

A Case Study on Challenges and Opportunities for Women Entrepreneurs in the Agricultural and Food Processing Supply Chain

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Abstract:

This case study delves into the intricate challenges and promising opportunities faced by women entrepreneurs navigating the agricultural and food processing supply chain. By examining specific instances, this research aims to provide a nuanced understanding of the obstacles and enabling factors that shape their entrepreneurial journeys. This paper explores the impact of competency-based education (CBE) on developing essential skills, abilities, and practical knowledge, directly contributing to entrepreneurial success. Focusing on women committed to business growth, the research highlights the barriers they encounter and how CBE addresses these obstacles. Successful case studies within the agriculture and food processing domains demonstrate the tangible benefits of CBE programs, particularly those supported by the Government of India through initiatives like the National Council of Educational Research and Training (NCERT) and the Competency Based Education Network (CBEN). These programs provide vital training and resources, fostering a supportive ecosystem for women entrepreneurs.

This paper further emphasizes the importance of raising awareness about CBE. Through initiatives such as free counseling sessions, presentations in educational institutions, and participation in women entrepreneurial conferences, the author has actively promoted CBE. Notably, the author's involvement as a resource person in industry-institute interaction training programs and recognition at the "Nari Shakti Sanman Sohala 2025" underscores the impact of these efforts. Additionally, counseling sessions conducted in Government schools and Anganwadi sectors have played a crucial role in disseminating information about CBE and government schemes. Ultimately, this study aims to advocate for CBE as a powerful tool for empowering women entrepreneurs and providing them with a platform for sustainable business growth.

Keywords: *Competency based education, Women entrepreneurship, Supply chains, Government schemes, NCERT.*

• Entrepreneurship: -

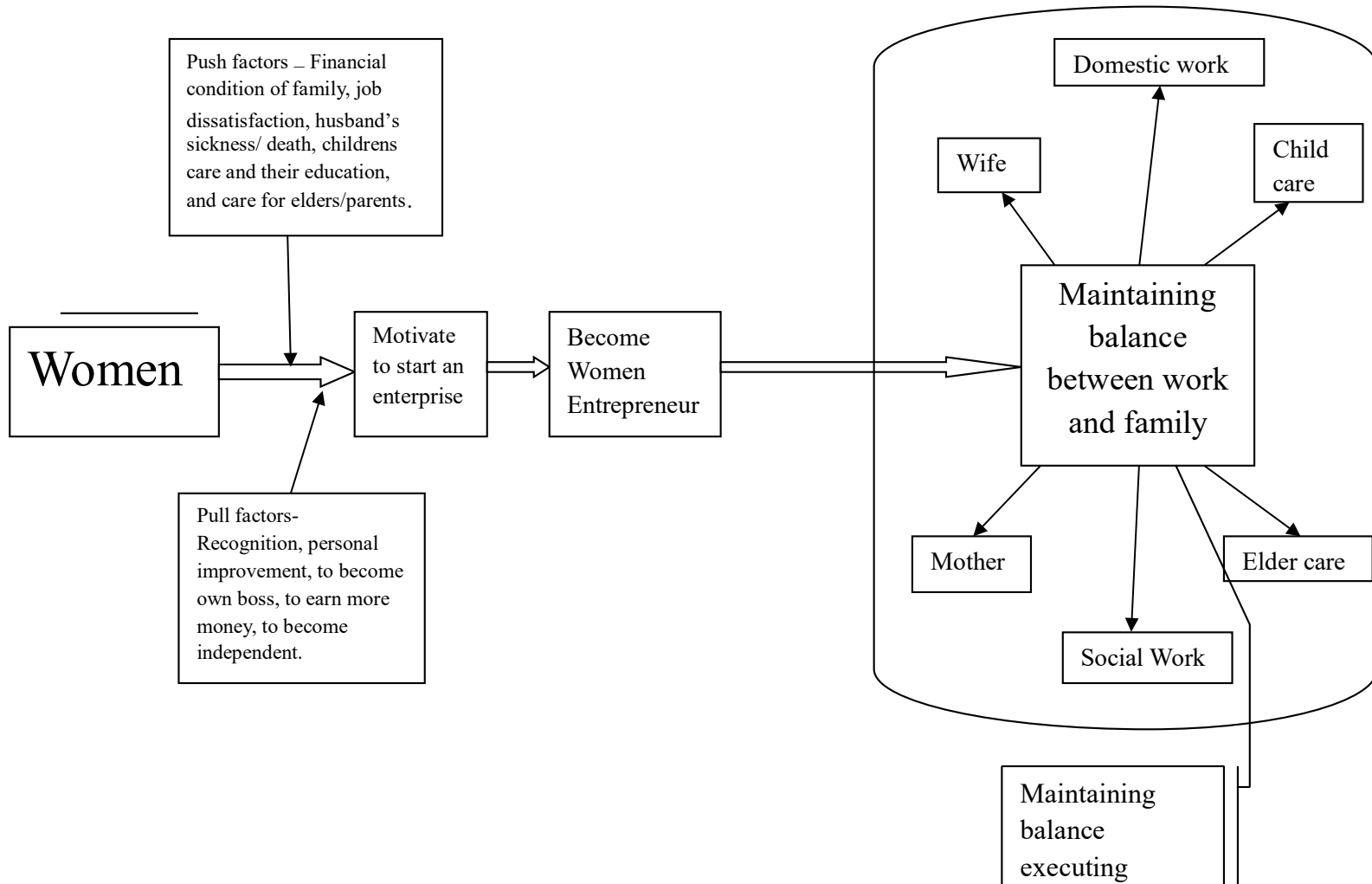
Entrepreneurship is a multifaceted endeavor, fundamentally rooted in the identification and exploitation of market opportunities. Entrepreneurship is the practice of starting new organizations in new response to identified opportunities. (Onuoha2007). Entrepreneurship is about taking risk. (Peter Drucker 1970). It's the active practice of launching new ventures, a process that inherently involves risk-taking. However, it's not simply about haphazardly gambling; rather, it's about strategically assessing potential rewards against calculated risks. This dynamic activity is driven by the desire to bring novel ideas to fruition, transforming them into viable

organizations that deliver value. In essence, entrepreneurship is the engine of innovation, propelling economic progress and societal advancement.

Beyond the creation of entirely new businesses, entrepreneurship also encompasses innovative activity within established organizations. It is the application of purposeful and systematic innovation. This means that entrepreneurs can be independent business owners, or company directors and managers who are engaging in innovative functions (Joseph Schumpeter 1930). Whether it's developing a groundbreaking product, discovering a new supply chain, or creating a new market outlet, the core of entrepreneurship remains the same: to create something new or to transform existing processes in a way that generates value. Therefore, entrepreneurs are those individuals who see possibilities, and then act to bring those possibilities into reality.

- **Women entrepreneurship: -**

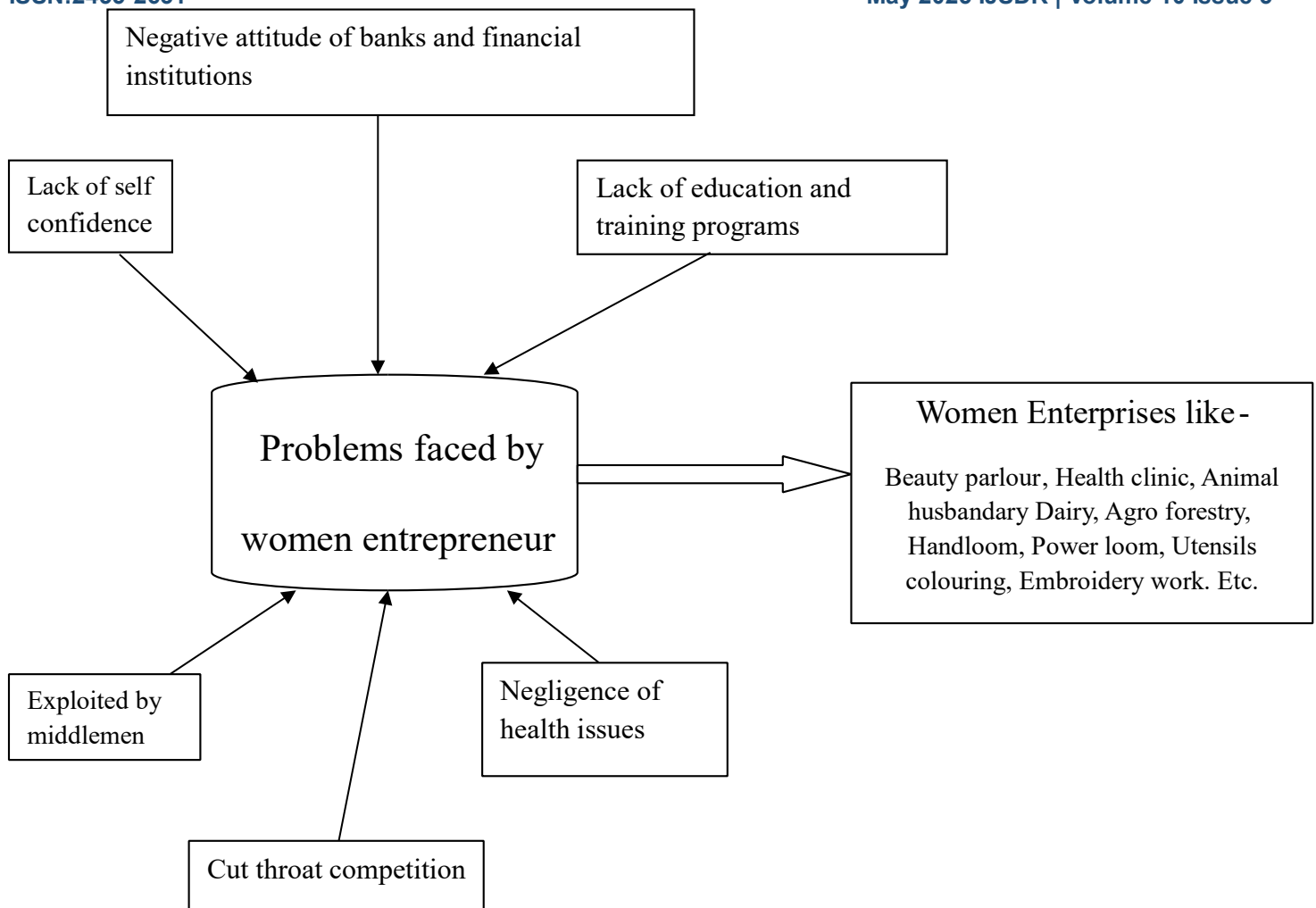
A woman entrepreneur is defined as a woman, or group of women, who actively initiate, organize, and manage a business venture. The Indian government specifically recognizes enterprises where women hold at least 51% of the capital and provide at least 51% of the employment to women. This reflects a commitment to women's economic empowerment. Driven by a desire for autonomy and self-reliance, women entrepreneurs are motivated by both 'pull' factors – the allure of independent decision-making and career control – and 'push' factors, such as fulfilling family obligations or overcoming financial hardship." Balancing these professional aspirations with domestic responsibilities represents a unique challenge. The Indian government's definition, emphasizing majority ownership and female employment, underscores the importance of supporting and recognizing these women in the economic landscape.



Conceptual framework on work life balance of women entrepreneurs

(Source: Agarwal and Lenka, 2015b.)

- Problems faced by women Entrepreneurship:-
 - 1) Gender gap
 - 2) Compound roles
 - 3) Family polices
 - 4) Psychological factors
 - 5) Lack of knowledge and experience
 - 6) Reduced infrastructure
 - 7) Finance
 - 8) Network and role models
 - 9) Low saving
 (Source:- Agarwal and Lenka, 2014).



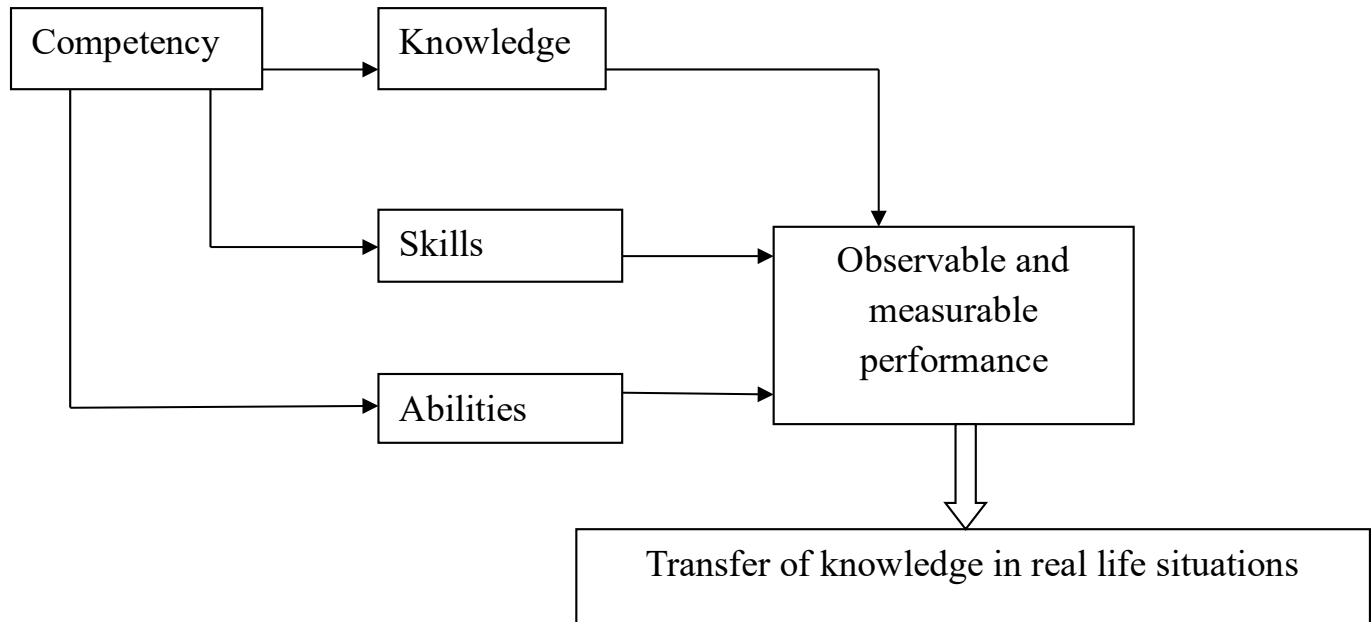
To overcome these problems or barriers in women entrepreneurship, we should raise awareness about the role of competency based education in empowering women entrepreneurs by enhancing skills, capabilities and practical knowledge that directly contribute to entrepreneurial success.

Hence we can see Competency and Competency based education.

- **Competency:-**

Competency, at its core, represents an individual's demonstrated ability to excel in various aspects of life, from professional settings to educational pursuits. (Page and Wilson 1994). It's not merely theoretical knowledge, but the practical application of skills, abilities, and even personal traits and motivations. This holistic view emphasizes the successful execution of tasks and the achievement of goals (Chung and Lo. 2007). Essentially, competency serves as a reliable indicator of effective performance, highlighting what an individual is capable of accomplishing through the integration of their diverse capabilities. Building upon this understanding, competency-based education shifts the focus from traditional time-based learning to the actual acquisition of demonstrable skills and knowledge. This approach prioritizes what a student can *do*, rather than simply what they have studied. By defining clear competencies—specific

knowledge, skills, and abilities— academic programs can be designed to ensure learners are equipped with the practical tools necessary for success in their chosen fields. This allows for a more tailored and effective learning experience, where progress is measured by mastery rather than seat time.

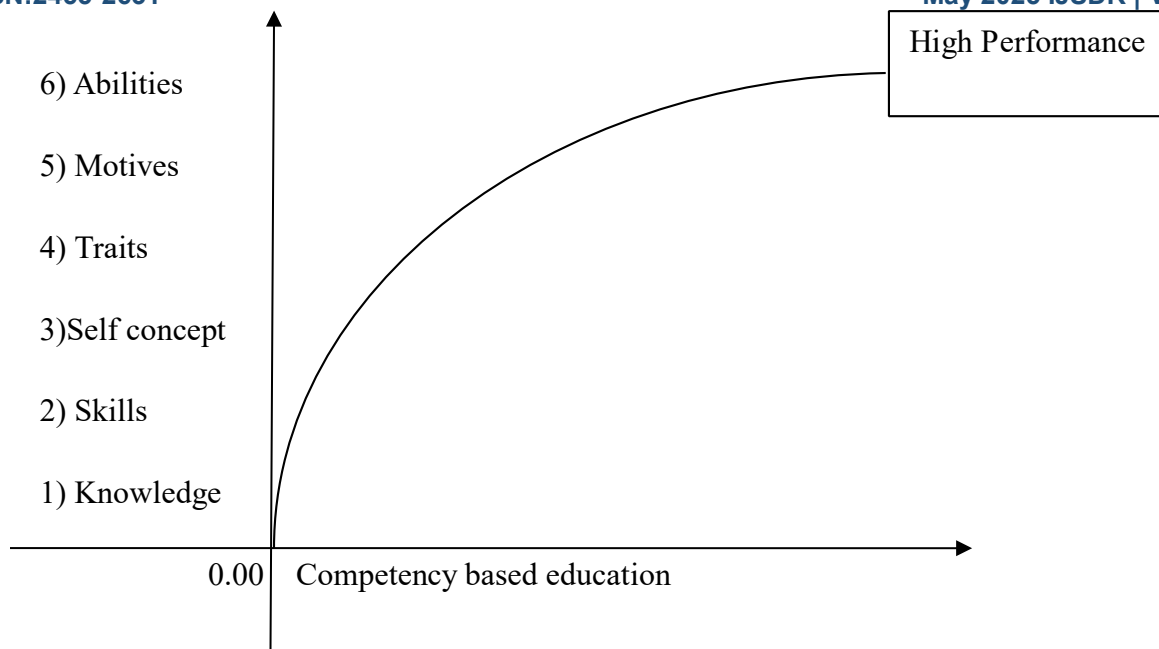


Framework of competency based education.

(National council of educational research and training NCERT- NEP 2020).

Competency based education combines an intentional and transparent approach to curricular design with an academic model in which the time it takes to demonstrate competencies varies and the expectations about learning are held constant. Students acquire and demonstrate their knowledge and skills by engaging in learning activities and experiences that align with clearly defined programmatic outcomes. Students receive proactive guidance and support from faculty and staff. Learners earn credentials by demonstrating mastery through multiple forms of assessment, often at a personalized pace.

(Competency based education network CBEN, 2019, para. 1.)



- Role of competency-based education in empowering women entrepreneurs:** Competency-based education plays a crucial role in empowering women entrepreneurs by directly enhancing their ability to succeed in the professional sphere. By focusing on the practical application of knowledge, skills, and personal attributes, it equips women with the tools necessary to effectively manage and grow their businesses. Given that many women-owned businesses are privately held and heavily reliant on the owner's expertise, developing strong entrepreneurial competencies becomes paramount. Such entrepreneurship is often associated with the survival and development of small and new businesses. (e.g. Colombo and Grilli, 2005. Nuthall, 2006.) These competencies, specifically tailored for entrepreneurial success, are directly linked to the survival and growth of new and small ventures, a fact supported by numerous studies.

Understanding and developing these competencies within the context of small businesses, particularly those owned by women, has significant implications for business growth. Research consistently demonstrates that strong competencies lead to improved business outcomes. However, it's also important to acknowledge that women entrepreneurs often differ from their male counterparts in terms of social and human capital, motivations, goals, and strategic choices. Recognizing and addressing these unique differences is essential for creating effective competency-based programs that truly empower women to thrive in the entrepreneurial landscape.

Entrepreneurial competencies have been identified as a specific group of competencies relevant to the exercise of successful entrepreneurship. Interest in entrepreneurial competence derives from the supposed link between competence and the birth, survival and growth of a venture. (Bird, 1995. Baum, et. al. 2001). There is evidence to suggest that understanding of the competencies in small businesses will support the development of competence and will in turn have consequences for successful business

growth. (Churchill and Lewis 1983, Law and Macmillan 1988). For the most part female business owners do differ in some fundamental ways with respect to their social and human capital, motivations, goals and success criteria growth orientations, strategic choices and use of financial capital.

Women business owners may be disadvantaged in their access to various entrepreneurial capitals, given their personal backgrounds and employment experiences and the socio- economic and cultural context in which their business operate.

Entrepreneurial competencies comprise those that are grounded in components that are deeply rooted in a person's background (traits, personality, attitudes, social role and self image) as well as those that can be acquired at work or through training and experience.

(Man and Lau, 2005).

• **Women entrepreneurship in Agriculture sector:**

Women are indispensable to agriculture, yet their contributions frequently go unrecognized. While they comprise a substantial 46% of India's agricultural workforce, as reported by the NSSO, their participation in rural entrepreneurship is significantly lower, at only 13%. Although precise figures for women entrepreneurs specifically in agriculture are elusive, it's clear that many rural women are actively engaged in related businesses, including farming, food processing, and handicrafts. Examining the profiles of these women farmers and agricultural entrepreneurs reveals that, according to a report by National Sample Survey Office (NSSO). In India, about 46.0 % of the agricultural workforce is female but only 13.0 % of rural women are engaged in entrepreneurship. While there is no specific data available on the percentage of women entrepreneurs related to agriculture in India. It is estimated that a significant number of women entrepreneurs in rural areas are involved in agriculture related businesses such as farming, food processing and handicrafts. On the analysis of the profile of the women farmers and entrepreneurs in agriculture sector. It was found that majority of them were high school educated (53.0%) followed by illiterates (37.0%) and post graduates (10.05). As entrepreneurs, they had studied till matriculation, but they are not well trained in managerial and other skills, required to run an enterprise. Initially they faced many problems, due to this and took significant time to overcome them. Among the women farmers and entrepreneurs only (47.0%) had been trained, remaining had directly started their enterprise out of their own interest (56.0%). The trained women entrepreneurs received training from Krishi Vigyan Kendra (KVK), Agricultural Technology Management Agency (ATMA) and Jubilant Agriculture Rural Development Society (JARDS). On technologies such as mushroom farming, sericulture beekeeping and value addition before starting their agriprenurship. Above mentioned Institutes and Organizations provide their training programs through competency based education. (Pragati Shukla is Msc scholar and MANAGE Intern at Centre in Agriculture, Nutritional Security and Urban Agriculture, National Institute of Agricultural Extension Management, Hyderabad, Telangana, India. 2022).

Showcase success stories in Agriculture sector:-

Leadership is not just the quality of standing as a leader to a group. It can also be serving as an inspiration, motivation and role model to many people. Although majority (68.0%) of them were not leaders they stood up and inspired many people in and around their villages. 1) Preethi –

From Theni, Tamil Nadu. Who started value added products with grapes and bananas, like grape squash, banana and grape mix, banana flour etc.

In 2019 and received the Best Entrepreneur Award from CENDECT KVK.

2) Mrs Gargi Chauhan –

From Dwara village, Uttar Pradesh. Who started growing mushrooms and making value added products like mushroom pickles and mushroom powder.

3) Papammal –

She is an Indian organic farmer who was born in Tamil Nadu. Papammal was awarded the Padma Shri, Indias fourth highest civilian award for her contributions to organic farming in 2021. 4) Divya Rawat –

The ‘mushroom lady’ transforming Uttarakhand’s villages. She did unique yet impactful cultivation of mushrooms. Instead of opting for any common type, Rawat selected button,

Oyster and milky mushrooms, suitable varieties for Uttarakhand’s climate.

(Veenita Kumari and P. Sai Charitha, 2023. Documentation of women leaders as farmer entrepreneurs. National Institute of Agricultural Extension Management, MANAGE, Telangana, India).

- **Women entrepreneurship in food processing sector –**

Unlocking the potential of the food processing sector can transform rural economies and empower women. This growth translates to tangible benefits: more jobs, better farming practices, and a higher quality of life. Women, who often possess deep-rooted expertise in food, can leverage this knowledge to build thriving businesses. To facilitate this, we must invest in entrepreneurial training and competency-based education programs. Research has shown that women excel as managers, both at home and in business. By showcasing their success, we can shift societal perceptions and create a more equitable environment for working women, driving national progress women. (Awasthi, D. 2011. The Indian Experience Journal of Global Entrepreneurship Research, 1. 107-134).

Showcase Success stories in food processing- Two women were selected for documentation of their success stories in food processing sector.

1) Smt. Gurdeep Kaur-

Smt. Gurdeep kaur is lives in village Alhoran kalan, Patiala. She was joined Krishi Vigyan Kendra and decided to working in processing and preservation of fruits and vegetables. First step being learning she attended various short duration and vocational training courses at KVK Patiala. Over the years she learned about new products, improved preservation methods, and know how about commercial level

processing. She not only learned to express herself at public gatherings but her confidence level also improved through regular interactions with scientists and other trainees. She is regularly preparing different squashes, jams and pickles from seasonal and locally available fruits and vegetables. She established a soy processing plant in 2010 in which soy milk, tofu, soy atta and soy nuts were produced and sold under the brand name of "Protein Shakti". Her unit is registered under FSSAI. A sales outlet named "Atma Kisan Hut". She has successfully prepared natural vinegar from sugarcane and grapes. She has also adapted mushroom cultivation. She received Best Entrepreneur Award on 26th January 2013. She is invited as a resource person on several occasions.

2) Smt. Dhanwanti Devi-

Smt. Dhanwanti Devi from village Inderpura, Patiala, Punjab. She has formed a Self Help Group named "Kashish SHG". With the help of KVK scientists she opened a bank account in the name of the group and started food processing activities. She attended a training program at KVK, Patiala in 2012. After gaining the expertise, she prepared bael squash on a commercial scale, as this fruit was underutilized and locally available. Now she is regularly preparing various squashes, jams and pickles. She also prepared mango chutneys, moong and mash daalbadis, rice papad, ready to serve beverages and hand made seviyan. She regularly participated in various Kisan melas and public gatherings organized by PAU, ATMA, Dept. of horticulture, NGOs etc. Krishi Vigyan Kendra, Patiala also provided her support from NABARD. She has received "Best Entrepreneur Award" during Kisan Mela in the year 2015.

(Shehrawat P. S. 2006. A challenging entrepreneurship for rural development. The international Indigenous Journal of Entrepreneurship).

- Government of India:- Current programs, strategies and support systems designed to encourage women's entrepreneurship.

The Government of India provided various training programs of competency based education through National Council of Educational Research and Training Centre. (NCERT, NEP, 2020). Government of India also provided Competency Based Education Network (CBEN) for women entrepreneurs. CBEN is a group of institutions that together are leaders in defining, describing and supporting competency based education to empowering women entrepreneurship.

• Concept of Krishi Vigyan Kendra:-

"Krishi Vigyan Kendras (KVKs) serve as vital hubs for agricultural innovation, bridging the gap between cutting-edge research and the practical realities of farming. They champion a 'learning by doing' approach, providing hands-on training tailored to the specific needs of local farmers. With flexible curriculums informed by community surveys and regional requirements, KVKs ensure that knowledge transfer is relevant and effective. These grassroots institutions, numbering 600 by 2011, under various

administrative bodies, play a crucial role in the socio-economic empowerment of rural communities, particularly farm women, through targeted training and demonstrations." (Sridhar G., Srihari Rao 2013, Empowering rural community with improvement in knowledge level and livelihood through KVK's. Impact and cases. Int. J. Scientific Engineering and Research. 2. (1) (1320).

Here are some more of the key programs and strategies.

- 1) Stand up India Scheme.
- 2) Udyogini Scheme 3) Mudra Scheme.
- 4) Mahila e-Haat.
- 5) Women Entrepreneurship Platform (WEP)
- 6) Women Entrepreneurship Development Program (WEDP)
- 7) Start up India Initiative
- 8) Bhartiya Mahila Bank Business Loan 9) Mahila Udyam Nidhi Scheme etc.

- Collaborate with Educational Institutions, Government bodies and Industry Stakeholders: Promote awareness about Competency Based Education by taking free counseling sessions and presentations in schools, colleges and various women entrepreneurial conferences. Women entrepreneurship is well stated with the own example of author.

The free counseling sessions in various Government, Z.P. schools and Anganwadi sectors created awareness about Competency Based Education and various Government Schemes for women entrepreneurs. Being an successful entrepreneur, the author was invited as a Resource Person in Industry Institute Interaction training program in CNCVCW, college,

Kolhapur in January 2024. The author is also awarded with "Nari Shakti Sanman Sohala 2025" for delivering presentation on Women Entrepreneurial in Conference, Sangli.

It aimed provide a platform for women entrepreneurs, educators, mentors and policymakers to network, share insights and collaborate on innovative solutions to common challenges faced by women entrepreneurship.

This research paper discussed how Competency Based Education can be adapted and innovated to meet the dynamic needs of women entrepreneurs as mentioned above, and can be adapted by differentiated Competency Based Education and Traditional Education method in various forms of learning.

- **Difference between competency based education and traditional education:**

Forms of learning	Traditional Education	Competency based Education
Building block of academic program	Course	Develop competencies (knowledge, skills, ability)
Content delivery	Course based lectures, discussion, lab. Can be online or in person.	Open educational resources. Online or face to

	Fixed timing.	face. May be self paced. Flexible and personalized.
Assessment of learning	Course based exams and projects.	Students are evaluated through a system of authentic assessments designed to determine mastery of competencies over the entirety of a program. Multiple methods of assessment may be used.
Tuition	Based on semester or credit hours.	Modular tuition models charge per competency unit.
Culture of learning	Students go to class or virtually attend online sessions for a set number of hours per day and participate in faculty led lectures or activities.	Flexible, personalized learning environment with regular interaction with faculty and may include classes, projects or learning outside of the classroom .
Measuring progress	Students earn credits for completing course, typically with acquisition of at least 60 per cent of the material.	Students advance by demonstrating mastery of competencies.

Expectations	Students take a series of courses or classes in a prescribed time period.	Students progress depends upon mastery of competencies.
Faculty role	A single faculty member may perform multiple roles and serve as subject matter	Roles may be unbundled and have specific curriculum designers,
	expert, instructor, advisor, curriculum designer etc.	assessors. Coaches, subject matter experts etc.

Competency Based Question Papers for classes 10th and 12th could be rolled out from 2026-2027: NCERT-PARAKH.

School education boards from 27 states including our Maharashtra, have completed training for setting Competency Based question paper templates. A new format for setting question papers for classes 10th and 12th which is likely to be introduced from the 2026-2027 academic session.

PARAKH, is the National Assessment Centre under the NCERT has been holding workshops over the last year on Setting Balanced Question Paper for promoting equivalence in School State Boards.

The centre has been focused on standardizing all school education boards in line with the new National Education Policy NEP- 2020.

(NEWS - 18.com.) Reported by – Vatsala Shrangi. New Delhi, India.

First Published:- 15 February 2025, 12:16 IST.).

- **Findings:-**

By revealing four key competency clusters—Personal and Relationship, Business and Management, Entrepreneurial, and Human Relations—this study has unlocked a new level of understanding regarding female entrepreneurial capabilities. This pioneering research offers a comprehensive analysis that empowers women through targeted education and development. The Female Entrepreneur Competencies Framework, a direct outcome of this work, provides a pathway for women to evaluate their strengths and weaknesses, fostering continuous improvement through competency-based education."

- **Conclusions:-**

Entrepreneurs and the organizations that support and advice women entrepreneurs are increasingly paying attention to the issue of competencies like, skills, knowledge and abilities. The development of models that further establish the relationship between entrepreneurial competencies and business performance and growth of Women Entrepreneurship. This research proposed the female entrepreneurs is, how they can develop their competencies, how competencies interact and how they are deployed to achieve business success through competency based education. On the other hand this research can also provided information about Government strategies, current programs, and support systems designed to encourage women's entrepreneurship in India.

• **Suggestions:-**

Considering the importance and lack of awareness about women entrepreneurship education, we need to take certain urgent steps like setting up a task force to determine how women entrepreneurship can be integrated into primary, secondary, and higher education. It adopting legislation, supporting relations between Private Business and Universities, allowing professors to interact with businesses, help to develop an accreditation system to validate non formal learning and practical activities that favor entrepreneurship development through Competency Based Education. Establishing awards for Entrepreneurial Universities, teachers and students and promote positive examples of academic spin offs.

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