Role of Creativity in Entrepreneurship Education for Environmental Sustainability

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Abstract- *In the entrepreneurial environment of the 21st century, every nation in the world requires the creative potential for environmental sustainability. Therefore, NEP 2020 emphasizes to establish an educational landscape that caters to the overall development of future generations in order to create the workforce to meet global industry requirements and also emphasize entrepreneurship and the start-up ecosystem. Population explosions are affecting the environment, especially in the context of social, economic, and ecology due to the consumption of natural resources. Therefore entrepreneurship with creativity plays pivotal role in Human being's life for ensuring the optimum level of the utilization of the resources that leads to environmental sustainability. Ergo this research article highlights the role of creativity in entrepreneurship education for environmental sustainability. This framework contains four layers 1) the thinker and basic structure 2) the catalyst of sustainability 3) the advanced structure of cultivating sustainability thinkers 4) The generation of students who will attempt to start up entrepreneurship of environmental sustainability. The objective of the article is therefore to examine the potential of entrepreneurship to create value within the dimensions of sustainability. Further this article provides the suggestions for environmental sustainability oriented entrepreneurship education like; 1) designing a curriculum in creativity for environmental sustainability and 2) developing environmental sustainability through creativity in entrepreneurship education.*

Keywords**:** creativity, entrepreneurship education, environmental sustainability

Introduction

Due to the scientific and technological advancement in 21st century, most future oriented professions require employees to be more creative, innovative and risk- taking personality / behavior. Creativity innovation and entrepreneurial competencies or skills are interconnected therefore entrepreneurship education has been widely acknowledge by schools, academicians, and policy makers as crucial for economic development in a nation (Berseford, 2020, Weng, Chiu and Tsang,2022). In India, the post-independent era focused largely and rightly on formal school education. However, in this phase, vocational education in the form of vocational training received little attention. But in the early nineties, with large-scale funding from the international agencies like the World Bank, the focus of school education shifted from the provision of

infrastructure to upgrading the school quality making it possible to reduce dropouts and improve retention. Ergo, India requires individuals with a range of specific skills to fuel its economy, therefore the role of vocational and skill education received the attention of the policy makers and professionals. Entrepreneurship and VET (Vocational Education and Training) aims at increasing the employment potential of young people by imparting appropriate skills and training by selecting vocations in various trades and crafts. However, efforts and support to develop such competencies have been implemented many years ago but result had not be found significant ergo, ministry of skill development and entrepreneurship (MSMD) and national skill development corporation (NSDC) has been taken several initiatives like-short term and long term training scheme and initiatives through NSDC and DGT respectively in the flagship scheme namely PMKVY (Pradhanmantri Kaushal Vikas Yojna) of MSMD implemented by NSDC to develop the entrepreneurial skills of future generation and adult target group in India.

Objectives of the study

1. To suggests designing a framework on creativity oriented entrepreneurship education for environmental sustainability
2. To develop understanding in environmental sustainability related emerging areas through creativity in entrepreneurship education.

Theoretical Framework-

Creativity, Entrepreneurship and Environmental Sustainability

The concept of "from thinker to doer" may help update traditional vocational education by shifting the emphasis from a doer's mastery of skills to a thinker's inspiration. Creativity and innovation have been highlighted as essential for the twenty-first century as they drive organizational success in many sectors (Audretsch et al., 2006; Yusuf, 2007; Ferreira et al., 2017). Thinking and doing creatively is crucial for innovations in organizational development. These elements are highly valued in business and educational research, but vocational schools rarely offer curricula for cultivating creativity. According to schumpeter (2000) "entrepreneurship as innovation" means embracing creativity in school education and making innovation and entrepreneurship the goals of creative training; taking these steps could avoid the divergence and impracticality of pure creativity. To start a business, creativity and innovation are critical in every cultural and society. Therefore, the corresponding question for educators is, Can entrepreneurship skills be taught or nourished?

SDGs, Creativity and Entrepreneurship Education

The former secretary-general of the United Nations (UN), Kofi Annan, stated at the 2002 World Summit on Sustainable Development that "education is the key to achieving sustainable development" (UNESCO, 2005). An important issue for humanity in the 21st century, sustainable development considered crucial core value for entrepreneurs starting their companies and educators planning entrepreneurship education. However, a review of creativity, innovation, and entrepreneurship (CIE) education studies revealed that most explore the role of pro-market

institutions in innovation and entrepreneurship (Gibb, 2002; Sun, 2011; Edwards-Schachter and Wallace, 2017; Li and Yu, 2018; Boudreaux et al., 2019). The value proposition of these studies is economical and profit-oriented. The earliest mention of sustainable development refers to profitable, sustainable management rather than societal sustainability. Overdevelopment, creativity, and innovation that emphasize economic interests may expose humans to more dangerous situations and natural disasters. The green movement of the 1980s (Dominick, 1988; Peattie and Ratnayaka, 1992; Jones and Lubinski, 2014) initially focused on the sustainable development of the environment. The Millennium Development Goals released by the UN in 2000 opened the global discussion of sustainably developing society. In 2015, 17 SDGs were offered as guidelines for human development shown in Figure 1 (United Nations, 2015). They are now considered one of the driving forces behind the transformation of private business (Storey et al., 2017). In turn, the concept of social enterprise has grown more prominent in recent years (Adam, 2004; Galera and Borzaga, 2009; Davies et al., 2019), and social entrepreneurship, a movement about citizen consciousness and voluntarism, has developed. Social entrepreneurship blurs the boundaries between society and business and transforms the notion of non-profit organizations. The implementation of SDGs will not succeed if social enterprise is missing (Pache and Chowdhury, 2012; Lee, 2020). Social enterprises deliver catalytic and innovative participation, which are vital to solving the problems facing humanity. The core idea of social enterprise opposes the logic of mainstream capitalism, which is why it does not emerge naturally. The idea of starting a social enterprise might depend on entrepreneurship education in schools (Tracey and Phillips, 2007; Pache and Chowdhury, 2012).

FIGURE 1 | Sustainable development goals, SDGs (United Nations, 2015).

Significance of Entrepreneurship Education for Environmental Sustainability

The demand for enterprise education grew unprecedentedly from the 1980s to the 1990s (Jack and Anderson, 1999), and most entrepreneurship education and training (EET) studies have focused on the benefits of entrepreneurship for economic development (Audretsch et al., 2006; Prieger et al., 2016). Before the 1960s, people did not realize the damage that environmental destruction could do to human development. Now, key issues, such as climate change, loss of biodiversity, frequent disease outbreaks, uneven distribution of food, and increased poverty, are leading people to reflect on the imbalance of nature. Sustainable development is currently regarded as an ark that will carry the essential thoughts of the modern era, such as striving to reverse the currently imbalanced development framework for Earth and pursuing long-lasting peace and prosperity for humankind. Despite the importance of creativity in entrepreneurship education for sustainable development it has not been adequately integrated to school curricula to higher education level. Rashid (2019) reviewed EET literature and proposed several findings: (1) little research connects EET literature with sustainable development; (2) EET can advance sustainable development; (3) EET programs generates environmentally sustainable products and (4) EET requires innovation. Linking creative entrepreneurship education with Sustainable Development Goals (SDGs) should prove beneficial and practical. Based on literatures and practical experiences, this study proposes a creativity, innovation, and entrepreneurship (CIE) education framework that should provide a more forward-looking, practical, and realistic direction toward achieving SDG. Role of entrepreneurship education is instrumental not only for environmental sustainability but also significant or helpful to transform India as 'Atamnirbhar Bharat' that leads to increase self -employment and decrease poverty from India.

Figure 2 Layers of the proposed CIE education framework

Creativity and Entrepreneurship Education Framework towards Sustainibility

The originality of creativity refers to the discovery or development of ideas, while innovation, which refers to the application of those ideas within a market setting, can be divided into the categories of technology or business mode (Antonites and Van Vuuren, 2005; Li and Yu, 2018). Yusuf (2007) analyzed the process from the macro-scope and found that a culture that is positive toward competition, risk-taking, and wealth accumulation; institutions like venture capital and

government funding schemes; and financing Research and Development together comprise the matrix of creativity that lead to innovation. The present study incorporated the concept of sustainable development into the aspect of creativity to propose a pathway for CIE education from creativity to social innovation. Rooted in but differing from the business domain, social innovation is defined as "innovative activities and services that are motivated by the goal of meeting a social need" (Mulgan, 2006) and as a novel solution for the social problem that is sustainable (Phills et al., 2008). According to Candi et al. (2019), the social dimension of innovation can be classified into three streams: not for-profit, hybrid, and business ethics. In the proposed education framework, instructors are free to choose the position according to their enterprise development support, culture, and perspective on civil society. Where venture capital funds are abundant, teachers can choose a business ethics perspective; where civil societies are developed, the not-for-profit stream may receive more support.

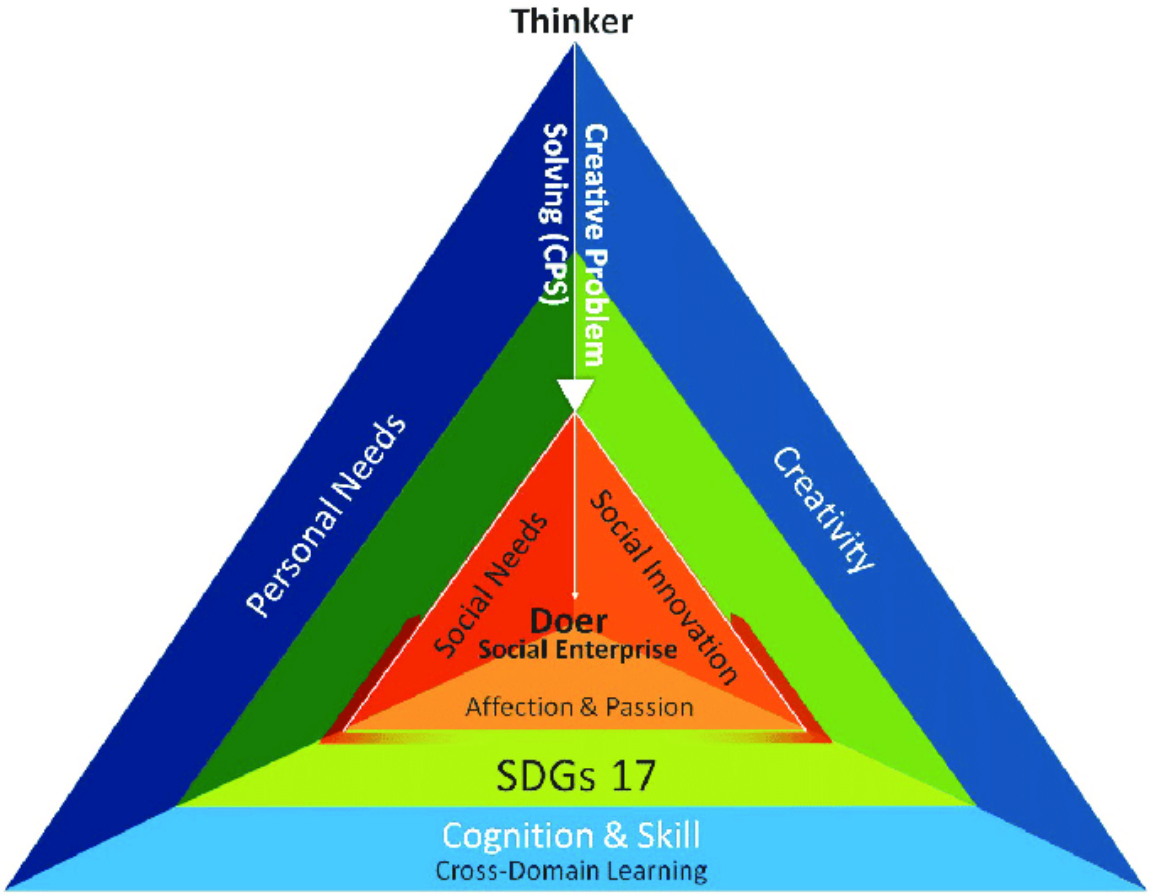

FIGURE 3 | the sustainability-oriented CIE education framework

Method

In the present research study, an integrated literature approach (Torraco, 2005) has been used. It allows addressing an emerging research field and feeding it with new insight and theories from different lens.

Findings and Creativity and Entrepreneurship Education for Sustainability: Practices

The goal of creativity, innovation, and entrepreneurship education is business development (Jack& Anderson, 1999; Blenker et al., 2013; Ballor and Claar, 2019). By offering an educational framework with sustainable human development as its primary value, the present study aims to highlights the role of creativity in Entrepreneurship Education for Environmental Sustainability.

This framework, which include topics like sustainable development challenges, creating social enterprises, learning about cognition and emotional abilities can be used to guide future generation at any educational level. This can be done using lectures, multimedia, games, or reports. Additionally, the age of the pupils and their stage of cognitive development affect how deeply they explore the subject matter.

For instance, slums are relevant to at least eight SDGs and are not only about poverty. The third stage, "sublimation," builds on the knowledge of the SDGs from the first stage of creativity, clarifies individual difficulties and problem-related cognition and technology, selects one or more solvable goals from the SDGs, and reviews the solutions created in the previous stage. Students will be encouraged to think imaginatively once more, to propose appropriate revisions to "the needs" or "the solutions," and to update and elevate to the third level the problems that creative problem solving (CPS) must answer. In other words, the purpose of entrepreneurship education is to encourage social innovation, put a premium on societal requirements, demonstrate love and excitement for sustainable development, and ultimately direct students towards creating social companies and engaging in social design. Students might consider the market size and client base for the commercialized product they have in mind from the standpoint of societal requirements. They can modify or reframe strategies to accomplish sustainable development objectives, such as expanding markets in developing nations, combating poverty, and providing for the elderly, from the standpoint of social innovation. Students who are at the top tier (doer/social enterprise) will see themselves as global partners and contributors. The instructor might ask them to develop social innovation projects or launch a social venture. Unlike previous business-oriented CIE education studies (Jack and Anderson, 1999; Koch et al., 2006; Blenker et al., 2013), this study proposes an entrepreneurial education framework that aims at the sustainable development of the earth and uses social enterprises as a means.

Recommendations

This study suggests a promising entrepreneurial education paradigm. This study suggests a promising framework for entrepreneurship education to highlight the creativity based illustration for entrepreneurship education as required for environmental sustainability (see Figures 2, 3). Further it reveals that social enterprises can therefore be considered as the forerunner of the future entrepreneurial education system, as guided by creative problem solving (CPS). In other words, social design is the creative thinking that this research offers to on-site teachers inside the entrepreneurship educational framework and is a reaction to the idea of creating a sustainable global village from the perspective of entrepreneurship mindset and environmental sustainability.

Teachers can gradually develop social design abilities through entrepreneurship education and give entrepreneurial talents a unique but sustainable method to help ensure the sustainability of humanity and the planet by adjusting courses through various levels of integration.

Concluding Remarks

Finally, the research study highlights the role of creativity oriented entrepreneurship for environmental sustainability by applying an integrated literature review and suggestive framework based on creativity based institution, authors address the research question how does creativity promotes entrepreneurship that helps for environmental sustainability. Furthermore it helps to provide the environment for changing the mindset from left hemisphere to right hemisphere which is responsible for the progress of every individual as well as nation. The present study has also limitations like lack of empirical evidences, rigorous methodology lack of ample studies included for integrated review process. Therefore further empirical and experimental researches are needed to validate the findings of the study.

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