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# CHALLENGES OF SKILL DEVELOPMENT AND RURAL WOMEN ENTREPRENEURSHIP

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### **Abstract:**

Women have been regarded as the nuclei of a nation and the builder and moulder of its destiny. The position and status of women in any society is an index of civilisation. In 2011, out of total population of India, females representing 48.46 per cent. Though women form half of the Indian populations; their productive work is not officially allocated for one third of the total labour force. The literacy rate among women has increased from 54.28 per cent in 2001 to 65.46 per cent in 2011. This is positive sign for the development of women entrepreneurship. The women of today have the capability to analyse, organize and mobilize the surrounding situation for social transformation. Because of participation in social activities, leadership qualities and technical skills are developing in women. Of late, service sector has played a significant role in providing employment opportunities to women. Besides, lot of measures have been taken to promote women entrepreneurship in urban, semi-urban areas. But it is observed that women from the rural background can establish business units in those areas where they have core competency. Rural women need more avenues of skill development to prove their competency in the areas of entrepreneurship such as cottage industries, handicrafts making etc. Women who do not feel comfortable to work in their houses, uses their core competency by becoming entrepreneurs. The present study is based on the secondary data with regard of need of women's skill development. An attempt has been made to know what are the hurdles which rural women face to achieve skill development at all fronts.

Key Words: Entrepreneurship, Skill Development & Rural Development

### 1. Introduction:

Women constitute the backbone of any nation. Till today women in India were considered as the home makers whose responsibilities was restricted to only cooking and taking up other household chores, the world now sees them with the different eyes and the a new respect. Rural women entrepreneurship in India has come a long way from women working in part time (Magadum).

Prosperity of the nation depends upon the prosperity of its women. However, the role played by rural women in economic development has not been assigned sufficient importance. The emergence of women entrepreneurs and their contribution to the national economy is quite visible in India. The number of women entrepreneurs has grown over a period of time, especially in the 1990s. Women entrepreneurs need to be lauded for their increased utilization of modern technology, increased investments, finding a niche in the export market, creating a sizable employment for others and setting the trend for other women entrepreneurs in the organized sector (Meenaskshi et al. 2013).

The paper talks about the status of rural women and the problems faced by them; simultaneously the paper gives an insight into the need of skill development and challenges faced by women entrepreneurs. Government of India has also introduced National Skill Development Policy and National Skill Development Mission in 2009 in order to provide skill training, vocational education and entrepreneurship development to the emerging work force. However, entrepreneurship development and skill training

is not the only responsibility of Government and therefore other stakeholders need to shoulder the responsibility (Singh. Anjali., 2014).

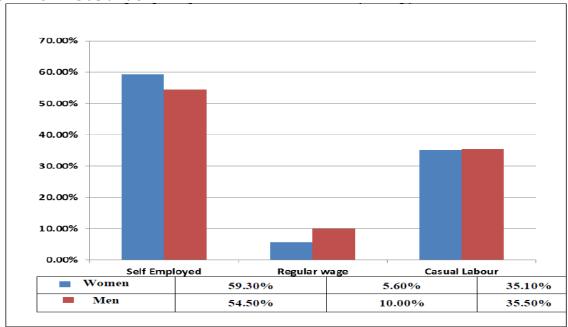
#### 2. Status of Rural Women in India:

Women used to command acute power and importance in our ancient culture. The proof of this fact can be found in all the scriptures and even our mythological stories. We worship Goddess Durga, Lakshmi, Saraswati and many others. That shows how Indian civilization had revered the female form. Things have not remained the same in last few decades or even centuries. The social fabric has acquired completely new dimensions. The women are considered less powerful and important than men (Meenakshi et al.2013).

About 73 per cent of the households belonged to rural India and these accounted for nearly 75 per cent of the total population. About 64 per cent of rural males and 45 per cent of rural females were literate. But, when vocational skills are considered, only about 10 per cent of male and 6.3 per cent of female workers possessed marketable skills (NSSO, Report No. 517). A multi-faceted approach, which includes literacy, hygiene and moral training, and skills training to improve their productivity, can give rural women the tools to help uplift their communities.

The training and skill development among rural women would be mainly pertaining to farm forestry, papad making, sewing, cooking, sanitary pads making and so on. Women in rural India often face abusive situations related to domestic violence, physical and mental torture, wife-beating, sexual abuse, and so forth. It is also realized that women face resistance in participating in training programmes due to sharing of responsibilities at family level. They also face barriers due to bias and discriminatory behaviour prevailing in society.

Gender wise Percentage of Participation in Indian Rural Economy During Year 2011-2012 is as under:



Source: Central Statistical Office as per National Sample Survey 68th round (2011-2012)

As per above graphical representation 59.30% rural women are self-employed while the ratio of male is only 54.50%, 5.60% rural women are engaged in regular wages while male candidate are 10.00% and casual labour comprise 35.10% of women and 35.50% of men in rural economy of India. As per result it makes us clear that

interest of rural women is being increased towards the entrepreneurship in India which is the positive sign in the path of development of rural women.

### 3. Opportunity for Rural Women to be an Entrepreneur and Entrepreneurship:

The concept of "Women entrepreneurship" is becoming a global phenomenon and in India it became prominent in the latter half of the eighties. Now women sentrepreneurship has been recognized as an important untapped source of economic growth. India is a land of enterprises, where almost 70 percent of the population is still self-employed and some place this estimate as high as 80 percent. An entrepreneur is a person who is able to scan the environment, marshal resources and implement actions to bring into existence a commercial venture, which can initiate and establish large, medium or small enterprises (Sharma Ajay, et al. 2012).

According to Khanka (2000), a women entrepreneur is a confident, innovative and creative woman capable of achieving economic independence individually or in collaboration generates employment opportunities for others through initiating establishing and running an enterprise by keeping pace with her personal, family and social life. Her contribution is to highlight how women successfully become entrepreneurs by managing their personal and professional life and how family support plays role in their empowerment.

"Women Entrepreneur" is a person who accepts challenging role to meet her personal needs and become economically independent. The Government of India has defined women entrepreneurs as an enterprise owned and controlled by women having a minimum financial interest of 51 per cent of the capital and giving at least 51 per cent of the employment generated in the enterprise to women. In the simplest sense, women entrepreneurs are those women who take the lead and organize the business or industry and provide employment to others. Entrepreneurship development among rural women helps to enhance their personal capabilities and increase decision making status in the family and society as a whole (Ahmed and Mazumdar, 2015).

Keeping in view the importance of the power, authority and strength to be a successful women entrepreneur .A women has to have some skills which is the focal area of interest of government of India at present.

### 4. Need of Skills Development for Rural Women:

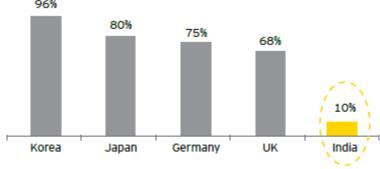
Our country is one of the few countries in the world where the working age population will be far in excess of those who will no longer be able to work. In 2020, the average Indian will only be 29 years old, compared with 37 in China and the US, 45 in West Europe and 48 in Japan. Therefore, when developed countries will be struggling with shrinking domestic Demands and manpower shortages. As compared to western economies where there is a burden of an ageing population, India has a unique 20–25 years window of opportunity called the "demographic dividend." This "demographic dividend" means that as compared to other large developing and developed countries, India has a higher proportion of working age population vis-à-vis its entire population" (Krishnamurthi and Khandelwal,2011). The National Policy on Skill Development, 2009 recognising this opportunity, had set a target of skilling 500 million people by 2022.

India lags far behind in imparting skill training as compared to other countries. Only 10% of the total workforces in the country receive some kind of skill training (2% with formal training and 8% with informal training). Further, 80% of the entrants into the workforce do not have the opportunity for skill training (ILO, 2011).

Talking about rural women, rural women are often concentrated in handicrafts, basic food processing and sale which are traditionally considered to be women's domain. Women also show a propensity to pursue micro-enterprises and homestead farming

activities (The World Bank, FAO, IFAD, 2008). Skills training, increased growth, productivity and innovation, in particular for the informal sector are linked with poverty reduction. (Fluitman., 2002). Skills development improves output, quality, diversity and occupational safety and improves health, thereby increasing incomes and livelihoods of the poor. It also helps to develop social CapitaLand strengthens knowledge about informal sector associations, rural organizations and governance. According to human capital theory, the better educated the agricultural labor, the higher their productivity (Atchoarena, et al. 2003).

### Percentage of Workforce Receiving Skill Training (2008):



Source: Planning Commission Report (2008)

Since the skill is one of the main elements of entrepreneurship, which help community and organization move toward development. Skills development is a key to improving household productivity, employability and income-earning opportunities for rural women and also for enhancing food security and promoting environmentally sustainable rural development and livelihoods (Anuradha, Reddy. 2013).

Skill development in rural women on small scale is the only solution to the problems of unemployment and proper utilization of both human and non-human resources and improving the living conditions of the poor masses. According to Meenakshi, et al. (2014) the need for and growth of rural industries has become essential in a country like India because of the following reasons:

- ✓ Rural industries generate large-scale employment opportunities in the rural sector as most of the rural industries are labor intensive.
- ✓ Rural industries are capable of checking rural urban migration by developing more and more rural industries.
- ✓ Rural industries/entrepreneurship help to improve the per capital income of rural people thereby reduces the gaps and disparities in income of rural and urban people.
- ✓ Rural entrepreneurship controls concentration of industry in cities and thereby promotes balanced regional growth in the economy.
- ✓ Rural entrepreneurship facilitates the development of roads, street lighting, drinking water etc. in the rural sector due to their accessibility to the main market.
- ✓ Rural entrepreneurship can reduce poverty, growth of slums, pollution in cities and ignorance of inhabitants.
- ✓ Rural entrepreneurship creates an avenue for rural educated youth to promote it as a career.

# **5. Skill Development Initiatives by the Government of India:**

Entrepreneurs need to various skills for launching and administering a successful business. Capability for recruitment acquired knowledge correctly and using it in managing the business indicate the expert skill level of an entrepreneur. Such skills

are various in different businesses. Thus it is certain that each business need to unique skill and knowledge (Dariani and Moghimi., 2001). There are many governmental agencies, non governmental agencies (specially the Christian missionaries and Hindu groups) and the corporate sector that are working for the upliftment of the area.

## The Ministry of Skill Development and Entrepreneurship:

The Ministry of Skill Development and Entrepreneurship has been created to fulfill the vision of a 'Skilled India' where human resource development is in primary focus. This one is a revised version of programmes launched earlier under the skill development policy2009. This new programme, called 'Skill India', is supposed to be a multi-skill programme. The Ministry will be responsible for coordination with all concerned for evolving an appropriate skill development framework, removal of disconnect between the demand for and supply of skilled manpower through vocational and technical training, skill up-gradation, building of new skills, innovative thinking and talents not only for the existing jobs but also the jobs that are to be created. The Ministry will also play a lead role in ensuring the implementation of the National Policy for Skill development and Entrepreneurship 2015.

### Pradhan Mantri Kaushal Vikas Yojana (PMKVY):

Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the flagship outcome-based skill training scheme of the new Ministry of Skill Development & Entrepreneurship (MSDE). The objective of this skill certification and reward scheme is to enable and mobilize a large number of Indian youth to take up outcome based skill training and become employable and earn their livelihood. Under the scheme, monetary reward would be provided to trainees who are successfully trained, assessed and certified in skill courses run by affiliated training providers. Each stakeholder under the PMKVY Scheme has a critical role in mobilizing, motivating, counseling, training, assessment and reward distribution under the scheme. The quality of training provided to each trainee will position them as employment ready for industry-recognized roles. The assessment by an independent third-party assessment agency will provide for standardization of skills and make them industry-ready.

NSDC, as the implementing agency of the PMKVY Scheme, is expected to ensure that the spirit and essence of the PMKVY Scheme is maintained at all times. In view of this, this document lays down the detailed Process Manual for stakeholders in the PMKVY Scheme to help in achieving the Scheme outcomes. The Process Manual covers the following areas: affiliation, target allocation, mobilization, training, assessments, marketing promotion, awareness campaign, monetary reward disbursement and with other stakeholders in the PMKVY Scheme (NSDC.2015).

### **Institutional Framework and Stakeholders of the Scheme:**

Following are the key stakeholders in PMKVY scheme

- ✓ MSDE
- ✓ NSDC
- ✓ SSC
- ✓ Training Providers
- ✓ Assessment Agencies, Assessors
- ✓ State Government a. State Skill Missions, b. Local Administration (District magistrate, PRIs etc.)
- ✓ Non-Governmental Organizations
- ✓ UIDAI
- ✓ Banks
- ✓ Individuals

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Institutional arrangements comprising of the National Skill Development Corporation (NSDC), Sector Skill Councils (SSCs), Assessing Agencies (AA) and Training Providers (TP) are in place for implementation of the Scheme. The tenets of institutional arrangement are the following:

- ✓ NSDC to be the implementing agency for PMKVY;
- ✓ SSCs to identify job roles for which training could take place under PMKVY;
- ✓ SSCs to affiliate TPs to impart training under PMKVY;
- ✓ SSCs to register third party AAsn1` to conduct assessments;
- ✓ State Governments to facilitate mobilization of the candidates; and
- ✓ NSDC to disburse reward money to the eligible candidates post certification.

National Skill Development and Entrepreneurship Policy 2015 attempts to address these concerns. It tries to bring the world of education and training closer to the world of work so as to enable them together build a Strong India.

### **Engendering Skill Development Initiatives:**

There is also a target to ensure 33% coverage of women. Of the 1100 modular skills, 231 skills for women have been identified. The target is proposed to be achieved through dovetailing of all the skill development initiatives of the Government. Recommendations:

- ✓ The focus of skill development should be on improving employability.
- ✓ Skill development initiatives should move from traditional skills to emerging skills, which help women break the gender stereotypes and also help them move into higher skilled tasks. Training of women as auto drivers, taxi drivers, women masons, etc should be incorporated in the skill development programmes. Capacity building in marketing and administration for self and collective managed enterprises should also included.
- ✓ Skill development should be seen as a vehicle to improve lives not just livelihoods and so the curriculum should include inputs that help women to assert individually and collectively, run them through experiential exercises that enable them to recognise the oppression in their lives and help them to challenge the existing gender ideologies.
- ✓ Skill development programmes should aim at strengthening village development institutions that can track how women have used their training to secure employment.
- ✓ Gender disaggregated data should be maintained by the National Skills Development Corporation on the number of women that receive training to assess whether the minimum reservation for 33% of seats for women is being utilised, women are getting employment and spaces in the market economy after they are trained etc (Working Group, Women's Agency and Empowerment., page 54, 2011).

# The Rashtriya Mahila Kosh (RMK):

The Rashtriya Mahila Kosh(RMK) was established in 1993 to provide microcredit in a quasi-formal manner to the poor women for income generating, production, skill development and housing activities in order to make them Economically independent. RMK mainly channelises its support through NGOs, Voluntary agencies, States Women Development Corporations, Cooperative Societies, State Government agencies, Urban Women Co-op Banks etc. to the women SHGs This will enable it to reach out to a larger number of poor, asset less and marginalised women for income generating, production, skill development and housing activities(Ibid,p.80,2011).

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## **Support to Training and Employment Program (STEP):**

The Ministry MWCD implements the Support to Training and Employment Programme for Women (STEP) as a Central Sector Scheme mostly through NGOs. The scheme has been in existence since 1986-87 and aims at sustainable employment and income generation for marginalized and asset less rural and urban women. The key strategies for achieving the goal of livelihood opportunities for women, especially those in SC/ST households and families below poverty line, include training for skill upgradation, facilitating organisation of women into viable cooperative groups, strengthening backward and forward linkages and providing access to credit (Ibid., p.82, 2011).

## Aajeevika Skill:

'Aajeevika' scheme for skill development (under National Rural Livelihoods Mission), renamed by the government as Deen Dayal Upadhyaya Grameen Kaushal Yojana. To provide jobs for poor having regular monthly wages at or above the minimum wages. It is one a cluster of initiatives of the Ministry of Rural Development, Government of India (MoRD) that seeks to promote rural livelihoods. MoRD pursues its goal of rural poverty reduction by adopting a multipronged strategy. This includes programs for rural infrastructure (Pradhan Mantri Gram Sadak Yojana – PMGSY), rural housing (Indira Awas Yojana - IAY), employment guarantee (Mahatma Gandhi National Rural Employment Guarantee Scheme - MGNREGS), livelihood promotion (National Rural Livelihood Mission - Aajeevika) and social pensions (National Social Assistance Programme - NSAP). Aajeevika Skills derives its importance from its potential to reduce poverty by diversifying incomes and reducing their uncertainty (MoRD, GoI., Guidelines, September 2013 page-2). The following training schemes especially for the self employment of women are introduced by government:

- ✓ Development of Women and Children in Rural Areas (DWCRA)
- ✓ Small Industry Service Institutes (SISIs)
- ✓ State Financial Corporations
- ✓ National Small Industries Corporations
- ✓ District Industrial Centres (DICs)

There are some other programmes contributing for skill development and self employments as-

### By Ministry of Micro, Small and Medium Enterprises:

- ✓ Credit Support Programme
- ✓ Rajiv Gandhi Udyami Mitra Yojana
- ✓ Prime Minister's Employment Generation Programme
- ✓ Workshed Scheme for Khadi Artisans

# 6. Challenges or Hurdles which Rural Women Face to Achieve Skill Development at all Fronts:

The main challenges faced by rural women achieve skills are at administrable level, socio-economic background, political etc. Some of the challenges faced by rural women are as follows:-

**Lack of Confidence:** Due to differential socialization social norms, morals in the family rural women lack confidence, support, and decision making powers needed for the growth of an entrepreneur. Decision making power related to business activities is less due to economic dependent and domination of male headed society.

**Dual Responsibility:** With the dual roles as, wife and mother women unable to manage the enterprise effectively because of lack of time, concentration and overburdened personal obligations.

**Finance Problem**: There is no sufficient fund to execute enough programmes to meet numerous political and our rural areas. The multiplicity of schemes is not adequately listed nor is there networking among agencies. As a result, clients approaching one institution are not made aware of the best option for their requirements.

**Illiteracy among Rural Women:** The literacy rate of women in India is found at low level compared to male population. The rural women are ignorant of new technology or unskilled. They are often unable to do research & gain the necessary training. The uneducated rural women do not have the knowledge of measurement and basic accounting.

**Need of Training and Development:** Indian families and society provide training to a girl to make her as a good wife rather than to uplift her as an entrepreneur she is not allowed to develop network with other business men, which is considered as a sin and bad culture.

**Political Interference/Political Patronage:** Most of the contracts awarded by the Agency went to loyalists and political lackeys of the political leaders. Projects locations are always influenced by political consideration and not where they are mostly needed by the poors.

**Un-Cooperative Attitudes of Implementing Authority:** This has become a serious constraint, of recent. Since most of these Contractors are Political Stallwarts, they can hardly complete one single project given to them according to specification and design. The projects are either executed haphazardly or unduly delayed or absolutely abandoned on the pretext of "unavailability of funds".

**Insufficient Professional Personnel:** The Agency executed most of its Programmes through 'contractors due to paucity of personnel especially the highly skilled and professional staff like the Economists (only one), the Accountants (only two), the Statistician (only one), and the Lawyers (none) and others. Even the few monitoring staff available has no sufficient assets to use for projects monitoring which are running for the upliftment.

Lack of infrastructure and widespread Corruption: There are also the other problems for the rural women. Rural women lack training and advisory services on managerial and technical skills to solve production problems. Here more than 70 percent of enterprises are micro- and small enterprises but their growth and the competitiveness is greatly challenged by a lack of business management, marketing and technical skills besides the overall weak infrastructure and complicated legal frameworks for business processes, especially in global online transaction context. Choudhary and Raylwar (2011) in their article titled "challenges and opportunities of entrepreneur rural women in India" consider the main challenges of entrepreneur women in development of their skills as educational problems, initial capital, barriers in access to raw material, psychological barriers, insufficient aids, high defeats, lack of technical knowledge, talent and weak infrastructure.

### 7. Conclusion:

Skill development among rural women is the need of the hour so as to make them confident, self reliant and to develop in them the ability to be a part of decision making at home and outside. Indeed it may not be wrong to say that still tribal"s and rural women are the most disadvantaged and neglected section of the society for they are economically backward. Women participation in vocational education and training is especially low as compared to men. There are a few reasons constraining interest/participation may be social and cultural norms and family responsibilities. Women also tend to become discouraged due to such family and social pressures,

especially in rural areas. Therefore, in order to increase enrolments, the combined efforts with local NGOs and Panchayats on informing women and their families on the advantages of skill development and vocational education, which may lead to employability, is very important. Specifically, women should be targeted by explaining how inculcating income-generating skills and activities within them would subsequently lead to improving their social and economic status. Therefore there is a need on the part of the government and civil society to enable improvement in the quality of life of such vulnerable sections of the Indian population.

#### 8. References:

- 1. Magadum. Madhukar, H: A Study of Rural Women Entrepreneurship with reference to Self –Help Group in Sangmeshwar Taluka, Dist. Ratnagiri., From "Skill Development: The Key To Economic Prosperity"p.185 http://tmgt.lsrj.in/SeminarPdf/59.pdf retrieved on 27-7-15.
- 2. IOSR Journal of Humanities and Social Science (IOSR-JHSS) Volume 13, Issue 5 (Jul. Aug. 2013), PP 07-12 e-ISSN: 2279-0837, p-ISSN: 2279-0845 www.Iosrjournals.Org.
- 3. Lashgarara,et al : Identification of Entrepreneurship Skills Development Challenges for Qom Province Rural Women. http://www.aensiweb.com/old/jasa/rjfh/2014/1469 1471pdf retrived on 28-7-15.
- 4. Meenakshi,et al: Entrepreneurship as a Tool for the Empowerment of Rural Women in India., Volume 13, Issue 5 (Jul. Aug. 2013), PP 07-12.,retrived on www.Iosrjournals.Org.
- 5. Ahmadpour Dariani, M., and M. Moghimi: The Role of Entrepreneurship Education in Improving Knowledge of Small business owners. Tadbir Magazine, 113: 22-27. (2001) Available on: http://www.noormags.com
- 6. Arth Prabandh: A Journal of Economics and Management, Vol.1 Issue 6, September 2012, ISSN 2278-0629 Pinnacle Research Journals, pp 114. http://www.pinnaclejournals.com
- 7. Sharma Ajay, et al: Micro Enterprise development and rural Women Entrepreneurship: Way for Economic Empowerment., page.114 http://prj.co.in/setup/business/paper45.pdf accessed on 28-7-15. Ibid.
- 8. S.S.Khanka: Entrepreneurship Development, publishers S.Chand & company Ltd. India (2000).
- 9. Mazumdar. Manashi., and Ahmed Marjina: Empowerment of Rural Woman Through entrepreneurship- An Overview, Website: http://www.irjims.com, accessed on 28-7-15.
- 10. Singh. Anjali: Role of Women Entrepreneurs in India: A SWOT Analysis2014., page.233, retrieved from http://www.ripublication.com/ijmibs-spl/ijmibsv4n2spl\_16.pdf. Ibid.
- 11. The World Bank, FAO, IFAD, Gender and Rural Micro Finance: Reaching and empowering Women, Guide for practitioners. Module 3(2008).
- 12. Atchoarena, D. & Gasperini, L.: Education for Rural Development: towards new policy responses. FAO, UNESCO (2003).
- 13. Anuradha. R. Vijaya and Reddy G. Lokanadha: Empowerment of Rural Women Through Vocational education and Training. Conflux Journal of Education ISSN 2320-9305 Volume 1, Issue 2, July 2013 page no.8 Retrieved from: http://www.naspublishers.com.

# International Journal of Multidisciplinary Research and Modern Education (IJMRME) ISSN (Online): 2454 - 6119

(www.rdmodernresearch.org) Volume I, Issue I, 2015

- 14. NSSO (Report No. 517): "Status of Education and Vocational Training in India-2004-05", Ministry of Statistics and Programme Implementation, Government of India.
- 15. Working Group, Women's Agency and Empowerment. Page 54, (2011) Ministry of Women and Child Development,XII Five Year Plan2011. Ibid.
- 16. Ajeeveeka., (Ministry of Rural Development "Government of India., Guidelines September 2013 page-2) 2013.
- 17. "Labour market performance and the challenges of creating employment in India,", International Labour Organisation, 23 June 2011, p.7.
- 18. Lakshman Krishnamurthi and Sugandha Khandelwal, "India Journal: Why India's Demographic Dividend Will Lag China's," WSJ, 10 April 2011, (c) Dow Jones & Company,
- 19. https://mygov.in/sites/default/files/master\_image/Draft\_National\_Policy\_for\_S kill\_Development\_and\_Entrepreneurship\_2015.pdf.
- 20. Choudhary, K.N., and A. Rayalwar: Opportunites and challenges for rural women entrepreneurship in India. Variorum Multi-Disciplinary e-Research Journal, 01(111): 2011. From: www.ghws.in/chariti/variorum.
- 21. http://www.skilldevelopment.gov.in/assets/images/PMKVY\_ProcessManual\_V3. 1.pdf accessed on 24-7-15.