

An assessment of gender differences in the operational efficiency of businesses run by persons with disabilities

An assessment
of gender
differences

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Abstract

Purpose – Progress accomplished by the disabled entrepreneurs on the fronts of profits, turnover, return on investment (ROI), employees engaged, capital employed and diversification shall be studied and prevalence of gender differences in such progress shall be assessed.

Design/methodology/approach – The proposed research is descriptive in nature, based on primary data, collected by personally administering a well-structured interview schedule to 201 disabled entrepreneurs in Puducherry selected using a snowball sampling technique. Data collected has been analyzed using SPSS 21, using the tools of mean, one-way ANOVA, factorial ANOVA and chi-square (χ^2) analysis.

Findings – The prevalence rate of entrepreneurship among female disabled is very low. Female disabled entrepreneurs manage higher turnover than their male counterparts and manage insignificantly higher progress in terms of capital employed, while male disabled entrepreneurs have managed insignificantly higher progress in terms of profits, diversification and ROI. Illiterate disabled, both men and women, struggle to manage decent turnover while the better educated manage better turnover.

Research limitations/implications – This paper has highlighted the low prevalence rate of entrepreneurship among women disabled though the fewer women disabled entrepreneurs are performing better than their male counterparts in operating their business.

Originality/value – The findings of this paper may be taken as base for formulation of effective government policies in empowering disabled persons in general and women disabled in particular.

Keywords Entrepreneurship, Economic empowerment, Factorial ANOVA, Persons with disabilities, Turnover

Paper type Research paper

Introduction

The Revised Persons with Disabilities (PWDs) (equal opportunities, protection of rights and full participation) Act of 2011, categorizes disabled persons as those suffering from locomotor disability, autism spectrum disorder, blindness, cerebral palsy, deafness and speech impaired, hemophilia, thalassemia, chronic neurological conditions, intellectual disability, specific learning disabilities, speech and learning disabilities, multiple



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sclerosis, multiple dystrophy and cured from leprosy. WHO has taken a more comprehensive outlook about the term to include physical impairment or deformity of body limiting its functioning and complicating its capacity to execute its duties and chores, constraining the person from participating in routine affairs of life. Hence, disability is a subjective term, symbolizing an interface between characteristics of physique of an individual and the environment (s)he is a part of (source: www.who.int). If the term is perceived as a physical phenomenon, it pertains to person's anatomy while it takes a social dimension if disabled persons are denied inclusion leading to them being disadvantaged on social, political, cultural and economic fronts. Owing to the difference in interpretation of the term of disability, the perspective with which disability has been viewed has also changed drastically to take social, ethical, human rights and medical dimensions. Such evolution has led to explanation of the term under two models of impairment perspective or medical model and social and human rights model (Newell, 1998). A clear understanding of different perspectives of disability contributes enormously to the formulation and designing of suitable plans and policies for rehabilitating PWDs through employment generation (Nagi, 1965).

The Physical Disability Council of Australia has stressed the point that PWDs suffer from impairment caused by a barricade in society, which is external and beyond their control. These mental blocks in society result in exclusion of PWDs in the mainstream, pushing them to a disadvantaged position (submission by Physical Disability Council of Australia to Productivity Commission, 2004). The social model of disability is based on this facet. However, there is another approach to disability, the ecological approach, which attributes disability to the interaction of the disabled with the environment.

Disability in India

India's census report of 2011 collected a lot of useful data about the prevalence of disabled in India. Male disabled outsmart female disabled while majority of PWDs reside in rural areas. The distribution of disabled persons among gender and area of residence is portrayed in [Table I](#).

[Table I](#), depicting the 2011 census of India results, reveal that the total number of PWDs in the country as 26,810,557, with 14,986,202 male disabled (around 55 per cent) and 11,824,355 disabled women (roughly 45 per cent). The proportion of PWDs residing in rural areas outsmarts the proportion dwelling in urban areas. In total, 18,631,921 PWDs reside in rural areas while 8,178,636 PWDs reside in urban areas. In total, 10,408,168 male disabled persons and 8,223,753 female disabled dwell in rural areas while 4,578,034 male disabled and 3,600,602 female disabled dwell in urban areas of the country. Hence, a significant proportion of Indian PWDs dwells in rural areas.

[Table II](#) discloses that 20.3 per cent of PWDs suffer from movement related disability while 18.8 and 18.9 per cent have vision and hearing related disabilities, respectively. In

Table I.
Distribution of
PWDs in India
among rural and
urban areas

Residents	Total	Men	Women
Total	26,810,557	14,986,202	11,824,355
Rural	18,631,921	10,408,168	8,223,753
Urban	8,178,636	4,578,034	3,600,602

Source: Census Report of India, 2011

total, 7.5 per cent of PWDs have speech disability while 7.9 per cent have multiple disabilities. In total, 8.3 per cent have mind-related disability while 18.4 per cent have other types of disabilities.

Rehabilitation of persons with disabilities

Bringing PWDs at par with the rest of society is a commitment enshrined in the constitution. Continuous efforts have been made in the direction of ensuring equal rights, access to benefits and resources and empowerment of the disabled, thereby enabling them to develop their potential and capacities as agents of social change, through the process of planned development. Rehabilitation measures for disabled take three forms of physical rehabilitation, educational rehabilitation and economic rehabilitation. Physical rehabilitation consists of timely diagnosis and prevention of disability through effective psychotherapy, medical treatment through medical practitioners and rehabilitation professionals and providing aids and equipment for minimizing the impact of disability. Educational rehabilitation consists of providing skill-based vocational education to disabled to boost their income generation capacity while economic rehabilitation consists of measures to provide employment and self-employment opportunities for PWDs, enabling them to lead a dignified living. Self-employment shall be a viable alternative, especially with initiatives such as the establishment of the National Handicapped Finance and Development Corporation and year marking 3 per cent of all poverty alleviation schemes to benefit PWDs.

Review of literature

Entrepreneurship plays a significant role in the inclusive economic growth of any nation through industrialization, leading to it being referred to as the fourth factor of production. The rapid growth of entrepreneurship has resulted in drastic growth in the global economy. Innovation is indispensable for the economic prosperity of any nation (Spengler, 1960) while strong link exists between cultural characteristics and entrepreneurship intensity (Global Entrepreneurship Monitor Study, 2000). Higher rate of opportunity entrepreneurship prevails in economically developed nations while necessity entrepreneurship prevalence diminishes with higher economic growth (Global Entrepreneurship Monitor Study, 2001). India stands second in entrepreneurial activity index of the 37 countries surveyed, next to Thailand (Global Entrepreneurship Monitor, 2002), which is a positive sign for India.

Van der Sluis (2004) found the prevalence of significantly positive effects of education on performance of entrepreneurs and their profits. However, Bhatia (1974) has established the

Disability	Total	Men	Women
Visual	18.8	17.6	20.2
Hearing	18.9	17.9	20.2
Speech	7.5	7.5	7.4
Movement	20.3	22.5	17.5
Mental retardation	5.6	5.8	5.4
Mental illness	2.7	2.8	2.6
Others	18.4	18.2	18.6
Multiple disability	7.9	7.8	8.1

Table II.
India's PWDs
population-based on
nature of disability

Source: Census Report of India, 2011

absence of any relationship between growth accomplished by entrepreneurship ventures and the socio-economic background of the entrepreneurs. Entrepreneurship venture needs strong support to succeed and magnitude of such support needed depends on the level of future intentions of entrepreneurs (Heibrunn, 2007). However, some communities of people may succeed without any formal training because of the inherent entrepreneurship competencies such as the Punjabis while others need extensive training in entrepreneurship to succeed (the Management Development Institute, 1983). Desai (2005) propagated that the development agencies and government should establish a conducive environment for development of entrepreneurship.

David Amirtha Rajan and Gnana Soundari (2007) identified sanguinity, buoyancy, open to critics and suggestions, achievement motive, self-reliance, leadership qualities and inventiveness as important qualities of successful entrepreneurs. Murugesan and Sankaran (2006) are of the view that micro, small, medium and large scale entrepreneurs perform better with experience while technical qualifications do not matter in boosting performance. Hephzibah (2006) found that older entrepreneurs more than 50 years of age, first generation entrepreneurs, male entrepreneurs with greater individual and entrepreneurial core and female entrepreneurs with greater economic core were more successful in their business venture. Aravazhi (2004) advocated that information technology shall play a vital role in boosting the efficiency of small scale enterprises while Heggade Odeyar (1981) advocated that involving women in cooperative movement and boosting their skill set through education and formulation of exclusive policy shall boost women entrepreneurship. Rao (2004) justified the use of self-help group (SHG) movement in enhancing standard of living of women through increased income and savings. Amuthalakshmi and Kamalanabhan (2006) exposed a surprising scenario wherein women entrepreneurs were better empowered than women employees regarding economic independence, skill level and risk taking competence. However, Basargekar (2007) exposed an unfortunate scenario wherein a mere 10 per cent of enterprises are owned by women entrepreneurs who prefer services and trade related business rather than manufacturing. Nachiappan and Santhi (2007) unearthed that the younger women entrepreneurs were performing well because of confidence, willpower, hard work and motivation while health-related problems and finance deter their entrepreneurship endeavors. They advocated that utilization of technology in business shall further improve efficiency of their business.

Studies on various issues related to disabled

The economic development of any nation shall be complete only if it is inclusive, covering all sections, especially PWDs.

Gatjens (2004) depicts the dismal condition of PWDs in Latin America and the Caribbean, where they are refused even the fundamental human rights while Curtis (2004) portrays the excessive marginalization of PWDs in Georgia. O' Corbett (2000) has exposed an agonizing scenario wherein disabled women are totally neglected in the African countries of Uganda and South Africa, Asian countries of India, Japan and New Zealand, European countries of UK, Russia and Germany and the South American countries of Nicaragua and Brazil because of insignificant support offered to them from both the women and disability movements. Rao (2004) has also highlighted the dismal plight of disabled women in India because of various factors and propagates that encouragement of self-employment alone can empower them. A UN report (2002) has highlighted that PWDs being labeled negatively lead to prejudiced social programs, which again result in reinforcement and validation of adverse attitudes. Oliver (1998) has indicated that PWDs are discriminated by society's institutionalized customs like marriages rather than individualized attitudes.

[Gathecha \(2009\)](#) points out emotional and psychological problems encountered by PWDs and she expresses her anguish over the fact that disabled women find it tough to find a life partner. [Njogu \(2009\)](#) has placed on record, his disappointment with Kenyan media for portraying PWDs as pitiable, which is rather disgraceful.

[Brevetti \(2007\)](#) points out that despite the government reaping benefit to the tune of six times the amount invested on the rehabilitation of PWDs, agencies functioning for the cause of PWDs are allotted funds, which can cater to the needs of a mere 4 per cent of the disabled population in California. [Dube \(2005\)](#) points out that rehabilitation initiatives for PWDs in Uganda seem to be ineffective because of non-availability of funds, ineffective implementation of welfare legislation and exclusion of PWDs in drafting framework for rehabilitation of disabled. [Parker \(2009\)](#) points out that lack of access to technology, insufficient training and counseling and poor involvement from senior officials acts as serious impediments for PWDs undertaking entrepreneurship. [Boylan \(2002\)](#) has added insufficient seed capital, discriminatory treatment of banks toward PWDs, lack of information about availability of financial assistance for disabled undertaking entrepreneurship, threat of regular disability pension to be foregone by the disabled upon establishing business venture, insufficient incentives for motivating disabled to start their own business, lack of support from business advisers, ineffective knowledge transmission because of non-availability of desired information in format suiting disabled such as Braille, ineffective transport facilities to cater to distinct needs of disabled, training programs not catering to individual needs and training provided in top floors without proper lift facilities as impediments coming on the way of disabled aspiring to start their own business in UK. [Kulkhanchit \(2002\)](#) reiterates the same point that the biggest problem for PWDs is inaccessible natural and man-made infrastructure while [Seeley \(2001\)](#) has exposed a shocking point that adverse attitudes of families, society and disability facilitators serve as greatest barriers for PWDs.

[Philip O'Keefe \(2007\)](#) highlights that not much headway has been achieved in rehabilitating disabled in India because of the government not fulfilling its obligations and PWDs not actively participating in such a policy framework. [Bansal \(2006\)](#) has stressed that though legislative support for rehabilitating disabled is abundant in India, effective execution mechanism of these legislations alone could yield the desired fruit of empowering PWDs. National Center for Promotion of Employment for Disabled People survey report has exposed a dismal scenario of both the public and private sectors in India have less than 1 per cent of their labor force as disabled despite 3 per cent jobs being reserved for PWDs. [Krishna Vatsa \(2003\)](#) has loaded the infrastructure development in India because of five-year plans resulting in PWDs gaining significant rehabilitation. However, [Roy \(2010\)](#) has put forth his argument that India's disability rehabilitation schemes have not truly reached the PWDs. [Rubina Lal \(2003\)](#) has suggested placing rehabilitation of PWDs in India under the Ministry of Human Resources rather than the Ministry for Social Justice and Empowerment.

[Pilar \(2004\)](#) and [Samaniego \(2006\)](#) have suggested that concrete initiatives from social agencies such as NGOs, offering training to disabled, as well as their family members, effective social planning and including their representatives in legislature, parliament and administrative positions can contribute to the empowerment of PWDs. [Baura \(2004\)](#) is of the opinion that treatment with parity and equity, social and economic inclusion, establishing an overall environment with ease of access and inculcating awareness about rights shall go a long way in empowering PWDs while [Qatarguest \(2007\)](#) points out the admirable service provided by British Computer Society enabling PWDs acquire necessary skills.

[Federation of Small Businesses \(2008\)](#) has exposed that 16 per cent of disabled entrepreneurs have been pushed to entrepreneurship because of the inability to win paid

employment while this push percentage is 10 per cent for the abled population. Griffin (2000) suggests unemployed American disabled to get prepared for entrepreneurship while Caron (2009) talks high about the success rate of home-based US enterprises run by PWDs using opportunities made available in the US for disabled entrepreneurs. News item, "Independence Entrepreneurship: A Flexible Route to Economic Independence for People with disabilities," retrieved from www.abilitiesfund.org (2003), talks about the benefits, which shall accrue to PWDs choosing entrepreneurship as their career and also the hurdles they may encounter while trying to establish their own business. The article contains success stories of disabled entrepreneurs and also the support available to US PWDs aspiring to start their own business. A similar news item entitled, "Bad attitudes hold back disabled entrepreneurs," retrieved from www.smallbizpod.co.uk (2009), exposed that PWDs do not consider their disability as a constraint for undertaking entrepreneurship. However, they are of the opinion that negative attitudes of prospective investors and customers, complexities associated with surmounting such pessimistic attitudes and unavailability of PWDs as business role models are the major hindrances for PWDs trying to undertake entrepreneurship.

Campos (2005) has revealed that social, cultural and physical barriers enhance chances of PWDs being unemployed by five times than that of their abled counterparts in Philippines and these can be trounced by providing vocational training and strengthening community-based rehabilitation mechanism. Owing to scarcity of opportunities for paid employment, entrepreneurship shall be the most viable option for PWDs to lead a dignified life. Aldred (1993) has expressed an identical opinion that PWDs can involve themselves in the nation-building process by working for themselves rather than working for some others and gain economic reliance. Albert and Harrison (2006) suggested direct inclusion of PWDs in all research studies regarding disabled rehabilitation.

Aldred (1993) exposed a surprising scenario wherein support for entrepreneurship endeavors of PWDs is better in lesser developed nations. Roni (2009) has hinted that lack of sufficient financial, human and social capital is the main hindrance for disabled entrepreneurs in the UK. However, Williams (2000) has highlighted an optimistic scenario in the US with effective support mechanism for disabled entrepreneurs enabling them to have their own business. Maines (2009) has highlighted a sensational achievement of a US lawyer, Mr. Peter Schoemann, in establishing an exclusive Chamber of Commerce for PWDs.

Potentials of disabled to lead an independent and dignified life are restricted not only by their disability but also by exterior environmental barriers such as attitudinal, social and environmental (Barnes and Mercer, 1996; Gerald and McCormack, 2002).

Careful scrutiny of above-cited literature reveals that plight of disabled in general is quite poor while that of female disabled is dismal. Educational, social and economic empowerment of PWDs is indispensable for uplifting the lives of disabled and this article shall try to scrutinize prevalence of gender differences among disabled entrepreneurs in the performance of their business.

Objectives of the study

- To take a look at the disabled population in India as per the 2011 census report;
- to highlight the demographic characteristics of those PWDs surveyed;
- to assess whether gender differences exist in the progress accomplished by disabled entrepreneurs in their entrepreneurship venture;

- to check whether other socio-economic variables contribute to gender differences among disabled entrepreneurs in the progress of their entrepreneurship venture; and
- to see if any association exists between nature of business carried on by the disabled entrepreneurs and the progress accomplished by them in their entrepreneurship.

Methodology

The proposed research is descriptive in nature, based on primary data collected by personally administering a well-structured interview schedule to 201 disabled entrepreneurs of which 175 were men and 26 were women. The sample frame for the study is the Union Territory of Puducherry consisting of two districts of Puducherry and Karaikal while the sample population is disabled entrepreneurs in the Union Territory. The sample size for the study is 201. The snowball sampling technique has been used to select respondents for the study. The schedule endeavors to collect data pertinent to demographic profile of disabled entrepreneurs surveyed and their opinion about progress accomplished by them in their business on various grounds such as profits, turnover, capital employed, return on investment (ROI), number of employees, diversification and branch expansion. Data collected have been suitably represented in tabular form and analyzed using statistical software of statistical package for social science (SPSS 21), using the statistical tools of mean, one-way ANOVA, factorial ANOVA and chi-square (χ^2) analysis.

Data analysis

It can be inferred from [Table III](#) that 175 male disabled entrepreneurs and 26 female disabled entrepreneurs have been part of the study; 3 per cent of the disabled entrepreneurs (6) are earning less than Rs. 2,000 as monthly profits from their entrepreneurship, while 12.4 per cent (25) are earning Rs. 2,000-4,000, 23.9 per cent (48) are earning Rs. 4,000-6,000 and 60.7 per cent (122) are earning more than Rs. 6,000 per month; 19.9 per cent (40) are engaged in business for a period of less than 2 years, 32.8 per cent (66) are in business for 2-5 years, 30.3 per cent (61) for 5-10 years while 15.9 per cent (32) are in business for 10-15 years and a couple of them are in business for a period of more than 15 years; 5.0 per cent (10) are illiterates, 17.9 per cent (36) are educated up to HSE, 27.9 per cent (56) are graduates 41.8 per cent (84) are post-graduates and 7.5 per cent (15) are diploma-holders; 73.6 per cent of the disabled entrepreneurs (148) are using the sole proprietorship form of business organization, 16.4 per cent (33) are using partnership form, 5 per cent (10) are using company form and 5 per cent (10) are using the SHG model of organization; 71.1 per cent (143) are first generation entrepreneurs while the rest 28.9 per cent (58) are not first generation entrepreneurs.

Progress of disabled in their entrepreneurship venture

The progress achieved by the disabled in their entrepreneurship venture has been assessed in terms of growth in profits, capital employed, ROI, employees, turnover achieved and diversification. The entrepreneurs have been asked to indicate their progress in these aspects in a Likert's five-point scale, ranging from 1 for very bad and 5 for very good, and the results have been portrayed in [Table IV](#).

It can be inferred from [Table IV](#) that the disabled have indicated good progress in their entrepreneurship venture in terms of turnover, followed by profits, capital employed and ROI, while their progress in terms of employees and diversification has been poor.

Issue	Male F	Female F	Total F
<i>Monthly profits</i>			
<2,000	4	2	6
2000-4,000	25	0	25
4,000-6,000	41	7	48
>6,000	105	17	122
Total	175	26	201
<i>Organization age</i>			
<2	31	9	40
5-Feb	54	12	66
10-May	57	4	61
15-Oct	31	1	32
>15	2	0	2
<i>Education</i>			
Illiterate	8	2	10
<HSE	24	12	36
Degree	49	7	56
PG	79	5	84
<i>Organization status</i>			
Diploma	15	0	15
Sole proprietorship	132	16	148
Partnership	26	7	33
Company	7	3	10
SHG	10	0	10
<i>Generation</i>			
First	128	15	143
Others	47	11	58

Table III.
Demographic profile
of respondents

Factor	Very bad	Bad	Average	Good	Very good	Total	Mean
Profits	13	31	70	61	26	201	3.2786
Capital employed	18	29	77	60	17	201	3.1443
ROI	22	36	56	66	21	201	3.1393
Turnover	20	31	47	71	32	201	3.3184
Employees	31	42	63	51	14	201	2.8756
Diversification	51	76	28	26	20	201	2.4428

Table IV.
Growth potential for
disabled in
entrepreneurship

Association between growth in profits and nature of business

The association between the nature of business and progress achieved by the disabled entrepreneurs in their entrepreneurship venture in respect of profits has been assessed using χ^2 analysis and the results have been portrayed in [Table V](#).

It can be inferred from [Table V](#) that growth in profits has been average followed by good progress in the case of all types of businesses. The p -value of more than 0.05 suggests that there is no association between the nature of business and the growth achieved in terms of profits from entrepreneurship for the disabled.

Association between nature of business and progress in capital employed

The association between the nature of business adopted by disabled entrepreneurs and growth in capital employed by them through their entrepreneurship venture has been assessed using χ^2 analysis and the results have been portrayed in Table VI.

It can be inferred from Table VI that disabled entrepreneurs engaged in service have witnessed good growth in capital employed while entrepreneurs engaged in all other businesses have witnessed an average growth followed by good progress. The p -value less than 0.05 suggest that there is a significant association between the nature of business disabled employees are engaged in and their progress in terms of capital employed in the business.

Association between return on investment and business

The prevalence of association between growth in ROI achieved by the disabled through their entrepreneurship venture and nature of business in which they are engaged has been assessed using χ^2 analysis and the results has been displayed in Table VII.

It can be observed from Table VII that disabled entrepreneurs engaged in contractual, resale and service businesses have managed good growth in ROI followed by an average

Profits	Very bad	Bad	Average	Good	Very good	Total	p
<i>Business nature</i>							
Manufacturing	5	14	28	20	11	78	0.345
Contractual	4	6	9	10	1	30	
Resale	4	11	25	26	12	78	
Service	0	0	8	5	2	15	
Total	13	31	70	61	26	201	

Table V.
Association between
nature of business
and profits

Capital employed	Very bad	Bad	Average	Good	Very good	Total	p
<i>Business nature</i>							
Manufacturing	4	14	29	25	6	78	0.011
Contractual	1	4	17	4	4	30	
Resale	8	10	30	24	6	78	
Service	5	1	1	7	1	15	
Total	18	29	77	60	17	201	

Table VI.
Association between
capital employed and
business

ROI	Very bad	Bad	Average	Good	Very good	Total	p
<i>Business nature</i>							
Manufacturing	5	14	25	20	14	78	0.024
Contractual	3	4	7	16	0	30	
Resale	11	13	23	24	7	78	
Service	3	5	1	6	0	15	
Total	22	36	56	66	21	201	

Table VII.
Association between
ROI achieved and
business nature

growth. However, those engaged in manufacturing businesses have managed average growth followed by good progress. The p -value of less than 0.05 suggests that there is a significant association between nature of business in which the disabled entrepreneurs are engaged and progress accomplished by them in their business in terms of ROI.

Nature of business and progress in turnover

The prevalence of association between the growth accomplished by the disabled entrepreneurs in turnover and the nature of business in which they are engaged has been explored using χ^2 analysis and the results has been depicted in Table VIII.

Table VIII depicts that disabled entrepreneurs engaged in contractual business have witnessed very good progress in turnover followed by good progress. However, those disabled entrepreneurs engaged in resale, service and manufacturing businesses have witnessed good progress in turnover followed by average growth. The p -value suggests that there is a significant association between the nature of business and growth accomplished in turnover at 10 per cent level.

Association between nature of business and employees

The nature of association prevalent between the nature of business and progress managed by disabled entrepreneurs in respect of employees engaged by them has been explored using χ^2 analysis and the results have been displayed in Table IX.

Table IX displays the association between growth achieved by disabled entrepreneurs in terms of employees employed and nature of business according to which disabled entrepreneurs engaged in Service have witnessed a bad growth in employees engaged followed by average growth while those engaged in resale business have managed an average growth in employees engaged followed by good and bad growth. However, those disabled engaged in contractual business have managed good and bad progress in employees engaged while those engaged in manufacturing have managed an average growth followed by good growth. The p -value of less than 0.05 suggests that there is a

Table VIII.
Association between
progress in turnover
and nature of
business

Turnover	Very bad	Bad	Average	Good	Very good	Total	p
<i>Nature of business</i>							
Manufacturing	12	13	15	25	13	78	0.066
Contractual	1	5	5	9	10	30	
Resale	4	11	22	32	9	78	
Service	3	2	5	5	0	15	
Total	20	31	47	71	32	201	

Table IX.
Association between
nature of business
and progress in
employees engaged

Employees employed	Very bad	Bad	Average	Good	Very good	Total	p
<i>Business nature</i>							
Manufacturing	9	11	26	23	9	78	0.034
Contractual	7	9	4	9	1	30	
Resale	15	16	29	16	2	78	
Service	0	6	4	3	2	15	
Total	31	42	63	51	14	201	

significant association between the nature of business and progress managed by disabled entrepreneurs in terms of employees engaged in their business.

Association between nature of business and diversification

Association prevalent between the progress achieved by disabled entrepreneurs regarding diversification in their business and the nature of business has been explored using χ^2 analysis and the results have been depicted in Table X.

Table X portrays that disabled entrepreneurs engaged in the service business have witnessed bad progress in diversification followed by very bad, average and good progress. However, those entrepreneurs engaged in other businesses have managed bad progress in diversification followed by very bad progress. The *p*-value of less than 0.05 suggests that significant association prevails between the nature of business in which disabled entrepreneurs are engaged in and their progress in business in terms of diversification.

Relationship between gender and performance criteria of disabled entrepreneurs

The relationship between gender and different performance criteria of the disabled entrepreneurs consisting of profits, capital employed, ROI, turnover, diversification, number of employees employed and branch expansion has been explored using ANOVA and the results have been displayed in Table XI.

Table XI highlights that there is a significant difference in turnover managed by female and male disabled entrepreneurs. The mean values signify that female disabled entrepreneurs manage higher turnover than their male counterparts. The table also suggests that female disabled entrepreneurs manage insignificant higher progress in terms of capital employed while male disabled entrepreneurs have managed insignificantly higher progress in terms of profits, diversification and ROI.

Diversification	Very bad	Bad	Average	Good	Very good	Total	<i>p</i>
<i>Business nature</i>							
Manufacturing	18	20	13	16	11	78	0.003
Contractual	9	10	4	1	6	30	
Resale	21	42	8	6	1	78	
Service	3	4	3	3	2	15	
Total	51	76	28	26	20	201	

Table X.
Association between diversification and business nature

Performance criteria	<i>F</i>	<i>p</i>	Men	Mean Women	Overall
Profits	0.399	0.528	3.2971	3.1538	3.2786
Capital employed	2.697	0.102	3.0971	3.4615	3.1443
ROI	2.449	0.119	3.1886	2.8077	3.1393
Turnover	4.260	0.040	3.2514	3.7692	3.3184
No. of employees	0.019	0.890	2.8800	2.8462	2.8756
Branch expansion	0.000	0.988	2.2343	2.2308	2.2338
Diversification	0.555	0.457	2.4686	2.2692	2.4428

Table XI.
Relationship between performance criteria of disabled entrepreneurs and gender

Relationship between turnover of disabled entrepreneurs and their gender and length of business

The combo relationship between turnover of disabled entrepreneurs and their gender and length of business has been explored using factorial ANOVA and the results have been depicted in [Table XII](#).

It can be inferred from [Table XII](#) that male disabled entrepreneurs in business for a very long period of more than 15 years are managing very high turnover followed by those in business for less than 2 years and 2-5 years while those in business for medium term of 5-10 years and 10-15 years have managed lower turnover when compared with their other counterparts. On the contrary, female disabled entrepreneurs in business for medium term of 2-5 years and 5-10 years have managed higher turnover while those in business for short period of less than 2 years have managed moderate turnover and surprisingly those in business for long period of 10-15 years have indicated very low turnover. Male disabled entrepreneurs in business for a very long period of more than 15 years are managing high turnover. Similarly, male disabled entrepreneurs in business for less than 2 years and 10-15 years are able to manage higher turnover in their business when compared with their female counterparts. On the contrary, female disabled entrepreneurs running business for a period of 2-5 years and 5-10 years are managing higher turnover than their male counterparts.

Combo relationship between turnover of disabled entrepreneurs and their gender and generation of entrepreneurship

The combo relationship between turnover managed by the disabled entrepreneurs in their business and their gender and generation of entrepreneurship has been explored using factorial ANOVA and the results have been depicted in [Table XIII](#).

Table XII.
Factorial ANOVA
(gender, organization
age and turnover)

Sex	Organization age	Mean	F	p
Male	Less than 2 years	3.6129	3.166	0.026
	2-5	3.3333		
	5-10	3.1053		
	10-15	2.9677		
	More than 15 Years	4.0000		
	Total	3.2514		
Female	Less than 2 years	3.1111		
	2-5	4.1667		
	5-10	4.5000		
	10-15	2.0000		
	Total	3.7692		

Table XIII.
Factorial ANOVA
(gender, generation
of entrepreneurship
and turnover)

Sex	First gen	Mean	F	p
Male	Yes	3.3203	6.365	0.012
	No	3.0638		
	Total	3.2514		
Female	Yes	3.3333		
	No	4.3636		
	Total	3.7692		

It can be inferred from [Table XIII](#) that male disabled first generation entrepreneurs manage better turnover from their business when compared with those having some background about entrepreneurship. On the contrary, female disabled entrepreneurs belonging to first generation are managing lesser turnover when compared with those female disabled entrepreneurs having some background pertaining to entrepreneurship. Progress in turnover managed by both male and female disabled entrepreneurs belonging to first generation is almost identical while turnover accomplished by female disabled entrepreneurs without any backing of entrepreneurship far exceeds the turnover managed by their male counterparts.

Relationship between turnover of disabled entrepreneurs and their gender and education

The combo relationship between turnover of disabled entrepreneurs and their gender and education has been explored using factorial ANOVA and the results have been depicted in [Table XIV](#).

It can be inferred from [Table XIV](#) that illiterate, diploma-holding and post-graduate male disabled entrepreneurs are struggling to boost their turnover while their graduate, under-graduate counterparts are managing good turnover. Similarly, illiterate and graduate female disabled entrepreneurs are struggling to enhance their turnover while their under-graduate and post-graduate counterparts are able to achieve higher turnover. The table further suggests that illiterate disabled entrepreneurs are struggling to boost their turnover while under-graduate disabled entrepreneurs are able to boost their turnover, irrespective of gender differences in both cases. The table further projects that male graduate disabled entrepreneurs are able to accomplish higher turnover than their female counterparts while post-graduate female disabled entrepreneurs are managing higher turnover than their male counterparts.

Relationship between turnover of disabled entrepreneurs and their gender and organization status

The combo relationship between turnover of disabled entrepreneurs and their gender and organization status has been explored using factorial ANOVA and the results have been depicted in [Table XV](#).

It can be inferred from [Table XV](#) that male disabled entrepreneurs using the SHG model of organization, partnership and company form of organization are managing lesser turnover when compared with male disabled entrepreneurs using the sole proprietorship form of organization. The scenario is exactly the difference in the case of female disabled

Sex	Education	Mean	F	p
Male	Illiterate	2.8750	2.233	0.086
	Less than HSE	3.8333		
	Degree	3.5714		
	Post-graduation	3.0253		
	Diploma	2.6667		
	Total	3.2514		
Female	Illiterate	3.0000		
	Less than HSE	4.0000		
	Degree	3.1429		
	Post-graduation	4.4000		
	Total	3.7692		

Table XIV.
Factorial ANOVA
(gender, education
and turnover)

entrepreneurs wherein those using partnership and company forms of organization are able to manage higher turnover than those using sole proprietorship form. The table further projects that disabled entrepreneurs using sole proprietorship have similar turnover while female disabled entrepreneurs using both the partnership and company forms of organization outsmart their male counterparts in managing higher turnover.

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Inferences from the study

First and foremost, the study has exposed the weak prevalence rate of entrepreneurship among disabled women as a mere 26 of the 201 disabled entrepreneurs surveyed happen to be women. This depicts the sorry state of affairs in India wherein environmental and attitudinal barriers are disabling PWDs from discharging routine activities and limiting their mobility. This condition is more profound among women with disabilities. They are denied access to training institutions and basic education, pushing them to take shelter in their homes under the protection of their guardians. This has been reflected in this study through the weak prevalence rate of entrepreneurship among women with disabilities.

However, this study has revealed that disabled entrepreneurs are performing reasonably well given the limitations they are subject to. The majority of them are earning more than Rs. 6,000 per month, which is pretty decent taking into consideration the Indian scenario. The study has also exposed that vast majority of disabled entrepreneurs are first generation entrepreneurs without any background in entrepreneurship, which may suggest that they have resorted to entrepreneurship for their living because of absence of other career options.

The study has revealed that disabled entrepreneurs have witnessed good progress in their entrepreneurship venture in terms of turnover, followed by profits, capital employed and ROI. However, their progress on employees engaged and diversification of business has been quite low. This suggests that disabled entrepreneurs operate in a restrictive magnitude with limited scope for expansion. Again, attitudinal and environmental barriers might be the culprit for limiting the disabled from using their capacity to the fullest extent.

The study has further indicated that the majority of disabled entrepreneurs are engaged in resale and manufacturing businesses. However, they are operating their business on small scale with average progress. If the government offers them more assistive packages enabling them to diversify their business, their lives will also prosper.

This study has exposed a positive picture wherein women disabled entrepreneurs outsmart their male counterparts as far as turnover managed by them in their business. Women entrepreneurs with less experience are not able to manage good turnover. This implies that the learning period for women disabled seems to be little long. Hence, opportunities should be granted for them to sustain their business for a reasonably long period so that they can prove their ability. The government may consider continuing with

Table XV.
Factorial ANOVA
(gender, organization
status and turnover)

Sex	Organizational status	Mean	F	p
Male	Sole proprietorship	3.4242	4.218	0.016
	Partnership	2.6923		
	Company	3.0000		
	SHG	2.6000		
	Total	3.2514		
Female	Sole proprietorship	3.4375		
	Partnership	4.2857		
	Company	4.3333		
	Total	3.7692		

some amount of disability pension to disabled engaged in entrepreneurship for a period of five years to give them some cushion to absorb their entrepreneurship-related shocks.

Again, female first generation disabled entrepreneurs are not able to match the progress accomplished by their counterparts with some business background. This reiterates the importance of giving entrepreneurial skill-based training to disabled in general and women in particular so that they can have some scientific backing before starting their business venture.

Furthermore, the study has exposed the universally accepted fact that uneducated people have lesser efficiency as illiterate disabled, men and women both, struggle to manage decent turnover while the post-graduate female disabled entrepreneurs are able to accomplish excellent turnover. Hence, the government must implement strong measures to inculcate basic education to all disabled in rural and urban areas. Education alone can install confidence and efficiency among disabled, which will help them to tide over the negative stereotype attitude of society about capacity of disabled.

Another interesting observation from the study is that female disabled entrepreneurs are performing better as an organization rather than as individuals as sole proprietors are managing lesser turnover. This again reiterates the importance of the disabled forming social alliances and acting together in a cooperative manner so that their individual potentials may be properly channelized and used for their self-betterment.

Conclusion

Economic empowerment of PWDs through self or paid employment will contribute significantly to providing the feeling of confidence and inclusion in not only their family network but also amidst the society at large. This will provide them with opportunities to participate with other people and this interface will play a pivotal role in enhancing their overall security and welfare. With more and more disabled coming out and interacting with the society, negative attitude toward them will slowly disappear and the society will slowly but surely, march toward a better one for disabled to live in with much more dignity and assurance.

PWDs are not differently abled persons; rather they are persons with different needs. If the society is able to cater to these special needs of the disabled, they will do wonders, which will transform them from being differently abled to exceptionally abled.

References

- Albert, B. and Harrison, M. (2006), "Changing the social relations of research—managing a disability research programme", *In or out of the Mainstream*, pp. 13-23.
- Aldred, H. (1993), "Self-directed employment and economic independence in low-income countries", available at: www.aifo.it
- Amuthalakshmi, P. and Kamalanabhan, T.J. (2006), "A study on education and entrepreneurship development", *Small Enterprises Development, Management and Extension Journal*, Vol. 33 No. 1, pp. 49-59.
- Aravazhi, I.D. (2004), *Emerging Entrepreneurs S. Maria John, R. Jayabalan, S. Krishnamurthy*, First Published 2004, Discovery Publishing House, New Delhi.
- Bansal, P. (2006), "Right to employment of disables: a law merely on paper", available at: www.legalserviceindia.com
- Barnes, C. and Mercer, G. (1996). "Exploring the Divide", Published in The Disability Press, pp. 18-38.
- Basargekar, P. (2007), "Women entrepreneurs: challenges faced", *The ICFAI Journal of Entrepreneurship Development*, Vol. 4 No. 4, pp. 6-15.

- Baura, J.C. (2004), "We want to promote the movement of PWDs in Ibero-America", *Appearing in the Disability World*, Vol. 24, available at: www.disabilityworld.org
- Bhatia, B.S. (1974), "New industrial entrepreneurs: their origins and problems", *Journal of General Management*, Vol. 2 No. 1, pp. 69-79.
- Boylan, A. (2002), "Barriers to self-employment for disabled people", available at: www.berr.gov.uk
- Brevetti, F. (2007), "Disabled entrepreneurs face uphill battle", available at: www.microbiz.org
- Campos, M. (2005), "Developing livelihoods", www.aifo.it
- Curtis, B. (2004), "Disabled youth leadership training in post conflict resolution", *Disability World Magazine*, Vol. 24, available at: www.disabilityworld.org (accessed June-August 2004).
- David Amirtha Rajan, S. and Gnana Soundari, P. (2007), "Entrepreneurial culture among proprietors of small businesses in Madurai", *Small Enterprises Development, Management and Extension Journal*, Vol. 34 No. 3, pp. 21-27.
- Desai, V. (2005), *Dynamics of Entrepreneurial Development and Management*, Himalaya Publishing House, Girgaon, Mumbai.
- DNIS (2016), "Employment of disabled people in India – DNIS", available at: www.dnis.org/Employment.pdf (accessed on 29 March, 2016)
- Dube, A. (2005), "Participation of disabled people in the PRSP/PEAP process in Uganda", *Disability Knowledge and Research Programme*, available at: www.dfid.gov.uk/r4d/PDF/Outputs/Disability/PolicyProject_uganda_prsp.pdf (accessed 26 January, 2011).
- Gathecha, B.N. (2009), "Between disability and womanhood: the everyday struggles and triumphs of a Kenyan woman", *Disability Studies Quarterly*, Vol. 29 No. 4, available at: www.ds-q.sds.org
- Gatjens, (2004), "Disability and human rights in Latin America", *Appearing in the Disability World*, Vol. 24 available at: www.disabilityworld.org (accessed at June-August 2004).
- Gerald, C. and McCormack, L. (2002), "Delivering an at service: a client-focused, social and participatory service delivery model in assistive technology in Ireland", *Disability and Rehabilitation*, Vol. 24 Nos 1/3, pp. 160-170.
- Griffin, C.E. (2000), "Self-employment pushed as option for the disabled", published in *entrepreneur magazine*, available at: www.thedisabledentrepreneur.com (accessed December 2000).
- Heggade Odeyar, D. (1981), "'Development of women entrepreneurship in India' – problems and prospects", *Economic Affairs*, Vol. 2 Nos 1/2, pp. 39-50.
- Heibrunn, S. (2007), "Business development programs and the needs of entrepreneurs: do they match? A case study", *The ICFAI Journal of Entrepreneurship Development*, Vol. IV No. 2, pp. 8-14.
- Hepzibah, V. (2006), "Entrepreneurial motivation and success: a study", *Small Enterprises Development, Management and Extension Journal*, Vol. 33 No. 3, pp. 21-35.
- Kulkhanchit, T. (2002), "Response to research questionnaire", President, Nonthaburi Society of Disabled Persons, Thailand.
- Lal, R. (2003), "Disabilities: Background and perspective", available at: www.infochangeindia.org
- Maines, M. (2009), "Man's efforts to establish a business network for persons with disabilities is expanding to a national level", available at: www.inc.com
- Murugesan, V. and Sankaran, A. (2006), "A study on education and entrepreneurship development", *Small Enterprises Development Management and Extension Journal*, Vol. 33 No. 3, pp. 33-38.
- Nachiappan, S. and Santhi, N. (2007), "Women micro technopreneurs of WWF, Chennai, Tamilnadu", *The ICFAI Journal of Entrepreneurship Development*, Vol. 4 No. 1, pp. 21-33.
- Njogu, K. (2009), "Media and disability in Kenya", *Disabilities Studies*, Vol. 29.
- Parker, T. (2009), "Technology and disabled entrepreneurship – open for business", available at: www.headstar.com
- Qatarguest (2007), "Free IT assistance for disabled people", available at: www.publictechnology.net

-
- Rao, I. (2004), "Equity to women with disabilities in India", published on the Disability World, no. 25, September-November 2004.
- Roy, R.R. (2010), "Group therapy for social interaction, forming part of extrapage", p. 13.
- Samaniego, P. (2006), "Aproximacion a la realidad de las personas con discapacidad en latin america", [An approximation to the reality of people with disabilities in Latin America], Comité Español representantes de personas con Discapacidad (CERMI), Madrid.
- Seeley, J. (2001), "Natural resource perspectives, recognizing diversity: disability and rural livelihoods approaches in India", Vol. 72, The Overseas Development Institute (ODI), London.
- The Management Development Institute (1983), "Small scale Industries – an assessment of institutional assistance – case studies of some select states in India", New Delhi.
- Van der Sluis, J. (2004), "Education and entrepreneurship in industrialized countries: a meta-analysis".

Further reading

- Corbett, J.O. (2001), "Disabled women and independent living in Brazil, Germany, Great Britain, India, Japan, New Zealand, Nicaragua, Russia, South Africa and Uganda", appearing in Disability world, No.7, March-April, 2001.
- Ferwerda-van Zonneveld, R.T., Schoone, M., Diepen, A.V., Oosting, S.J. and Caron-Flinterman, J.F. (2009), "Van boerderij naar zorgboerderij", Wetenschapswinkel Wageningen UR, Wageningen, (Report Science Shop Wageningen UR 254).
- Global Entrepreneurship Monitor (2006), "The sustainable value of disabled entrepreneurs in England's northwest", the Annual Small Business Survey 2006, conducted by the Global Entrepreneurship Monitor (GEM), available at: www.nwriu.co.uk
- Horst, H. and Miller, D. (2006), *The Cell Phone: An Anthropology of Communication*, Berg.
- John, M.W. (2000), "Time to enlist the disabled in the entrepreneurial revolution.
- Naheed Nawazesh, R. (2009), "Disabled entrepreneurship: a viable route of opportunity for the disabled?", available at: www.ribm.mmu.ac.uk
- Padala, S.R. (2007), "Entrepreneurship development among women: a case study of self help groups in Srikakulam district, Andhra Pradesh", *The ICAFI Journal of Entrepreneurship Development*, Vol. 4 No. 1, pp. 8-20. Mar 2007.
- SAMADHAN (2003), "Programme 1st page country – India report", Presented by: Dr. Vatsa K, Director Projects, SAMADHAN, New Delhi, on the 16th Asian Conference on Mental Retardation, 21-26 August 2003, Japan, available at: www.afmr73.org
- The World Bank (2007), "People with disabilities in India: from commitments to outcomes", report commissioned by the Human Development Unit, The World Bank, South Asia Region, May 2007, prepared by a team comprising of O'Keefe P (Team Leader), Sundararaman V, Chaddha, A N.K, Jangira, Maitreyi B. Das, Madhumita Puri, Namita Jacob, Sophie Mitra, Usha Sambamoorthi, Meenu Bhambani, Alana Officer, Robert Palacios, Jeff Hammer, and Sarabjit Singh.
- UN (1994), *The Standard Roles on the Equalisation of Opportunities for Persons with Disabilities*, United Nations, New York, NY.

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