

Enabling Digital Inclusive Behaviour among Women Entrepreneurs in Micro, Small and Medium Enterprises of India

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ABSTRACT

Purpose

The present study is an attempt to study the issue of low accessibility of digitalised business tools to women entrepreneurs due to lack of technological knowledge on their part.

Research Design/ Methodology/ Approach

The study is based on exploratory quantitative and qualitative research design. The information has been collected using the primary data collection technique through a self-developed questionnaire aided by unstructured interviews of the respondents. The questionnaire was personally administered to some women entrepreneurs using a systematic sampling method. The population for the survey was women entrepreneurs in the MSME sector located in Delhi. The respondents were in the age group of 30-60 years. The secondary data from "Digital Skilling of Rural Women Entrepreneurs in the time of COVID19" has also been studied. This methodology proved helpful to analyze the background behind the problem of digital illiteracy and e-readiness.

Main Findings

- Very few women entrepreneurs were found to be using only digital modes for business purposes and such use was found to be decreasing with increasing age.
- A Significant Positive relationship has been found between digital financial application and the success of women entrepreneurs.

Practical Implications/Value

More efforts are needed at the Government as well as non-government level to formulate more policies for women entrepreneurs to upgrade their digital skills.

Keywords: Women Entrepreneurs, MSMEs, Digitalization, Digital Literacy, E-Readiness, Entrepreneurship, Delhi

JEL Classification Code: M1, M10, M14, M15

Date of Submission: 01-10-2022

Date of Acceptance: 12-10-2022

I. INTRODUCTION

Definition of Micro, Small and Medium Enterprises¹

According to the provisions of the Ministry of Micro, Small and Medium Enterprises (MSME), the Central Government classifies MSME on the bases of investment and annual turnover criteria. The revised limits applicable to all kinds of enterprises with effect from 1st July 2020 are:

Micro Enterprises:

¹https://msme.gov.in/sites/default/files/MSME_gazette_of_india.pdf

- Investment in Plant and Machinery or Equipment not more than Rs.1 crore, and
- Annual Turnover- not more than Rs. 5 crores.

Small Enterprises:

- Investment in Plant and Machinery or Equipment not more than Rs.10 crores, and
- Annual Turnover - not more than Rs. 50 crores.

Medium Enterprises:

- Investment in Plant and Machinery or Equipment not more than Rs.50 crores, and
- Annual Turnover - not more than Rs. 250 crores.

Importance of MSME sector

In the 21st century of the present economy, MSME has become the most dynamic and vibrant sector of the world economy. MSME acronym of Micro, Small and Medium Enterprises are the rapidly growing industries of the Indian economy. Micro, Small and Medium Enterprise is primarily a vehicle of developing nations which immensely contributes in employment generation after agriculture. MSMEs are mainly recognized as an engine of industrial development.

Presently, MSME plays a huge role in generating employment opportunities in the rural and urban sectors of India. MSME makes a significant contribution to the development of industrialization. Over 6000 products of traditional to high-tech items are manufactured by MSME in India (Mane, 2018). Micro, Small and Medium Enterprises largely contribute to the growth of rapid industrialization, poverty alleviation, employment creation, reducing inequalities and other related goals of the Indian economy. In the present scenario, MSME contributes about 90% to the production, service formation of the country (Dangi et al., 2021).

Importance of Women Entrepreneurs

According to the Government of India, “Women Entrepreneurs are the group of women who owned and controlled an enterprise, having a minimum financial interest of 51% of the capital and giving at least 51% of employment generated in the enterprise to women” (Biseria, 2014).

Women Entrepreneurs play a vital and integral part in the growth and development of society and have been making a substantial key role in bridging the gap of innovation and job creation. Women have real potential and capability to transform the traditional economy into the digital economy.

Importance of Digitalization of Business Operations

In the present economy, digital technology plays a very significant role in dealing with business opportunities. The Telecommunication Industries indulge in developing many digital application tools which enhance the reliability of the working environment.

Business innovation with a digitalization approach is an effort to improve services in all operational lines to achieve profitable and sustainable business goals (Hendriarto, 2021). The traditional ways of doing business have changed dramatically with the emergence of new digital technologies. Firms can stay competitive using the benefits of digital technologies, such as the Internet of Things, social computing, Cloud computing, cyber-physical systems, big data and analytics, wireless networks, artificial intelligence, robotics, simulation, etc. (Coskun et al., 2021).

Educated persons are more inclined to use the UPI services. Digital payment’s awareness and usage is growing too fast. If it will be advertised well on mass media, then the lower income group will also be able to use more. Demonetisation and Covid are the two main reasons of the increase in digital payments and therefore digital literacy among all should be the focus of the government and public.

Digital Illiteracy Among Women Entrepreneurs

However, due to digital illiteracy women entrepreneurs fail to take advantage of these digital tools. Generally, women establish their enterprise between the age of 30 to 60. At this age, they are well confident to make a decision and recognize early opportunities (Shmailan et al., 2016). But due to digital illiteracy, they encounter various problems while venturing their business. They fail to take advantage of media platforms of digital marketing tools like Google Analytics, Survey Anyplace, Hootsuite and other tools like Paytm, Phonepe, Google pay etc that affect their ongoing business operations which ultimately affect the growth of the MSME sector. Due to the lack of e-readiness of digital tools, women entrepreneurs between the age group of 30-60 waste their lot of time in haphazard work which can be done easily with the help of the latest technique of the digital era. The ability to deal with digital technology has become crucial in the present business world. In the MSMEs sector, women need to develop their digital skills and move towards e-readiness and digital literacy to recognize early opportunities in the business world and transform their dream into reality. Many MSMEs are still surrounded by the traditional economy and far from the idea of the digital economy (Mane et al., 2018). The study of Shetty et al., 2020 also pinpointed the record of low literacy position and low access to the internet in MSMEs.

Need of Digital Literacy Among Women Entrepreneurs

Women have often been considered undereducated and untrainable compared to their male counterparts. However, in a report by Accenture (2016), it is predicted that if the pace is doubled at which women become frequent users of technology (i.e., digital technologies), the workplace could reach gender equality by 2040 in developed nations and by 2060 in developing nations (Faulkner et al., 2022)

Due to digital illiteracy women entrepreneurs fail to take advantage of various digital tools which facilitate business operations. “Girls and women across the world enjoy less access to information technology as compared to boys and men. This is true of rich and poor countries alike” (Kofi, 2003). While digital skills were not ranked among the top three priorities by the Nigerian and South Sudanese entrepreneurs, improving digital literacy and competencies should help reduce inequalities and improve future job or business opportunities for citizens of African economies (Emembolu, et al., 2022).

Therefore, there is a need to develop digital literacy and e-readiness towards the digital world among women entrepreneurs which helps them to utilize their full potential towards the growth of the MSME sector.

II. REVIEW OF EXISTING STUDIES

A. Studies which tried to identify Problems faced by women as an entrepreneur

The study of Usha, 2012 described the socio-economic profile of women in the Madurai district. Women in the Madurai district faced a lot of problems like lack of technical, financial, marketing and pinpointed the hindrances confronted while operating business. Along with the previous study, the study of Mwobobia, 2012 also identified the challenges faced by women entrepreneurs in Kenya. The study highlighted lack of family support, lack of financial security they have as collateral, low education problem and lack of training facilities as some of the problems faced by the women entrepreneurs. Biseria, 2014 studied the stressful conditions faced by Indian middle-class women entrepreneurs such as stiff competition, lack of availability of raw material and examined the small-scale women. The study concluded to build self confidence among women by providing training and conferencing sessions therefore they persistently achieve their level. The study of Gupta, 2021 studied the factors that affect the growth and development of women entrepreneurs in MSMEs like Networking Challenges, Business Environment Challenges, Institution Limitations, Credit Challenges and so on. The researchers focused on the determinants that influenced the growth of MSME Women Entrepreneurs in India by reviewing 70 papers from different websites. Pal et al., 2021 concluded that ethical behaviour towards business, customer satisfaction and relationship management are the emergent factors of the success of female entrepreneurship.

B. Benefits of Digitalisation to women entrepreneurs

Shmailan 2016 Due to the lack of E-Readiness of digital tools, women entrepreneurs between the age group of 30-60 waste their lot of time in haphazard work which can be done easily with the help of the latest technique of the digital era. The ability to deal with digital technology has become crucial in the present business world. In the MSMEs sector, women need to develop their digital skills and move towards e-readiness and digital literacy to recognize early opportunities in the business world and transform their dream into reality. Tuheena et al 2019 The study concluded that ICT training and proficiency leads employment seeking opportunities high. The study of Shetty 2020 also pinpointed the record of low literacy and low access to the internet in MSMEs. Therefore, they suggested the need to develop digital literacy and e-readiness among women entrepreneurs to help them to utilize their full potential towards the growth of the MSME sector. Pratap, 2020-21 concluded the need to provide rural entrepreneurs training especially in the area of financial digital literacy and online banking. That study found low digital literacy among rural women entrepreneurs and that illiteracy was found to be more with increasing age. The study found that between the age group of 29-50, only 44% of Women Entrepreneurs had digital skills. The rest were found to be unable to cope with the digital world. The age group above 51 was concluded to be a matter of great concern due to almost nil digital literacy. The study found “**The analytical report of digital skill-building of Women Entrepreneurs, 2020-21**” which also highlighted that though 43% of Women Entrepreneurs were smartphone users but still they were unfamiliar with the digital financial platform. The study of Mamabolo et al., 2021 explored how women entrepreneurs create their own technological ecosystem to support their entrepreneurial environment. The study had also thrown light on the importance of inclusiveness of digital technology and highlighted some factors like collaborating with existing social networks and financial institutions, social and economic capital ties lead women entrepreneurs towards technological entrepreneurship. The researchers sum up with the conclusion that women are the emerging drivers of the entrepreneurial ecosystem therefore, the government should design industrial programmes to support women's advancement towards digitalization. The study of Sujarwo et al., 2022 has shown concern towards the digital backwardness among women and recommended that women should be encouraged to be digitally literate and able to access a wide range of learning resources.

The practices of adaptation and implementation of the newly introduced digital economy related technologies within their businesses by every women entrepreneur in rural India will not only change their growth in business performances but also move towards the new digital escalated business standards.

THE PRESENT STUDY

Taking the cue from other studies, the researcher also decided to study the extent of use of digital tools in running their enterprises by women entrepreneurs falling in the MSME sector.

i. Objectives of the Study

- To study the extent of use of digital tools in business operations by women entrepreneurs.
- To explore and describe how the digital era affects the development of Women Entrepreneurs in the MSME Sector.

ii. Hypothesis of the Study

To meet the objective of the study, the hypothesis that will be tested later by using T-test assumes unequal variance (**Pal et al., 2021**).

1. H₀1: There is no significant relationship between digital literacy and the success of women entrepreneurs.

H_a1: There is a significant relationship between digital literacy and the success of women entrepreneurs.

2. H₀2: There is no significant relationship between knowledge about digital financial application and the success of women entrepreneurs.

H_a2: There is a significant relationship between knowledge about digital financial application and the success of women entrepreneurs.

iii. Research Methodology

The research is based on descriptive and analytical studies of both primary and secondary data. Primary data has been obtained by using a self-developed questionnaire administered to the sample. The questionnaire contained both open and close-ended questions. Open-ended questions enable respondents to provide their in-depth responses regarding their survival and feel motivated to express themselves freely. On the other hand, close-ended questions allowed respondents to respond with limited options given in the questionnaire with a more systematic approach. Interviews were also conducted.

iv. Sample

The data has been collected from 95 women entrepreneurs. Majority of these enterprises were in the category of micro enterprises and a very small percentage were in the category of small and medium enterprises. These enterprises were located in different localities of the Union territory of Delhi & in the National Capital Region (NCR). These localities were Palam, Uttam Nagar and Dwarka. These women entered into entrepreneurship between the age of 30-60 years. This particular age group has been selected as, generally, women establish their enterprises between the age of 30 to 60 (**Shmailan et al., 2016**). At the time of COVID 19 pandemic, majority of women grappled with the problem of no/less knowledge of digital technology. Therefore, they were unable to utilize digital tools in the conduct of their business which had become necessary at that time. Sample was selected using a simple random sampling method. The businesses covered were from the variety of businesses areas such as food catering, textiles, parlour, boutiques, cosmetics shop, confectioneries shop, and garments. Among all the businesses the two businesses of parlour and boutique were found to be popular among women.

v. Methodology of Data Collection

The study uses primary data collected from women entrepreneurs through questionnaires developed by the researcher for this purpose. As the women could not give answers digitally, the researcher visited selected individual women entrepreneurs personally and got the questionnaire filled personally. Unstructured interviews were also conducted on the spot.

vi. Analysis of Data

Reliability of data

Before analysing the data, it was decided to test the reliability of data using Cronbach's Alpha. Cronbach's alpha is a statistical tool commonly adopted to assess the reliability of the data. The decision rule of the statistical tool of Cronbach's alpha is as under (Taber, 2017):

- i. if the value of alpha lies between (0.81-0.90), reliability is considered excellent,
- ii. when the value is between (0.71-0.80), reliability is considered good and acceptable,
- iii. when the value is between (0.61-0.70), reliability is considered acceptable, and
- iv. when the value is between (0.01-.60), reliability is considered to be very poor and not acceptable.

In the present study, the value of Cronbach alpha was computed to be 0.844 which indicated excellent reliability of the data as per (i) of the decision rule.

Validity of Data

Since the purpose of preparing the questionnaire was not to construct a standardised scale in the usual sense but to evolve a instrument which would meet purposes of the study, this researcher relied mainly on face validity and construct validity which were ensured through the pilot survey.

I. Background Information

Table 1, prepared from the questionnaire’s responses, shows the classification of women entrepreneurs covered in the sample based on the age and marital status. The table shows that the majority of women entrepreneurs (69.4%) were between the age group of 30-40.

Table 1: Demographic Details of the respondents

CATEGORIES	CLASSIFICATION	FREQUENCY	PERCENTAGE
AGE	30-40	66	69.4
	41-50	21	22.10
	51-60	6	6.31
	60 above	2	2.10
MARITAL STATUS	Married	83	87.3
	Unmarried	5	5.26
	Widow	5	5.26
	Separated	2	2.10

22.10% of women entrepreneurs were between the age group of 41-50, 6.31% between the age group of 51-60 and only 2.10% of women entrepreneurs covered in the sample were of 60 years or more. Among the total sample of the study, significant majority of women entrepreneurs (87.3%) were found to be married. Reasons of a higher number of married women having started their own enterprises, have been listed as under (as revealed by them during unstructured interviews):

- Through a family support system women manage and operate their venture.
- As the minimum marriageable age legally allowed in India to get married is 18 years, and the study covered women entrepreneurs of the age of between 30 to 60 years, it was obvious for the major part of the sample to be married.
- Families commence the businesses in the names of women members of the family to take the special benefits available to women entrepreneurs, but behind the veil, actually, the family manages and operates their businesses.

II. Operation: Mode wise Distribution of Respondents

Table 2 shows limited exposure of women entrepreneurs towards the digitized world as

- only three entrepreneurs were found to be using only digital modes
- out of total 37 respondents under the age of 31-40 venturing their business through physical mode only; and
- 26 by both physical and digital platforms.

Table 2 also indicates that with increasing age (i.e., from 41-50, 51-60, 60 and above), the conduct of business by the means of the hybrid platform is very less (2 in case of 41-50 and 2 in 51-60 age group). It becomes zero for the age group (60 and above).

So, the study concludes, the number of women managing their businesses by using a digital tool in the current digitalized world is very less and it was found to be decreasing with increasing age. During the interview, the researcher found the reasons behind the falling pattern of digital business with increasing age among women are: the lack of proficiency in utilizing the latest digital tools; and fear of

Table 2: Age wise and Mode wise Categorisation of Respondents

BASIC INFORMATION	RESPONDENTS			TOTAL
	PHYSICAL MODE	DIGITAL MODE	HYBRID MODE	
AGE				
31-40	37	3	26	66
41-50	19	-	2	21
51-60	4	-	2	06
Above 60	2	-	-	02
Total	62	3	30	95

fraudulent acts that are happening in the area of digitization. These reasons obstruct women entrepreneurs to explore the possibility of use of digitized tools in their ventures.

Results obtained from the data shown in table 2 indicate that the majority of women entrepreneurs could not cope with the latest and complex digital technology and they lack proficiency in utilizing these tools. Data represents the distribution in accordance with the business operation which reveals that 65.3% of women entrepreneurs still operate their business through physical marketing platforms. As 3.2% of women entrepreneurs operate through digitalized platforms and 31.6% venture by using both platforms. In the current technology-booming economy, only 3.2% of women entrepreneurs actively operate their business by digitized mode.

III. **Limited Utilisation of digital gadgets by women entrepreneurs for business purpose:** Data shown in table 3 indicates the % of respondents using mobile phones for business purposes: 52.6% of women entrepreneurs reported that they never used their mobile phones for any business purpose, 15.8% reported rare use, 20% often, and only 11.6% of women entrepreneurs utilize smartphones, to a large extent for business context in the current digitalized world. The respondents were asked to provide responses from 1 to 4, where '1 for never', '2 for rarely', '3 for often' and '4 for always'. The average use of digital gadgets was calculated to be 1.90 which again indicated not very high usage of these gadgets.

IV. **Absence of internet proficiency and e-readiness:** In the present digital economy, people must have internet knowledge for success especially in the field of business. However, according to the findings shown in table 4, only 7.4% respondents reported excellent knowledge, 33.7% good, 20% 'very poor and poor' knowledge and a total 41% of respondents reported 'excellent and good knowledge'. Therefore, it was found that a majority of them (60%) are not proficient enough in the digitized world.

Table 3: Limited use of digital gadgets

	Frequency	Percent
Never (1)	50	52.6
Rarely (2)	15	15.8
Often (3)	19	20.0
Always (4)	11	11.6
Total	95	100.0

For analysis purposes, values were assigned to different options on the scale. 1 for very poor, 2 denotes poor, 3 denotes fair, 4 for good and 5 for excellent. By using the statistical tool i.e., Average, we have calculated the

value of average to be (3.18) which is very close to the value assigned to 'fair' knowledge. Hence it was concluded women entrepreneurs do not have enough knowledge about the internet use for business purposes.

Table 4: Distribution of data regarding knowledge about the internet

	Frequency	Percent
Very poor (1)	9	9.5
Poor (2)	10	10.5
Fair (3)	37	38.9
Good (4)	32	33.7
Excellent (5)	7	7.4
Total	95	100.0

V. ***Extent of use of social media platforms to manage businesses:*** Table 5 shows the extent of use of social media platforms by women entrepreneurs to manage their business. It reveals that 54% of women entrepreneurs operate via Facebook, 19% via Instagram, 10.5% using LinkedIn and 13.7% of women entrepreneurs reported not using any platform. Personal interviews with the respondents revealed that women who reported using Facebook were also using Instagram and LinkedIn. That means only nearly 55% of respondents were using social media, that too mainly Facebook.

Table 5: Extent of use of social media platforms to manage businesses

	Frequency	Percent
Facebook (1)	54	56.8
Instagram (2)	18	19
Twitter (3)	0	0
LinkedIn (4)	10	10.5
Others (5)	0	0
None (6)	13	13.7
Total	95	100.0

By assigning, 1 for Facebook, 2 for Instagram, 3 for Twitter, 4 for LinkedIn, 5 for others and 6 for none, average value of the extent of use was calculated to be 3.22 that majorly covers Facebook, Instagram only. In terms of percentage also, the majority (75.8%) of women primarily relied on Facebook (56.8%) plus Instagram (19%).

VI. ***Finite utilization of digital financial application:*** Table 6 shows only 35.8% respondents reported being 'good to excellent' in digital financial transactions, 32.6% 'very poor plus poor knowledge' 31.6% fair knowledge only. Therefore, it can be said that women entrepreneurs do not have enough knowledge about digital financial applications.

Table 6: Knowledge about digital financial application

	Frequency	Percent
Very poor(1)	10	10.5
Poor(2)	21	22.1
Fair(3)	30	31.6
Good(4)	30	31.6
Excellent(5)	4	4.2
Total	95	100.0

By assigning ‘1 for very poor, 2 for poor, 3 for fair, 4 for good and 5 for excellent’, the average value was calculated to be 3.52 which also supports our conclusion based on percentages. That is ‘women entrepreneurs have only fair knowledge about digital financial applications in businesses.

VII. Relationship between digital literacy (in general) and the success of women entrepreneurs

Table 7: Relationship between digital literacy and the success of women entrepreneur

Statistical Tools	Digital literacy	Success of Women Entrepreneur
Mean	2.836	4.66
Variance	1.106	0.333

The researchers tried to examine the relationship between the entrepreneurial success of women and their knowledge about different digital platforms in general (not only business applications). Table 7 shows the values of means and variance for the two variables i.e., general digital literacy and success of women entrepreneurs. T test assuming unequal variance (Pal and Mishra 2021) was conducted to test H_0 , p value was calculated to be (0.014). Since it was less than 0.05, the null hypothesis was rejected. So, the study concluded a significant relationship between digital literacy and the success of women entrepreneurs.

VIII. Relationship between knowledge about digital financial application and the success of women entrepreneurs

Table 8. Relationship: Knowledge digital financial application & success

Statistical Tools	Knowledge about digital financial application	Success of Women Entrepreneur
Mean	2.03	3.75
Variance	0.86	0.25

We have found a significant relationship between the knowledge about digital financial application in business transactions and the success of women entrepreneurs since the p value was calculated to be (0.001) which was less than 0.05. It resulted in rejection of the null hypothesis and acceptance of the alternate hypothesis. Through table 8, we have found a positive relation between the two variables (Knowledge about digital financial applications and the success of women entrepreneurs).

III. FINDINGS SUMMARISED

The major findings of the study about women entrepreneurs are as under:

- A significant positive relationship has been found between the hypothetical variables of general digital literacy and specific digital financial applications and the success of women entrepreneurs.
- Majority (approx. 70%) women entrepreneurs start their business during the age of 30-40 years.
- Very few (only three out of 95) were found to be using only digital modes for business purposes. Further, all three of these were in the age group of 30-40 and digital mode was found to be decreasing with increasing age.
- Limited utilisation of smart phones for business purposes: Out of the total value of 10 assigned to the use of smartphones for business purposes, average value of usage was found to be 2 indicating low use.
- Very poor internet proficiency and e-readiness: Only 33% of the women studied were reported to be having good knowledge of Internet proficiency and e-readiness.
- Low use of social media platforms to manage businesses: Women entrepreneurs who reported using Facebook were also found to be using Instagram and LinkedIn that means nearly 50% of the women entrepreneurs, studied, reported using social media that too mainly Facebook.
- Low use of digital financial transactions: Out of the total population, 33.6% of women entrepreneurs have reportedly very poor and poor knowledge about digital financial applications.

LIMITATIONS OF THE STUDY

The limitations of the present study are-

- The study confined itself with Delhi NCR (Particularly Palam, Uttam Nagar and Dwarka) to collect the responses from women entrepreneurs. Therefore, the results of the study cannot be generalized.
- The study has just analysed the data on the bases of frequency and percentages. Some more and strong statistical tools like averages, standard deviations, significance of differences in means could have been used.
- Convenient random sampling method has been used which has its own limitations.
- If the sample size was larger, the result could have been much more representative of the population.

IV. CONCLUSIONS

1. Women Entrepreneurs and digitisation of operations play a key role in the growth and progress of the Indian Economy.
2. This study provides an explorative summary of the digital backwardness of Women entrepreneurs in the MSME Sector located in the National Capital Region, Delhi.
3. In the current digitalized economy, the rate of digital literacy among women entrepreneurs is extremely low.
4. Women entrepreneurs between the age group of 30 to 60, are hardly habitual in dealing with the latest techniques of digital skills in India.
5. Various reports of MSME and primary data of the study also revealed the low percentage of women entrepreneurs in ICT skills and usage of the Internet.
6. The literature has summarised the problems and challenges faced by women entrepreneurs in MSME Sector.
7. Digital Technology enhances the reliability and efficiency of business operations. So, the Government must formulate more policies for women entrepreneurs in the era of digitalization to enhance their digital skills and inculcate e-readiness behavior in the current world especially in the domain of financial digital literacy, an e-banking platform.

In sum, we conclude that Digital Technology is the path of transformation from traditional women entrepreneurs into modernized digital entrepreneurs.

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Dr. Savita Rastogi, et. al. “Enabling Digital Inclusive Behaviour among Women Entrepreneurs in Micro, Small and Medium Enterprises of India.” *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 27(10), 2022, pp. 26-36.