

# Yoga: A Case of Reverse Innovation

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## Abstract

*Yoga as a practice has been followed in India since times immemorial and is believed to have originated in India. Rishis in ancient India practiced it as a spiritual discipline to keep themselves fit and healthy. As migration of people starting happening globally due to business, education, employment and trade over the past five to six decades, this tradition got exported to the developed countries from an emerging market like India. Thus Yoga can be termed as a case of “Reverse Innovation”. Today a developed country like the United States of America is among the biggest markets for Yoga apart from many other developed nations. In view of the all-round health benefits of Yoga on the human body, 21<sup>st</sup> June has been declared as the “International Yoga Day” by the United Nations General Assembly (UNGA). This paper focuses on the relevance of Yoga as a spiritual practice and its gradual evolution into a business case of reverse innovation.*

## Introduction

21<sup>st</sup> June 2015 has been observed as the international day of Yoga all over the world. It is a matter of great pride for Indian that this ancient tradition has been honored and practiced by people all over the world.

The Republic of India (Bhārat Gaṇarājya) popularly known as India, is a leading developing country in South Asia, which is home to the ancient Indus Valley Civilization and a region of historic trade routes and vast empires. Historically the Indian subcontinent was known for its commercial and cultural wealth. Ancient four religions—Hinduism, Buddhism, Jainism, and Sikhism—originated here, whereas Zoroastrianism and the Abrahamic religions of Judaism, Christianity, and Islam arrived in the 1st millennium CE. During early 18<sup>th</sup> century, India brought under the administration of the British East India Company and gradually administered directly by the United Kingdom after the Indian Rebellion of 1857. India became an independent nation in 1947 after a struggle for independence that was marked by non-violent resistance led by Mahatma Gandhi. These historical events helped

in shaping the region's diverse culture.

Hinduism is the dominant religion, or way of life, in South Asia, most notably in India and Nepal. It is "a family of religious cultures", which includes a broad range of philosophies and traditions. That is bound by shared concepts, recognizable rituals, cosmology, shared textual resources, pilgrimage to sacred sites and the questioning of authority. It includes Shaivism, Vaishnavism and Shaktism among other denominations. Hinduism is the world's third largest religion, after Christianity and Islam, with approximately one billion followers. It has been called the "oldest religion" (Sanātana Dharma) in the world, "the eternal law" or the "eternal way" beyond human origins. Western scholars regard Hinduism as a fusion or synthesis of various Indian cultures and traditions, with diverse roots and no single founder. It prescribes the eternal duties, such as honesty, refraining from injuring living beings (ahimsa), patience, forbearance, self-restraint, compassion, among others.

Prominent themes in Hindu beliefs include (but are not restricted to), the four Puruṣārthas, which are the proper goals or aims of human life. The four

Puruṣārthas are Dharma (ethics/duties), Artha (prosperity/work), Kama (emotions/sexuality) and the ultimate aim of Moksha (liberation/freedom). They can be attained through karma (action, intent and consequences), samsara (cycle of rebirth), and the various Yogas (paths or practices to attain moksha). Hindu practices include rituals such as puja (worship) and recitations, meditation, family-oriented rites of passage, annual festivals, and occasional pilgrimages. Some Hindus leave their social world and material possessions, then engage in lifelong Sannyasa (ascetic practices) to achieve moksha. Hindu texts are classified into Shruti ("heard") and Smriti ("remembered"). Major scriptures include the Vedas, Upanishads (both Śruti), Mahabharata, Ramayana, Bhagavad Gita, Puranas, Manusmṛti, and Agamas (all smriti).

Yoga (pronounced as "yōg") originates from the term "yuj" in Sanskrit meaning "to yolk or to unite". It means union of the individual consciousness or soul with the Universal Consciousness or Spirit. The history of Yoga can be divided into four main periods of innovation, practice and development.

### Pre-Classical Yoga

The beginnings of Yoga were developed by the Indus-Sarasvati civilization in Northern India over 5,000 years ago. The word yoga was first mentioned in the oldest sacred texts, the Rig Veda. That was a collection of texts containing songs, mantras and rituals to be used by Brahmans (the Vedic priests). Yoga was slowly refined and developed by the Brahmans and Rishis (mystic seers) who documented their practices and beliefs in the Upanishads (a huge work containing over 200 scriptures). The most renowned of the Yogic scriptures is the Bhagavad Gītā. The Upanishads took the idea of ritual sacrifice from the Vedas and internalized it, teaching the sacrifice of the ego through self-knowledge, action (karma yoga) and wisdom (jnana yoga).

The more technical linguistic sense of the term

"yoga," describing a system of meditation or contemplation with the aim of attaining a "supreme state" of moksha, arises with early Buddhism. In Hindu scripture, this sense of the term "yoga" first appears in the middle Upanishads, such as the Katha Upanishad. Shvetashvatara Upanishad mentions, "When earth, water, fire, air and akasha arise, when the five attributes of the elements, mentioned in the books on yoga, become manifest then the yogi's body becomes purified by the fire of yoga and he is free from illness, old age and death." (Verse 2.12) More importantly in the following verse it mentions, the "precursors of perfection in yoga", namely lightness and healthiness of the body, absence of desire, clear complexion, pleasantness of voice, sweet odour and slight excretions.

In Chapter 2 of the Bhagavad Gita, Krishna explains to Arjuna about the essence of Yoga as practiced in daily lives:

योगस्थः कुरु कर्माणि सिद्धं त्यक्त्वा धनञ्जय |  
सद्बुद्धिस्तद्बुद्धयोः मोभूत्वासमत्त्वयोग उच्यते ॥

*(yoga-sthah kuru karmani sanyugam tyaktva dhananjay siddhy-asiddhyoh samo bhutva samatvam yoga ucyate) - Bhagavad Gita*

### Classical Yoga

In the pre-classical stage, yoga was a mishmash of various ideas, beliefs and techniques that often conflicted and contradicted each other. The Classical period is defined by Patanjali's Yoga-Sûtras, the first systematic presentation of yoga. Written sometime in the second century, this text describes the path of Raja Yoga, often called "classical yoga". Patanjali organized the practice of yoga into an "eight limbed path" containing the steps and stages towards obtaining Samadhi or enlightenment. Patanjali is often considered the father of yoga and his Yoga-Sûtras still strongly influence most styles of modern yoga.

### Post-Classical Yoga

A few centuries after Patanjali, yoga masters created a system of practices designed to rejuvenate the body and prolong life. They rejected the teachings of the ancient Vedas and embraced the physical body as the means to achieve enlightenment. They developed Tantra Yoga, with radical techniques to cleanse the body and mind to break the knots that bind us to our physical existence. This exploration of these physical-spiritual connections and body centered practices led to the creation of what we primarily think of yoga in the West: Hatha Yoga.

### Modern Period

Today, in the modern age, Yoga with its increased global popularity has been classified into different types. A few of the popular classifications include Hatha Yoga – focusing on combining the physical postures with breathing techniques and meditation, Vinyasa or Power Yoga – A fast paced technique requiring continuous body movement through a specific order of poses, Iyengar Yoga – therapeutic in nature and emphasizes proper alignment to strengthen the muscles and support the joints and especially recommended for neck and back problems, Hot Yoga – which is done under hot temperature conditions to sweat out the toxins from the body, Kundalini Yoga - for calming the mind and to energize the body through movement, the chanting of mantras, and breathing and finally the Ashtanga Yoga – which is practiced by seasoned yoga practitioners and comprises of physically demanding unvarying sequence of poses which helps in building the core strength and toning the body. Thus the modern thought process behind practicing 'Yoga' is to identify an individual's need and opt for a type of Yoga most suited for that need.

In the late 1800s and early 1900s, yoga masters began to travel to the West, attracting attention and followers. This began at the 1893 Parliament of Religions in Chicago, when Swami Vivekananda wowed the attendees with his lectures on yoga and

the universality of the world's religions. In the 1920s and 30s, Hatha Yoga was strongly promoted in India with the work of T. Krishnamacharya, Swami Sivananda and other yogis practicing Hatha Yoga. Krishnamacharya opened the first Hatha Yoga School in Mysore in 1924 and in 1936 Sivananda founded the Divine Life Society on the banks of the holy Ganges River. Krishnamacharya produced three students that would continue his legacy and increase the popularity of Hatha Yoga: B.K.S. Iyengar, T.K.V. Desikachar and Pattabhi Jois. Sivananda was a prolific author, writing over 200 books on yoga, and established nine ashrams and numerous yoga centers located around the world.

Yoga is a physical, mental, and spiritual discipline, originating in ancient India. The goal of yoga, or of the person practicing yoga, is the attainment of a state of perfect spiritual insight and tranquility while meditating on the Supersoul.

### Yoga defined in the Literature

In view of the all-round health benefits associated with the practice of Yoga for the human body, it has evoked much interest among researchers and has been studied in depth all over the world.

An empirical study on school going boys was conducted by Rangan et al. (2009) with an aim of comparing the effect of one Gurukula Education System (GES) school based on a yoga way of life with a school using the Modern Education System (MES) on memory. Memory is more associated with the temporal cortex than other cortical areas. The two main components of memory are spatial and verbal which relate to right and left hemispheres of the brain, respectively. Many investigations have shown the beneficial effects of yoga on memory and temporal functions of the brain. Respondent boys of ages ranging from 11-13 years were selected from each of two residential schools, one MES and the other GES, providing similar ambiance and daily routines. The boys were matched for age and socioeconomic status.

The GES educational program is based around integrated yoga modules while the MES provides a conventional modern education program. Memory was assessed by means of standard spatial and verbal memory tests applicable to Indian conditions before and after an academic year. The result showed that between groups there was matching at start of the academic year, while after it the GES boys showed significant enhancement in both verbal and visual memory scores than MES boys ( $P < 0.001$ , Mann-Whitney test). The study concluded that the GES meant for total personality development adopting yoga way of life is more effective in enhancing visual and verbal memory scores than the MES.

Alter (2004), has written a book “Yoga in modern India” from the vantage point of anthropologist. The core theme of the book is divided into three parts, first part discusses about the problem of making yoga a subject of socio historical study, Yoga struggles with the relationship between Meta physics and gross materiality of body. Second part give focus on historical development and cotemporary practices of Yoga as medicine and its institutionalization as a form of public health. Third part is concerned with the legacy of Gandhian advocacy for health reform and the convergence of naturopathy and Yoga.

Khalsa (2004) studied the role of Yoga as a therapeutic intervention and concluded that, although yoga is historically a spiritual discipline, it has also been used clinically as a therapeutic intervention. A Bibliometric analysis on the biomedical journal literature involving research on the clinical application of yoga has revealed an increase in publication frequency over the past 3 decades with a substantial and growing use of randomized controlled trials. Types of medical conditions have included psychopathological (e.g. depression, anxiety), cardiovascular (e.g. hypertension, heart disease), respiratory (e.g. asthma), diabetes and a variety of others. A majority of this research has been conducted by Indian investigators and published in Indian

journals, particularly yoga specialty journals, although recent trends indicate increasing contributions from investigators in the U.S. and England. Yoga therapy is a relatively novel and emerging clinical discipline within the broad category of mind-body medicine, whose growth is consistent with the burgeoning popularity of yoga in the West and the increasing worldwide use of alternative medicine.

According to Love (2006): “Yoga is the Survivor of the culture wars: unbloodied, unmuddied, unbothered by the media's slings and arrows, its leotard still as pristine as its reputation.” Everybody loves yoga; sixteen and a half million Americans practice it regularly, and twenty-five million more say they will try it this year. If you have been awake and breathing air in the twenty-first century, you already know that this Hindu practice of health and spirituality has long ago moved on from the toe-ring set. Yoga is American; it has graced the cover of Time twice, acquired the approval of A-list celebrities like Madonna, Sting, and Jennifer Aniston, and is still the go-to trend story for editors and reporters, who produce an average of eight yoga stories a day in the English-speaking world.”

Gonzalez et al. (2010) in a study of correlations among yoga enhancement design and cognition of college student learning, investigated the extent to which incorporating yoga into the occupational therapy curriculum influenced student academic achievement and success and whether yoga enhanced the practitioner's practice with positive outcomes of the client's treatment. With the inclusion of yoga methods, students were able to concentrate better and focus on their required material to prepare them for the demands of academia and the future workforce.

By establishing a yoga foundation in the students' higher education program of occupational therapy, they would be better prepared to interact or provide treatment to individuals with special needs. Students who become practitioners may need to

have a method to cope with the stressors encountered from their work environment.

Occupational therapy in the treatment arena may at times be too repetitive and routine. Yoga may bring about a gentle and relaxed method that may also increase interest and energy. As practitioners, their focus is in providing the necessary treatment to clients and completing their workload that often may result in burn out. As students graduate and become practitioners in the field of occupational therapy, it also becomes essential to maintain a healthy lifestyle to instruct their clientele in such methods.

### The concept of Reverse Innovation in Business

Historically, innovations have usually meant that they were developed in and for the developed countries and a few years later they trickled down to the developing and under-developed countries. The term Reverse Innovation has come to mean the opposite. An innovative product or service developed in a developing nation and then getting exported to the developed countries. Before the Tata Nano was developed in India, developed countries were too preoccupied with designing large sized cars at higher end prices. Though the Tata Nano has not really been a commercial success it showed the way to the global automakers that a small car with a very affordable price point of \$2500 could be designed in a developing country and generated an interest in compact cars worldwide (Sinha, 2013). Immelt et al. (2009) indicated in their pioneering study on reverse innovation that the state-of-the-art, feature-rich, high technology ultrasound equipment that GE Healthcare sold to large hospitals in the developed world at price points of \$100,000 and above, were suitable only to serve a very small proportion of the Chinese population in the larger city locations. Most of China's population still relied on low-tech hospitals in relatively remote areas, and there was no way that even a scaled down, feature-reduced, version of the company's existing ultrasound offering would be able to meet the need. A radical

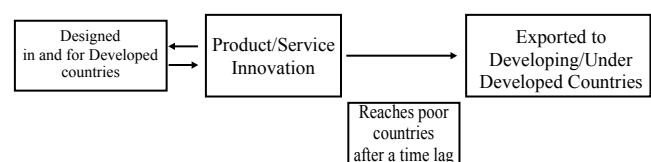
solution was called for, one developed specifically for the particular requirements of the local market. To meet this need, GE engineers found a way to develop a compact, portable, "good enough" ultrasound device, based on combining a regular laptop computer with some sophisticated software. Within five years the company had managed to produce a version that could sell for as low as \$15,000. Now this equipment is serving developed markets like the United States.

Similarly, the Grameen Bank of Bangladesh focused on extending small loans to the marginalized sections of the society who were largely ignored by the mainstream banking community. This successful model of microcredit finance has now been replicated in over hundred countries including developed economies like the United States. This is another example of Reverse Innovation.

Govindrajan and Rammurthi (2011) have defined Reverse Innovation as 'an innovation that first originates in a developing economy and then is adopted by the developed nations. Corsi and Minin (2011) stated that emerging economies are gaining importance in the global innovation system. Corsi et al. (2014) in support of the concept of Reverse Innovation gave the example of the Chinese subsidiary of an Italian company 'Speres'- a mid-sized manufacturer of air-conditioning, commercial refrigeration, and humidification systems which came out with a product developed specifically for China but was very successful in the western countries.

The traditional route to innovation in business which is supposed to flow from the rich to the poor markets can be illustrated with the help of a diagram as below:

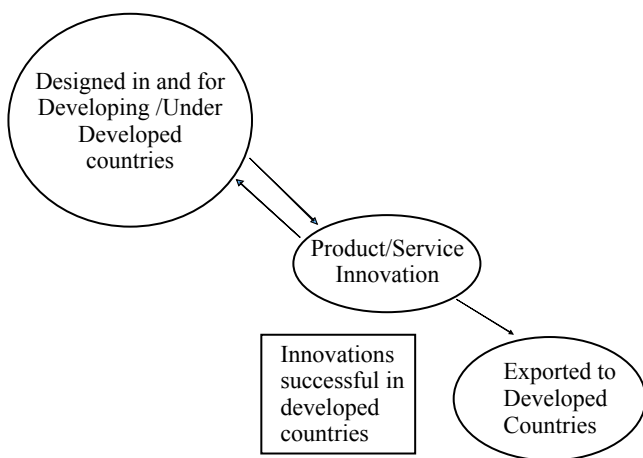
**Figure 1. Traditional path in Business Innovation**



Business Innovations traditionally have originated in the developed countries, developed and adapted for the advanced rich countries and after a time lag have reached the developing and poor nations. In other words developed countries have led the world in developing innovations for Business. Traditionally innovations have flown from the rich to the poor markets and the mindset of Business has been woven around this idea.

On the other hand the route followed by Reverse Innovation is radically different and flows in the opposite direction from poor countries to the rich countries and can be described with the help of a diagram as below:

**Figure 2. Showing the path followed in Reverse Innovation**



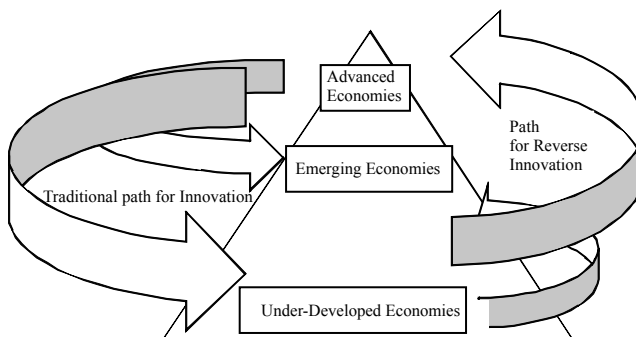
In reverse Innovation, the Innovation is typically developed in a poor/developing country specifically for its market but is also successful when exported to developed countries. It calls for Businesses examining their innovation standpoint in a totally reverse way in that the focus of developing new products/services shifts from the developed countries to the developing/poor countries and then getting exported to the advanced countries successfully.

An indication of the success of Yoga as a discipline in the United States can be gauged from the fact that Yoga wear alone is estimated to generate revenues of USD 27 billion a year and growing at 20%. More than 24 million people in the US are stated to be practicing Yoga. Canada and Europe are also indicated as big markets for

Yoga.

Reverse Innovation can also be illustrated in the form of a pyramid diagram as shown in Figure 3.

**Figure 3. Showing the comparative paths of traditional Innovation and Reverse Innovation**



**Drivers of Reverse Innovation**

Govindrajan and Trimble (2012) states that the fundamental driver of Reverse Innovation is the income gap that exist between the poor and rich countries. There is no way to design a product for the American mass market and then simply adapt it for the Chinese or Indian mass market. Buyers in poor countries demand solutions on an entirely different price performance curve. Consumers in these markets demand new, high-tech solutions that deliver ultra-low costs and “good enough” quality. Infrastructure, sustainability, regulatory and the preferences gap have been cited by these authors as the other drivers of Reverse Innovation.

If the above principle of income gap is applied to Yoga – the ancient sages in India just required a flat surface to practice it and therefore it could be done at no cost. Thus, it could be surmised that even in a developing country, yoga could be practiced with ease without incurring any cost but at the same time provided great health benefits. As is clear from the above description of how Yoga was practiced in India, it requires just minimal infrastructure as is prevalent in the poor/developing nations. Yoga also scores very high on the sustainability front as developing nations faced increased health related issues due to various reasons. Yoga offered a very beneficial health proposition attracting citizens of these nations in huge numbers. The authors further stated that the slow and stringent regulatory processes in the developed nations also stifled simple innovations. Yoga faced no such hurdles

in India for it to prosper. The authors also indicated that the world as a whole displayed a very heterogeneous and diverse exhibition of tastes, habits and rituals leading to different preferences among the people of different countries. The Americans were used to doing workouts and exercises but not to the practice of Yoga till it reached their shores thereby contributing to the phenomenon termed as Reverse Innovation.

As globalization of the world started happening, Yoga got exported to the world from India and it became big business. Yoga centres offering to train the interested in different forms of specialized yoga's came up in all parts of the world. When celebrities started practicing this discipline and this became known to the general public, it started a new craze for Yoga. Even as sophisticated Yoga studios started their operations worldwide, the business for Yoga accessories also began to boom. Yoga Mats, Yoga apparel, Yoga Bolsters, Yoga Towels, Yoga Blocks, Yoga kits, Yoga DVDs all became a rage among its followers globally and transformed into big businesses. The visible benefits for a healthy body obtained by practicing Yoga regularly added to the interest in this discipline.

### Conclusion and Scope for Future Research

Yoga as a practice has originated in India during the ancient times. It is a low cost practice with all-round benefits for the body and the mind. From India – a developing economy, it has been very successfully adopted by the developed countries across the world. Yoga is now therefore considered as a worthy example to be cited for Reverse Innovation. It originated in India in ancient times through its sages and seers and got exported to the world as an impact of globalization. Yoga followed the path of Reverse Innovation – that is it started from India considered a developing nation and became very successful in developed countries like the United States thereby spawning a multi-billion business. As businesses look for cost effective business solutions, it is but natural that the poor and developing countries are showing the way in innovation. Reverse Innovation thus seeks to move the spotlight away from developed nations to the poor and developing ones. Developed countries are also becoming the recipients of such reverse innovation based products and services which originated in poor/developing countries. Thus, there are huge opportunities waiting to be tapped in the developing world and emerging economies which could then be very successfully exported to the

advanced nations. The texts and practices of ancient India contain a wealth of knowledge and wisdom. Yoga is just one example of what has become very popular across the world. If the ancient texts and practices of India are researched in greater detail it may throw up many more such cost effective innovations which can be beneficial for the entire world. In this manner, India has the potential to become a sought after destination for Reverse Innovation wherein many products/services originating from here could become the torchbearers for the entire world.

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