Vedic Plaster: The Sustainable Enterprise

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Abstract

The purpose of this paper was to showcase successful business model based on sustainable resources which have side-lined the conventional route taken by most of the practitioners worldwide. The business model duplication is possible by going through the existing work of an exemplary organization named Vedic Plaster, the Indian sustainable organization led by a bunch of enthusiastic people that created a breakthrough in the cement industry by going organic.

In this paper, an honest attempt to practically elaborate the concept of sustainable entrepreneurship was tried. Sadly, till now it has been restricted more to the academicians than practitioners. The current body of work unfolds the story of Dr. Shiv Darshan Malik, a sustainable entrepreneur from India. The USP of the organization is the replacement of cement with plaster formed using Indian breed cow-dung.

The case encompasses five stages starting with the introduction, his inspiration, operations, value proposition offered, and challenges faced. The value created by his organization practising sustainability can become the roadmap for other sustainable entrepreneurs willing to start their ventures.

Keywords: **Environment, sustainable enterprises, sustainable entrepreneurship, sustainability**

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The process of changing lives of people by exploring untapped opportunities without compromising on the social, economic, and environmental aspects of biodiversity is the province of sustainable entrepreneurship (McDougall & Oviatt, 1997). Recent literature and theoretical framework of sustainable entrepreneurial opportunities have further highlighted the importance of sustainable entrepreneurship in present times (Thompson, Kiefer, & York, 2011). Few studies show how the concept is practically tested in the field instead of simply adding more to the existing literature (Pacheco, Dean, & Payne, 2010). An attempt was made to showcase the successful institutional model of an organization named Vedic Plaster that can be used as an imitation model for other organizations, not just for a single industry, rather multiple industries operating globally.

The registration of Vedic Plaster, an Indian organization under MSMEs (Micro, Small and Medium Enterprises) took place in April 2018, but the idea hit Dr. Shiv Darshan Malik long ago in 2009. Vedic Plaster is an organization which makes plaster for walls and floors without using the conventional method and components. The breakthrough achieved by Vedic Plaster is replacing cement with Indian breed cow dung. The formula for mixing cow dung and gypsum along with other natural ingredients proved beneficial for the production of plaster. The thermal insulating properties of cow dung plaster have a cooling effect in summers and keeps houses warm in winters unlike cement plaster which makes homes warmer in summers and cooler in winters. Another great property is that it acts as an air purifier and releases positive energy in the house, thus, giving it an edge over cement plaster. The radiation shielding properties make it all the more favourable for users by protecting them from harmful rays. The basic requirements of applying plaster on walls are minimal and do not require lot of water as is required in other cases. The cost-effective cow dung plaster which is way cheaper than cement plaster is the reason for its success. Looking at global issues like global warming, food security, unemployment, population, and many more listed by United Nations, the only option left is to go for sustainable natural resources. The sustainable solutions offered by sustainable entrepreneurs one day will become the backbone of the entire globe. The depleting role of biodiversity encompassing varied species of animals, plants, humans, etc. need to be highlighted again to look for further sustainable solutions.

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Inspiration and Entrepreneurship

The regular involvement in household chores due to the illness of his mother and absence of other female members ignited interest in Dr. Shiv Darshan Malik in the ingredients used on a regular basis at home. A significant impact on his mind was left by the common practice in his village. The small Madina village located in Rohtak district of Haryana where he resided applies the paste of Indian breed cow dung mixed with regular sand on their walls. Traditionally, this practice was prevalent all over the country until cement plaster came into the picture. His passion for studying the chemical properties of natural resources like Dakar sand, cow dung, composition of spices used in the kitchen, traditional ancient products used by Indian saints, etc. enhanced his curiosity level. Eventually, he ended up doing a doctorate in Chemistry. However, the unmatchable properties of cow dung always remained at the back of his mind. He started teaching in Murthal and assisted a number of Indian Institutes of Information and Technology (IITs) as a consultant. The projects of World Bank gave him more extensive exposure and opportunity to travel worldwide. During this period, he observed mud houses and the usage of rice straws in making homes in European villages. His interaction with villagers revealed how major inspiration comes from Indian communities. This encounter firmed up his belief of going back to the roots and going back to his village. Back home he started experimenting with his ideas. The ideas moved beyond the boundaries of his lab to his house. As an enthusiastic researcher, he came up with the formula of making cow dung plaster and shared it with the concerned authorities. However, his file did not receive the attention that was required to support the project as he had expected. The fight against the system made him take up the charge of the project and awaken his existing latent entrepreneurial spirit. The practical and groundwork started taking off in the year 2012. He began experimenting cyclically year by year, season by season. The results were unfolding in front of him, giving more confidence to his dreams. Meanwhile, the voices for cow protection started being raised in the country where the cow is at the status of a mother and is called *Gomata*. His ideology of protecting the cow was by linking it with its utility. Higher the use, more would be the demand. This simple logic was drawn by him. In 2018 his Vedic plaster hit the market with an overwhelming response, but the journey of sustainable entrepreneur started much earlier.

Getting Started

Initially, a workplace of 835 sq. yards was identified in Rohtak (Haryana), followed by a bigger manufacturing plant in Bikaner (Rajasthan). Both the places were readied with all the manufacturing, packaging, storing, and supplying facilities. Today, production of 15 to 20 tonnes per day is taking place. Both the plants are financed by friends and relatives. No capital is borrowed from banks. Instead, it is heavily dependent on angel investors. Cow dung is taken directly from cow shelters (goshalas) and they are paid way higher than the market price. The ideology behind price rise is to attach greater importance to cows in the society. Gypsum sand is purchased from the land of abundance, that is, Rajasthan. Lemon extract and Guar gum are majorly taken from Rajasthan. Initially, the project started at a small scale but a rise in demand forced them to operate on a larger scale. All the key ingredients are refined minutely and then mixed in a certain proportion to get exact results. An enthusiastic team of 40 members works day and night in order to give sustainable solutions to the society. Today, the product is distributed all over the country excluding the disturbed state of Jammu & Kashmir. Different modes, particularly, social mediums like Facebook, WhatsApp, and Twitter are used to advertise and market the product. Word of mouth has increased sales tremendously. The vision of protecting cows and improving their utility by making sustainable products has doubled the energy of people working in this venture.

The Value Proposition

Vedic plaster production uses minimal electricity. Electricity is used only for grinding. All the factors of production are natural resources.No chemicals are mixed in the making of eco-friendly product. The essence of this product lies in the properties offered by cow dung. Unmatchable properties like natural air purifier, thermal insulator creating a

temperature difference of 10-15 degrees, pollution control measure, radiation proof quality, etc. are all difficult to find in other resources. The 20-22% of cow dung in an entire mixture contributes significantly to plaster production,thus, making it socially valuable and economically viable. Other benefits like health, low water consumption, reduced dampness, source of positive energy, indirectly increasing the utility of cows, raising economic value of cows, protection against harmful insects, etc. enhances the value proposition of the product. Other components like gypsum, *guar gum*, and lemons are witnessing an increase in demand due to industrial use. The most significant beneficiaries in this case are farmers who are seeing a never before like demand for *guar gum* (cluster beans). Another property of Vedic plaster is that its coat is sufficient to decorate a house and no further use of paint is required. Cement plaster involves four stages starting with plastering, wall protection putty, wall smoothener, that is, primer, and then paint. Vedic plaster needs only one coat of plaster on walls. To add color, natural ingredients like fruit and vegetable extracts are used. Economically, the difference of ₹13 can be seen in applying plaster on 1 square foot area. The results are incomparable because of the harmful effects of cement. The lack of alternativeness of cement plaster and paints has forced people to compromise with their health, but with the introduction of Vedic plaster in the market that offers incredible benefits, one can completely change the outlook of people towards the plaster and paint industry. Socio-economic impact and inclusion of bio-diversity results in sustainable solutions. Sustainable solutions are a future-ready solutions to problems which are offered by sustainable entrepreneurs. Therefore, the innovation of Dr. Shiv Darshan Malik is one big solution to global issues like climatic change, global warming, food insecurity, environmental problems, health issues, etc.

Challenges Faced

The saddest barrier or obstacle is posed by the mindset of people towards cow dung. The usage of cow dung in a product for them is not upto their status. The humongous challenge was to change the thinking toward cows. Next challenge was the lack of institutional support from the concerned authorities. Lot of time was spent in getting the trademark for the product. Until then there was fear of the uncertain future. A significant challenge was to carve out a niche for the product. Convincing distributors, training team members on how to develop skilled sets of labourers, the vital link in this process generated expected challenges. Generating awareness and building trust towards the product once again was a challenge. Though, the path was challenging, it was not impossible to achieve results because eventually, the sustainability criteria worked for the product. To operate at a large scale and meeting consumer demand on time was challenging initially, but now lessons are learned through experience.

The Future

The target is to apply the product on the walls of hospitals, mental asylums, and other places where people get treatment, so that they can get the real benefits of cow dung properties. The global launch of the product can help to curb pollution and reduce global environmental issues. Other economies can make most out of these innovations. Further experiments should be conducted in this direction for solving problems with sustainable solutions. The sustainable solutions offered by emerging economies of the world can help in reducing the harmful effects of technological advancement taking place every second. We have to ease out on the growth aspect by compensating it with sustainable development. The trade-off between sustainable and non-sustainable solutions is required so that the next generation should not face the consequences of the short-term irresponsible acts happening in present times.

Managerial Implications

The paper acts as a base for imitating the exemplary institutional model or successful organizational model by the other stakeholders. The strategic partnership highlighted in the document can create a market-based collision, in turn, creating a win-win situation for all. The awareness of the existing practice is made public, eventually giving multiple options to the end consumers. The imitation dynamics within consumers and industry would be the game changer for

the entire cement sector.

The value-added product, content, and process depicted in the study can change a lot in the context of sustainability and holistic development of the entire world. The work of the researcher is in one sector that can be replicated in other industries too. Social science researchers can work more deeply in this area by analyzing the quantitative data and generalizing the results of their work. A lot of research based on perception changing attitude should be conducted particularly of the youth. Behavioural sciences need to be explored in future.

The future and current generation's unemployment problems can be reduced through this kind of replication model. The entrepreneurs have to transform the existing business models into sustainable models. Successful imitation models can come in a picture for them. Academicians can teach these models in their classrooms to widen the horizons of their students by decreasing their dependency on jobs and making them ready for entrepreneurial activities. Policy makers too can consider these kinds of ventures before policy formulation. They should focus on diffusion aspect of it because growth and development in one state should be diffused in other states also.

Limitations and Future Scope of Research

The current study is subject to constraints that need to be addressed before being executed by others having same line of interest. The simple case study approach is used for detailing the events of the enterprise in chronological order. The specific case would be difficult to generalize in another context; primarily, it is storytelling that somewhere lacks rational research (Hodkinson & Hodkinson, 2001). The meaningful interpretation makes the case study approach enriching and acceptable worldwide. Due to the unique concept of the case studied in the paper, the real essence of understanding is still not so bright for others to comprehend. However, ample opportunities exist for different stakeholders looking forward to working in this direction. Researchers and industrialists are the ones who can be benefitted mostly by this unique study presented with a fresh outlook, giving sustainable solutions to deep-rooted problems. A lot needs to be done and studied in this field of sustainable entrepreneurship and internal factors like motivation, the objective, personality traits of the people behind these kinds of enterprises (Brockner & Higgins, 2001). Lastly, the regulatory mechanism of developing nations is in a dire need to get it right and favourable for people looking forward to working in this domain. The scarcity of available literature related to regulatory framework can be noted at present.

Conclusion

Sustainability is an answer to every problem this generation is facing today. The perception towards local and organic products needs to be changed. "Go Green" should be the motto of the present and the future world. Green products, green jobs, green services, etc. should be at the top of the list for industrialists, consumers, youth, entrepreneurs, government, etc. The outlook towards the outside tech-savvy world should be looked at with the sustainability lens. Artificial intelligence, the latest advancement in technical fields, and Robots, all need a coating of sustainable and green results. Then only real development will take place all over the world. Otherwise, one should be prepared for unrepairable, unseen damage, and destruction that is likely to occur.

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