating growing costs and declining efficiency. There is improvement in net profit (₹1,07,112 to ₹1,46,990) and employment (0.69 to 1.00) in the case of retail trade enterprises. The profit on beauty services and apparel & fashion enterprises was also relatively high (₹1,42,272 and ₹1,64,492, respectively) yet had no impact on employment generation rates. Whereas in educational enterprises, there is modest profit growth (₹40,100 to ₹47,200) with stagnant employment (0.25), but improved ROI (200.5 to 60.5), implies financial stability with low risk. Health sector enterprises displayed a sharp rise in profit (₹20,000 to ₹72,000) without employment generation. In general, service sector enterprises enhanced income levels, but employment generation continued to be low across sectors.

Table 3: Performance of women owned enterprises on the basis of capital investment

<b>Capital investment</b>	<b>Net Profit</b>		<b>Employment per unit</b>		<b>Return on Investment</b>	
	<b>Initial year</b>	<b>Survey year</b>	<b>Initial year</b>	<b>Survey year</b>	<b>Initial year</b>	<b>Survey year</b>
Less than 1 lakh	105887	98819	0.54	0.98	488.1	36.8
1 lakh to 5 lakhs	136144	156331	1.01	1.49	62.4	37.8
6 lakhs to 10 Lakhs	219897	267126	1.43	1.43	28.9	42.2
More than 10 lakhs	68600	552300	3	4.5	3.4	45.2

Source: Survey data

Table 3 demonstrates the performance of women owned enterprises on the basis of capital investment. Capital investment act as an indispensable determinant of enterprise performance. From this table, it is found that enterprises with investment above ₹10 lakhs had a tremendous growth in net profit (₹68,600 to ₹5,52,300) and employment (3.0 to 4.5 workers). Nevertheless, their ROI continued relatively low (45.2), indicating capital-intensive operations. Enterprises in the ₹6–10 lakh category were performing well with increasing profit from ₹2,19,897 to ₹2,67,126 and stable employment (1.43), demonstrating optimum utilization of capital. In contrast, enterprises with investments below ₹1 lakh had a decline in profit (₹1,05,887 to ₹98,819) and very low ROI (36.8), underlining vulnerability and limited sustainability. These findings reproduce the idea that inadequate capital restricts the potential for growth and profitability.

Table 4: Performance of women owned enterprises in rural and urban areas

<b>Location</b>	<b>Net Profit</b>		<b>Employment per unit</b>		<b>Return on Investment</b>	
	<b>Initial year</b>	<b>Survey year</b>	<b>Initial year</b>	<b>Survey year</b>	<b>Initial year</b>	<b>Survey year</b>
Urban	173321	179575	1.01	1.36	217.4	38.3
Rural	58026	88078	0.64	1.26	262.7	36.7

Source: Survey Data

In the table 4, the performance of women owned enterprises in rural and urban areas is shown. It is seen from the above table that in the survey year, women-owned businesses in urban areas were more profitable, earning ₹1,79,575 as compared to ₹88,078 in rural areas. Furthermore, urban areas generated slightly more jobs (1.36 vs. 1.26). Nonetheless, rural businesses showed a greater initial ROI (262.7), demonstrating effective use of scarce resources. However, both locations' declining ROI indicates that operating costs are increasing over time. The results emphasize the importance of infrastructure and market access towards the performance of business.

Table 5: Performance of women owned enterprises with and without training

Training	Net Profit		Employment per unit		Return on Investment	
	Initial year	Survey year	Initial year	Survey year	Initial year	Survey year
With Training	116355	125628	1.15	1.68	103.0	38.3
Without training	131642	150951	0.72	1.13	303.4	37.4

Source: Survey data

From the above table, it is observed that training has a positive effect on creating employment opportunities. Enterprises with training employed more employees, increasing from 1.15 to 1.68 workers per unit while enterprises without training employed only 0.72 to 1.13 workers per unit. But the survey year revealed that enterprises without training earned a greater profit (₹1,50,951) than enterprises with training (₹1,25,628). But ROI declined for both groups, though trained enterprises maintained marginally higher performance (38.3 vs. 37.4). This indicates that training enhances employment capacity rather than immediate profitability.

Table 6: Performance of women owned enterprises with or without using digital platform

Digital Platform	Net Profit		Employment per unit		Return on Investment	
	Initial year	Survey year	Initial year	Survey year	Initial year	Survey year
Fully utilized for business	159446	166299	1.03	1.59	136.2	37.5
Partly Utilize for business	148210	162468	0.84	1.08	378.5	43.7
Not utilize	50457	80926	0.67	1.31	157.9	28.9

Source: Survey data

In the above table 6, the performance of women owned enterprises with or without using digital platform are illustrated. From the above table, it is found that the adoption of digital platform plays a crucial role towards the performance of an enterprises. Enterprises that fully utilised digital platforms experienced increased

employment (1.59) and profits (₹1,66,299). The highest ROI (43.7) was attained by the enterprises with partial utilisation of digital platform in their business, indicating cost-effective digital engagement. While the enterprises without using digital platform obtain a lower ROI (28.9) and significantly lower profits (₹80,926).

Table 7: Performance of women owned Enterprises with or without availing government schemes

Government Schemes	Net Profit		Employment per unit		Return on Investment	
	Initial year	Survey year	Initial year	Survey year	Initial year	Survey year
Availed	143836	150270	0.84	1.39	254.3	38.1
Not Availed	109129	134539	0.89	1.25	217.4	37.3

Source: Survey data

From the above table 7, it is seen that government schemes have a positive effect on the performance of enterprises. Enterprises that availed the benefit of government schemes earned higher profits of ₹1,50,270 and offered more employment opportunities (1.39 employees) than those that did not avail the benefit of government schemes, i.e., Profit= ₹1,34,539 and Employment= 1.25. But there is no significant difference in ROI between these two categories, which implies that even though schemes can be expanded, they cannot achieve efficiency gains.

Table 8: Performance of women owned enterprises on the basis of tenure

Tenure	Net Profit		Employment per unit		Return on Investment	
	Initial year	Survey year	Initial year	Survey year	Initial year	Survey year
up to 5 years	95247	169175	0.72	1.30	4.4	45.6
6 - 10 years	144411	148852	0.85	1.34	155.7	39.7
11-15 years	217057	63783	1.35	0.94	285.5	14.9
16 years or above	84049	120398	0.88	1.58	337.4	30.2

Source: Survey data

In table 8, the performance of enterprises in terms of tenure is illustrated. It is seen that, enterprises with less than 5 years had high net profit growth from ₹95,247 to ₹1,69,175 and the highest ROI (45.6) and are dynamically developing and penetrating the market. But the opposite case happened to business aged 11-15 years where profitability declines from ₹2,17,057 to ₹63,783 and employment also dropped sharply, which is an indication of stagnation or market saturation. Enterprises that had been in operation over 16 years displayed a moderate recovery, and the employment rose between 0.88 and 1.58. These results imply that long-term survival does not occur automatically but requires constant modifications and innovations to remain sustainable in the market.

## Determinants of Net profit Ratio:

Profitability is one of the indicators that is used to identify the sustainability and success of an enterprise. Profitability helps in the evaluation of the performance of entrepreneurial activities. It means the ability of an enterprise to realize profits of the enterprise in terms of its performance during a specified period when all the costs and expenses are covered (White et al., 2003). Profitability also reveals the overall quality of utilizing resources that an enterprise possesses to make returns, besides examining the quality of an enterprise to generate revenue (Subramanyam, 2014). Profitability ratios can be employed in examining the financial wellbeing of an organization and its performance efficiency (Khan and Jain, 2007). Consequently, we have developed a regression model of analysing the various determinants of the net profit of women owned enterprises. Based on the study of Alene, 2020 and Huzuri, 2018, net profit ratio as a dependent variable of socio-economic, technological and investment of women enterprises. The present paper uses variables like the use of digital platforms, total investment, tenure years, age of the entrepreneur and employment generation to measure the performance of women owned enterprises. The regression model and the results are presented below:

$$NPR_i = \beta_0 + \beta_1 DP_i + \beta_2 \ln(TI)_i + \beta_3 \ln(Ten)_i + \beta_4 TRAG_i + \beta_5 Age_i + \beta_6 EG_i + e_i$$

Where:

- **NPR<sub>i</sub>** = Net Profit Ratio of the *i*th enterprise
- **DP<sub>i</sub>** = Digital Platform usage dummy (1=Yes, 0= No)
- **Ln(TI)<sub>i</sub>** = Natural log of annual total investment
- **ln(Ten)<sub>i</sub>** = Natural log of Tenure (Years)
- **TRNG<sub>i</sub>** = Training dummy (1=Yes, 0= No)
- **Age<sub>i</sub>** =Age of Entrepreneur
- **EG<sub>i</sub>** = Employment Generation
- **e<sub>i</sub>** = error term

Table 9: Determinants of Net Profit Ratio

Explanatory Variable	Co-efficient	Standard Error	t-statistics	P value	VIF
Constant	113.109	23.381	4.838	0.000	
Digital Platform	10.080	2.293	4.395	0.000	1.087
ln(Total Investment)	-7.390	1.732	-4.267	0.000	1.062
ln(Tenure)	-8.613	1.967	-4.378	0.000	1.212
Training	-2.270	2.158	-1.052	0.295	1.111
Age	0.407	0.167	2.430	0.016	1.192
Employment Gen.	-2.878	2.351	-1.224	0.223	1.030
F value	10.398				
R -Square	0.290				
Adjusted R-Square	0.262				
Durbin-Watson	2.121				
Breusch-Pagan (p-value)	(p- 0.183				

Source: Calculated from Survey Data

The results of regression in table 9 shows the various determinants of profitability among the women owned enterprises in the service sector of Darrang district, Assam. The model explains 29 percent change in the net profit ratio ( $R^2 = 0.290$ ; Adjusted  $R^2 = 0.262$ ) which is deemed strong in case of a micro-enterprise. The use of digital platform has the positive and highly important effect on profitability ( $(\beta = 10.08, p < 0.01)$ , which confirms its key position in the performance of enterprises. On the other hand, natural logarithm of total investment ( $(\beta = -7.39, p < 0.01)$  and enterprise tenure ( $(\beta = -8.61, p < 0.01)$  have a negative effect on profitability, that is, they represent diminishing returns and maturity-related limitations. The age of entrepreneur is positively and significantly influenced ( $(\beta = 0.407, p < 0.05)$  the profitability of enterprises. However, the training and employment creation do not show statistically significant effects, indicating that profitability is more determined by strategic and technological consideration than by the number of employees. The reliability of the estimates is confirmed through a diagnostic test which ensures that there are absence of multicollinearity, autocorrelation and heteroscedasticity. The findings of the present study show similarities and dissimilarities when compared with the study by Huzuri, 2018. In both studies, age is the significant determinant of profitability of enterprises. Additionally, the present study identifies the usage of digital platforms as a significant positive determinant of profitability.

## Conclusion and policy implications

In this paper, the performance of women-owned businesses in the service sector in Assam in terms of profitability and employment generation is examined. The findings demonstrate that the performance of women owned enterprises varies greatly in terms of activities, investment, place and enterprise features. The food and beverage services, the apparel and fashion and the retail trade performed better with the increase in profit while the education and health services show stability in profit but limited employment growth. It is also found that capital investment increases absolute profitability and employment creation, but falling returns on investment indicates reducing efficiency. Additionally, women enterprises in urban areas are more profitable and have more jobs than rural women enterprises, while women enterprises in rural areas have more initial returns, which include lower operation and latent growth prospects. The regression analysis finds that Net profit ratio is positively impacted by the increased usage of digital platforms, while negatively impacted by the increased investment and the duration of tenure, indicating that improper operations in the long run. The impact of entrepreneurial age on profitability is positive, indicates the crucial role of maturity of the women entrepreneurs. In general, the research paper finds that digital integration, maturity and efficient use of resources have a stronger impact on profitability in women-owned service enterprises than scale expansion. To maintain women entrepreneurship in Assam, it is necessary to strengthen the productivity and institutional effectiveness.

The empirical results point out that there are a number of policy recommendations that can be adopted to empower women entrepreneurship in the service sector of Assam.

1. The high positive influence of digital platform used on profitability highlights the necessity of the policy of digital-first entrepreneurship. The government agencies should give more emphasis on

digital literacy, digital incorporation, online payments, and online marketing assistance especially to rural women who are in business.

2. The relationship between increased investments and efficiency in profits is negative which means the policies need to shift towards efficiency improvement rather than expansion in capital.
3. The government should redesign the entrepreneurship development programmes. The training must be industry-specific, practical and result oriented with specific attention being placed on pricing strategy, customer acquisition, digital branding and financial management as opposed to generic skill modules.
4. Additionally, there should be more emphasis on providing specific support to rural enterprises by enhancing rural infrastructure, logistics, digital connectivity, and market connectivity.
5. There is a loss of profitability as a long-term tenure of enterprise. The incentives to innovation, the technology adoption and the diversification support should be given to older enterprises in order to prevent their stagnation.
6. Although, employment generation is linked with lower profit ratios, the policies must be made by balancing both profitability and employment generation.

In order to ensure long-term economic empowerment of women to mainstream, it is imperative that policies for the growth of women's entrepreneurship be made with a greater focus on efficiency, digital adoption, and easy accessibility.

## References

- [1]. Alene, E. T. (2020). Determinants that influence the performance of women entrepreneurs in micro and small enterprises in Ethiopia. *Journal of Innovation and Entrepreneurship*, 9(24), 1–20. <https://doi.org/10.1186/s13731-020-00132-6>
- [2]. Annual Report 2022–2023. (2023). *Ministry of Micro, Small and Medium Enterprises, Government of India*. <https://msme.gov.in/sites/default/files/MSMEANNUALREPORT2022-23ENGLISH.pdf>
- [3]. Baumol, W. J. (1968). Entrepreneurship in economic theory. *The American Economic Review*, 58(2), 64–71.
- [4]. Bhatta, A., & Borpujari, B. (2023). Women entrepreneurship: Opportunities and challenges in socio-economic development (A study among the women entrepreneurs of Jorhat district of Assam). *[Unpublished manuscript / Journal details not specified]*.
- [5]. Brush, C. G., Carter, N. M., Gatewood, E. J., Greene, P. G., & Hart, M. M. (Eds.). (2006). *Growth-oriented women entrepreneurs and their businesses: A global research perspective*. Edward Elgar.
- [6]. Brush, C. G., de Bruin, A., & Welter, F. (2009). A gender-aware framework for women's entrepreneurship. *International Journal of Gender and Entrepreneurship*, 1(1), 8–24. <https://doi.org/10.1108/17566260910942318>
- [7]. Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.
- [8]. Carter, S., & Shaw, E. (2006). *Women's business ownership: Recent research and policy developments*. Small Business Service.

[9]. Charantimath, P. M. (2007). *Entrepreneurship development and small business enterprises* (2nd ed.). Dorling Kindersley (India) Pvt. Ltd.

[10]. Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.

[11]. Economic Survey, Assam 2023–24. (2024). *Directorate of Economics and Statistics, Transformation and Development Department, Government of Assam*. <https://des.assam.gov.in>

[12]. Hanoteau, J., & Talbot, D. (2019). Impacts of the Québec carbon emissions trading scheme on plant-level performance and employment. *Carbon Management*, 10(3), 287–298.

[13]. Hasan, F. S. M. A., & Almubarak, M. M. S. (2016). Factors influencing women entrepreneurs' performance in SMEs. *World Journal of Entrepreneurship, Management and Sustainable Development*, 12(2), 82–101. <https://doi.org/10.1108/WJEMSD-09-2015-0037>

[14]. Hazarika, M. K., & Kalita, M. D. R. (2019). Women empowerment through women entrepreneurship: A study of home-based enterprises run by women in Sonitpur district of Assam. *International Journal of Research and Analytical Reviews*, 6(2), 350–359.

[15]. Hisrich, R. D., Peters, M. P., Shepherd, D. A., & Sinha, S. (2020). *Entrepreneurship*. McGraw Hill Education (India).

[16]. Hujuri, A. (2018). *An evaluation of performance of women entrepreneurs in Assam with special reference to Kamrup district* (Doctoral dissertation). North-Eastern Hill University, Shillong.

[17]. Kashyap, D., & Bordoloi, J. (2021). Empowerment of women through entrepreneurship: A study in Guwahati city of Assam. *International Journal of Management*, 11(12), 2020–2027.

[18]. Khan, M. Y., & Jain, P. K. (2007). *Financial management: Text, problems and cases* (5th ed.). Tata McGraw-Hill.

[19]. Khanka, S. S. (2022). *Entrepreneurial development* (Revised ed.). S. Chand & Company Ltd.

[20]. Klapper, L. F., & Parker, S. C. (2011). Gender and the business environment for new firm creation. *World Bank Research Observer*, 26(2), 237–257.

[21]. Liedholm, C., & Mead, D. C. (1999). *Small enterprises and economic development: The dynamics of micro and small enterprises*. Routledge

[22]. Mahanta, M. (2016). Importance and challenges of women entrepreneurship: A case study of Sonitpur district of Assam. *IOSR Journal of Humanities and Social Science*, 21(7), 1–6.

[23]. McPherson, M. A. (1996). Growth of micro and small enterprises in Southern Africa. *Journal of Development Economics*, 48(1), 253–277. [https://doi.org/10.1016/0304-3878\(95\)00027-5](https://doi.org/10.1016/0304-3878(95)00027-5)

[24]. Minniti, M. (2010). Female entrepreneurship and economic activity. *The European Journal of Development Research*, 22(3), 294–312. <https://doi.org/10.1057/ejdr.2010.18>

[25]. Roomi, M. A., & Harrison, P. (2010). Behind the veil: Women-only entrepreneurship training in Pakistan. *International Journal of Gender and Entrepreneurship*, 2(2), 150–172. <https://doi.org/10.1108/17566261011051017>

[26]. Schumpeter, J. A. (1934). *The theory of economic development*. Harvard University Press

[27]. Shakeel, M., Yaokuang, L., & Gohar, A. (2020). Identifying the entrepreneurial success factors and the performance of women-owned businesses in Pakistan: The moderating role of national culture. *SAGE Open*, 10(2), 1–17.

[28]. Sixth Economic Census, Assam 2013. (2013). *Directorate of Economics and Statistics, Government of Assam*. <https://des.assam.gov.in>

[29]. Subramanyam, K. R. (2014). *Financial statement analysis* (11th ed.). McGraw-Hill Education.

[30]. Survey of the MSME Sector of Assam with Focus on Sectors with Data Gaps. (2025). *National Council of Applied Economic Research (NCAER), New Delhi*. Directorate of Economics and Statistics, Government of Assam.

[31]. Verheul, I., van Stel, A., & Thurik, R. (2006). Explaining female and male entrepreneurship at the country level. *Entrepreneurship & Regional Development*, 18(2), 151–183.

[32]. White, G. I., Sondhi, A. C., & Fried, D. (2003). *The analysis and use of financial statements* (3rd ed.). Wiley.

[33]. Yoganandan, G., & Gopalselvam, G. (2018). A study on challenges of women entrepreneurs in India. *International Journal of Innovative Research & Studies*, 8(3), 491–500.

#### **Cite this Article**

*Aparupa Sarma and Dr. Suresh Kumar Nath, “An Assessment of Women Entrepreneurship in the Service Sector of Assam with Special Reference to Darrang District”, International Journal of Multidisciplinary Research in Arts, Science and Technology (IJMRAST), ISSN: 2584-0231, Volume 3, Issue 12, pp. 50-63, December 2025.*

**Journal URL:** <https://ijmrast.com/>

**DOI:** <https://doi.org/10.61778/ijmrast.v3i12.213>



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](#).