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# **GROWTH, INNOVATION, AND SUSTAINABILITY**

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#### **ABSTRACT**

This abstract talks about strengthening society through sustainable innovation that leads to the formation of those channels that multiply the ideas and practices to foster sustainable development. Economic growth does not always contribute to environmental degradation. Past and present water pollution control policies would be laid out on the curative technological path of wastewater treatment plants, which created a lock-in, blocking the introduction of preventive solutions such as process-integrated water recycling. In the early stages of growth, the quality of the environment generally deteriorates but at higher levels of per capita income, it improves. The link between income and pollution arises because the composition of output changes with growth in favor of newer and cleaner technologies. Thus, it can be said that sustained economic growth is the key to sustainable development. According to Agenda 21, broad public participation in decision-making is a fundamental prerequisite to achieving sustainable development. Sustainability involves the simultaneous pursuit of economic prosperity, environmental quality, and social equity. With the increasing complexity of business processes and the emergence of new financial risks, financial innovation and development become necessary to propel economic growth. Introduction of the financial innovations like venture capital, microfinance, and various financial technologies like NEFT, automated teller machines, and E-banking had a significant positive effect on the growth of the economy and has pushed digital transactions in areas with poor connectivity. Good governance is the foundation stone for a country aspiring for economic growth and sustainability.

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A government that is responsive, accountable, transparent, and efficient in the delivery of services helps its citizens to develop their capabilities and work to their full potential which contributes to economic growth. Innovations in public service ensure competitive, efficient, cost-effective, and accountable public administration.

Keywords: Curative, prerequisite, process-integrated, governance, Microfinance, complexity.

#### Introduction

One of the major problems the world is facing is the problem of exponential growth of the population which is considered to be one of the greatest ones. Every attempt to bring peace, comfort, and welfare to everybody's door will be thwarted and misery will become prominent if the population is not kept within the proper limits. Human development has recently been advanced as the ultimate objective of human activity in place of economic growth. Its intellectual antecedents may be traced to the earlier basic needs [1]. Human development has been defined as enlarging people's choices in a way that enables them to lead longer, healthier, and fuller lives. There exists a strong connection between Economic growth and Human Development. On the one hand, Economic Growth provides the resources to permit sustained improvements in Human Development. On the other, improvements in the quality of the labor force are an important contributor to Growth. Yet, while this two-way relationship between these two terms may now be widely accepted, the specific factors linking them have not been systematically explored. The need to create productive employment at a very large scale is obvious. This is more complicated than just giving away money for rural make-work programs – that is just a transfer scheme for redistribution-cum-income insurance. India needs to create more new businesses and allow existing ones to expand more easily, and in employment-friendly ways [1]. Labor market reform is needed, and it is not as difficult as it is made out to be. India is constant with major reforms of its legal system. These reforms began with alleviation and enclosed cutting tax rates and rationalizing social control and administration.

Tax reform has been a very important contributor to the country's improved economic performance, the most recent effort on indirect taxes is the move towards a unified national merchandise and services tax (GST). On the direct tax front, the new direct taxes code (DTC) bill has simply been tabled in parliament [2]. A major tenet for tax reform is the goal of reducing distortions in economic activity that taxes will produce. Tax rates that square measure too high, or taxes that apply to slim teams, are more distortionary than lower rates and broader tax bases. Reforms of indirect and direct taxes square measure meant to chop down on distortions and improve economic potency. Lower rates applied a lot broadly and equally, while not overlapping taxes or exemptions, square measure a part of the GST and DTC. Another principle, aligned with the primary, is simplicity. Simplicity makes tax administration easier and a lot clear. It eases tax coming up with. The GST and DTC square measure each less complicated than their predecessors.

#### I. Innovation in Economy

Innovation is an important factor that serves to determine the sustainability of business operations and the profit-making initiatives for the involved organization and in a business environment. The 21<sup>st</sup>-century business environment is characterized by aggressive competition, and that shows the relevance of innovation [3]. There is an increase in the ratio of the number of businesses per every given industry. It is responsible for raising the quality and lowering the prices of products and services that have dramatically improved consumers' lives. By finding new solutions to problems, innovation destroys existing markets, transforms old ones, or creates new ones. It can bring down giant incumbents while propelling small outsiders into dominant positions. Without innovation, incumbents slowly lose both sales and profitability as competitors innovate past them. Thus, Innovation provides an important basis by which world economies compete in the global marketplace [3]. The smartphone is a Disruptive technology that has increasingly grown and rapidly affected consumer behavior, education, shopping, and majorly the mobile industry. The growth of smartphone technology is critical in the field of Information Technology.

The current modern society has been going towards continuous economical growth through newer sustainable innovation. Innovation plays an important role in social development and coordination with the market which is a concern for every organizations. It is a complex process as it faces many challenges such as developing technology. Sustainability should not imply proper management of resources to meet the present needs without exposing future generations to danger. However, sustainability should bring quality life today, as well as prosperity to ensure that the future is not compromised. Companies that engage in sustainability initiatives achieve or manage to create a self-sustainable society since they appreciate and embrace new ways of doing things that add value to the life of the people. To achieve true sustainability, any company requires innovation.

Sustainability is also at the core of the 3M United States Company. It has managed to achieve this through the adoption of strategies that do not compromise the social and environment of human society 3M United States Company. 3M United States Company is one of the companies that have participated in the sustainability of the environment. The company managed to regulate its volatile organic air emissions. It succeeded in achieving great milestones. For instance, the company managed to reduce these emissions by 95%. In 1990, its emission was 255 million pounds compared to 13 million in 2011 [4]. It has managed to achieve this through "the development of pollution prevention programs, solvent-less technologies, and use of pollution control equipment".

The company's efforts have also seen it contribute to the management of climate change. The company has managed to reduce green gas emissions by managing to cut down emissions by 72% from 1990 to 2011. The company has also managed to keep the environment clean by preventing pollution. It adopted a 3p strategy, pollution prevention pays, which has seen the company save around 1.5 US billion besides eliminating around 3.5 pounds of pollution. The company is also committed to water stewardship. It has reduced the amount of water that it uses. Besides, it releases fewer pollutants into the water [4].

This is aimed at sustaining the environment to ensure that everybody in society has a quality life. Furthermore, the company has laid down strategies geared toward managing waste. This has reduced the number of toxins that are released into the environment. The wastes produced by the company come from unused raw materials, which are sold or reused for other duties [5]. This has a positive impact on the economy, as well as the environment. Ongoing environmental innovation is solely thanks to scaling back pressures on environmental qualities whereas maintaining financial gain growth. However, the views on a way to initiate and foster environmental innovations take issue, within the essay, we tend to discuss 3 theoretical approaches. From neoclassical theory, we tend to distill the message that analysis and development of the latest technology thrive on economic incentives. The biological process theory describes patterns in technological development however in our read it exaggerates the importance of technological interlinkages that cause lock-in, as barriers to environmental innovation and it overlooks the organizational impediments at intervals in the firm. From the activity theory of the firm, we tend to learn that innovations will solely get through in things of urgency. The conclusion is that a strict environmental policy will produce a sense of urgency and powerful incentives for environmental innovation. formidable and inflexible targets at the macro-level however flexibility at the microlevel of the firm square measure best as a policy to foster environmental innovation.

#### II. Customer Response to Innovations

Successful innovation rests on first understanding customer needs and then developing products that meet those needs. Our review of the literature, therefore, starts with our understanding of customers and their response to and acceptance of innovation. Because we are interested in how firms profit from innovation, the article then reviews organizational issues associated with successfully innovating and with how organizations adopt innovations [1]. Customer understanding and the organizational context are the underpinnings of innovating successfully. The success of innovations depends ultimately on consumers' accepting them.

Successful innovation rests on first understanding customer needs and then developing products that meet those needs. Consumer innovativeness is the propensity of consumers to adopt new products. If innovativeness is a valid predictor for new product adoption, then measures of innovativeness should identify those consumers most likely to adopt new products so that firms can target marketing efforts and improve forecasts. Over decades, researchers have developed and proposed numerous scales which differ in their theoretical premise, internal structure, and purpose. The core problem is political acceptability, and a grandfathering scheme, where existing employees are protected, but new ones in new firms, or certain classes of old ones, are allowed to be employed under more flexible conditions. Panels on innovation and investment were the foremost enlightening, however they nearly entirely include entrepreneurs and investors of Indian origin.

Reciprocally would expect from those making an attempt to make the long-standing time, either through implementing new ideas or funding them, there was a quiet optimism that provided some balance to the macro issues expressed at numerous times throughout the day, additionally, dominate the headlines [7].

Usually, this could be usually don't say that the sole real optimism came from Indian Americans. Senior executives from Cisco, VMWare, and movie maker International additionally gave samples of but country represents opportunities, or however it's going to take blessings of rising opportunities. International interchange of merchandise and services has, additionally, helped the country grow extra quickly keeping with theory, liberalizing the interchange of product need to have just a one-time result on output, rather than a permanent result on growth, however, the one-time result could cowl decades.

Openness to exchange addition brings new capital and ideas aboard merchandise and services, and these can give boosts to long growth. Asian nations might even be a special countries presently than they'd been twenty years agone. Larger economic openness has contributed to it distinction, dynamic attitudes towards curiousness, reducing the angle of temptation [10].

Therefore the openness of the U.S.A., allowed Indians to migrate there, succeed economically, and presently begin to bring back capital and ideas to their home country.

For example, Steenkamp, ter Hofstede, and Wedel (1999) studied 3,000 consumers across 11 countries of the European Union. Tellis, Yin, and Bell (2004) studied over 4,000 consumers across 15 major countries in the Americas, Europe, Asia, and Australia.

They find that innovativeness differs systematically across countries, though innovators also show certain demographic commonalities. Such analyses can throw light on optimal strategies for global entry. By using the same instrument across cultures, researchers can partly bypass the problem of choosing the appropriate scale.

However, to obtain valid results, researchers need to ensure that the instrument is properly translated, back-translated, and re-translated. They also need to control for cultural biases in responsiveness, such as reticence among East Asians or exuberance among Southern Europeans [10,11].

#### III. Improvement with Innovations

The environment itself plays a superior role in human existence and development. Sustainability does not mean ecological traces, on the other, it is also related to the future state of development. The current modern society has been going towards continuous economic growth through newer sustainable innovation. Sustainable innovation means how to sustain continuous innovation/improvement for organizational growth, competitive advantage, increased market share, etc. We can say that sustainability is a permanent adaptation to changing conditions. Sustainability is essential for the economy as the planet's natural resources have a necessary end as continuous uses arise its unavailability because it's not infinite. So, it is essential to develop new processes and use different resources for any commercial activity for the longevity of the global economy [5].

Innovation plays an important role in social development and coordination with the market which is a concern for every organization. The innovation process is complex as it faces many challenges as developing technology for this, market support to grow it, innovation accepted by the society, competition with the organizations, Environment friendly, and many more. It aligns with social demands for fair working conditions, environmentally friendly processes, and products, improvements in communities, etc.

Environment challenge is frequently faced issue to prevent society's pursuit of sustainable development. Pollution and degradation of natural resources affect global livelihood. Industrialization and urbanization, which cause greenhouse emissions and residual chemical flow, lead to global warming and affect most of the life near their areas. Urbanization industrialization and agricultural developments face major environmental sustainability challenges which lead to future strategies to migrate their effect and environmental restoration. Therefore, it needs to introduce compromises that balance human needs and environment into the practice, based on day per days innovation and growth. Their impact and benefits are monitored in a way that allows carrying out the corrective measures if they seem to be necessary.

The Global Goals and the 2030 Agenda for Sustainable Development seek to end poverty and hunger, realize the human rights of all, achieve gender equality and the empowerment of all women and girls, and ensure the lasting protection of the planet and its natural resources. The Global Goals are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social, and environmental.

For economic sustainability, we can create an infrastructure that may be complex as it involves cooperation from the public, private, and government. On the individual level, a private investor can direct their money toward companies whose values and practices align with their own. Citizens can also encourage their elected officials to create economic plans that include sustainable development goals and caps on greenhouse gas emissions [8].

Ultimately, it's only through large-scale action and an overhaul of the financial systems that constitute the global economy that society can achieve environmental sustainability. The performance standards address specific emission sources within the corporations, that produce a retardant of the way to correct the standards for various kinds of corporations. A strict cap on the total emission of all corporations along and adaptability for bushed their thanks to management emission would be an answer that leaves way more scope for various kinds of innovation compelling in effectiveness and prices [6]. The EU theme on greenhouse emission commercialism and similar older schemes within America demonstrate however such systems, combining onerous inflexible emission targets at a macro level with the most flexibility at a small level of a firm, will perform in apply. Neoclassical political economy praises the potency of such schemes in emission management and we suppose that their importance as a superior instrument of environmental innovation deserves even a lot of appreciation [9].

### Conclusion

Sustainability and innovation are important to the success of individuals and companies. Sustainability is concerned with safeguarding or promoting the environment, and social, and economic status for the benefit of the current and future generations. Innovation is also an important concept in a business environment, as it ensures that organizations adapt to ideas that are beneficial to them. Companies cannot achieve innovation without having successfully embraced sustainability. The success of a government-led sustainable innovation strategy is, however, dependent on who the government involves in the strategy implementation. The success of such a strategy cannot be successful if the private sector is not involved (Osburg 2013). It is, therefore, important for the government to formulate such strategic plans in a manner that enables private players to recognize business opportunities from the strategies to entice them to support the strategies fully and make the strategic plans a joint initiative between the public and private sectors.

Governments can also promote sustainable innovation through the issuance of laws and regulations. Governments can establish prescriptive codes and certain levels of sustainable performance that public and private entities are supposed to uphold (Bossink 2012). By restricting private organizations to certain sustainability boundaries, this strategy can enhance innovation as private organizations find new ways to maintain or enhance profitability. Governments can also promote sustainable innovation by providing financial incentives or pressure. In this strategy, governments can reward innovative initiatives that are environmentally friendly or apply economic obstacles to deter activities in unsustainable directions.

The 3M United States company has successfully engaged in the sustainability of its environment through various programs that have seen it become innovative in many areas thus impacting positively the environment, economy, and social structures. Therefore, companies must devote their time and resources to sustainability to ensure that the whole society thrives well now and in the future. To promote sustainable innovation, the government should support technologies and innovative research by using public procurement to establish markets for new sustainable products and services. Similarly, the government should play a leading role in the implementation of action plans for global environmental technologies.

Neoclassic economic science has created it clear that innovation, which has environmental innovation, doesn't embark on blue, however, could be a product of analysis and development. Investment in analysis and development could be a risky enterprise that will solely be undertaken if there's an honest prospect of profit. while not incentive, no environmental innovation, that's for the United States of America the essence of the neoclassical message, the costs play a secondary role in this context, organic process theory has argued that technological development will mire in an exceedingly technical lock-in attributable to linkages and ruined value. The supposed lock-in in add-on pollution management technology, that blocks the introduction and diffusion of process-integrated cleaner technologies, however, is a problem to the extent of the firm.

### References

- 1. Principles of Sustainable Development, Manuscript.
- 2. Chowdhury, S 2003, Design For Six Sigma-The Revolutionary Process for Achieving Extraordinary Profits, FT Prentice Hall, New York.
- 3. Christensen, C 2003, The Innovator's Solution-Creating and Sustaining Successful Growth, HBS Press, London.
- 4. Duygu, K, Jan, C, & Nelliene, M 2012, 'Innovation process of new ventures driven by sustainability, Journal of Cleaner Production, vol. 5 no. 8.
- 5. Frank, B, & Florian, L 2011, 'Business models for sustainable innovation: state-of-the-art and steps towards a research agenda', Journal of Cleaner Production, vol. 2 no. 5.
- 6. Gobble, M 2012, 'Innovation and Sustainability', Research Technology Management, Vol. 55 no. 5.
- 7. Sarkis, J 2010, Facilitating sustainable innovation through collaboration a multi-stakeholder perspective, Springer, Dordrecht.
- 8. Waffenschmidt, M 2007, *Innovations towards sustainability conditions and consequences*, Physica-Verlag. New York.
- 9. Weber, K, & Hemmelskamp, J 2005, *Towards Environmental Innovation Systems*. Springer Science & Business Media, Dresden.
- 10. Wheelen, T, & Hunger, J 2012, Strategic Management and Business Policy: Toward Global Sustainability. Pearson, Boston.
- 11. McIntyre, J., & Ivanaj, V 2013, *Strategies for sustainable technologies and innovations*, Edward Elgar Publishing, Cheltenham.