Focus: Corporate Social Responsibility

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Contents

Business Model for CSR: Insights from Indian Philosophical Thoughts

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New paradigms of doing business with an eye on social responsibility are evolving as the world is facing a host of problems, such as ecological imbalance, destruction of environment, corruption in corporate and global financial crisis. It is seen that the corporate have utterly failed concerning ethics, responsibility and sustainable business practices. Commencing from the 'Stakeholder' concept the Corporate Social Responsibility (CSR) models have moved a long way, but still fail to meaningfully address the problem. Thus, it has become a compelling need for the business in particular, and the society in general, to urgently come up with an innovative approach towards this. The Indian philosophy is the oldest living tradition with an ethical doctrine derived from its metaphysics giving it the capacity to provide solution to various ills of life. In this paper an attempt has been made to propose a holistic model of business which is ethical, responsible and sustaining based on the insights gleaned from the rich Indian philosophical thoughts.

1. Introduction

Corporate social responsibility, or CSR, is increasingly an essential issue for business enterprises. It is a company and multidimensional organisational phenomenon that is understood as the scope for which, and the way in which, an organisation is consciously responsible for its actions and non-actions and their impact on the stakeholders. If CSR is looked from a practical and operational point of view, it converges on two points; they require business enterprises (a) to consider the social, environmental and the economic impacts of their operations, and (b) to be responsive to the needs and expectations of their stakeholders.

CSR holds business enterprise to maintain these responsibilities through some basic principles. Some of the important principles are: (a) Principle of Social Approach (labour rights/ practices, human rights and other social issues); (b) Principle of Economic Approach (shareholder primacy, Friedman, 1970); (c) Principle of Environmental Approach (living and non-living natural resources, land, air, water, including ecosystems); and (d) Principle of Stakeholder Approach (organisational stakeholders, economic stakeholders and societal stakeholders).

As we step into the second decade of the 21st century, new paradigms for doing business are emerging. CSR, environmental sustainability and job creation are replacing the words profit maximisation, shareholder value, wealth creation and so on. In the globalised economy of interconnectedness, with the enveloping financial crisis, definitions of capitalism, communism and all other 'isms' are being relooked at. It has become a compelling need for a business enterprise to withstand the brewing storm of the current crisis by exploring innovative solutions (Chandrasekhar and Shivdas, 2014). The distance between

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philanthropy and business is being substantially reduced.

Toffler (Toffler, 1981) has said every civilization has a hidden code—a set of rules or principles that run through all its activities. It consists of a set of interrelated principles that programs the behaviour of millions and spreads across the planet like a wave. From the economic perspective human history can be divided in four distinct developmental waves, with the Fourth Wave unfolding in this 21st century. The fourth wave is an affirmation of the central role of inner wisdom and inner authority in man and emphasises on the connectedness and wholeness of everyone and everything. 'Everything affects—and is affected by—everything else' (Kilmann, 2001).

The Indian philosophy is the oldest living tradition with a definite ethical doctrine derived from its metaphysics giving it the capacity to improve life—the core test of any philosophical system (Radhakrishnan, 1914). It is based on the principle of oneness in creation (single point reality with multiple manifestations of different shades) and integrates the spiritual and physical dimensions of human existence through righteousness (Dharma).

In Vedanta, the creation of the universe itself is a result of cosmic sacrifice (PurushaSukta, Rigveda, 10.90). Plethora of literature is available from Vedic literature that the human enterprise is based on concepts such as yajna spirit (sacrificing individual desires for the sake of communal benefits), *shreyas* (preferring desirable as against pleasurable), sharing and a sense of cosmic harmony. Here business is seen as a means for the evolution of human society towards the perfection of the soul, with all its activities being necessary to and justifiable only in terms of that end (Ishwarananda, 1980).

Religion and spirituality play a significant role in the development of human values and behaviour which has a great impact on business and corporate management. Research also suggests that the encouragement of spiritual and religious principles in business can lead to benefits in the areas of creativity, honesty and trust, personal fulfillment and commitment, which will ultimately lead to increased corporate and business performance (Krishnakumar and Neck, 2002; Muniapan, 2009, 2010). In the academic journals, there has been considerable research on the relationship between spirituality, religion and business (Abuznaid, 2005, 2009; Beekun and Badawi, 2005; Calkins, 2000; Epstein,2002; Weaver and Agle, 2002; Zinkin and Williams, 2006).

The objective of this paper *is to come up with a suitable model for business towards CSR and other responsibilities*. It is planned to derive the required insights from the rich collection of **Indian philosophical thoughts**.

The rest of the paper has been organised in the following manner:

Section 2: Literature survey of corporate models for CSR

Section 3: Analysis of existing models and the methodology of study

Section 4:Proposed holistic wisdom-based yajna-oriented business model for CSR

Section 5: Comparison of the model

Section 6: Conclusion

2. Literature Survey of Corporate Models for CSR

2.1 Stakeholder Theory

Stakeholder theory developed by Freeman in 1984 is one of the earliest and most widely accepted theories of CSR (Claydon, 2011). This was the first theory, which rejected Friedman's (1970) perception that the social responsibility of business was to increase profits for shareholders. This model asserted that managers actually bear a fiduciary relationship to their stakeholders (Freeman, 2002). Freeman defined stakeholders as any group or individual 'who can affect, or is affected by, the achievement of the organisation's objectives' (Freeman, 1984). He also advocated the participation of the stakeholders in the objectives of the firm rather than being used as a means to an end (Freeman, 2002). Freeman took the legal perspective to justify the stakeholder concept in terms of legally binding contracts between the corporation and its suppliers, employers, customers, partners and the surrounding community and environment. Freeman further rejected the laissez faire stand of economic theory that the free market is self-regulatory and needs no intervention from government. Concept of 'externalities' in the local community was also included even to include non-contractual stakeholders (Claydon, 2011).

2.2 The Pyramid of CSR

The stakeholder theory emphasised the importance of corporate action and implementation of a social role; yet the question still remained as how to reconcile the economic orientation with such a role. From this, a four part comprehensive model of the 'Pyramid of CSR' was

proposed by Carroll (1991), which emphasised the importance of businesses responding to all aspects of the social world: economic, legal, ethical and philanthropic (Claydon, 2011). According to Carroll, all business responsibilities are based upon the *raison d'être of a firm,* i.e., to create profit for its shareholders as maintained by Friedman, and forms the very foundation over which the other responsibilities could be taken up. Thus it appears from the design of the pyramid that importance gradually decreases from financial to legal and the least importance is given to the ethical and philanthropic part. The last two tiers of the pyramid have also been highlighted within the social contract theory of CSR, whereby the corporation is regarded as a citizen within the community who should, therefore, contribute to society like any other individual (Dahl,1972). This model is one of the earliest examples of how the structure of responsibilities should sit within a corporation, and is still widely used (Claydon, 2011).

2.3 Model of Sustainable Development

In this, Aras and Crowther (2009) have focused specifically on the development of the models surrounding CSR, specifically those concerned with environmental management and corporate sustainability. They assert that most analyses of sustainability are inadequate as they concentrate solely on the environmental and the social whilst financial performance, which is also imperative to the success of sustainability, is overlooked. As such, most work on corporate sustainability does not recognise the need for understanding the importance of financial performance as an essential part of sustainability. They offer, then, a more comprehensive model which looks at all four aspects of CSR (environment, society, financial performance and organisational culture) in both the short- and long-term contexts. Furthermore, they assert that to achieve sustainable development it is necessary to first achieve sustainability, which can occur via four actions: maintaining economic activity (as this is the *raison d'être* of the company); conserving the environment (as this is essential for the maintenance of future generations); ensuring social justice which includes elimination of poverty and the ensuring of human rights; and developing spiritual and cultural values, where the corporate and societal values align in the individual (Aras and Crowther, 2009). Thus, they argue that sustainable development involves more than just managing the interest of the stakeholders versus the shareholder (Claydon, 2011).

Sustainability focuses on ensuring that the resource utilisation of the present does not affect the future. This creates concepts with which the corporation must engage to become sustainable (such as renewable energy resources, minimising pollution and using new techniques of manufacture and distribution), and thereby accepting the costs involved in the present for ensuring sustainability in the future. This is beneficial not only to the environment but also to the organisation for it cannot operate tomorrow without the resources it has today. As this is directly relevant to the performance of the bottom line, then, there is no dichotomy between the environmental and financial performance of the company as they are mutually exclusive; the environmental performance of the company in the present day ensures the financial performance of the company tomorrow and vice versa (Aras and Crowther, 2009). They state that the 'bottom line' is further positively impacted due to factors such as non-payment of environment related fines, and also due to consumption practices of the ever increasing 'green' consumer base.

2.4 CSR 2.0

'CSR 2.0' outlines five principles of the 'DNA' of (C)(S)(R)(2)(0). *(C)onnectedness* urges company practice to break the hegemony of shareholders and instead embrace a multistakeholder approach to business relations; *(S)calability* critiques the pilot projects and best practice programmes of CSR and sustainability that many companies often demonstrate, as they are often very small scale over a small duration of time, rather than being cross-market, long term goals; *(R)esponsiveness* calls for a bolder response to the community needs, which replaces simple philanthropy programmes that are based on their own terms to drastic response to climate change, such as the Prince of Wales' Corporate Leaders Group on Climate Change 1; *Duality (2)* challenges the notion of 'either/or', i.e., having to make the choice between being *either* socially responsible *or* not and instead CSR 2.0 affirms there can be *both* economic responsibility *and* social responsibility; and lastly *Circularity (0)* is founded upon the notion of that there are three basic rules of sustainability, that waste equals food, nature runs from current solar income and nature depends on diversity (Hawkens 1994). Hence, CSR 2.0 using Hawkens' model of sustainability would depend on businesses constantly feeding and replenishing its own social and human capital through education, training, community nourishment and employee well being. The shifting of CSR 1.0 to 2.0, then, will move from being paternalistic to collaborative, risk-based to reward-based, image-driven to performance-driven, specialised to integrated, standardised to diversified,

marginal to scalable, Western to global and from a luxury product to an affordable solution for those who most need improvements to their quality of life (Visser, 2010).

2.5 Consumer Driven Corporate Responsibility (CDCR)

In response to issues such as climate change and corporate greed which have been put under the spotlight on a public scale, consumers are increasingly concerned with social and environmental issues whilst at the same time having a greater expectation for a company to be socially responsible (Frederick, 2006). The Model of Consumer Driven Corporate Responsibility (CDCR) demonstrates that in order to remain profitable, consumer demands for CSR must be met. As a result, the corporation not only remains profitable but engages in socially and environmentally responsible behaviour; obtains a higher reputation and esteem in the public sphere due to the adoption of CSR; subsequently expands the scope of its customer base which contains more consumers who demand CSR; and, hence, adopts CSR, which attracts more customers making them more profitable and so it continues (Claydon, 2011).

3. Analysis of the Existing Models and the Methodology of Study

3.1 Analysis of the Existing Models

Criticism comes from Stieb (2009) who identifies many gaps in Freeman's approach. Stieb observes that the stakeholder theory appears to ask more questions than it answers surrounding the role of business in society and, generally speaking, does not provide any clarity on the issues which most require it. Although it was feasible to suggest that a company *should* be responsible for more than just its shareholders, it was not successful as a pragmatic approach for explaining *how* ethical behaviour can be implemented into a company. Since the model advocated the engagement of all stakeholders, this proves confusing to business managers when assessing which of the stakeholders should be given the most decision making power (Stieb, 2009). Stieb further raises doubt about how to take up the aspect of redistribution of wealth amongst the stakeholders, as the extent of financial/non-financial contribution, extent of affect and extent by which affected vary widely and difficult to quantify.

The Pyramid of CSR model has also faced wide criticism. Campbell (2007) argued that companies who are economically weak are less likely to engage in acts of CSR as they have fewer resources to invest time, effort and money into it *('slack resource theory')*. Thus, these

corporations are unlikely to meet the threshold for socially responsible behaviour. Campbell further argued that the apparent lack of inter-relationship between the financial and the socially responsible behaviour could be mediated by certain measures such as public and private regulations, institutional norms, etc. Thus, although the simple structure of the Pyramid is somewhat its main appeal, it is not adequate as a tool for explaining complex relationships between business, society and the environment, as outlined by Campbell. Yet another criticism of Carroll's Pyramid observed is its lack of consideration of environmental management and corporate sustainability, which is particularly pertinent as corporate managers are more likely to adopt CSR using the triple bottom line approach (Visser, 2005). The Pyramid of CSR was not successful as a credible model for understanding the ways in which CSR actually can be achieved. It still failed to explain the way in which a healthy bottom line can ensure CSR is achieved and vice versa.

Aras and Crowther's view of corporate performance, then, is that it should be one of 'stewardship' of the resources of the society and of the environment within which the corporation operates, which leads to economic and environmental sustainability. Yet corporations, like other social entities and individuals, tend to think about their stakeholders in the present, rather than future generations. Therefore, corporations are less likely to plan for the long term future and more likely to concentrate on generating profit in the short term for their present shareholders. So, the Model of Sustainable Development is again more normative than it is descriptive as it depicts a vision of how a corporation should act, rather than how it does act. Hence, although Aras and Crowther can credibly argue that environmental concern is in the future interest of the corporation, this is more abstract than pragmatic as it is not how corporations (or other actors) tend to make their calculations. Although the Model of Sustainable Development provides a more comprehensive model of CSR than Carroll's Pyramid and, perhaps, *any* such previous model, there are still gaps in the model as outlined above (Claydon, 2011).

Further, the CDCR Model is based on the link between the increasing demand for social and environment friendly products and corporate behaviour. But the demands for such products are limited to some pockets of the developed world and not very significant as the real growth is happening in the developing countries. Further, consumer knowledge, awareness and the willingness to spend more for such products always lag behind the need

for achieving true ecologically sustainable growth and development.

3.2 Methodology of Study

This paper is based on a qualitative research methodology called hermeneutics. Hermeneutics can be described as the interpretation and understanding of ancient literatures and religious texts. It is also used in contemporary philosophy to denote the study of theories and methods of interpretation of all texts and systems of meaning. The concept of 'text' is here extended beyond written documents to any number of objects subject to interpretation, like experiences.

The methodology has started with (a) Identification of the popular business models for CSR, (b) Analysis to find out their deficiencies, (c) Preparation of the list of requirements for the proposed model based on analysis and common sense, (d) Compilation of 'Nuggets of Wisdom' from Indian philosophical thoughts, (e) Identification of broad 'Design Dimensions' based on requirements, (f) Association of 'Nuggets of Wisdom' with the identified 'Design Dimensions', (g) Envisioning of the 'Functional requirements' of the various actors in the 'Design Dimensions', and finally, (h) Formulation of the Proposed Model by making use of the association of 'Nuggets of Wisdom' and the list of 'functional requirements' in terms of the 'design dimensions'.

4. Proposed Holistic Wisdom based Yajna-oriented Business Model for CSR

In this model, the design dimensions are: (a) Wisdom or Knowledge as Foundation, (b) Domain of Business, (c) Business Facilitations, (d) Business Drivers, and (e) Business Partners.

4.1 Wisdom as Foundation (List of Insights)

4.1.1 Need for a Foundation (Wisdom):

Foundation or *aadhara* is a concept borrowed from the Indian tradition, which tells that nothing worth while and permanent can ever be built on an unsound and weak foundation. Thus the basic approach in this tradition is to first of all think and conceive of a suitable, robust and lasting foundation before thinking of how to actually design, develop and implement the required solution. The Vedic *rishis*, therefore, enquired about the foundation or *aadhara* behind the whole creation and came up with the answer, which was termed as 'Rita' or 'Dharma'. This 'Dharma' is primarily a latent principle and not very obvious, but when it is spoken about, it is called 'Satya' or 'Jnana' and when

lived in life, it is called 'Karma' and finally when it is ideally exhibited in action, it is called 'Karma Yoga' or 'Yagna'.

Thus, as per this study, 'Wisdom', or loosely 'Knowledge' forms the bedrock of this holistic model. The Indian religious scriptures, since time immemorial, have always extolled the importance of wisdom. It says that true human beings are those who are endowed with wisdom, and those humans who do not posses wisdom are equivalent to animals. (*'Jnanena Hinaa Pashubhi Samana'* [Devi Mahatmayam]). It is to be noted that lack of wisdom is the reason for unethical and irresponsible behaviour. A person can act in an unethical way when he does not have the wisdom of ethics, the needs and utility in being ethical, and also the harm which can come to oneself in the short and long term, when one acts unethically.

(ii) Elaboration on Wisdom (Types and Categories):

Again, it could be considered as 'Wisdom' or ' Vidya' as termed in Indian spiritual thoughts. This is sub-divided into two types; (i) *Para vidya*—the wisdom concerned with the spiritual/or extra worldly belief/knowledge, and (ii) *Aparavidya*—the wisdom concerned with the secular/or worldly/professional knowledge.

Based on the study, some of the important wisdom/ knowledge required to be imbibed and acquired by all concerned in this model, i.e., starting from the spiritual gurus, policy formulators and administrators at the global/ national levels, the business leaders and workers, the people associated with business (spiritual/social and environment leaders) and the people in general. As per our study, the wisdom required has been sub-divided into three categories: (i) Right Belief ('Darsana'), (ii) Right Knowledge ('Jnana'—spiritual and secular) and (iii) Right Conduct and Action ('Charitra and Kartabya').

(i) *Right Belief (Darsana)*: Brahman is in All, Brahman is All, Ignorance/Maya/Avidya is the reason for diversity in perception, Discrimination between Self and Non-self, the immutable nature of Self, Reasons for Bondage, Self-knowledge gives liberation, Differences is due to Gunas arising out of Prakriti, Getting knowledge of Self, Attaining of Brahman, Benefits of self-realisation.

(ii) *Right Knowledge (Jnana)*: Internal and external organs of perception and action, Glory of Human Lie, Goal of life, Spiritual life, Means of Wisdom, Giving up Vasanas (desires), Objects don't have enjoyment—it comes from Soul, God is All—Everything is His. Thus we should not be greedy, Desires and Senses, Sense Control and Control

5. BUSINESS DRIVERS

Global Spiritual Masters/Men of Wisdom

Global Policy Formulators

National Policy Formulators

6. BUSINESS ADMINISTRATORS

Global Administration

National Administration

3. BUSINESS FACILTATIONS

Education System

Social System

Culture

Legal System

Environment

2. DOMAIN OF BUSINESS

BUSINESS

AS

YAJNA

4. BUSINESS PARTNER

Spiritual Leaders

Social Leaders

EnvironLeaders

1. WISDOM & KNOWLEDGE AS FOUNDATION

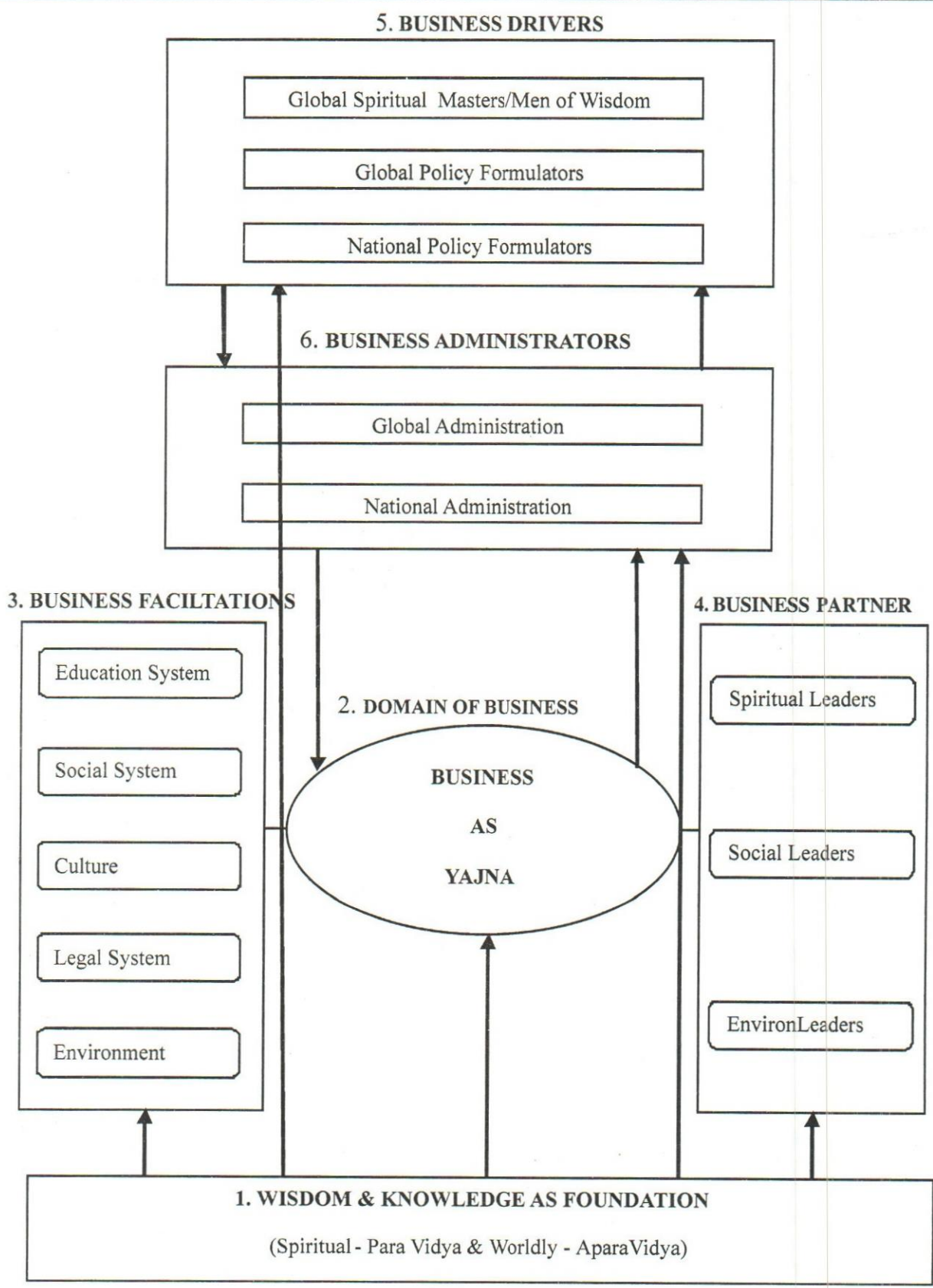(Spiritual - Para Vidya & Worldly - AparaVidya)

Figure 1: Proposed holistic wisdom based yajna-oriented model for ethical, responsible and sustaining business

of Desires, Relevant secular knowledge of the world, Management, Business, Administration, Policy formulation, Legal, Judiciary, etc.

(iii) *Right Conduct/Character (Charitra)*: Actions, Way of doing actions, Karma, Bondage due to actions, Non-action is not an option, Karma Yoga, Results of Karma Yoga, Yajna, Ethics/ Human values and Wisdom in conduct and Character.

To elaborate further, 'Wisdom' should include knowledge on the need towards a holistic approach towards solving life's problems, integrating principle in all life forms, need for diversity in nature and human beings, need for inter dependency and mutual cooperation and working collectively for the common welfare in yajna spirit, different types/orders of human beings in society, differences in dharma for such humans and the need to excel in individual dharma and thereby fulfil the collective dharma of society or nation. Wisdom should also clearly explain the desirable synergy between life at individual, society, corporate, national and global levels, and should cover physical, emotional, mental, intellectual and spiritual aspects of human beings based on the concept of 'panchakosha' (the five different aspects of a human being) ([*AnandaValli, Taitiriya Upanishad*]). Wisdom should also include knowledge on the inherent dynamism of life and thus the need towards adaptability and constant striving for improvement and perfection.

Wisdom should include: (a) Wisdom about the existence of the divinely created and administered justice system, (b) Need for synchronisation of ethics in all the spheres of life, (c) Seeing the same principle of life in all; this helps in avoiding the problems, (d) Excessive greed for materialistic things is a major problem; knowing that real happiness does not lie in the things but in the Self and happiness from Self comes through sacrifice (*Dana, Yagna*and *Tapa*), (e) Justification of yajna attitude in business.

The wisdom-based foundation indicated in our model should be imparted not only to the people of the corporate world, but also to all the people in the society/country and the globe. A vision towards suitable education and system for education has to be conceived, the required policy has to be prepared both at the global and then at the national levels, and then a suitable system towards administering this education system has to be put in place at the national levels.

4.2 Business as Yajna

4.2.1 Philosophy of Business

The philosophy of business explores the fundamental principles, nature, purpose and moral obligations associated with business. Before we proceed any further in this direction, Indian philosophical thoughts clearly point out the need of synergy between the individual spiritual life of the person, his social life and the life at the corporate. Thus the 'Philosophy of Business' has to be perfectly aligned with the 'Philosophy of Life' of the individuals. Also, while proceeding in the direction earmarked as per the philosophy of life, there are a number of genuine needs of the people which have also to be fulfilled. Such needs could be the basic needs food, clothing, shelter and other needs for various goods and services needed in day-to-day lives in order to have a reasonably comfortable life of well-being. This could give a possible answer towards the 'Need of Business' which also has to be aligned with the 'Need of Humans'.

Now, as per Indian philosophical thoughts, the philosophy of life is to continually evolve and progress towards perfection, that is self-knowledge or self-discovery which is a state of immutability, awareness and bliss. Since business play a surrogate part, the 'Philosophy of Business' should also be towards the same purpose. Thus business has to provide an amiable and conducive environment for the people doing the business and all the other stakeholders to proceed in the direction of self-growth and development of consciousness towards human perfection. Business should facilitate proper self-expression by providing the right kind of duty with an option for gradual self-evolvement by performing the desirable duties and fulfilling the responsibilities. The generation of profit and wealth is to be seen as a by product, not as the main goal of business. Thus, it would not be incorrect to say that the goal of business should be to facilitate self-growth and evolution of all stakeholders, undertaken by them in an ethical and responsible manner not guided by profit or self-aggrandizement.

The nature of the activity that should be undertaken in business should also match the minimal and genuine need of the people. There should be a clear cut distinction between need and greed. The greed has to be thoroughly dealt with by the wisdom-based education system which form a vital part of the business facilitations. People should be well taught the problem of greed and the way to ever lasting happiness through non-greed ways (i.e., self-sacrifice, charity, yajna, self-knowledge, etc.). Corporate

leaders should also be educated to eschew the greed for amassing wealth; rather they should be educated on the utility for yajna-oriented business towards social and environmental well being. The businesses need for continuous growth has to be deprecated. There has to be constancy rather than growth. It should be very clear that the minimal need of humans does not really grow very much; higher growth essentially comes out of greed and unrestrained desires.

Moreover, business should not be provided complete freedom to do whatever they want. Rather society has to identify what all it genuinely required and by how much for the reasonable need and well being of all its members. Only these kind of goods or products have to be produced and supplied in the required volume, by the collection of all the corporate working within the society. Thus there is a need towards socially validated and directed business. The concept of 'economic growth' has to be replaced with 'economic stability'.

4.2.2 Conduct of Business

The conduct of business should similarly follow the conduct of life. According to Indian philosophical thoughts, the conduct of life is termed as 'Purushartha'. Purusharthaa contains four goals of human life: (a) Dharma, (b) Artha, (c) Kama and (d) Moksha. Thus the conduct of business should also be carried on keeping these four aspects in mind.

Now, what is dharma in business? This means a host of things, such as working as per the basic law of nature and creation; working as per one's order in society (Varna) and stage in life (Ashrama); doing one's work ethically and keeping every body's interest in mind (stakeholder/social responsibility); always striving for preservation, protection of nature and ecological sustainability; working for the welfare of all but not considering one's self-interest (karma yoga/yajna sprit); working as per the law of the land and the prevalent law of business etc. This more or less explains what dharma means in the context of business. Now, it should be very clear that if the business leaders conduct their business as per dharma, then there would not be any further need to remind them to be ethical or undertake social/ environmental projects of responsibility. Rather, this would be the very foundation on which business would be executed.

Artha, in this context, implies the surplus amount of wealth as a result of conducting the business based on dharmic principles. This naturally implies, unlike in the present scenario, that there would never be an enormous amount of net surplus, because while working in an ethical and responsible manner keeping the interest of all the stakeholders, society and the environment, most of the money available with the company would have already been spent during the course of business. The amount of artha that is leftover at the end of yajna-oriented business is called 'Yajnashistha', or remnant of yajna, and the same has to be happily partaken of by the business workers and leaders.

Kama means the fulfilment of the minimal desires with the Artha that is earned based on dharma. Kama is explained in the Gita as desires—for example, eating, drinking, etc.—which are for the mere maintenance of the body and so on; which is *dharma aviruddha* and not contrary to righteousness or opposed to scriptural injunctions (*Dharma aviruddhobhutesukaamaasmi*, Gita 7/11).

Moksha means the final emancipation of the soul or liberation or self-realisation or attaining perfection in life. The is the goal of life as well as of the business. All people involved in business should actively strive towards this goal. The other three goals are supportive goals towards this main goal of life.

Of the four goals of life Dharma and Moksha are considered to be the foundation and apex, respectively. Artha and Kama are the inter-mediate levels in the structure of social life of householders (*grihastha*). Thus, ethics form the very foundation of material existence. Wealth thus generated is then sanctioned to fulfil the legitimate earthly desires with moderation. Dharma and Moksha provide solid embankments on two sides to contain the persistent turbulence associated with the intoxication of Artha and Kama (Chakraborty, 2007).

The results of business should possibly change from the existing 'Triple Bottom Line' to a more sound 'Quadruple Bottom Line' by including the most important 'Spiritual Performance' of the stakeholders and the humanity. Moreover, the spiritual performance has to be accorded more priority as compared to other performances.

4.2.3 Perfection in Business (Attributes of Yajna Entrepreneur)

Towards achieving perfection in business, the Indian philosophical thoughts throw up a number of insights. First of all, perfection in business is achieved through individual perfection of the people associated with business while undertaking their respective duties and responsibilities.

1. Working based on Purushartha with a spirit of yajna propels one towards perfection.

2. Strength and inspiration for excelling in work comes from the divine, the God within, through prayer, spiritual readings and unselfish work (*Atmana Vindyate Viryam*) (Kena Up II/4). Thus a spiritual orientation in life helps in excelling in the corporate world as well.

3. He who works with calm and an even mind achieves the most (*Yogah Karmashu Kaushalam, Samatvam Yoga Uchyate*) (Gita 2/50).

4. As the ignorant men act from attachment to work, O Bharata (Arjuna), so should the wise act without attachment, wishing the welfare of the world (Gita 3/25).

5. The foundation of business or kingdom is control over senses (*rajyasyamoolamindriyajayah*) (Arthashastra) (Muniapan, 2008).

6. He whose mind is not shaken by adversity, who does not hanker after pleasures and who is free from attachment, fear and anger, is called a sage of steady wisdom (Gita 2/56).

7. When the well-controlled mind rests in the Self alone, free from longing for objects of desires, then one is said to have attained yoga (Gita 6/18).

These are some of the insights depicting the ways and desired attributes towards attaining perfection in Yajna-oriented business.

4.2.4 Variations in Business

Variations and variety is a part of life. There are different types of people (Varna) in society and these people are involved in business activity as business leaders. Therefore, naturally, there would be variation between the business leaders in terms of individual attributes such as extent of desire/greed, control over senses, ethical values, sense of responsibility towards others, knowledge of life and goal of life, knowledge about the value of sacrifice or yajna, etc. This fact has to be well understood and appreciated by the business drivers and the business administrators. This arises, as the business leaders happen to be in different stages of learning and soul evolution.

Therefore, though the objective of business is the welfare of all done in a spirit of yajna (self-sacrifice), the compliance towards this ultimate goal would widely vary. Therefore, a sympathetic understanding of this fact of life

and a corresponding facilitation to incorporate these variations in business is a need. The business leaders should have the freedom to choose different levels of yajna compliant business that are suited to them. Proceeding in this line, it is felt that, three types of business may be allowed in the society.

The first type is 'self oriented', the second is both 'self and non-self', and the third type is 'non-self oriented' business type. Maximum profit making is to be allowed in the first type, followed by the second, and in the third the least amount of profit making is to be allowed. The corporate rules and regulations should also vary for these three types. For example, stringent restriction of maximum business volume is required for the first type, in the second a moderately larger volume, and in the third type almost limitless business transaction and volume is to be allowed. Most freedom is to be allowed in the third type, i.e, 'Non-self or True Yajna' oriented business. Punishment is to be linked with the level of freedom and independence provided to the different types. For example, since maximum freedom is allowed to the third type (non-self), this would necessarily warrant maximum and stringent punishment even for similar offences as compared to the lower business models.

4.2.5 Functional Activities of the Corporate Leaders

(a) Undertaking corporate/business activity in efficient and desirable manner with a correct attitude, (b) Fully orienting the business as per the international/national vision/policy and national/local administrative instructions, (c) Acting responsively, proactively and mostly in a self-guided manner towards performing various actions/projects either directly/ or through partnerships with other spiritual/social or environmental organisations, towards improving the various aspects of facilitations (education system, society, societal culture, legal system and the environment), (d) Taking measures to establish and nurture an appropriate spiritual state (abstinence, less desires and greed and a sense of controlled, ethical and responsible behaviour) culture within the corporate environment (also including the stakeholders).

4.3 Business Facilitations

In our model, we have identified five different important facilitations towards ethical, responsible and sustaining business. They are: (i) proper education system, (ii) healthy and efficient society, (iii) guiding and nourishing culture, (iv) appropriate legal system and, finally, (v) healthy and sustaining environment.

4.4 Business Partners (Spiritual/ Social and Environment Leaders)

Mutual cooperation and joint operational activities in the respective domains of partners with the corporate is recommended.

4.5–6 Business Drivers (Policy Makers and Administrators at Global/ National Levels)

Functional Requirements for the Global/National Policy Makers

(i) Formulation of a vision and policy towards the education system, (ii) Formulation of vision and policy towards development of a healthy and efficient societal system, (iii) Formulation of vision and policy towards development of a guiding and nourishing cultural system and culture, (iv) Formulation of vision and policy towards development of an appropriate legal system, (v) Formulation of vision and policy towards environment,

(vi) Obtaining feedback on the state of the various facilitations and making revision in the policies to address the deficiencies, (vii) Formulation of vision and policy covering all the aspects of business. Obtaining feedback on the state of corporate sector and making revision in the policies to address the deficiencies.

Functional Requirements for the National Administrators

(i) Administration and monitoring of the education system at the national level, (ii) Administration and monitoring of the societal system at the national level, (iii) Administration and monitoring of the culture practiced at the national level, (iv) Administration and monitoring of the legal system at the national level, (v) Administration and monitoring of the environment at the national level, (vi) Administration, monitoring, promotion and control of the Corporate at the national level, (vii) Undertaking administration fully aligned with the international/national vision/policy.

5. Comparing the Model with Other CSR Models

Sl. No	Comparison Parameter	Important Existing Models (*Stakeholder Theory/ The Pyramid of CSR/Model of Sustainable Development/ CSR 2.0/CDCR*)	Proposed Holistic Wisdom-based Yajna-oriented Model of Business
1	Financial Responsibility	Yes	Yes
2	Ethical/Moral Responsibility	Yes (Outward driven)	Yes (Both Inward and Outward driven)
3	Social Responsibility	Yes (Outward driven)	Yes (Both Inward and Outward driven)
4	Environmental Responsibility	Yes (Outward driven)	Yes (Both Inward and Outward driven)
5	Stakeholders' Responsibility	Yes (Outward driven)	Yes (Both Inward and Outward driven)
6	Spiritual Responsibility	No	Yes (Primary Responsibility, drives other responsibilities)
7	Ecologically Sustainable Business Development (ESD)	No (at best partially Yes)	Yes (Business has to comply ESD)
8	Redefinition of the Goal of Business	No (Primarily materialistic)	Yes (Primarily spiritual)
9	Delineating the Scope, Extent and Limiting the Power of Business	No	Yes (based on ESD, Business Attitudes)
10	Reduction of Human desires and thus Business Demand/Consumerism	No	Yes (Primary Focus)
11	Allowing and Facilitating Variations in Business Attitudes	No (No basis available)	Yes (Order in society/Varna taken as the basis)
12	Ethical and Responsible Behaviour Should be Self-friven and Beyond the Law	No (mostly at legal level)	Yes (Far exceeds legal level)
13	Using the Wisdom Available in Philosophical and Spiritual domains	No	Yes (Completely driven by Wisdom from Indian Philosophy)

14	Holistic View	No	Yes (Includes the business drivers/ partners and facilitators along with the foundation)
15	Suitable Integrative Framework covering all Levels/Entities	No	Yes (Integrates corporate, societal, national and global levels/entities)
16	Suitable Education System	No (Only secular/ worldly knowledge)	Yes (Both spiritual and secular knowledge)
17	Societal Reform	No	Yes (covers societal attributes of health and efficiency)
18	*Establishment of Wisdom-based (Spiritual) Culture*	*No (some models cover only* **corporate culture)**	*Yes (Culture at all levels)*
19	Legal Reform	No	Yes (mentions a number of critical reforms)
20	Proper Environment	No	Yes (including Yajna for environmental well being)
21	Consumer Protection, Awareness and Education	No	Yes (Functional responsibility of Business Drivers)
22	Developing Cases of Excellence and Role Models in Ethical and responsible Behaviour	No	Yes (Functional responsibility of Business Drivers)
23	Light on Way of Doing Business	No	Yes (based on Purushartha, Karma Yoga and Yajna)
24	Elaboration of Required Activities of Non-corporate Players	No	Yes (List of Activities of Business Drivers and Business Partners given)

6. Conclusion

The approach taken by me and the 'Holistic Wisdom-based Ethical, Responsible and Sustaining' business model proposed in paper is quite different as compared to the existing models and draws heavily from Indian philosophy and provides a lot of insights towards a completely different paradigm based on spirituality. This models points at the need for a holistic view, and endeavours to make wisdom as the foundation and the main driving force which can help the corporate and the associated people imbibe the required perspective of life, living, ethics, responsibility, control of desires and senses, sacrifice, the knowledge about the real source of happiness and goal and objective of life. A business model aimed at yajna or primarily geared towards ethics, responsibility and mutual sustenance is advocated. Responsibility towards formulation of suitable policies, and administration is also put on the policy makers and administrators at the global and national levels, as the responsibility towards implementing and ensuring ethics and responsible behaviour starts from them. The model also envisages partnership of business activities with the spiritual/ social and environmental organisations as these areas in the yajna business play a critical role.

References

Abuznaid, S. (2005). 'Islam and management: What can be learned?', *Thunderbird International Business Review,* 48(1), 125–139.

Abuznaid, S. (2009). 'Business ethics in Islam: The glaring gap in practice', *International Journal of Islamic and Middle Eastern Finance and Management,* 2(4), 278–288.

Agle, B., and Van Buren, H.J. (1999). 'God and mammon: The modern relationship', *Business Ethics Quarterly,* 9(4), 563–582.

Aras, G., and Crowther, D. (2009). *The Durable Corporation.* Gower Publishing Ltd: Surrey.

Beekun, R.I., and Badawi, J.A. (2005). 'Balancing ethical responsibility among multiple organizational stakeholders: The Islamic perspective', *Journal of Business Ethics,* 60, 131–145.

Boyacigiller, N.A., and Adler, N.J. (1991). 'The parochial dinosaur: Organizational science in a global context.' *Academy of Management Review,* 16, 262–290.

Brammer, S., Williams, G., and Zinkin, J. (2005). 'Religion and attitudes to corporate social responsibility in a large cross-country sample'. Centre for Business Organizations and Society, School of Management, University of Bath.

Calkins, M. (2000). 'Recovering religion's prophetic voice for business ethics'. *Journal of Business Ethics,* 23, 339–352.

Campbell, J.L. (2007). 'Why would corporations behave in socially responsible ways?'. *Academy of Management Review*, 32 (3).

Carroll, D. (1991). 'The Pyramid of Corporate Social Responsibility: Toward the moral management of organizational stakeholders'. *Business Horizons*, 34(4).

Chakraborty, S.K., and Chakraborty, D. (2007). 'The economic function in the Hindu world view; its perennial social relevance'. *International Journal of Social Economics*, 34(10).

Chandrasekhar, J., and Shivdas, A. (2014). 'The Yagna Sprit—new age business dynamism'. *Int. J. Business and Emerging Markets*, 6 (1), 34–53.

Chatterjee, S.R. (2009). 'Managerial ethos of the Indian tradition: Relevance of a wisdom model', *Journal of Indian Business Research*. 1(2/3), 136–162.

Claydon, Jane. (2011). 'A New Direction for CSR: The shortcomings of previous CSR models and the rationale for a new model.

Dahl, R. (1972). 'A prelude to corporate reform'. *Business and Society Review*, Spring No. 1.

Epstein, E.M. (2002). 'Religion and business—The critical role of religious traditions in management education'. *Journal of Business Ethics*, 38, 91–96.

Frederick, William C. (2006).*Corporation, Be Good!*. Dog Ear Publishing: Indianapolis.

Freeman, R.E. (1984). *Strategic Management: A stakeholder approach*. Pitman Publishing Ltd: London.

Freeman, R.E. (2002). 'Stakeholder Theory of the modern corporation', in Donaldson, T., and Werhane, P. (eds) *Ethical Issues in Business: A Philosophical Approach*, (7th Edition), PrenticeHall: New Jersey.

Friedman, M. (1970). 'The social responsibility of business is to increase its profits'. *The New York Times*, 13 September.

Global Reporting Initiative. (2003). A Common Framework for Sustainability Reporting, Global Reporting Initiative.

Gopinath, C. (1998). 'Alternative approaches to indigenous management in India'. *Management International Review*, 38, 257–275.

Gupta, A.D. (2007). 'Social responsibility in India towards global compact approach'. *Int. Journal of Social Economics*, 34(9).

Hanson, D., Dowling, P., et al. (2001). '*Strategic management—Competitiveness and Globalisation*', Southbank, Victoria, Australia, Nelson Thomson Learning.

Hofstede, G. (1993). 'Cultural constraints in management theories'. *Academy of Management Executive*, 7, 81–94.

Ishwarananda, Swami. (1980). *Towards fulfillment*. Sambit Sadhnayana, Ahmedabad.

Jain, N., and Mukherjee, S. (2012). 'Communicating a holistic perspective to the world: Chanakya on Leadership', *Leadership and Org. Development Journal*, 30 (5).

Kiggundu, M.K., Jorgensen, J.J., and Hafsi, T. (1983). 'Administrative theory and practice in developing countries: A synthesis', *Administrative Science Quarterly*, 28, 66–84.

Kilmann, R. (2001). *Quantum organizations: A new paradigm for achieving organizational success for Personal meaning*. Davies-Black Publications: Palo Alto, CA.

Krishnakumar, S., and Neck, C.P. (2002). 'The 'what', 'why' and 'how' of spirituality in the workplace', *Journal of Managerial Psychology*, 17(3), 153–164.

Maynard, H.B., and Mehrtens, S.E. (1993). *The fourth wave: Business in the 21st century*. Berret Koehler Publishers: San Francisco.

Meadows, D., et al. (1992). *Beyond the limits—Global collapse or asustainable future*. Earthscan: London.

Muniapan, B. (2008). 'Corporate Social Responsibility: a philosophical approach from an ancient Indian perspective'. *Int. J. Indian Culture and Business Management*, 1 (4).

Muniapan, B. (2009). 'The Bhagavad-Gita on leadership for good governance and sustainable development',15th Annual International Sustainable Development Research Conference, 'Taking up the Global Challenge: Analyzing the Implementation of Innovations and Governance for Sustainable Development, University of Utrecht, Utrecht.

Muniapan, B. (2010). 'Perplexity, management and business in India', in Sid Lowe (ed), *Managing in a changing times: A guide to perplexed manager* (pp. 317–346), SAGE Publications: UK.

Muniapan, B., and Dass, M. (2008). 'Corporate social responsibility: A philosophical approach from an ancient Indianperspective'. *International Journal of Indian Culture and Business Management*, 1(4), 408–420.

Panda, A., and Gupta, R.K. (2007). 'Call for developing indigenous organisational theories in India: Setting agenda for future', *Int. J. Indian Culture and Business Management*, 1(1/2), 205–243.

Prof. Satsangi, P.S. (2006). 'Systems movement: Autobiographical retrospectives'. *International Journal of General Systems*, 35 (2), 127–167.

Pusalkar, A.D. (1964). *Economic ideas of the Hindus, in the cultural heritage of India*. The Ramakrishna Mission Institute of Culture, Calcutta, p. 655.

Radhakrishnan, P. (2005). 'KautilyaArthshastra', Available at: http://www.chinfo.org/downloadsScholarsEssay1.pdf.

Radhakrishnan, S. (1929). *Indian Philosoph: Volume 1* (2nd edn), George Allen and Unwin: London.

Radhakrishnan, S. (1914). *Internal Journal of Ethics*, 24 (2), 168–183.

Rarick, C.A. (2008). 'Historical antecedents of Chinese business ehics', Working Paper Series, Andreas School of Business, Barry University.

Rest, J.R. (1986). *Moral development: Advances in Research and Theory.* Praeger: New York.

Rousseau, D.M., and Fried, Y. (2001). 'Location, location, location: Contextualizing organizational research'. *Journal of Organizational Behaviour,* 22, 1–13.

Sacconi, Lorenzo. (2004). 'Corporate social responsibility as amodel for extended corporate governance', Liuc Papers n.142, SerieEtica, Diritto Ed Economia 10.

Sagar, P., and Singla, A. (2003). 'Trust and corporate social responsibility: Lessons from India', *Journal of Communication Management*, 8 (3), 282–290.

Schor, J.B., and Taylor, B. (eds). (2002). *Sustainable planet— Solutions for the twenty-first century,* Beacon Press: Boston.

Sharma, A. (1999). 'Corporate Bhagvad Gita: Lessons for management, administration and leadership'. *Journal of Human Values*, 5(2), 103–123.

Sharma, S. (2002). 'The Purusharthas: An axiological exposition of Hinduism'. *Journal of Religious Ethics*, 223–256.

Sharma, Manoj K., et al. (2009). 'Hindu philosophy: Bridging corporate governance and CSR'. *Management of Environmental Quality: An International Journal*, 20(3), 299–310.

Stieb, J.A. (2009). 'Assessing Freeman's Stakeholder Theory'. *Journal of Business Ethics* 8(3).

Toffler, A. (1981). *The Third Wave.* Pan Books Limited: London, 46, 110.

Visser, W. (2005). *Business Frontiers.* ICFAI University Press: Hyderabad.

Visser, W. (2010). 'CSR 2.0: The evolution and revolution of corporate social responsibility', in Pohl, M., and Tolhurst, N. (eds), *Responsible business: How to manage a CSR strategy successfully* (John Wiley & Sons Ltd: Chichester).

Visser, Wayne. (2011). 'The age of responsibility: CSR2.0 and the new DNA of business',. *Journal of Business Systems, Governance and Ethics* 5(3).

Weaver, G.R., and Agle, B.R. (2002). 'Religiosity and ethical behavior in organizations: A symbolic interactionist perspective'. *Academy of Management Review*, 27(1), 77–97.

Zinkin, J., and Williams, G.A. (2006). '*Islam and CSR: A study of the compatibility between the tenets of Islam and the UN Global Compact*', Retrieved from SSRN: http://ssrn.com/abstract=905201.

> *Corporate social responsibility is a hard-edged business decision. Not because it is a nice thing to do or because people are forcing us to do it... because it is good for our business.*
> —*Niall Fitzerald*

CSR: Shift Towards Philanthropic to Realistic Approach

ANUPAM SHARMA

In today's ever changing and ever growing economic and social environmental pace, subject matter related to social and environmental responsibility are gaining more and more importance, especially in the business sector. Corporate Social Responsibility (CSR) is not only drawing the corporate magnets into its perimeter, but is also attracting educationists, social activists, skill developers and reformists from all over the world to explore deeper into it. Changing global market scenario, such as emergence of globalization, and terms like ethical consumerism all are adding heat to the implementation of CSR practices. Every business organization is showing their commitments towards CSR for enhancing their corporate image or and to attract more investors. Emergence of diverse marketing innovations demands the direct association of CSR practices with the business corporate strategies. The present article reviews the CSR literature from 1931 to 2011, conveying changing developments of CSR practices.

Introduction

The business of business firm should not be all about money; it should be about responsibility towards society. It should be about public, social, and environmental good, not only private greed. A commitment is required for that and should be beyond law, more of philanthropic for a business to follow long term goals that are good for society and environment. Corporate social responsibility (CSR) is not only limited to this bit but also addresses the requirement for firms to be socially responsible and focus on more innovative issues. CSR is a concept whereby companies integrate social, environmental and health concerns in their business strategy (policy) and operations and in their interactions with stakeholders on a deliberate basis. This integration can be done to fulfill both social and business objectives of the firm by combining CSR practices into the core business strategies as a strategic innovation investment. The social responsibility of business encompasses the economic, legal, ethical and discretionary expectations that society has of organizations at a given point in time (Carroll, 1979). The dawn of CSR is contusing the entire world in its ambit and India is not an exception. CSR is a concept whereby business firms integrate social, environmental and educational and health sustainability concerns in their business strategy (policy) and operations and in their interactions with all stakeholders on a deliberate basis.

With the speeding up of the processes of globalization the idea of CSR has been reinforced into global economies and has emerged in the Indian economy with increased drive. The campaign of CSR has also been actively supported by global agencies, such as the World Bank, OECD (Organization for Economic Co-operation and Development) and the European Commission.

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In order to contribute in the field CSR practices it's very important to identify the importance of business initiatives towards societal development and environmental preservance. The present paper is an attempt to map the theoretical and practical perspectives of CSR along with country wide literature on CSR. This is done by considering various theories of CSR and CSR practices followed by firms from the perspective of published research papers among the listed journals from year 1973 to 2011.

The CSR concept evolved despite inevitable skepticism (Friedman, 1962). Throughout the sixties and seventies, most of the studies attempted to define distinctive features and rules of CSR (Manne and Wallich, 1972). Despite much divergence, all of them agreed that socially responsible companies have to act voluntarily to conform to CSR paradigms, beyond legal prescriptions (Davis, 1973). Every business firm has to work under some social environment that is known as a society, and as a good corporate entrepreneur one has to be responsible for the society where the firms are operating. Helping the society by means of preserving the environment, minimizing the wastage of natural resources, helping the needy and underprivileged, conducting educational camps, promoting IT education, running schools/NGOs, recycling of products, arranging counseling sessions and organizing awareness programs regarding the different diseases are a few activities undertaken as CSR initiatives. European Commission Paper (2001) defined CSR as 'a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis'. These activities help in inspiring the lives of the underprivileged and lend a hand in the upliftment of the society. If every business firms starts taking initiatives of CSR practices, this planet will be a marvelous place to live on.

In 1991, Carroll (1991) presented his CSR model as a pyramid, as shown in Figure 1. Carroll uses his original historical explanation for the relative weighting, saying: 'To be sure, all these kinds of responsibilities have always been practiced by business firms up to some extent, but it has only been in recent years that ethical and philanthropic responsibility have taken a significant place' (p. 40). Since then a lot of researchers and academicians have been motivated to work on the changes and developments in the field of CSR.
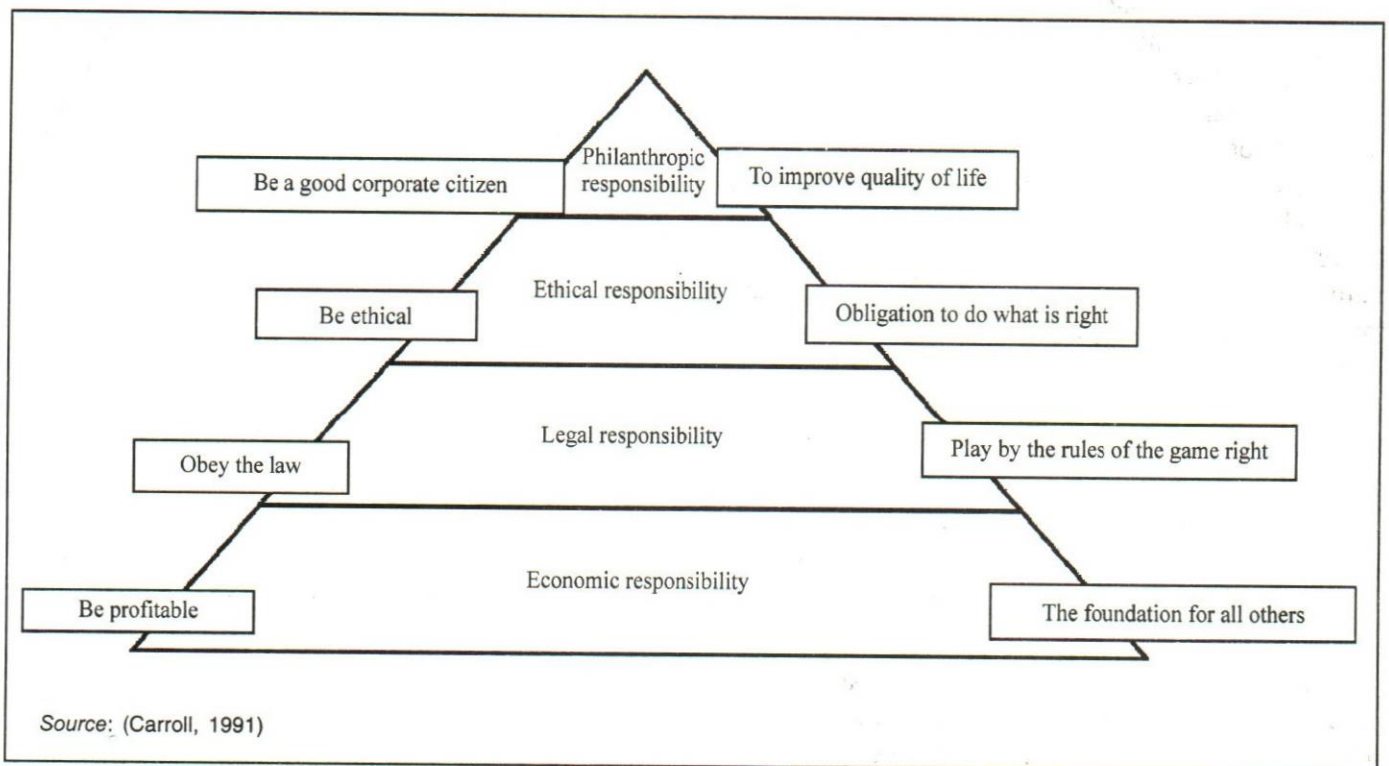

Source: (Carroll, 1991)

Figure 1: The Pyramid of Corporate Social Responsibility

Economic responsibility: Business firms have shareholders who stipulate a realistic return on their investments (profit sharing); firms have working staff/human resources who work in the firm for fairly paid jobs; they have customers who always demand quality products from the firm at a reasonable price. This is the major reason behind why businesses are set up in society. All succeeding responsibilities rest upon this first layer of CSR pyramid. According to Carroll (1991), the fulfillment of economic responsibilities is thus required of all business corporations. Friedman (1970) conjectured that there is one and only one social responsibility for a business, to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game.

Legal responsibility: Another basic and significant responsibility of business firms is that in relation to the guidelines of the law they stand by the legal requirements and firms take CSR initiatives to fulfill the legal norms and 'play by the rules of the game'. Carroll suggests that the fulfillment of legal responsibilities is essential for all the corporations seeking to be in the business.

Ethical responsibility: This responsibility obliges that business firms have to do what is right, and fair, even when they are not gratified to do so by the legal framework. Carroll argues that ethical responsibilities therefore composed of meeting the prospects of the society over and above economic and legal expectations. Mintzberg (1983) claimed that CSR can appear in various forms. The purest form is when CSR is practised for its own sake. Firms expect nothing back from their CSR activities and they become socially responsible because that is a novel strategy for corporations to behave.

Philanthropic responsibility: The fourth level of the CSR pyramid is the philanthropic responsibilities of business firms. These include charitable donations, opening up free schools for the children of work force, organizing free medical camps, etc. According to Carroll, philanthropic responsibility is the most preferred one by business firms.

In the starting era of business, organizations were focused on economic responsibility only; ethical, philanthropic and legal responsibilities came into consideration only later. Currently, this scenario has totally changed. With the changing market demands the focus of CSR is not only limited to society and environment. The scope of social responsibility of corporate is shifting to include many other factors: skill development, saving environment, educating the girl child and including knowledge camps regarding AIDS, for example. Thus, CSR has also drawn health, environment and education into its ambit. Strategically CSR can become a source of tremendous social progress as business applies its considerable resources, expertise and insight to activities that benefit the society (Porter and Kramer, 2006).

According to Gugler and Shi (2008), 'CSR conceptualization and uprising initiatives are being taken in the developed countries, while the CSR engagement in developing countries is lax'. The concept of CSR can be studied with implications on academia, industry and society. Berle (1931), Dodd (1932) and Hopkins (2003) depicted that important strides were being made in the view of business as an economic institution with consideration of both social-service for the society and profit-making for the firm itself. Keeping in view the growing importance of CSR, management/business schools have to focus on introducing CSR as a compulsory course (Kiran and Sharma, 2011).

In developed countries more and more firms are implanting CSR into their business practices. Still developing countries are lagging behind in the implementation and execution of CSR practices. This further reinforces the need for specified planned social responsibility areas so that companies can chalk out what the backward areas of society are and accordingly can develop their CSR initiatives. Some CSR initiatives taken up are neither making any progress in alleviating societal problems nor providing any benefits to the business firms. Undoubtedly, the societal problems are too big to be addressed only by business firms and they do not always possess all the information to find effective and efficient solutions for all societal problems. Lastly, one of the most important aspects is the link or relation between CSR and sustainable development of business as well as society. CSR has been described as the most valuable contribution for the sustainable development (European Commission, 2002).

CSR Scenario: A Theoretical Discussion

Literature depicts that the concept of CSR has evolved from two parallel developments. The first one comprises the efforts of policy makers and organizations to spread the idea of SRB and CSR practices at every level by means of numerous initiatives and formal definitions. Keeping Carroll's model as a base, the present study covers the various aspects of CSR conveyed by other authors (Carroll,

Table 1: CSR Practices with Respect to Carroll's Model

Study (Year)	CSR Responsibilities			
	Economic responsibility	Legal responsibility	Ethical responsibility	Philanthropic responsibility
Davis (1973)		*		
Garriga and Mele´ (2004)	*			
Porter and Kramer (2002)	*			
Furrer et. al. (2009)	*			*
Steurer (2010)		*		
Fukukawa Teramoto (2009)				*
Ramasamy and Yeung (2009)	*		*	
Kapoor and Sandhu (2010)				*
Muller and Kolk (2009)				*
Silberhorn and Warren (2007)		*	*	
Wood and Lodgson (2002)		*		
Freeman and Phillips (2002)			*	
Freeman (1984, 1994)			*	
Hill et al. (2007)	*		*	
Murthy (2008)				*
Chaudhri and et al. (2007)				*

1991; Tencati et al., 2004; Zadek, 2002). Table 1 depicts the author-wise aspects covered in their studies.

Table 1 clearly describes the different aspects of CSR practices taken into consideration by different researchers. Literature depicts that the philanthropist and ethical aspects are equally relevant as the economic and legal aspects. Initially researchers reveal that till date economic responsibility has been the most important and motivating responsibility for firms to focus upon vis-à-vis their CSR initiatives. But later on ethical and philanthropic responsibility acted as a driving force for firms for undertaking CSR practices and implementation. Thus, the CSR concept has evolved from an ethical to an integrated holistic approach.

CSR Practice

Much of the literature on CSR till date has focused on justifying in economic terms the various activities associated with CSR (Basu and Palazzo, 2008; Margolis and Walsh, 2003). According to Matten and Moon (2005), CSR is an uncertain and complex umbrella term of challenging meaning. Recent research and scholarly analysis have attempted to address this gap in the theorising of CSR practices. Research carried out by Pimenova and Vorst (2004) suggests that firms that implement CSR-related activities are primarily concerned about their public image. Similarly, Burke and Gaughran (2006) suggest that 'compliance with legislation is the key driver' and without adequate support programmes and policies (i.e., financial benefits) sustainability would be difficult to achieve.

Businesses firms' proactive association with CSR strategies and managerial practices like environmental assessment and stakeholder/shareholder management (Wood, 1991) tend to anticipate and reduce potential involved sources of business risk, such as governmental regulation, labour unrest or environmental damage (Orlitzsky and Benjamin, 2001).

Table 2: A Summary of Research Studies on CSR Practice

Broad Category	Study(Year)	Relevant issues	Conclusions
Organization management style and Strategies			
Company Strategies	Chaudhri and Wang (2007)	Lagging behind in creative and effective CSR communication	Indian companies still need to work upon the concept of CSR
	Oketch (2005)	Corporate stake in social cohesion	CSR is not a one-directional endeavour; it is a link between corporations and society
	Kapoor and Sandhu (2010)	Impact of CSR on financial performance	Bi-dimensional model
	Blomback and Wigern (2009)	Importance of size of firm	Firm's CSR activities and characteristics, regardless of firm size.
Environment	Banerjee et al. (2003)	Marketing strategy	Environmental strategy should be integrated with the firm's strategic plans.
	Lewicka and Strzalecka (2006)	Ethical standards for the society and environment	Self-regulation trends
	Murthy (2008)	Software firms	Firms had different motives/reasons for reporting the different attributes of CSR.
Education	Berle (1931) and Dodd (1932)	Academia	Substantial efforts have to be made in view of business as an economic institution with both a social–service and profit-making function.
	Ackermann and Bauer, 1975	Academia	CSR now moved on to the field of academia, industry and society
	Furrer et. al. (2010)	Social, economic and environmental corporate responsibilities	Students posses knowledge about CSR
Business Ethics	Simmons (2008)	Managementethics and morality in human resourcemanagement	Assessing organizational maturity in employee governance
	Jamali and Mirshak (2006)	Theory and practice	CSR practices of these local companies differ fromtheir international counterparts
Web disclosure	Hill et al. (2007)	CSR and company stock valuation	Practices are best characterized by horizontal individualism
	Murthy (2008)	Software Firms	Firms had different motives/reasons for reporting the different attributes of CSR.
	Wanderley (2008)	Communicating ethically and responsibly to the diversity of stakeholders	Information disclosures on the internet is strongly influenced by country of origin
	Chaudhri et al. (2007)	IT companies	Companies are lagging behind in creative and effective CSR communication on their Web sites
	Chapple and Moon, (2005)	Web Site Reporting	Multinational companies are ready to adopt CSR practices than those operating solely in their home country.

According to Pradhan and Ranjan (2010), CSR initiatives in India are classified under five areas: livelihood, health, education, environment and infrastructure. Corporates have played a dominant role in addressing issues of education, health, environment and livelihoods through their CSR interventions across the country. Little (2006) suggested that CSR initiatives can lead to innovations through the use of social, environmental or sustainability drivers to create new products and services (see Figure 2).
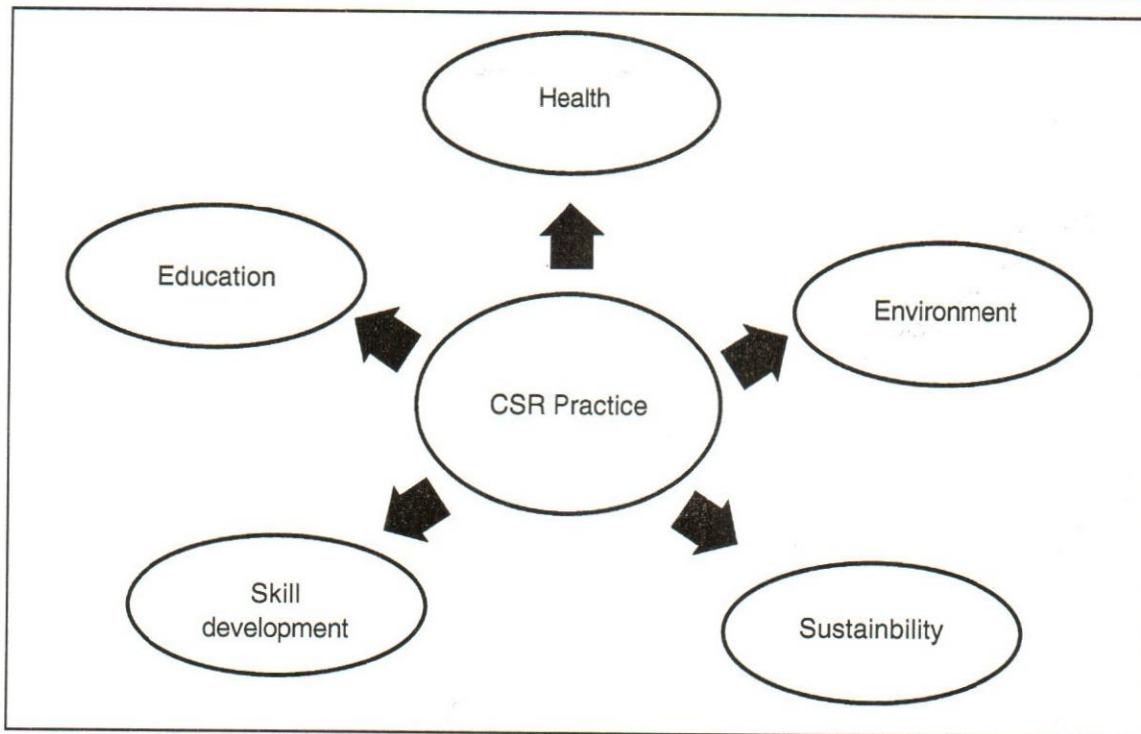
Figure: 2 Areas Focused by Companies for CSR Practices

CSR is 'a concept whereby companies integrate their social and environmental concerns with their business operations and in their interaction with the stakeholders on a voluntary basis' (European Commission, 2001). In its communication to relaunch the Lisbon Strategy in 2005, the Commission stated that CSR 'can play a key role in contributing to sustainable development while enhancing Europe's innovative potential and competitiveness' (European Commission, 2005). Research by Berad (2011) highlights education as the most preferred area of CSR for Indian companies. Eighty-five per cent of the companies surveyed are engaged in it, followed by health (67.5 per cent) and rural development and livelihoods (57.5 per cent). The study also shows that private sector in their development agenda the private sector firms are now focusing on education, health, environment, livelihood, women empowerment and disaster management. Some innovative models of private sector interventions in these areas are also available. In order to push the development agenda in a mission mode, it is recommended that realistic and operational models of engagement between all three important stakeholders—the government, non-governmental firms and the private sector—are formed (Times Foundation).

As is obvious from a brief analysis of various studies, certain issues demanding immediate attention are:

1. A difference in the CSR practices at home and host countries. MNCs are spending more vigorously in their home countries for CSR.

2. CSR has now moved to cover health, education and environment and skill development in rural areas as well.

3. Companies are still lagging behind in creative and effective CSR practices.

4. Corporate governance and voluntary disclosures still elude many organizations as has been obvious from the increasing scams in India (Satyam Scam, 2G Scam, Commonwealth Games Scam) and abroad (Enron, Daewoo).

5. Corporate citizenship is still a distant dream.

As it can be understood now, CSR is not only limited to some specific developed countries or to some areas (social/environment); it is a much wider concept and has traversed from being focused on social and collectivism to now being involved with greater transparency, liability and corporate citizenship. The ambiguity of CSR makes it challenging as a practice. CSR has gained fame as a broad concept (Crook, 2005) essentially covering the responsibility of the corporation to stakeholders, representing the concerns of 'people, planet, profit'.

However, as far as implementation of CSR is concerned, it is still a 'black box' as expressed by Linnenluecke et al. (2007). CSR initiatives are not only undertaken as a profit scheme or tax saving scenario but it now covers the realms of consumer satisfaction and societal benefits.

The CSR concept evolved despite inevitable uncertainty (Friedman, 1962). Throughout the time since sixties and seventies, most studies attempted to define distinctive features, characteristics and rules of CSR (Manne and Wallich, 1972). Despite much divergence, all researchers agreed that socially responsible companies have to act voluntarily to conform to CSR paradigms and must establish CSR practices that are beyond legal prescriptions (Davis, 1973).

Every business firm has to voluntarily work for some social and environment cause that is going to benefit society, and as a good corporate citizen/entrepreneur one has to be accountable to the society where the firm is operating. Helping the society and working for the upliftment of the society by means of preserving the natural environment, minimizing the depletion of natural resources, helping the needy and underprivileged, conducting educational camps, promoting IT education, running schools/NGOs, recycling of products, skill development, arranging counseling sessions, vocational training programmes and organizing awareness programmes regarding the different diseases are a few activities undertaken as CSR initiatives. These activities help in inspiring the lives of the underprivileged and lend a hand to the upliftment of the society. If every business firms starts taking up CSR initiatives, this planet will be a marvelous place to live in.

Wood (1991) explains three levels of CSR initiatives: institutional, organizational and individual levels. A fourth level, in this context, the global level, can be added in context to public concern about globalization and importance of CSR. So let's work or plan for a civil society where organizations, people and individuals are not forced by any external factors for the planning and execution of any social responsibility practices. The need of the hour is to internally manage and control the social responsibility initiatives in a way so that every human on this planet takes it as a responsibility to make this planet/society a worthy living place. Everyone must realize the need to keep our society clean. In a situation like that a government need not invest in starting a Clean India drive. Similarly, if every citizen would understand the responsibility of importance of education in one's life then there will be no child labour and no need to reframe child labour laws. CSR practices follow by firms have connected the question of public responsibility/self-responsibility with issues of identification of stakeholder, human resource involvement, and communication, the legitimacy of corporate power and the moral dimension obligatory for managerial decisions (see Figure 3).
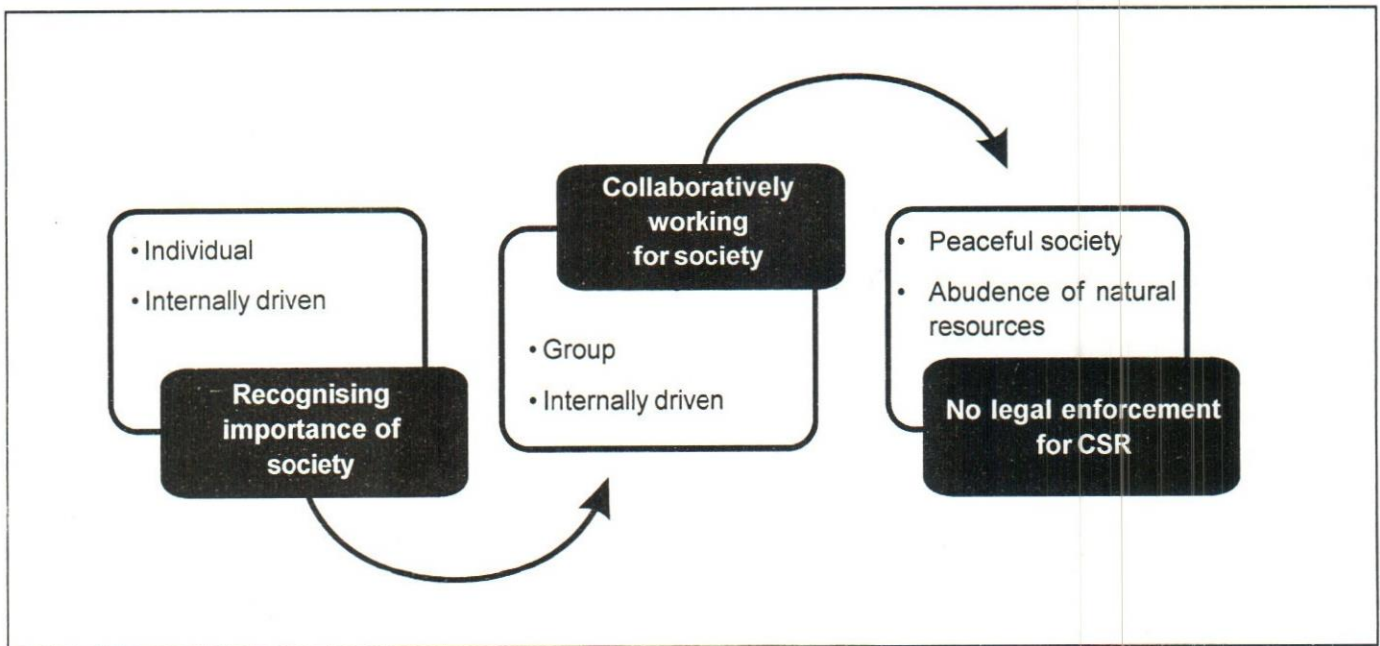

Figure 3: Amalgamation of Business and Society

CSR: Shift Towards Philanthropic to Realistic Approach

With the passage of time society and business firms realized the real meaning of business as now it's not only limited to economic responsibility. The Indian government has taken a step forward and legalized CSR for medium- and small-scale firms. But it's just the beginning; we need to proceed further from legalization to ethical and further to philanthropic and so on so that the upmost level of social responsibility of philanthropic to realistic approach can be achieved. This is the platform where social responsibility practices planning and implementation will not be bound by any norms or regulation. The most fundamental belief of CSR practices implementation is that business firms go beyond compliance and engage in actions that appear to go further in doing some social good, beyond the interests of the enterprise and that which is obliged by law (McWilliams and Siegel, 2001). In short, CSR practices initiation and execution will not be externally driven but will be internally driven out. The first step for that is one must realize the need to take care of oneself, then realize the need to take care of people around them and then jointly work together to care for society and at large our nation and planet. It is only then that society will become the best place to live in for each and every one, including humans, plants, living, and natural beings. The successful realization of self-responsibilities towards society will lead towards realistic CSR practices and then unconsciously, and without any external pressure, such as government laws, tax rebates, etc., corporate and individuals will indulge into initiating social responsibility practices, and giving back to nature and society will become our natural practice. Study conducted by Montgomery and Ramus (2003) shows that MBAs from European and American business schools pay attention to CSR aspects, such as employee relationship, environmental sustainability, stakeholder relations and ethical corporation behaviour when making decisions about where to work. More than 90 per cent of the persons interviewed agreed to giving up financial benefits in order to work for an organization with a better reputation in terms of CSR practices and ethics.

Conclusion

The present paper tries to focus on the developments in CSR over a period of time. Carroll's pyramid, the four-part CSR, provides a base for all studies on CSR. Effort has been made to relate other studies in terms of Caroll's four responsibilities. Table 1 highlights the implementation of these responsibilities as covered by other researchers. Review of implementation practices highlights that CSR

needs to cover corporate citizenship and accountability with the changing nature of business in view of globalisation. Thus undoubtedly the perception of firms towards CSR is changing; the pragmatics is that corporate governance and voluntary disclosures are still not a reality. Study by MacGregor et al. (2007) argued that business firms who do not take into account any CSR initiatives may not survive in the future since they may fail to innovate. A different attitude towards CSR practices at home and host countries is another disparity drawing immediate attention. Thus, organizations interested in implementation of social responsibility practices should, therefore, be cognizant of the diversity of skills of their business and may need to encourage different and new practices of social responsibility to be successful in today's technologically competitive environment.

References

Ackerman, R.W. (1975). *The Social Challenge to Business.* Harvard University Press, Cambridge, MA.

Berle, A.A. Jr. (1931). 'Corporate Powers as Powers in Trust'. *Harvard Law Review*, 44, 1049–79.

Basu, K., and G. Palazzo. (2008). 'Corporate Social Responsibility: A Process Model of Sensemaking'. *The Academy of Management Review*, 33(1), 122–136.

Banerjee, S.B., Lyer, E.S., and Kashyap, R.K. (2003). 'Corporate Environmentalism: Antecedents and Influence of Industry Type'. *Journal of Marketing*, 67, 106–122.

Blomback, A., and Wigren, C. (2009). 'Challenging the Importance of Size as Determinant for CSR Activities'. *International Journal Of Management Of Environment Quality*, 20(3), 255–270, Retrieved From Emerald database.

Berad, N.R. (2011). Corporate Social Responsibility–Issues and Challenges in India, International Conference on Technology and Business Management. Corporate Social Responsibility Practices in India, Times Foundation, and the corporate social responsibility wing of the Bennett, Coleman and CO. Ltd.

Carroll, A.B.A. (1979). 'Three-Dimensional Conceptual Model of Corporate Performance'. *Academy of Management Review*, 4(4), 497–505.

Carroll, A.B. (1991). 'The Pyramid of Corporate Social Responsibility: Toward the Moral Management of Organizational Stakeholders'. *Business Horizons*, 34, 39–48.

Crook, C. (2005). 'The Good Company'. *Economist* 37, January, 41–31.

Cramer, J., van der Heijden, A., and Jonker, J. (2006). 'Corporate Social Responsibility: Making Sense Through Thinking and Acting'. *Business Ethics: A European Review* 15(4), 380–389.

Chaudhri and et al. (2007). 'Communicating Corporate Social Responsibility on the Internet: A Case Study of the Top 100 Information Technology Companies in India'. *Management Communication Quarterly*, 21(2), 232–247.

Davis, K. (1973). 'The Case for and against Business Assumption of Social Responsibilities'. *Academy of Management Journal*, 16(2), 312–322.

Dodd, E.M. (1932). 'For Whom Are Corporate Managers Trustees?'. *Harvard Law Review*, 45(11), 45–63.

European Commission (2001). 'Promoting a European Framework for Corporate Social Responsibility', Green Paper and COM 366, Brussels.

European Commission (2002). 'Commission of the European Communities Brussels', Corporate Social Responsibility: A Business Contribution to Sustainable Development.

European Commission (2005). 'Working Together for Growth and Jobs. A New Start for the Lisbon Strategy', COM 24, Brussels.

Friedman, M.S. (1970). 'The Social Responsibility of Business Is to Increase Profits', *New York Times* 126.

Freeman, R.E. (1984). *Strategic Management: A Stakeholder Approach*, Pitman, Boston.

Freeman, R.E. (1994). 'The Politics of Stakeholder Theory: Some Future Directions'. *Business Ethics Quarterly* 4(4), 409–429.

Fukukawa, K., and Teramoto, Y. (2009). 'Understanding Japanese CSR: The Reflections of Managers in the Field of Global Operations'. *Journal of Business Ethics*, 133–146.

Furrer, O., Egri, C.P., Ralston, D.A., Danis, W., Reynaud, E., Naoumova, I., Molteni, M., Starkus, A., Darder, F.L., Dabic, M., and Furrer-Perrinjaquet, A. (2010). 'Attitudes Toward Corporate Responsibilities in Western Europe and in Central and East Europe'. *Manag Int Rev*, 50, 379–398.

Garriga, E., and Mele, D. (2004). 'Corporate Social Responsibility Theories: Mapping the Territory'. *Journal of Business Ethics*, 53(1), 51–71.

Hopkins, M. (2003). *The Planetary Bargain: Corporate Social Responsibility Matters*. Earthscan, London.

Kiran, R., and Sharma, A. (2011). 'Corporate Social Responsibility: A Corporate Vision'. *International Journal of Contemporary Business Studies*, 2(3), 58–68.

Little, A.D. (2006). 'The Innovation Highground–Winning Tomorrow's Customers Using Sustainability-driven Innovation'. *Strategic Direction*, 22(1).

Linnenluecke M.K., Russell, S.V., and Griffiths, A. (2007). 'Subcultures and Sustainability Practices: The Impact on Understanding Corporate Sustainability'. *Business Strategy and the Environment*. Online Journal, Retrieved from: http://dx.doi.org/10.1002/bse.609.

Mintzberg, H. (1983). 'The Case for Corporate Social Responsibility'. *Journal of Business Strategy*, 4(2), 3–15.

McWilliams, A., and Siegel, D.S. (2001). 'Corporate Social Responsibility: A Theory of the Firm Perspective'. *Academy of Management Review*, 26(1): 117–127.

Margolis, J.D., and Walsh, J.P. (2003). 'Misery Loves Companies: Rethinking Social Initiatives by Business'. *Administrative Science Quarterly*, 38(3), 268–305.

Montgomery, D.B., and Ramus, C.A. (2003). 'Corporate Social Responsibility. Reputation Effects on MBA Job Choice', Stanford Graduate School of Business Research Paper No. 1805, Stanford.

Matten, D., and Moon, J. (2005). 'United Kingdom: An Explicit Model of Business-Society Relations', in A. Habisch, J. Jonker, M. Wagner and R. Schmidpeter (eds), *Corporate Social Responsibility Across Europe* (Springer, Berlin), 51–66.

MacGregor S.P., Spinach, X., and Fontrodona, J. (2007). 'Social Innovation: Using Design to Generate Business Value through Corporate Social Responsibility', IESE Business School, University of Gerona, Spain.

Murthy, V. (2008). 'Corporate Social Disclosure Practices of Top Software Firms in India'. *Global Business Review*, 9(2), 173–188.

Muller, A., and Kolk, A. (2009). 'CSR Performance in Emerging Markets Evidence from Mexico'. *Journal of Business Ethics*, 85, 325–337.

Kapoor, S., and Sandhu, H.S. (2010). 'Does It Pay to be Socially Responsible? An Empirical Examination of Impact of Corporate Social Responsibility on Financial Performance'. *Global Business Review*, 11(2), 185–208.

Orlitzky, M., and Benjamin, J.D. (2001). 'Corporate Social Performance and Firm Risk: A Meta-Analytic Review'. *Business Society*, 40(4), 369–396.

Porter, M.E., and Kramer, M.R. (2002). 'The Competitive Advantage of Corporate Philanthropy'. *Harvard Business Review* 80(12), 56–69.

Pimenova, P., and van der Vorst, R. (2004). The Role of Support Programs and Policies in Improving SMEs Environmental Performance in Developed and Transition Economies'. *Journal of Cleaner Production* 12 (6): 549–559.

Porter, M.E., and Kramer, M.R. (2006). 'Strategy and Society: The Link between Competitive Advantage and Corporate Social Responsibility'. *Harvard Business Review*, 78–92.

Paul Hill, R., Ainscough, T., Shank, T., and Manullang, D. (2007). 'Corporate Social Responsibility and Socially Responsible Investing: A Global Perspective'. *Journal of Business Ethics*, 70, 165–174.

Philippe Gugler and Jacylyn, Y.J. Shi. (2008). 'Corporate Social Responsibility for Developing Country Multinational Corporations: Lost War in Pertaining Global Competitiveness?'*Journal of Business Ethics*.

Pradhan, S., and Ranjan, A. (2010). 'Corporate Social Responsibility in Rural Development Sector: Evidences from India'. *European Union Journal.*

Ramasamy, B., and Yeung, M. (2009). 'Chinese Consumers' Perception of Corporate Social Responsibility (CSR)'. *Journal of Business Ethics*, 88, 119–132.

Silberhorn, D., and Warren, R.C. (2007). 'Defining Corporate Social Responsibility: A View from Big Companies in Germany and the UK'. *European Business Review*, 19(5), 352–372.

Steurer, R. (2010). 'The Role of Governments in Corporate Social Responsibility: Characterizing Public Policies on CSR in Europe'. *Springer Science*, 43, 49–72.

Wood, D.J. (1991). 'Corporate Social Responsibility Revisited'. *Academy of Management Review*, 16, 619–718.

Wood, D.J., and Lodgson, J.M. (2002). 'Business Citizenship: From Individuals to Organizations'. *Business Ethics Quarterly*, Ruffin Series, 3, 59–94.

Wanderley, et al. (2008). 'CSR Information Disclosure on the Web: A Context-Based Approach Analyzing the Influence of Country of Origin and Industry Sector'. *Journal of Business Ethics*, 82, 369–378.

Tencati, A., Perrini, F., and Pogutz, S. (2004). 'New Tools to Foster Corporate Socially Responsible Behavior'. *Journal of Business Ethics* 53(1–2), 173–190.

Zadek, S. (2002). 'Mapping Instrument for Corporate Social Responsibility', European Commission, Directorate-General for Employment and Social Affairs, Bruxelles, Belgium.

> *My passionate sense of social justice and social responsibility has always contrasted oddly with my pronounced lack of need for direct contact with other human beings and human communities.*
>
> —**Albert Einstein**

Overview of Corporate Social Responsibilty in Indian Organization

RAJEEV PRABHAKAR AND SONAM MISHRA

India is a developing economy; here Corporate Social Responsibility (CSR) plays an important role in organizations. In Indian industry one can easily notice a paradigm shift from corporate philanthropist to being socially responsible. The importance of CSR is increasing in Indian corporate scenario because organizations have realized that the ultimate goal is not profit making; besides, this trust building is viable and assists in a functional societal relationship. The compulsion of CSR has emerged in last two decades when Indian organization realized the importance of sustaining in this cut-throat competition era. Before this Indian industries had a materialistic culture. In the hue and cry of LPG (Liberalization, Privatization and Globalization) companies were only focused towards profit maximization which led to social backwash. To overcome this fashion CSR play an important role in sustainable development which is only possible when there is a balance between profit and lowering social backwash or eradicating it.

The problem with CSR is that nobody is very clear about what exactly it encompasses. The Indian government has been trying to make it mandatory for companies to spend at least 2% net profits on CSR. Today CSR to some companies means providing lunch to their employees or tackling global warning issues.

Nowadays companies have become more transparent in their balance sheets. They are displaying public reporting in their accounting. Companies are incorporating their CSR initiatives in their annual report.

This research paper tries to analyse the study of CSR status in India; this can give insight in to what extent companies can follow CSR. I would like to throw light on CSR for Indian organizations which would be helpful for both economic and social interests which would be a futuristic measure as it provides valuable information as well as suggests CSR practices and performance. thoughts.

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Introduction

The importance of CSR emerged significantly in the last decade. Over time, CSR expanded to include both economic and social interests. Along with this, it also broadened to cover economic as well as social interests. Companies have become more transparent in accounting and display 'public reporting' due to pressures from various stakeholders. It is possible for companies to behave in the 'desired' ethical and responsible manner towards consumers, employees, communities, stakeholders and environment. They have started incorporating their CSR initiative in their annual reports.

CSR is an entry point for understanding a number of firm-related and societal issues and responding to them in a firm's business strategy. However, there is a universal and prominent view on protecting the environment and stakeholders' interests. Emerging economies like India have also witnessed a number of firms actively engaged in CSR activities, and the Ministry of Corporate Affairs has come up with voluntary guidelines for firms to follow. Companies in India have been quite proactive in taking up CSR initiatives and integrating them in their business processes.

Objectives

- To study the CSR status in India.
- To understand the meaning and various models of CSR.
- To study the policies governing CSR in India.
- To study the challenges faced by CSR in India.
- To make suggestions for accelerating CSR initiatives.
- To conduct inter-disciplinary and collaborative research and document case studies in thrust areas of CSR dealing with contemporary issues and challenges.

- To integrate the existing body of knowledge, systems, structures, models and mechanisms associated with different CSR initiatives by interfacing with industry and academia.

- To disseminate information about the latest happenings in the CSR field to people engaged in policymaking, policy analysis, policy research, practitioners and other stakeholders

Reserch Methodology

The research paper is an attempt of exploratory research, based on secondary data sourced from journals, magazines, articles and media reports.

Looking into requirements of the objectives of the study the research design employed for the study is of descriptive type. Keeping in view of the set objectives, this research design was adopted to have greater accuracy and in depth analysis of the research study.

Available secondary data was extensively used for the study. The investigator procures the required data through secondary survey method. Different news articles, books and the Web were used which were enumerated and recorded.

Literature Review

Can shareholder money be used for a company's CSR practices? Shouldn't shareholders have a say in the CSR activities of the company they are invested in?

As per ACCSR's State of CSR in Australia Annual Review report the complete understanding of CSR is still emerging. There are many obstacles that are emerging while adopting successful CSR strategies—the difficulty in making a business case for CSR, difficulty in integrating CSR with organizational values and practices, and the lack of organizational buy-in and commitment to CSR.

Other obstacles reported is the lack of time and financial resources to pursue CSR practices which are directly related to the above three. When an organization finds it hard to make a business case for CSR or link it to core organizational operations, it will be reluctant to commit and allocate resources or time to such practices.

Moreover, these obstacles also point to another set of findings in the report: respondents view CSR more so as a means to manage regulatory impacts, reduce risk, and respond to stakeholders concerns, and to a lesser extent as a strategic source of competitive advantage.

CSR In India:

India has a long rich history of close business involvement in social causes for national development. In India, CSR is known from ancient times as social duty or charity, which through different ages is now changing its nature in broader aspect, currently known as CSR. From the origin of business, which leads towards excess wealth, social and environmental issues have deep roots in the history of business. India has had a long tradition of corporate philanthropy and industrial welfare has been put to practice since late 1800s. Historically, the philanthropy of business people in India has resembled Western philanthropy in being rooted in religious beliefs. Business practices in the 1900s that could be termed socially responsible took different forms: philanthropic donations to charity, service to the community, enhancing employee welfare and promoting religious conduct. Corporations may give funds to charitable or educational institutions and may argue for them as great humanitarian deeds, when in fact they are simply trying to buy community good will. The ideology of CSR in the 1950s was primarily based on an assumption of the obligation of business to society.

In initial years there was little documentation of social responsibility initiatives in India. Since then there is a growing realization towards contribution to social activities globally with a desire to improve the immediate environment. It has also been found that to a growing degree companies that pay genuine attention to the principles of socially responsible behaviour are also favoured by the public and preferred for their goods and services. This has given rise to the concept of CSR.

After Independence, we have the example of JRD Tata who always laid a great deal of emphasis to go beyond conducting oneself as an honest citizen and pointed out how there were many ways in which industrial and business enterprises can contribute to public welfare beyond the scope of their normal activities. He advised that apart from the obvious one of donating funds to good causes, which has been their normal practice for years, they could have used their own financial, managerial and human resource to provide task forces for undertaking direct relief and reconstruction measures. Slowly, it began to be accepted, at least in theory, that business had to share a part of the social overhead costs. Traditionally, it had discharged its responsibility to society through benefactions for education, medical facilities, and scientific research among other objects. The important change at that time was that industry accepted social responsibility as part of the management of the enterprise itself. The community development and social welfare programme of the premier

Tata Company, Tata Iron and Steel Company, was started on the concepts of 'Social Responsibility'.

The term corporate social performance was first coined by Sethi (1975), expanded by Carroll (1979) and then refined by Wartick and Cochran (1985). In Sethi's 1975 three-level model, the concept of corporate social performance was discussed, and distinctions made between various corporate behaviours. Sethi's three tiers were social obligation (a response to legal and market constraints), social responsibility (congruent with societal norms) and social responsiveness (adaptive, anticipatory and preventive).

The last decade of the twentieth century witnessed a swing away from charity and traditional philanthropy towards more direct engagement of business in main stream development and concern for disadvantaged groups in the society. This has been driven both internally by corporate will and externally by increased governmental and public expectations. This was evident from a sample survey conducted in 1984 reporting that of the amount companies spent on social development, the largest sum of 47 per cent was spent through company programmes, 39 per cent was given to outside organizations as aid and 14 per cent was spent through company trusts. In India as in the rest of the world, there is a growing realization that business cannot succeed in a society which fails. An ideal CSR has both ethical and philosophical dimensions, particularly in India where there exists a wide gap between sections of people in terms of income and standards as well as socio-economic status.

According to Infosys founder Narayan Murthy, social responsibility is to create maximum shareholders value working under the circumstances, where it is fair to all its stakeholders, workers, consumers, the community, government and the environment. He stated that being socially responsible means not only fulfilling legal expectations, but also going beyond compliance and investing 'more' into human capital, the environment and the relation with stakeholders.

The 2001 State of Corporate Responsibility in India Poll , a survey conducted by Tata Energy Research Institute (TERI), stated that the evolution of CSR in India has followed a chronological evolution of four thinking approaches:

Ethical Model (1930–1950): One significant aspect of this model is the promotion of trusteeship that was revived and reinterpreted by Gandhiji. Under this notion the businesses were motivated to manage their business entity as a trust held in the interest of the community. The idea prompted many family run businesses to contribute towards socioeconomic development. The efforts of Tata group directed towards the well-being of the society are also worth mentioning in this model.

Statist Model (1950–1970): Under the aegis of Jawahar Lal Nehru, this model came into being in the post-independence era. The era was driven by a mixed and socialist kind of economy. The important feature of this model was that the state ownership and legal requirements decided the corporate responsibilities.

CSR needs to be understood within this context captured in the development oriented CSR framework given below:

Model	Focus	Champions
Ethical	Voluntary commitment by companies to public welfare	M.K. Gandhi
Statist	State ownership and legal requirements determine Corporate responsibility	Jawahar Lal Nehru
Liberal	Corporate responsibilities limited to private owners (Shareholders)	Milton Friedman
Stakeholder	Companies respond to the needs of stakeholders-customers, employees, communities, etc	R. Edward Freeman

Liberal Model (1970–1990): The model was encapsulated by Milton Friedman. As per this model, corporate responsibility is confined to its economic bottom line. This implies that it is sufficient for business to obey the law and generate wealth, which through taxation and private charitable choices can be directed to social ends.

Stakeholder Model (1990–Present): The model came into existence during 1990s as a consequence of realization that with growing economic profits, businesses also have

certain societal roles to fulfill. The model expects companies to perform according to 'triple bottom line' approach. The businesses are also focusing on accountability and transparency through several mechanisms.

CSR Initiatives And Green Measures

India Inc has joined hands to fine-tune all its activities falling under CSR. For this, it has set up a global platform to showcase all the work done by Indian firms. The Confederation of Indian Industry (CII) and the TVS Group collaborated to form the CII-TVS Centre of Excellence for Responsive Corporate Citizenship in 2007. It provides consultancy services and technical assistance on social development and CSR.

According to a National Geographic survey which studied 17,000 consumers in 17 countries, Indians are the most eco-friendly consumers in the world. India topped the Consumer Greendex, where consumers were asked about energy use and conservation, transportation choices, food sources, the relative use of green products versus traditional products, attitudes towards the environment and sustainability and knowledge of environmental issues.

- Reliance Industries and two Tata Group firms—Tata Motors and Tata Steel—are the country's most admired companies for their CSR initiatives, according to a Nielsen survey released in May 2009.

- As part of its Corporate Service Corps (CSC) programme, IBM has joined hands with the Tribal Development Department of Gujarat for a development project aimed at the upliftment of tribals in the Sasan area of Gir forest.

- The financial services sector is going green in a steady manner. With an eye on preserving energy, companies have started easing the carbon footprint in their offices. The year 2009 witnessed initiatives including application of renewable energy technologies, moving to paperless operations and recognition of environmental standards. Efforts by companies such as HSBC India, Max New York Life and Standard Chartered Bank have ensured that the green movement has kept its momentum by asking their customers to shift to e-statements and e-receipts.

- State-owned Navratna company, Coal India Ltd (CIL)

will invest US$67.5 million in 2010–2011 on social and environmental causes.

- Public sector aluminium company NALCO has contributed US$3.23 million for development work in Orissa's Koraput district as part of its CSR.

CSR Initiatives Of Indian Companies

CSR is necessarily an evolving term that does not have a standard definition or a fully recognized set of specific criteria. With the understanding that businesses play a key role on job and wealth creation in society, CSR is generally understood to be the way a company achieves a balance or integration of economic, environmental, and social imperatives while at the same time addressing shareholder and stakeholder expectations. CSR is generally accepted as applying to firms wherever they operate in the domestic and global economy. The way businesses engage/involve the shareholders, employees, customers, suppliers, governments, non-governmental organizations, international organizations and other stakeholders is usually a key feature of the concept. While business compliance with laws and regulations on social, environmental and economic objectives set the official level of CSR performance, CSR is often understood as involving the private sector commitments and activities that extend beyond this foundation of compliance with laws.

CSR: Corporate Example

Corporate companies like ITC have made farmer development a vital part of its business strategy, and made major efforts to improve the livelihood standards of rural communities.

- IT companies like TCS and Wipro have developed software to help teachers and children in schools across India to further the cause of education.

- Aptech Limited, a leading education player with a global presence, has played an extensive and sustained role in encouraging and fostering education throughout the country since inception. As a global player with complete solutions-providing capability, Aptech has a long history of participating in community activities. It has, in association with leading NGOs, provided computers at schools, education to the underprivileged and conducted training and awareness-camps. Aptech students donated part of the proceeds from the sale of their art work to NGOs. To propagate education among

all sections of the society throughout the country, especially the underprivileged, Aptech fosters tie-ups with leading NGOs throughout the country, including the Barrackpur-based NGO, Udayan, a residential school for children of leprosy patients, established in 1970. The company strongly believes that education is an integral part of the country's social fabric and works towards supporting basic education and basic computer literacy amongst the underprivileged children in India.

- In another study undertaken by automotive research company, TNS Automotive, India has been ranked second in global CSR.

- The effort is significant because it brings together a wide range of Indian companies to share ideas on innovating sustainable programmes. Among them are Multi Commodity Exchange of India Ltd, Anil Dhirubhai Ambani Group and media company Bennett, Coleman and Co. Ltd.

- Audit firm KPMG will partner with them to offer guidance on evaluating CSR or CSR programmes, a trend companies are slowly embracing as India's expanding economy contrasts sharply with growing local protests over land for future industrial projects.

- Indian companies have made little progress in reporting development projects. Addressing business leaders in May last year, Prime Minister Manmohan Singh said 'Corporate social responsibility must not be defined by tax planning strategies alone. Rather, it should be defined within the framework of a corporate philosophy, which factors the needs of the community and the regions in which a corporate entity functions'.

- Pharmaceuticals company Jubilant Organosys Ltd already runs an anti-tuberculosis programme with the government of Uttar Pradesh. Apart from schools and hospitals that are run by trusts and societies, the government, too, is exploring to widen the scope of public-private partnerships to build and maintain schools and hospitals in return for a fixed annuity payment.

- Infosys Foundation, the philanthropic arm of Infosys Technologies Ltd., came into existence on 4th December 1996 with the objective of fulfilling the social responsibility of the company by supporting and encouraging the underprivileged sections of society. The foundation has undertaken various initiatives in providing medical facilities to remote rural areas, organizing novel pension schemes and in aiding orphans and street children. It has undertaken a large rural education program titled 'A library for every school' under which 5,500 libraries have been set up in government schools spread across many villages.

- The Tata Memorial Centre is not just India's best cancer hospital. It is a global centre of excellence where 70 per cent of patients get free primary care. About 10 to 12 million people the world over suffer from cancer. Almost 52 per cent of them are from developing countries. In India 800,000 are diagnosed with this dreaded disease every day.

- IBM Japan's 'e-elder' initiative is a national programme using training materials and other support from IBM Japan which will hire and train seniors as instructors for other seniors in an effort to help elder citizens more fully participate in a Web-based society.

- Microsoft works closely with international organizations such as the World Food Programme, Save the Children and Mercy Corps to provide technology- based development assistance through the HEART (Humanitarian Empowerment and Response through Technology) programme. More and more global organizations rely on technology to improve the effectiveness of their humanitarian efforts around the world.

Challenges of CSR

It is important for CSR strategies to become central to business strategy and part of the long-term planning process. Stakeholders are questioning more on CSR initiatives of the companies today. They are challenging the companies' decision making in this direction. It has become imperative to incorporate stakeholders' views. In India, the CSR managers face a number of challenges in managing CSR activities. The biggest problem is the lack of budget allocations followed by lack of support from employees and lack of knowledge as well. Lack of professionalism is another problem faced by this sector.

Small companies do not take adequate interest in CSR activities and those which undertake them fail to disclose it to the society. In the process they loose out on people and their trust in them.

The media can come up with strong support for informing people at large about the CSR initiatives taken up by the companies. It can sensitize the population and also make them aware of the benefits of CSR. However, the media is not doing enough in this regard.

The failure of the government to come up with statutory guidelines to give a definite direction to companies taking up CSR activities, in terms of size of business and profile of CSR activities, also results into a fewer number of companies practicing CSR concept adequately.

Issues and Challenges

Many companies think that CSR is a peripheral issue for their business and customer satisfaction is more important for them. They imagine that customer satisfaction is now only about price and service, but they fail to take into account the important changes that are taking place worldwide that could blow the business out of the water. The change is named as social responsibility which is an opportunity for the business. Some of the drivers pushing business towards CSR include:

The Shrinking Role of Government

In the past, governments have relied on legislation and regulation to deliver social and environmental objectives in the business sector. Shrinking government resources, coupled with a distrust of regulations, has led to the exploration of voluntary and non-regulatory initiatives instead.

Demands for Greater Disclosure

There is a growing demand for corporate disclosure from stakeholders, including customers, suppliers, employees, communities, investors and activist organizations.

Increased Customer Interest

There is evidence that the ethical conduct of companies exerts a growing influence on the purchasing decisions of customers. In a recent survey by Environics International, more than one in five consumers reported having either rewarded or punished companies based on their perceived social performance.

Growing Investor Pressure

Investors are changing the way they assess companies' performance, and are making decisions based on criteria that include ethical concerns. The Social Investment Forum reports that in the US in 1999, there was more than US$2 trillion worth of assets invested in portfolios that used screens linked to the environment and social responsibility.

Competitive Labour Markets

Employees are increasingly looking beyond paychecks and benefits, and seeking out employers whose philosophies and operating practices match their own principles. In order to hire and retain skilled employees, companies are being forced to improve working conditions.

Supplier Relations

As stakeholders are becoming increasingly interested in business affairs, many companies are taking steps to ensure that their partners conduct themselves in a socially responsible manner. Some are introducing codes of conduct for their suppliers to ensure that other companies' policies or practices do not tarnish their reputation. Dr Ratnam said the concept of CSR had different meanings depending on the stakeholder and that depending on the specific situation of the enterprises expectations can also vary.

The survey conducted by the Times of India Group on CSR used a sample size of 250 companies involved in CSR activities through a method of online administration of questionnaire. The questionnaire was evolved after due diligence including focus group meetings, consultations with key stakeholders and a pilot in four metros. Finally 82 organizations responded to the questionnaire. These comprised 11 public sector undertakings (PSUs), 39 private national agencies and 32 private multinational organizations. The respondent organizations form a satisfactory percentage of 33 per cent of the sample size, given the fact that only those companies that had direct or indirect involvement in CSR activities were chosen to be approached for the survey. The survey elicited responses from participating organizations about various challenges facing CSR initiatives in different parts of the country. Responses obtained from the participating organizations have been collated and broadly categorized by the research team. These challenges are listed below:

Lack of Community Participation in CSR Activities:

There is a lack of interest of the local community in participating and contributing to CSR activities of companies. This is largely attributable to the fact that there exists little or no knowledge about CSR within the local communities as no serious efforts have been made to spread awareness about CSR and instil confidence in the

local communities about such initiatives. The situation is further aggravated by a lack of communication between the company and the community at the grassroots.

Need to Build Local Capacities:

There is a need for capacity building of the local NGOs as there is a serious dearth of trained and efficient organizations that can effectively contribute to the ongoing CSR activities initiated by companies. This seriously compromises scaling up of CSR initiatives and subsequently limits the scope of such activities.

Issues of Transparency:

Lack of transparency is one of the key issues brought forth by the survey. There is an expression by the companies that there exists lack of transparency on the part of the local implementing agencies as they do not make adequate efforts to disclose information on their programmes, audit issues, impact assessment and utilization of funds.

Non-availability of Well-organized NGOs:

It is also reported that there is a non-availability of well-organized NGOs in remote and rural areas that can assess and identify real needs of the community and work along with companies to ensure successful implementation of CSR activities.

Visibility Factor:

The role of media in highlighting good cases of successful CSR initiatives is welcome as it spreads good stories and sensitizes the local population about various ongoing CSR initiatives of companies.

Narrow Perception towards CSR Initiatives:

NGOs and government agencies usually possess a narrow outlook towards the CSR initiatives of companies, often defining CSR initiatives more donor-driven than local in approach. As a result, they find it hard to decide whether they should participate in such activities at all in medium and long run.

Non-availability of Clear CSR Guidelines:

There are no clear cut statutory guidelines or policy directives to give a definitive direction to CSR initiatives of companies. It is found that the scale of CSR initiatives of companies should depend upon their business size and profile.

Lack of Consensus on Implementing CSR Issues:

There is a lack of consensus amongst local agencies regarding CSR projects. This lack of consensus often results in duplication of activities by corporate houses in areas of their intervention. This results in a competitive spirit between local implementing agencies rather than building collaborative approaches on issues. This factor limits company's abilities to undertake impact assessment of their initiatives from time to time.

Suggestions

Companies can set a network of activities to be taken up in a consortium to tackle major environmental issues. It would also provide an opportunity to learn from each other. Everyone in the organization needs to recognise their own role in promoting CSR. Companies should provide wider professional development activities.

Training, conferences and seminars could be organized by companies to disseminate and generate new knowledge and information in this sector. A strong budgetary support would definitely help to grow this sector and research related to respective industry which would enhance their organization's contribution further. Government regulations which are supporting in this direction could attract more response from organizations. All this would also lead to benchmark CSR activities.

Companies need to involve their stakeholders in order to build meaningful and long-term partnerships which would lead to creating a strong image and brand identity. It is also suggested to review existing policies in order to develop more meaningful visions for the companies and broaden their contributions to reach to local communities.

Conclusion

Corporate sustainability is an evolving process and not an end. The Companies Bill is a good initiative on the part of the government however what would be included in 'spending' on CSR is unclear and is left for the companies to decide. Across the globe, the concept of CSR has been accepted as an element for success and survival of business along with fulfilling social objectives. However, the challenge for companies is to determine a strong and innovative CSR strategy which should deliver high performance in ethical, environmental and social areas and meet all the stakeholders' objectives.

References

http://environment.yale.edu/files/biblio/YaleFES-00000017.pdf

http://www.crrconference.org/downloads/duabstract.pdf

CREM-Report, nr. 03.650.

Indian Brand Equity Foundation, www.ibef.org.

ACCSR's State of CSR in Australia Annual Review 2010/11.

http://www.chillibreeze.com/articles_various/CSR-in-India.asp.

Business Line, Business Daily, June 23 2010.

EurAsia Bulletin, Volume 10 No. 11&12 Nov–December 2006.

Corporate Social Responsibility Practices in India, Times Foundation, the corporate social responsibility wing of the Bennett, Coleman & CO. Ltd.

> *If you're walking down the right path and you're willing to keep walking, eventually you'll make progress.*
>
> —**Barack Obama**

Consumer Awarness of CSR Initiatives in North India

ABHA

CSR became a critical issue for organizations after financial scandals (e.g., Enron affair), social problems (e.g., poor working conditions in developing countries), and environmental disasters (e.g., Prestige shipwreck) which increased pressure on corporations through increased media coverage and increased transparency requirements. Organizations are increasingly investing resources to demonstrate their commitment, ethical outlook, and responsible behaviour in this area.

CSR requires response from both sides, from the company and the consumer. It is an optimistic view that economists, managers and companies perceive CSR as a crucial part of business' especially if they are those units that undertake CSR actions. Actually, CSR without positive response of customers would have no sense and would not be used by companies because every action or expenditure made by them requires some benefits in a short or long time.

This study has tried to focus on the most important stakeholder of the organization, i.e., the consumer and how they perceive the effort made by the corporates in the form of CSR.

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Introduction

Through the years, corporate entities have redefined their role in this multifarious society. From a raw idea of 'profit maximization', its objective was changed to 'profit optimization'. This change can mainly be attributed to the identification of challenges posed by various social and economic concerns. The viability and sustainability of such enterprises were questioned. This cynicism could be marked as the beginning of the theory of 'Corporate Social Responsibility'. Consumer awareness enhances the benefits of CSR by inducing the customer's to behave in a socially responsible manner. There are many studies suggesting that CSR activities can enhance profitability and, hence, the value of the firm.

CSR is not a new idea. However, CSR has never been more of a burning issue on the corporate agenda than it is today with the introduction of 'Corporate Social Responsibility' in the Companies Act. Nowadays CSR is playing an important role in the rapidly changing global world as corporations can earn profits and at the same time minimize their negative impact on different stakeholders. Thus, the value of the corporation is also dependent on CSR. In consequence, the companies have started behaving more responsibly towards society and particularly the customers.

CSR takes on a whole new meaning when consumers enter the scene which automatically improves their shareholder value. Societal well-being has turned into a basic requirement for business survival.

Consumers are more selective and conscious about the products that they are purchasing and companies are also becoming more responsible about the products that they are producing, supplying and selling. The reasons

behind these responsible activities are based on consumer demand, legal requirements that are developing rapidly in the last decade and, the competitive needs of the firms. CSR has achieved business prominence due to the activities of pressure groups and also the emergence of the 'market for virtues', such as Socially Responsible Investment (SRI) that create further pressures to adopt CSR initiatives. From a CSR perspective, organizations are seen as key drivers in the process of constructing a better world and are, therefore, under increasing pressure to demonstrate good and accountable corporate responsibility.

CSR activities across the world have increased dramatically in recent years as businesses realize their value not only commercially, but also in terms of boosting employee value, attracting staff and cutting costs. Incidentally, 'Saving the planet' came sixth in the survey of drivers of CSR (*Grant Thornton International Business Report*, 1992). The balance between minimizing risks through accountability and maximizing opportunities through transparency and social innovation lies at the very heart of initiative undertaken by the European Union (EU Enterprise 2020).

Global leaders such as Johnson & Johnson, HP and Shell have publicly acknowledged their social and environmental responsibilities and have developed processes to inform stakeholders using tools, including sustainability reports, responsible products and active engagement with NGOs, and positive participation in networks to share best practices in the field of CSR. Shell Co. is certainly not the only company working on its reputation in terms of social responsibility. Procter & Gamble state on their website that they are committed to social responsibility: 'We are always seeking ways to better integrate economic progress, social development and environmental concerns to ensure a better quality of life for future generations". In Philips' general business principles it is stated that Philips "wishes to be a responsible partner in society.'

The fact that a major company like Shell introduces a campaign like this is a clear indication that (corporate) social responsibility (CSR) has become a prominent issue in the field of marketing.

In India, the public sector is also focused on CSR initiatives. Now public sector enterprises (PSEs) may lose their Mini-ratna, Navratna and Maharatna status, if they fail to spend the stipulated amount on CSR in a time-bound manner. Continuing with the efforts towards building a progressive society, GAIL supported a unique initiative called 'GAIL Utkarsh' to provide training to under-privileged children for top engineering entrance exams in the country.

The government has inaugurated a National CSR Hub at the Tata Institute of Social Sciences (TISS) to study the role and contribution of government companies towards CSR. The government ensured that project activities identified under CSR will be implemented by specialized agencies and not by the staff of the PSE concerned. Specialized agencies could be made to work alone or in tandem with other agencies.

Clearly, those companies do not aim to become ideal corporate citizens merely out of altruism but also in order to receive benefits in return. CSR can be a competitive advantage as it influences customers and their behaviour in a positive way, which leads to beneficial outcomes for the company in the end. This growing interest in CSR has sparked new research within marketing on the effects of CSR on consumers. CSR is at the intersection of debates on globalization, competitiveness and sustainability. The prime goal of a company is to generate profits; companies can at the same time contribute to social and environmental objectives by integrating CSR as a strategic investment into their business strategy.

The research presented here goes beyond the few initial studies within marketing on CSR by trying to understand the conditions under which product judgments are affected by CSR perceptions.

It also measures the effectiveness of a firm's social initiatives. Further, it focuses on the potentially multi-faceted impact of the CSR activities and examines factors that intensify the link between CSR and perceptions of products. Yoon and Zeynep Gürhan-Canli (2006) find that consumers use CSR information to infer product quality only when the firm's CSR activities are relevant to judgments of corporate ability. Consumers are more likely to attribute blame to the firm for a crisis when the firm has a poor record on CSR. When the record is positive, however, consumers blame other parties, and brand image remains intact.

In nutshell, CSR has moved from ideology to reality and is now acknowledged as an important dimension of contemporary business practice. Business leaders give increasing importance to this topic, recognizing that CSR is an important component of business survival and success in the 21st century.

Whether you call it Shared Value, CSR, ESG, or Corporate Citizenship, or Sustainability, or Corporate Responsibility, or Triple Bottom Line or any of the other terms people use, they all are pushing the same agenda—to do well by doing good. And the term 'CSR' is well known and accepted in business.

Thus, CSR is an important issue. Consequently, in summary this study proposes the following as the central problem statement:

How does consumer perceive CSR initiatives?

In order to solve this question, first of all a valid classification of CSR initiatives is needed. These initiatives have been characterized on the basis of Caroll's model of CSR. Carroll has developed a four-part conceptualization of CSR included the idea that corporation has not only economic and legal obligations but also ethical and philanthropic responsibilities as well. According to the author, to be accepted as legitimate, CSR has to address the entire spectrum of obligations business has towards society, including the most fundamental and economic angles.

It will be the core of this research to find out if CSR indeed affects consumer decision making positively, and if all four types of CSR activities lead to the desired behavioural outcomes or if there are differences in their effectiveness. It is also explored which type has the most impact on which element of customer behaviour.

As mentioned before, the field of CSR in customer behaviour research is still relatively young and many of the first studies are based on exploratory research. Often studies produce opposing results. However, CSR is becoming a crucial topic in practice: First of all, because consumers more and more expect companies to engage in CSR and second because managers increasingly see the potential of CSR as a competitive advantage.

Defining The Reserch Problem

'Consumer Awareness of Corporate Social Responsibility Initiatives in North India.'

Scope of the Study

1. The present study has been conducted in selected cities of Punjab, Chandigarh, Haryana, Himachal Pradesh and Delhi.

2. The research has been carried on customers of urban areas only.

Objective of the Study

The objectives proposed of the study are:

1. To study the level of awareness among the consumers of selected states/union territories (UTs).

2. To suggest CSR measures for enhancing consumer value.

Hypothesis Formulation

H_1. The majority of urban consumers are generally aware of firms CSR actions.

Sampling Design and Sample Size

The universe of the study as follows:

There are seven states and one UT in North India. One of the assumptions of this study was that the consumers should be urban and literate. This also becomes the basis of selection of the states/UT for the purpose of study. As per Census 2011, the literacy rate of the states/UTs is shown in Table 1:

Table 1: Selection of Area of Study

S. No.	States/UT of North India	Literacy rate
1.	Delhi	86.34%
2.	Haryana	76.64%
3.	Himachal Pradesh	83.78%
4.	Jammu and Kashmir	68.74%
5.	Uttarakhand	79.63%
6.	Punjab	76.68%
7.	Uttar Pradesh	69.72%
8.	Chandigarh	86.43%
9.	Rajasthan	67.06%

Source: Extracts from Census 2011.

Selection of State/UT (As per census 2011)

Table 1 shows the literacy rates of different states/UTs of North India. For the purpose of this study only those states/UTs have been included whose literacy rate is more than 75 per cent, i.e., Delhi, Chandigarh, Himachal Pradesh, Haryana and Punjab. Uttarakhand has also not been included as majority of population (more than 70 per cent) is rural.

Selection of Cities in Selected States/UT (As per Census 2011)

Table 2 indicates that Chandigarh, Delhi, Haryana, Himachal Pradesh and Punjab have been selected on the basis of urban population in particular state/sUTs.

Table 2: Selection of cities in selected states

Sl. No.	Selected States/UT	Literacy Rate	Selected Cities (on the basis of % of urban population)
1.	Chandigarh	86.43%	Approx. 95%
2.	Delhi	86.34%	Urban population (97%)
3.	Haryana	76.64%	Faridabad (79.44%), Gurgaon (68.82%)
4.	Himachal Pradesh	83.78%	Shimla (24.77%), Solan (17.70%)
5.	Punjab	76.68%	Ludhiana (59.14%), Amritsar (53.64%)

Table 3: Computation of Sample Size in Selected States

S. No.	Selected States	Urban Population	% of Urban Population/ Total Urban Population (approx.)	Sample Size
1.	Chandigarh	1,025,682	4	60
2.	Delhi	16,333,916	42	630
3.	Haryana	8,821,588	24	360
4.	Himachal Pradesh	688,704	2	30
5.	Punjab	10,387,436	28	420
	Total	37,257,326	100%	1,500

Source: Self-computed for study.

In this table, the sample size has been distributed according to the population size of the selected states. In order to be fair and unbiased, percentage of urban population to total population have been calculated and then the sample size has been distributed on the basis of percentage calculated above. The figures have been rounded off to avoid any fraction value.

Chracterstics of the Sample

This research starts with the study of characteristics of sample collected for the purpose of study. In order to be fair and unbiased, the data has been collected from sample of different demographic profiles discussed in detail in this paper.

Demographic Profiles of Sample

Frequency distribution was used to describe the sample characteristics. Total 1,500 were distributed among the respondents (Table 4). Out of 1,500 questionnaires 988 were valid and 512 were invalid. The response rate is 65.9 per cent. Out of 988 valid responses, 707 were positive and 281 were negative responses and in the study we have included only positive responses.

Chandigarh is the place of study and includes Mohali and Panchkula, irrespective of States to which they belong. Rest all of the selected cities belong to their respective states.

Selected States and Sample Size

The sample of 1,500 consumers has been selected on the basis of expert's judgment as well as convenience of time and money. This sample was further divided within the states/UTs on the basis of the percentage of urban population to total population (Table 3).

Table 4: Sample Characteristics

	Category	N
Responses	Positive Responses	707
	Negative Responses	281
	Invalid Responses	512
	Total	1,500

The description of the sample is shown in Table 5 which is based on demographic variables, i.e., gender, age, educational qualification, occupation and monthly income of the sample.

State-wise Analysis of Demographic Profiles

The sample for the study has been drawn from North India on the basis of urban population and literacy rates of these states. Table 6 and Figure 1 show that the majority of the population, i.e., 58 per cent, is from NCT Delhi and the rest is from other states.

Table 5: Demographic Profiles of Respondents

	Category	N	In Percentage
Gender	Male	337	47.3
	Female	370	52.3
Age	18–25	173	24.5
	26–35	312	44.1
	36–45	190	26.9
	45 above	32	4.5
Education	Higher secondary	176	24.9
	Graduation	114	16.1
	Post graduation	417	59.0
Occupation	Student	80	11.3
	Service	595	84.2
	Profession	32	4.5
Income	Upto 20000 pm	94	13.3
	20000-50000	279	39.5
	50,000–100,000	195	27.6
	Lakh and above	139	19.7

Table 6: Demographic Profiles and North India

	Frequency	In Percentage
Delhi	410	58.0
Punjab	152	21.5
Haryana	90	12.7
Chandigarh	40	5.7
Himachal Pradesh	15	2.1

The data was collected from different sections of the respondents through questionnaire administration which was analysed with the help frequency distributions, cross tabulations. etc. This studies the awareness:

Consumer Awareness

This section studies awareness in three aspects, i.e., (a) General awareness (b) General belief and (c) General level of knowledge.

(I) **Awareness and Meaning**: This was further analysed into three parts. The first studies the general awareness on the basis of which data was further collected. Those consumers who were aware of the CSR were further analysed.

(a) General Awareness: This is the first question of the questionnaire. In the sample, the population was asked if they are aware of CSR or not? They have to answer in yes /no. On the basis of this question the sample was categorized into two parts: (a) those who are aware and (b) those who not aware of CSR. Those who were aware were

Table 7: General Awareness of Respondents

General Awareness	Frequency	In Percentage
Yes	707	71.55
No	281	28.45
Total	988	100.0
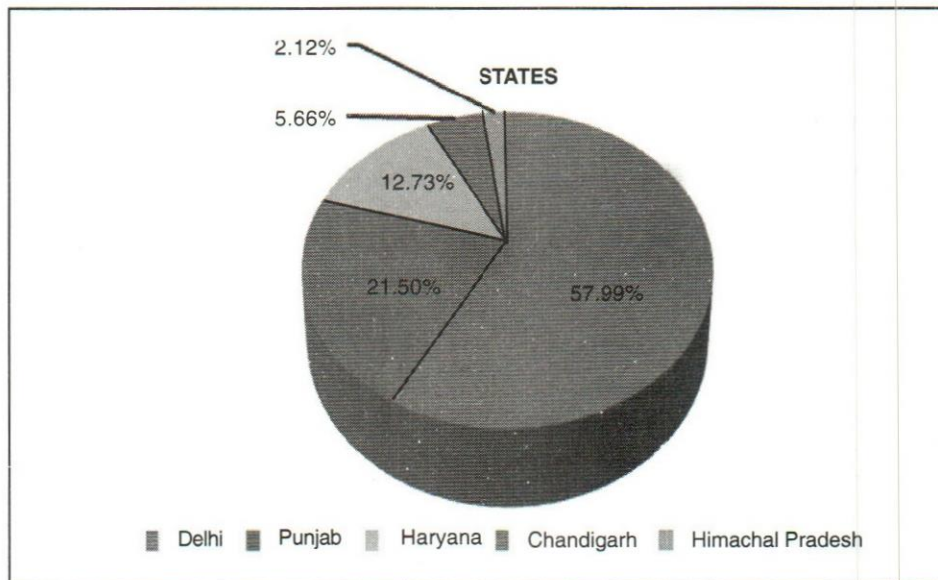
Figure 1: Graphical Presentation of Sample Size and States

further asked to fill the questionnaire and those who were not aware were left behind and were not further analysed.

In this it was found that the majority of the consumers were aware of the social responsible activities undertaken by the companies. Out of a sample of 1,000 consumers, 707, i.e., 71.55 per cent population was aware of CSR. Rest 29.3 per cent were not aware and thus were not included in further analysis as it was assumed that those who were not aware would not consider CSR in their decision making.

(b) **General belief**

This is the second question of the questionnaire and the sample population was further asked to rank these beliefs in order of 1 to 4 (1 for highest and 4 for lowest). They were asked to rank different meanings of CSR. In this question, respondents

Table 8: General Belief of Respondents

	N	Mean	Std. Deviation
Economic	707	1.83	1.106
Ethics	707	2.57	.879
Legal	707	2.35	1.162
Philanthropy	707	3.25	.802

Source: Self computation for study.

were asked to rank various concepts of CSR which according to them constitutes the meaning of CSR. This question was analysed with the help of mean values and ranked accordingly.

When the mean values were compared it was analysed that philanthropy (community development activities) has maximum mean among all four activities. The table reveals that philanthropy was ranked number one by the

Table 9: Means Scores of Awareness Levels

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Bell Bajao Andolan	707	1.00	5.00	3.1386	1.68076
Godrej Foundation	707	1.00	5.00	1.2631	.84915
Ban on plastics	707	1.00	5.00	4.2716	1.23216
Sustainable development society	707	1.00	5.00	4.0368	1.10820
Traffic, India	707	1.00	5.00	3.4342	1.50622
Nanhi Chaan	707	1.00	5.00	2.1160	1.60668
Sir Ji Idea Mobile	707	1.00	2.00	1.4399	.49672
E-bill	707	1.00	5.00	3.3239	1.69352
Eco-imagination	707	1.00	5.00	3.5601	1.53348
CRY Foundation	707	1.00	5.00	1.5064	1.04619
Save Tigers	707	1.00	5.00	1.6506	.98048
Use of organic products	707	1.00	5.00	2.0240	1.39027
E-cars	707	1.00	5.00	2.1853	1.37703
HUL one rupee contribution	707	1.00	5.00	2.1499	1.40220
Recycling old mobiles	707	1.00	5.00	1.9562	1.24575
Jaago re	707	1.00	3.00	1.2079	.50273
Satya Bharti schools	707	1.00	5.00	3.4385	1.57534
Green Marathon	707	1.00	5.00	2.9731	1.63898
Eco-clean paint by Nerolac	707	1.00	5.00	2.0382	1.16364

respondents followed by ethics and legal activities on second and third rank respectively.

(c) General Level of knowledge

The third important aspect of awareness was to study the level of knowledge among the respondents. The awareness levels were checked according to the initiatives heard by the consumers. The level depends on how often these initiatives were heard by them. Twenty initiatives were selected judiciously and consumers were asked to assign values from 1 to 5 on the Likert scale (very often heard to not at all heard). These were further categorized into high and low levels of awareness.

Table 9 shows the mean values of the responses of the consumers. They were asked if they have ever heard of these initiatives undertaken by companies. It was analysed that the consumers were aware of those initiatives which were communicated to them through media, i.e., television, radio, newspaper or internet. It shows that advertisement in any form does have some impact on the minds of consumer leading to a formation of perception towards CSR.

Table 10 indicates that out of 707 consumers, 444 consumers (62.8 per cent) were 'highly aware' and rest were aware but on a lower side. Only two segments were created on the basis of mean values were either high or low. There were very few mean values in between.

Table 10: General Level of Knowledge of Respondents

Level of Knowledge	Frequency	In Percentage
Low	263	37.2
High	444	62.8
Total	707	100.0

Source: Self computation for study.

(II) Impact of Demographic Factors on CSR Awareness

The Impact of demographic factors was studied on consumer CSR awareness with the help of one way ANOVA and it was found the there is no significant relationship that exists in different demographic variables, i.e., age, education, gender, occupation and income levels and awareness levels of the consumers. It can be concluded that there are other factors that have significant impact on awareness levels as the demographic factors does not have significant impact.

(III) Awareness Levels in North India

The study has been conducted in different parts of North India. It was analysed that the awareness levels were high in Delhi with 72.9 per cent of Delhi population aware of initiatives undertaken by companies, followed by Chandigarh and Haryana, whereas Punjab and Himachal Pradesh showed low awareness levels. Further, graphical representation of the awareness levels also clearly depicts high level of awareness among the consumers of Delhi.
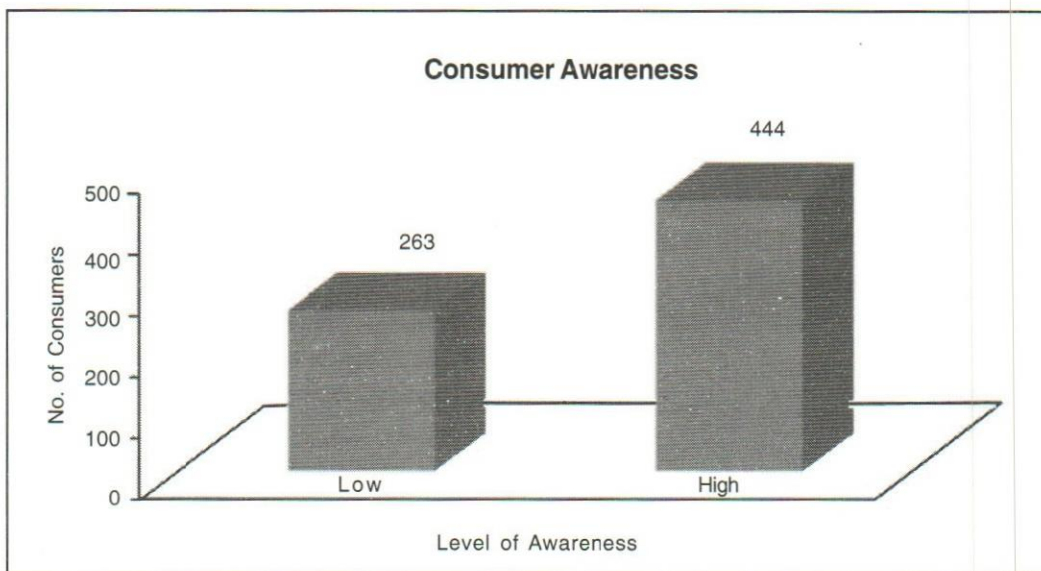
Figure 3: Graphical Representations of Levels of Consumer Awareness

Table 11: Impact of Demographic Factors on CSR Awareness

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Age	Between Groups	.590	1	.590	.864	.353
	Within Groups	481.130	705	.682		
	Total	481.720	706			
Education	Between Groups	.193	1	.193	.267	.606
	Within Groups	510.655	705	.724		
	Total	510.849	706			
Gender	Between Groups	.034	1	.034	.135	.713
	Within Groups	176.331	705	.250		
	Total	176.365	706			
Occupation	Between Groups	.005	1	.005	.019	.891
	Within Groups	207.632	705	.295		
	Total	207.638	706			
Income	Between Groups	1.365	1	1.365	1.502	.221
	Within Groups	640.465	705	.908		
	Total	641.830	706			

Table 12: Awareness Levels of Consumers in North India

State		Awareness		
		Low	High	Total
Delhi	Count	111	299	410
	% within states	27.1%	72.9%	100.0%
Punjab	Count	93	59	152
	% within states	61.2%	38.8%	100.0%
Haryana	Count	38	52	90
	% within states	42.2%	57.8%	100.0%
Chandigarh	Count	11	29	40
	% within states	27.5%	72.5%	100.0%
Himachal Pradesh	Count	10	5	15
	% within states	66.7%	33.3%	100.0%

Conclusion

These are those findings which a researcher gets after analysing the data collected from questionnaires.

1. It is noted that literate and urban consumers are aware of the term CSR, especially New Delhi in North India. It is found that many CSR initiatives and programmes are taken up in urban areas and localities. As a result, the impact of such projects does not reach the needy and the poor in the rural areas. This does not mean that there are no poor and needy in urban India; they too equally suffer from want of basic facilities and services. While focusing on urban areas, it is recommended that

companies should also actively consider their interventions in rural areas on education, health, girl child and child labour as this will directly benefit rural people. After all, more than 70 per cent people still reside in rural India.

2. It is found that according to consumers, social responsibility means philanthropic activities like community development activities. The consumers were asked to rank the activities according to their awareness. Majority of consumers gave philanthropic activities first rank followed by economic activities.

3. When respondents were asked about different initiatives undertaken by the government, NGOs and companies, they were able to recognize only those initiatives which they have heard/seen on television, radio or newspapers. But they failed to recognize core CSR activities performed by the companies. For example Nanhi Chhan. This can be interpreted as companies should bring their efforts in the notice of the consumers by communicating to them more frequently as consumers themselves do not show any interest in finding CSR activities of companies.

References

Pomering, Alan (2005). 'Corporate Social Responsibility (CSR): An Examination of Consumer Awareness, Evaluation, and Purchase Action', ANZMAC Conference, Corporate Responsibility.

Bapna, Amit (2007). 'Corporate Social Responsibility', USP AGE, July, 18–26.

Bhargava, R.C. (2008). 'The Real Meaning of CSR', Economic Times, 16 June.

Boulstridge, E., and Carrigan, M. (2000). 'Do Consumers Really Care about Corporate Responsibility? Highlighting the Attitude-behaviour Gap', Journal of Communication Management 4(4), 355–368.

Bowen, H.R. (1953). Social Responsibilities of the Businessman. New York: Harper and Row.

Drumwright, M.D. (1996). 'Company Advertising with a Social Dimension: The Role of Noneconomic Criteria', Journal of Marketing, 60, 71–87.

Falck, Oliver & Heblich Stephan (2007). 'Corporate Social Responsibility: Doing Well by Doing Good', Business Horizons, 50(3), 247–254.

Mohr, L.A., Webb, D.J., and Harris, K.E. (2001). 'Do Consumers Expect Companies to be Socially Responsible? The Impact of Corporate Social Responsibility on Buying Behavior, The Journal of Consumer Affairs, 35(1), 45–72.

Pirsch, J., Gupta, S., and Grau, S.L. (2007). 'A Framework for Understanding Corporate Social Responsibility Programs as a Continuum: An Exploratory Study', Journal of Business Ethics, 70(2), 125–140.

Prakash Sethi, S., and Swanson, C.L. (1981). 'Private Enterprise and Public Purpose: An Understanding of the Role of Business in a Changing Social System'.

Yoon, Y., Gurhan-Canli, Z., and Schwarz, N. (2006). 'The Effect of Corporate Social Responsibility (CSR) Activities on Companies with Bad Reputations', Journal of Consumer Psychology, 16(4), 377–390.

In my view the successful companies of the future will be those that integrate business and employees' personal values. The best people want to do work that contributes to society with a company whose values they share, where their actions count and their views matter .

—*Jeroen van der Veer*

Corporate Social Responsibility: Contribution of the Automobile Giants to the Social Cause

ADITI VYAS

Corporate Social Responsibility (CSR) is one of the most essential subjects in the corporate sector. The responsibilities taken up by corporate organizations in the social arena show their contribution in various domains for the overall welfare of the society and environment. All corporate companies invest a part of their profits to social causes whichbring about improvement in the society and contribute to the livelihood component. The responsibilities ranging from education, protection of environment, provision of medical facilities, etc., make organizations aware about their accountability and contribution for the society they operate inwhere they can render a helping hand and fulfill their responsibility. This paper aims to study the CSR activities as practised by major automobile giants. The literature review presents a picture of the corporate social responsibility in the automobile sector. This paper discusseswhich CSR activities the companies are engaging in which are thereby bringing a substantial positive change in the community and to the environment.

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Introduction: Overview of the Corporate Social Responsibility in the Automobile Industry

The automotive industry in India is one of the largest industries in the world with an annual production of 21.48 million vehicles in FY 2013–14. The industry contributes 22 per cent of India's manufacturing Gross Domestic Product (GDP). The expansion of middle-class population and the interest of the automobile companies to explore various segments of the society have made the two-wheeler segment the leader of the automobile market with a market share of 80 per cent while the market share held by the passenger vehicle segment remains 14 per cent (India Brand Equity Foundation).

It is rightly held that corporate social responsibility (CSR) is a kind of an obligation of a firm to utilize its resources in different ways so that society can benefit through committed participation as an active and responsible member and also as a part of society (Sharma, 2011).

Each and every organization has an impact of its operations on the external environment. Every company, in order to survive for long in the industry and maintain its brand name, is required to make profits on a sustained basis. In today's competitive and dynamic market scenario, the sustained profitability of the organization is only possible when all direct stakeholders realize the changes taking place at the workplace and in the industry well and work towards the desired direction of profit making. Creation of a positive brand image is equally important in order to ensure sustainability. Abiding by all the laws and contributing towards the environment help in image-building, in addition to having a good business sense. For a company to become a leading organization and gain social name, it should educate its stakeholders and

employees about the benefits of financing growth and the way in which it leads to risk reduction and reduces the company's ability to overcome difficult situations. In addition, to teach how to adopt ways of contributing to the environment, the employee and stakeholder education is also a part of CSR (The Real Meaning of CSR).

The automobile industry undergoes various processes ranging from manufacturing to getting the end product in the form of a vehicle. The manufacturing as well as usage phase of the vehicle has its direct impact on environment. This offers a good scope for improvement, particularly in the design phase, such as adopting measures for fuel efficiency, inventing new sources of energy, usage of light weight material, etc. This has also been considered as a critical CSR issue which must be pondered and worked upon. The automobile manufacturers are engaging into CSR activities in the form of adopting green supply chain management, labourcodes of conduct such as GRI & ILO standards and environmental management schemes.

CSR in the automobile industry often comprises a variety of issues which emerge during production, use and disposal phase. To enhance the social responsibility, the industry goes on the system of incorporating Green Supply Chain Management. It refers to the application of ecological systems in the entire value chain. The automobile companies are usually aware of the ability to increase their economic, social and environmental performance (Martinuzzi, Kudlak, Faber, Wiman, 2011, pp. 19–20).

The automobile companies have a direct impact of their activities on the portion of community whom they serve. Their CSR hardly affects the purchase behaviour of the consumers. There has not been observed any direct linkages between the two. The social activities of any company do not have any impact on the decision making of the consumers and it does not change their buying behavior (Bhatia, 2012, 126–29).

Methodology

For this paper, secondary data has been used. Various websites, research papers and articles of Indian and foreign authors on the present subject matter have been referred and considered. Websites of various automobile companies have been closely referred so as to gather data on their contribution in the social sector, i.e., CSR.

Discussion

Hyundai Motors

Hyundai Motors India Foundation was formed in the year 2006 with the motive of 'giving back to the society' and to initiate and implement its CSR activities in the areas of environment, art, science, healthcare, technology, road safety, educational and vocational training, etc. ('Corporate Social Responsibility of Hyundai India'). These CSR activities of the company may be divided under three broad categories, viz., social, environmental and economic responsibilities ('CSR Activities of Hyundai Motors'). The foundation is financially aided by its earnings as it contributes an amount of Rs. 100 for each car which is sold in the Indian market so that the foundation may be enabled to carry out its social activities. Social activities carried out by the foundation are as follows:

Happy Move: 'Happy Move Global Youth Volunteers Camp' is an organization by the Hyundai Motors India Foundation (FMIF) as a part of its CSR. Under this initiative, various students from India and Korea work for a common cause with community development as focal point. The activities organized in the camp are aimed at renovation and educational activities. This camp is also supported by an Indian NGO Field Services and Intercultural Learning (FSIL) and a Korean NGO named International Work Camp Organization (IWCO) (CSR of Hyundai Automotives).

Hyundai Traffic Squad: Another initiative of Hyundai Motors India Foundation (HMIF) is the 'Students Traffic Volunteer Scholarship Scheme' which aims at sponsoring 'economically backward'college students. It also helps in managing traffic in a better way. A group of students is carefully chosen to undergo training by the local traffic police and the group works as traffic marshals and assist the traffic police at busy intersections to manage the traffic. The programme is running successfully in New Delhi, Kolkata and Chennai. The students, in return for their efforts, are paid a stipend. Hyundai Foundation aims at expanding the scheme to other cities as well (CSR of Hyundai Automotives).

Educational and Vocational Training Programme: The HMIF is committed to improve the conditions in the local schools at national level. The improvement comes in the form of periodic donations of chairs, tables, computers, etc., to the schools so that the standard of education may be improved and the children get access to better facilities and educational means. Ever since the formation of the foundation, over 20,000 students have been benefitted through this scheme. The foundation has adopted Industrial Training Institutes (ITIs) in Assam and has been in constant efforts to equip them with latest infrastructure facilities. In addition, it also provides avenues for placement

and employment to students who graduate from there (CSR of Hyundai Automotives).

Organization of Medical Camps: At Hyundai, children are considered to be very important. According to the company, children deserve a healthy life in a safe environment. The company has collaborated with children's health partners and their very own 'Hyundai Hope on Wheels' to ensure health of children in the USA (Hyundai Motors-CSR). As a part of the drive, in India, a number of free medical camps are conducted by HMIF. The foundation has been into an agreement with Sri Ramachandra Medical University for the operation of mobile health clinics in the villages between Kanchipuram and Poonamalee. The mobile clinics are well equipped and have doctors, nurses, pharmacists and attendants. It also ensures regular supply of medicines. The connectivity of the van with the hospital enables it to be in direct contact with the hospital and get advice and assistance even in the remote villages (CSR of Hyundai Automotives).

Driving Schools: An initiative of driving schools was started by HMIF as a skill development programme. It aimed at training the unemployed youth in Kancheepuram and Thiruvallur. Three batches comprising around 100 youth were trained in the year 2009 and this initiative will be an ongoing programme (CSR of Hyundai Automotives).

Maruti Suzuki

Maruti Suzuki has been very active in the domain of social concern. The company focuses on investing in environmental-friendly technologies as they believe that doing so will make more business sense as it will bring good business returns in the times to come. The environment policy of the company aims at promoting energy conservation, green procurement, environment consciousness among its stakeholders, environment friendly mobility and the 3Rs, i.e., Reduce, Reuse and Recycle. The company is exerting efforts to introduce the latest environment-friendly technologies in India. The key pillar of manufacturing excellence of Maruti Suzuki is 'safety'. The company has adopted robust systems for identification of hazards, mitigation of safety risks and safety audits (CSR of Maruti Suzuki). The major initiatives in the domain of CSR taken up by Maruti Suzuki are Road Safety, Skill Development, Community Development and Employee Volunteering.

Road Safety: The company's national road safety mission was launched in December 2008. Being a pioneer in the Indian automobile sector, among other initiatives, the company was the first to promote safe driving and

training in the country. Road safety is envisioned as its flagship CSR arena. In the year 2000, Maruti Suzuki collaborated with the Delhi Government to set up the Institute of Driving and Traffic Research (IDTR) in northeast Delhi. For this purpose, the company has prepared a detailed curriculum and course content for driving training. This content and curriculum has been designed on the basis of successful international models from Singapore and Europe (CSR Activities of Maruti Suzuki India). Apart from IDTR, Maruti Driving Schools (MDSs) is another model for imparting driving skills. The IDTRs have been established in partnership with the government and offer training for commercial vehicle drivers and passenger cars. For practical training, scientifically designed driving tracks and simulators are used. The IDTR functioning in Gujrat focuses on the technical training of the tribal youth. Most of these tribal youth utilize this training to get employed and earn their livelihood. The company has set up four IDTRs, i.e., two each in Haryana and one each in Gujrat and Uttarakhand (CSR of Maruti Suzuki).

The MDSs are training schools of a smaller version which have been set up in partnership with dealers. These driving schools offer training for passenger vehicles. Although the curriculum followed is the same as ITDIs, the only difference is that the practical driving training is imparted on the road instead of on the test tracks. At present, there are MDSs functioning across 162 cities.

Another key feature of the road safety programme of the company is the 'Road Safety Knowledge Centre'. The centres are located in Haryana with an objective of conducting training sessions on road safety and traffic rules (CSR of Maruti Suzuki).

Skill Development: The company firmly holds and believes that skill training is a must for economic development. Both unemployment and underemployment very much prevail. The industry constantly keeps looking for the skilled manpower. This gap can be filled only by imparting proper training and make the personnel skilled. For this initiative, Maruti Suzuki is partnering with the governments of various states for the upgradation of the ITIs. Several ITIs were established years ago but have very limited links and associations with the industry. The students studying and graduating from these institutes are trained on old machinery and technology and have very limited industry exposure. At present, the company is working with 10 governments for upgradation. Under the programme, the curriculum has been improved and updated to prepare them for better opportunities in their career. In addition to the improvements in infrastructure,

provisions are made for conducting of workshops, repair and maintenance of machines and tools, providing teaching material and factory visits for gaining better understanding and develop skills. Many students graduating from the ITIs have been absorbed by Maruti Suzuki itself (CSR of Maruti Suzuki).

Community Development: Maruti Suzuki has regularly been engaging with four neighbouring communities in Manesar and Gurgaon in collaboration with which it works with the community on issues relevant to them. In collaboration with the government, the company believes in supporting and improving the existing social infrastructure, services and facilities. The infrastructure of government schools is one of the most important aspects which should be taken care of and are also of critical importance to the villagers. To take care of this, the company has focused on improving the infrastructure of these schools for their upgradation. Maruti Suzuki is preparing a pool of investments so that facilities in the government schools in villages can be provided. It is ensured that children get clean drinking water, toilets, teaching aids, boundary walls, etc. It is believed by the company that availability of such basic facilities in schools will help children in gaining better education while ensuring hygiene and sanitation for their better health. In addition to this, a computer education centre is also being run in Manesar by the company to impart basic computer literacy. Teachers who have been hired from villages are running the centre after undergoing training.

For enabling women, the company also runs two tailoring and sewing training centres where women from villages learn basic tailoring and sewing. Along with all this, various sanitation and health checkup camps were organized on periodic basis as part of awareness drives (CSR of Maruti Suzuki).

Employee Volunteering: Maruti Suzuki, as a part of its social initiative, has partnered with various local NGOs to run an in-house volunteer programme for its employees. The staff members at all levels volunteer in this programme for social cause (CSR of Maruti Suzuki).

Tata Motors

Tata Motors considers it to be an integral part of their commitment to good corporate citizenship to assist in the improvement in the lives of community at large. The company strives in their endeavour of sustainable development, building of better nation, social equity and accelerated inclusive growth. The company is not only doing well in business, but is doing well for the society at large too. In the journey of business excellence and human development, the company has focused on four core areas which have been recognized as their CSR. These key areas are education, health, skill training and protection of environment (CSR-Tata Motors).

Education: The education initiative of Tata Motors has been termed as 'Vidyadhanam'. The responsibility is fulfilled by running various scholarship programmes for under-privileged children who lack resources for attaining education. Special classes are being run for those in need and lacking resources. The infrastructure is improved under this programme of the company. The schools are equipped with better infrastructure and facilities. This includes ensuring proper facilities such as condition of the building, construction of toilets, arrangement of clean drinking water, availability of teaching aids and teachers, etc. Co-curricular activities are also organized as an essential component of educational programme. Through this programme, more than 37,000 children were benefitted in the year 2013–14 (CSR Activities of Tata Motors).

Health: Tata Motors terms its health initiative as 'Aarogya'. The programme primarily aims at addressing malnutrition and preventive and curative health care services. The company also recognizes this as their social responsibility to create awareness about essential health issues among the masses. They believe that creating awareness is a key to prevent common health problems and progress towards building a healthier nation. The company's health drive benefitted more than 284,000 people in the year 2013–14 (CSR Activities of Tata Motors).

Skill Training: The skill training initiative of Tata Motors is known as 'Kaushalya'. Kaushalya is a driver training programme in which people are trained on safe driving and imparting knowledge about traffic rules and regulations. The training in technical and automotive trades is imparted. Along with all this, training in agriculture and allied activities are also carried out to make people self-reliant, earn their livelihood and contribute to the economy of the nation. IT adoption programme has also been run by the company which has trained a large mass of youth across nation. The Kaushalya programme has benefitted and brought positive changes in the lives of more than 20,000 youth in the year 2013–14 (CSR Activities of Tata Motors).

Environment: Tata Motor's environment protection programme has been named as 'Vasundhara'. This programme aims at the protection of environment from industrial hazards and pollution. The company takes it as

their responsibility to protect the environment and make efforts to keep it healthy to live. Tree plantation campaigns are carried out to expand the green belt. Environmental awareness programmes are also conducted to educate people about ways to protect the environment. Under the drive, in the year 2013–14, 164,000 trees were planted. The company observes plantation as their essential and regular programme. It is also remarkable that in the same year, more than 18,500 people participated in the company's environmental awareness programme (CSR Activities of Tata Motors). Besides these, there are some other initiatives of the company which are as follows:

Learn and Earn Programme—Employability: The company's Learn and Earn Programme is an employment generation programme which aims at providing gainful livelihood opportunities to the nation's young population. The unemployed youth, who are typically school dropouts, are made to undergo certified training in Motor Mechanic Vehicle trade comprising theory classes. The classes are held at technical training institutes and are followed by practical 'on the job training' (OJT) which is imparted at service stations or TML dealers. By this programme the youth gets practical industry training and are also paid a particular monetary sum as monthly stipend (CSR Activities of Tata Motors).

Uttarakhand Flood Relief Fund: The company has contributed Rs. 4.5 crores for the relief work and rehabilitation of those affected in the Uttarakhand calamity in June 2013. Also, three truckloads of relief material was supplied with immediate effect to the affected areas and the employees of the company served as volunteers to help approximately 500 families which were stranded in the remote villages of Pithoragarh village of Uttarakhand (CSR Activities of Tata Motors).

Amrutdhara—Drinking Water: Tata Motors has the 'Amrutdhara' initiative through Sumant Moolgaokar Development Foundation. The initiative aims at providing access to safe drinking water to the underserved, needy and deserving communities. Under the scheme, 296 drinking water projects have been implemented all over the country since its very inception (CSR Activities of Tata Motors).

Seva—Employee Volunteering: The company's employees have been actively involved in volunteering for social causes. They encourage this practice through their group-wide Tata Engage Initiative. It has been a credit to Tata that a substantially large number of employees have registered themselves as CSR volunteers who keep on working for societal cause and serve the needy communities (CSR Activities of Tata Motors).

Ford Motors

Ford Motors is a global automotive giant which not only believes in serving with the finest services in the automobile sector but also to serve the society with the finest services. The company is committed to making a difference to the self as well as to the society. The CSR activities of the company are focused primarily on the community around their manufacturing unit near Chennai. The CSR of the company is broadly categorized in the areas of education, health care, road safety and environment (Ford CSR).

Operation Better World: Ford Motors took this initiative, named Operation Better World, to make the areas around their manufacturing units as well as the entire nation a better place to live in. In the joint association of Ford India and Ford Motor Company Fund, the mission was announced in the year 2012. Under this operation, major and critical issues such as education, auto safety, sustainability and other local priorities identified by the Ford Motor Company Fund were to be addressed to bring positive change. To carry out this operation, local NGOs and company's pool of volunteers have demonstrated remarkable enthusiasm. The goal of the operation, through active involvement, is to construct relationships with those organizations who have a well defined sense of purpose, a commitment to multiply the available resources, and deliver high quality products and services to the communities (CSR Initiatives of Ford Motors).

Education: Another major initiative of the company is in the field of education. Education has also been recognized as a major factor which makes the world a better place. To carry out this initiative, the company announced the launching of its educational programme namely 'Happy School's Programe' in Chennai in September 2014. To carry out this programme successfully, the company has partnered with local NGOs committed to the field of education. With the help of these NGOs the company conceptualizes and designs a social model through which gaps and areas of intervention may be identified. Ford is also initiating to work towards the dropout rates of girls in schools and development of infrastructure in order to provide better facilities to the children. Social organizations that have partnered with the company for educational cause are Nalandaway Foundation, Agastya Foundation, Hand in Hand India, Vidyarambam, Kalanjiyam Trust, The Rotary Club and Round Table (CSR Initiatives of Ford Motors).

Local Priorities—Focus on Communities: The company observes certain local priorities as well besides major initiatives. It aids a tailoring training programme for women in seven villages falling in the vicinity of the plant. Over the last two years, more than 600 women have been trained and out of them, a significantly large number of women have started earning livelihood from this skill. The company is encouraging women learn the skill to make themselves self-reliant and earn an additional income.

Another major responsibility observed by the company as their local priority is 'Maternal and Child Health'. The programme is being been run in Kalvarayan Hills in Villupuram district. The place falls about 300 kms from the Chennai facility. The prime focus of the programme is to provide pregnant women an access to healthcare facilities for their child and themselves as well. Along with this, various awareness campaigns are also being run to educate the masses about the critical vulnerable issues such as child marriage and dropout rate prevailing among girls.

The company has been supporting a primary healthcare centre named 'Sanjeevi' for about 15 years. The centre has been providing basic medical facilities at extremely nominal cost to more than 400,000 people in the nearby villages. The employees of the company volunteer in this initiative and in the awareness camps organized to teach the community to benefit from the medical facilities. Basic facilities and infrastructure are also focused upon under the company's CSR (CSR Initiatives of Ford Motors).

Imparting Driving Skills: It is the global CSR of the company to drive skills to life. Various road safety awareness programmes are being run by the company. The drivers are encouraged to adopt safe driving skills. In India, the programme was launched in 2009. Along with teaching to adopt safe driving methods, the company also stresses on the usage of eco-friendly techniques of driving, viz., maintaining the vehicle, avoiding over speeding, applying fuel-efficient driving techniques, etc. This intensive programme is conducted by global experts (CSR Initiatives of Ford Motors).

Water/Sustainability: It is a cohesive community outreach initiative which was launched in Gujrat in the first phase. The programme aims at improving access to safe drinking water. In its initial phase, 30 water filters were installed in anganwadi centres and primary schools across 18 villages which provided safe access to more than 1,000 students. The ownership and maintenance was delegated at the local level so as to make the initiative long term and sustainable. The anganwadi staff members and parents are imparted knowledge on essential health issues, such as maintaining hygiene, intake of a balanced diet, immunization and vaccination schedules and the importance of regular health checkups. For this campaign, a local NGO from Ahmadabad, namely Saath Charitable Trust, has also joined hands to cover a larger population of children (CSR Initiatives of Ford Motors).

Skoda Auto India

Skoda Auto India has been very keen and active as far as its CSR is concerned. The company has tied up with the government for the programmes where the association was required. They understand the importance of technical knowledge and that it should be imparted to students so that technically sound and competitive mechanisms may be developed. The company is working for the education of children, imparting technical knowledge, providing basic facilities and infrastructure in schools, etc. (CSR Initiatives of Ford Motors). The company is a member of Business for Society Platform which is the largest professional association focusing on CSR and sustainable business development. The thrust areas of CSR as observed by the company are education, health and protection of environment.

Training and Development: Skoda considers it very essential that the youth of the nation must be technically skilled and trained. As the company itself is blessed with quality, they expect quality in all spheres of life. The company has joined hands with government organizations for running skill development and training institutes, commonly known as ITIs. The company, in 2010, gave five Fabia cars so that students get practical knowledge. Now they have provided diagnostic equipment and a cut engine to ITI Aurangabad so that students get better insight and develop knowledge and understanding of vehicle technology (CSR Initiatives of Ford Motors).

Education: The company is diverting its attention to the most important factor contributing to the development of the nation. They have invested money in the development of schools for providing better facilities and improving their infrastructure. In the year 2012, a primary school in Shendra village (close to company's Aurangabad plant) was completely renovated. The company also found that there is no facility for the students to get computer literacy, so they equipped the village with schools (Skoda Automobile's CSR Initiatives).

Health: Skoda Auto India believes health to be the most integral and essential thing. They keep organizing medical camps and health checkup camps at schools, orphanages and villages. Medical treatment is sought by all needy people in the community through these camps. Apart from this, the company has also participated in many health initiatives. Blood donation camps are also organized in which the employees of the company take initiative and contribute to the noble cause in the society. All health care needs of the community people are fulfilled by the initiatives taken by the company (Skoda Automobile's CSR Initiatives).

Environment Protection: The company gives complete attention to the protection of environment. It has been certified according to the ISO 14001:2004. The system clearly specifies the requirements for such systems which require minimal effect on the environment. For serving the purpose, the company uses technological measures in a way that environment cannot be hampered and may be protected from industrial hazards. Taking such measure ensures reduction of emission. It also leads to achieve fuel savings at the time of operations. In addition, it is involved in continuous innovation of technology which requires lesser consumption of paint and other materials. The company also takes care of the ecological waste management mechanism. Even when the volume of production is at an increased pace, the waste management is taken care of to prevent the environment from various hazards. Those materials and procedures which do not have negative impact on the environment are used in the operations. Only environment-friendly procedures, technology and materials are used in the production of the company. Ecological vehicles which do not cause any pollution are used in the company (CSR by Skoda Motors).

Conclusion

The above discussion presents an inference of the CSR activities being performed by different automobile companies. It is apparent that the sector is quite responsible as far as their contribution to society is concerned. All the companies are contributing in their own unique ways of serving.

It has been observed that the core areas of CSR of automobile companies are education, health, training and development and protection of environment. The automobile sector has well observed their obligations for the community at large from the annual profits earned. The companies are aware about the most important aspects of social life, which are health and education. In a country like India, where health awareness calls for attention, companies serve the need. There are provisions on their part for organization of periodic medical camps for regular checkups and distribution of medicines. Community people with specific needs also avail the specific health services and doctor's consultation.

In the domain of education, it is appreciable for girl education to get recognition and importance by the major automobile giants. They are serving the society by providing educational facilities to the under privileged and deprived population. The infrastructure of the schools is being improved by the means of investment on the part of these companies and provision of specific educational needs and requirements.

A considerable and substantial focus has also been on skill development and training wherein the focus is on the development of skills and efficiency of the young population. The companies are donating cars so that the students enrolled in the training institutions may learn the essentials of safe driving. Classes are being conducted in the form of theoretical and technical sessions.

In addition, a lot is also being done for the protection of the environment. Despite the ill effects of the manufacturing and production processes in the automobile industry, the companies are taking measures to meet the problems arising out of this. Adoption of fuel efficient measures, tools to balance the ecological system and plantation help to combat environmental degradation.

Hence, it may be observed that the automobile companies are contributing to a large extent to serve the society under their concerns for development with the motive of making the country develop at a speedy pace.

References

Bhatia, S. (2012). 'A Study on Effect of CSR Initiatives of Automotive Companies on Consumer Buying Behavior', *International Journal of Research in Commerce & Management*, 3(8), August, 126–129.

Corporate Social Responsibility of Hyundai India http://www.hyundai.com/in/en/AboutUs/HyundaiMotorIndia Foundation/index.html Accessed: July 2015.

Corporate Social Responsibility of Maruti Suzuki http://www.marutisuzuki.com/social-performance.aspx Accessed: July 2015.

Corporate Social Responsibility by Skoda Motor http://www.skoda.cz/en/about-company/corporate-social-responsibility/environmentally-friendly-production/ Accessed: July 2015.

Corporate Social Responsibility-Tata Motorshttp://www.tatamotors.com/investors/pdf/csr-policy-23july14.pdf Accessed: July 2015.

CSR Activities of Hyundai Motors http://worldwide.hyundai.com/WW/Corporate/CorporateInformation/CSR/index.html Accessed: July 2015.

CSR Activities of Maruti Suzuki India http://www.indiacsr.in/en/csr-initiatives-of-maruti-suzuki/ Accessed: July 2015.

CSR Initiatives of Ford Motors http://www.india.ford.com/about/corporate/csr Accessed: July 2015.

CSR practices of Tata Motors http://www.tatamotors.com/investors/financials/69-ar-html/csr.html Accessed: July 2015.

CSR-Skoda Motors http://www.skoda-auto.co.in/news/iti-pressrelease-final-7-1-11/ Accessed: July 2015.

Ford Corporate Social Responsibility http://www.indiacsr.in/en/tag/ford-indias-csr-activities/ Accessed: July 2015.

Hyundai Motors-Corporate Social Responsibility http://www.hyundaicsr.com/ Accessed: July 2015.

India Brand Equity Foundation http://www.ibef.org/industry/india-automobiles.aspx Accessed: July 2015.

Indiacsr: Corporate Sustainability & Responsibility. The Real Meaning of CSR by R. C. Bhargava. http://www.indiacsr.in/en/the-real-meaning-of-csr-by-r-c-bhargava/ Accessed: July 2015.

Martinuzzi, A., Kudlak, R., Faber, C. and Wiman, A. 'CSR Activities and Impacts of the Automotive Sector', *RIMAS Working Papers*, No.3/2011, 19–20.

Sharma, Seema, 'Corporate Social Responsibility in India', April 2011. http://connection.ebscohost.com/c/articles/61347865/corporate-social-responsibility-indiaAccessed: July 2015

Skoda Automobile's CSR Initiatives http://www.skoda-auto.com/SiteCollectionDocuments/company/environment/sustainable-development/en/sustainability-report-2011-2012.pdf Accessed: July 2015.

> *Be the change that you wish to see in the world.*
>
> —*Mahatma Gandhi*

Ethical Value Positioning of Management Students

VENKATESHA MURTHY AND SONALI BHATTACHARYA

In this study, an attempt was made to establish the ethical value positioning of students of business and management studies. Using the ethical value positioning questionnaire of Forsyth (1980), a complete enumerative survey was conducted for management students. In total, 136 students were sampled. It was found that 75 per cent of the students were Situationists, followed by 15 per cent being Absolutists. Further, five sets of value propositions (benevolence, interpersonal, personal, situational and dogmatic) were also extracted. No significant regional or gender variations in the values were found. Functional areawise also no significant differences in values were observed.

Introduction

Teaching ethics in management colleges becomes critical because it may facilitate ethical decision-making abilities of future managers. Introduction of a course like ethics in business management makes a significant difference in students' ethical positioning (Allmon, Page & Roberts, 2000). In this study, we administered the Ethical Positioning Questionnaire (EPQ) to students in the post-course completion scenario. Because students had undergone the course, we assumed that students (respondents) were better informed about ethical decision making. This roughly translates into ethical positioning of individuals. Drawing from the work of Forsyth (1980), we examined students' ethical behaviour and attempted to develop a view around idealism and relativism positioning of students.

Forsyth (1980) classified individuals depending on their ethical positioning into the following four broad categories: (1) Situationists, (2) Absolutists, (3) Subjectivists and (4) Exceptionists. He identified these broad categories based on individual scores as per the EPQ on both idealism and relativism. Situationists are people who score high on both ideal and relative questions of the EPQ. Absolutists score high on idealism and low on relativism because they tend to conform to the universal standards of ethics. On the contrary, Subjectivists score high on relativism and low on idealism because they tend to apply an individual-specific yardstick to qualify a moral standpoint. The last group, Exceptionists, are those who score low on both ideal and relative questions on the EPQ. They tend to differ from both absolute and subjective groups because they follow a pragmatic approach to consider a moral or ethical standpoint. In previous studies, it is noticed that Absolutists are quite ruthless in making ethical

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judgements compared to the other three groups (Barnett, Bass, Brown & Hebert, 1998). Interestingly, individuals' moral beliefs (Barnett et al., 1998; Henle, Giacalone & Jurkiewicz, 2005; Tansey, Brown, Hyman & Dawson(Jr), 1994) determine their ethical positioning in terms of the nature of choices they make in their life.

Interestingly, Redfern and Crawford (2014) raised questions on the appropriateness of the EPQ in Eastern social contexts. However, their findings in the Chinese societal context, where the culture is influenced by Confucian ethics, demonstrate a greater appropriateness of the EPQ of Forsyth (1980). Despite this, not all the aspects of the EPQ could be tested in all cultural contexts (Cui, Mitchell, Schlegelmilch & Cornwell, 2005). Based on a consumer study, Cui et al. (2005) concluded that ethical consumer behaviour cannot be fully captured using the EPQ of Forsyth (1980) owing to East–West cultural differences. Similarly, Davis, Andersen and Curtis (2001) attempted to build critical explanations on the EPQ. Although they introduced a new dimension (i.e., veracity) to the already existing diemnsions (i.e., idealism and relativism), in the end, they did not fundamentally reject the significance of the EPQ of Forsyth (1980); rather they concluded by viewing the EPQ as a promising instrument to study ethical behaviour.

The objective of this study was to use Forsyth's EPQ to determine the ethical value orientation of Master of Business Administration (MBA) students who had undergone a course in ethics. We chose them for the evident reason that they are the prospective managers in the Indian context. This study also attempted to determine whether gender, area of specialisation and region to which an individual belongs have any effect on ethical value. Factorial Reduction with principal component analysis and varimax rotation were further used to understand the various dimensions of the ethical positioning of these youths.

Research Methodology

The 20-item Forsyth EPQ was used for the purpose of our survey. The tool was administered to a group of 200 first-year students of the MBA course in a reputed institute in Maharashtra, in February 2014, just after they had completed a course on Ethics and Corporate Governance. The tool was converted to a Google form, and the Google link was sent to all students on their common group emailID. There were 136 respondents out of which 111 were complete. Some of the initial respondents did not fill up the demography-related questions, namely, gender, home state, functional area and age. The instructor realised this, amended the questionnaire and once again requested the respondents to complete the questionnaires. The students were not required to reveal their identity by mentioning their names, roll numbers or email identity. This was done to ensure that students give honest views on each statement rather than socially desirable answers.

The use of a Google form ensured that responses are received and entered into a spreadsheet, to save time and cost. This also helped us to keep track of the pattern of data by observing the summary of responses. The summary statistics were immediately shared with the respondents after closure of the survey. There were 71 per cent male and 29 per cent female respondents. Their average age was 24 years. Of the respondents, 37 per cent specialised in Marketing, 29 per cent in Finance, 27 per cent in Human Resource Management and 7 per cent in Operations Research. Figure 1 shows the previous highest qualificationwise distribution of the respondents.
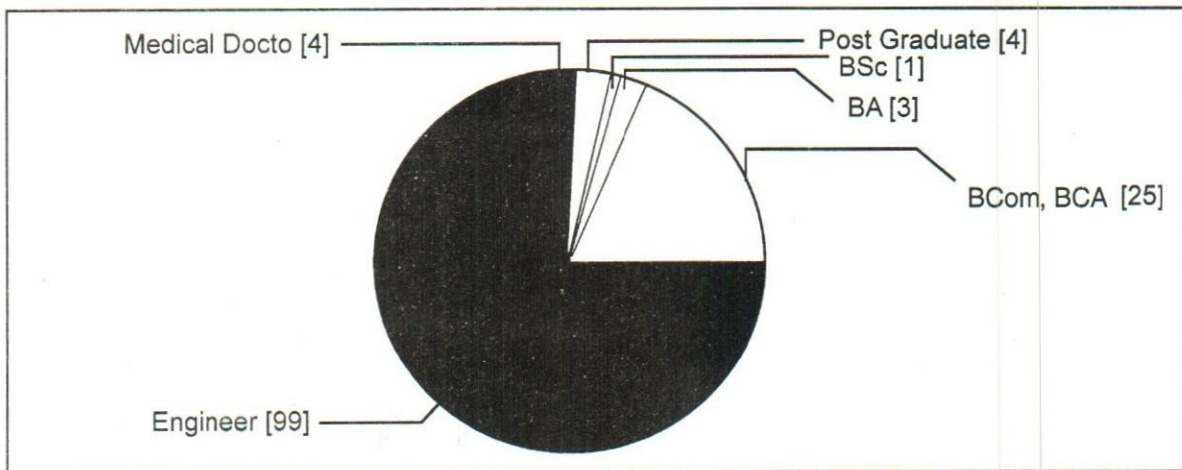
Figure 1: Previous Highest Qualification of the Respondents

Among the respondents, there was at least one student from Bahrain, Tanzania, the United Kingdom and Nepal. Of the respondents, 23 per cent were from Maharashtra, 14 per cent were from Delhi and the rest were from the 18 other states/ union territories of India.

Results and Findings

Forsyth's Ethical Positioning Values

Cronbach's alpha and split half reliability coefficient, both of which measure the internal consistency of the questionnaire, were found to be 90 per cent and 80 per cent , respectively. The total idealism score for each respondent was then computed by adding the scores of the first 10 items of Forsyth's EPQ. Similarly, the relativism score of each respondent was computed by adding the next 10 items. If the total idealism (relativism) score of an individual was >50, then it was considered as high; otherwise, it was considered to be low.

Based on the 2C2 Forsyth's matrix, individuals with high idealism and high relativism scores were considered as 'Situationists', those with high idealism and low relativism scores as 'Absolutists', those with low idealism and high relativism scores as 'Subjectivists' and finally those with both low idealism and relativism scores were considered as 'Exceptionists'. Figure 2 shows the distribution of the students in the four categories. An overwhelming majority of the respondents (77 per cent) were found to be Situationists.

There were no significant differences found between ethical positioning types between genders (chi-square test—statistics value at 0.53955162 was found to be less than the critical value of 7.81472776 at 3 degrees of
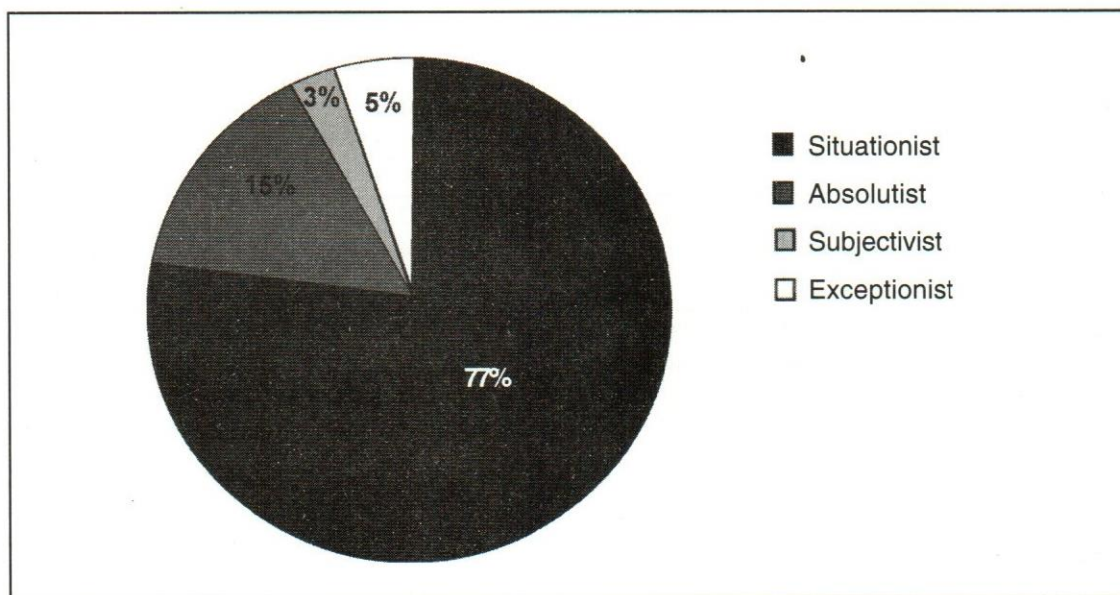
Figure 2: Distribution of Respondents into Four Categories of Forsyth's Ethical Positioning Values

freedom and 5 per cent level of significance); area of specialisation (chi-square test—statistics value is 11.11039 less than the critical value of 16.918977 at 9 degrees of freedom and 5 per cent level of significance) and highest previous qualification (chi-square test—statistics value is 12.1666 less than the critical value of 24.9957 at 15 degrees of freedom and 5 per cent level of significance).

Redefining Value Orientations

Because not many studies have been conducted for measuring Ethical Positioning Values in the Indian context, especially on prospective managers who have undergone a course in ethics, we thought of using exploratory factorial analysis to further explore whether different kinds of behaviours were highlighted in the Indian context. We used Principal Component Analysis with varimax Kaiser Normalisation Technique.

The Kaiser-Meyer-Olkin (KMO) value was found to be sufficiently high at 0.762, which suggests that the sample size was adequate. Further, Barttlet's test of Sphericity was also significant (Table 1), which suggests data are suitable for factorial analysis.

Table 1: KMO and Bartlett's Test

KMO Measure of Sampling Adequacy		.762
Bartlett's Test of Sphericity	Approximate Chi-Square	942.431
	Df	190
	Significance	.000

Six components with Eigen value >1 were extracted as given in Table 2, which explained 65.084 per cent of the variance.

Based on the factor loadings taken, we considered five factors for our study (Table 3). The first component is 'benevolence'. It explains 24.731 per cent of variations

Table 2: Total Variance Explained

Component	Initial Eigen Values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.946	24.731	24.731	4.946	24.731	24.731	4.437	22.185	22.185
2	3.259	16.296	41.028	3.259	16.296	41.028	2.228	11.141	33.325
3	1.413	7.065	48.093	1.413	7.065	48.093	1.834	9.170	42.495
4	1.333	6.667	54.760	1.333	6.667	54.760	1.819	9.094	51.589
5	1.040	5.202	59.962	1.040	5.202	59.962	1.447	7.233	58.822
6	1.024	5.122	65.084	1.024	5.122	65.084	1.252	6.261	65.084
7	.877	4.386	69.469						
8	.864	4.318	73.788						
9	.777	3.887	77.675						
10	.701	3.506	81.181						
11	.613	3.067	84.248						
12	.534	2.669	86.917						
13	.493	2.465	89.383						
14	.419	2.097	91.480						
15	.392	1.958	93.438						
16	.355	1.775	95.213						
17	.305	1.523	96.736						
18	.262	1.310	98.046						
19	.223	1.116	99.162						
20	.168	.838	100.000						

Extraction Method: Principal Component Analysis.

and is highly correlated with items EP1, EP2, EP3, EP4, EP5, EP6 and EP8. It mainly constitutes variables that represent empathy, benevolence and feeling of well-being towards others (Table 3).

Table 3: Rotated Component Matrix

EPQ List	Value Propositions				
	Benevolence	Personal	Interpersonal	Situational	Dogmatism
EP1 [People should make certain that their actions never intentionally harm others even to a small degree.]	.814	-.031	.107	-.026	.048
EP2 [Risks to others should never be tolerated, irrespective of how small the risks might be.]	.735	.009	-.081	.038	.317
EP3 [The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.]	.707	-.114	.125	-.007	.240
EP4 [One should never psychologically or physically harm another person.]	.808	.125	.086	.001	-.121
EP5 [One should not perform an action which might in any way threaten the dignity and welfare of another individual.]	.843	.129	.111	-.037	-.082
EP6 [If an action could harm an innocent other, then it should not be done.]	.816	.042	.014	.133	-.115
EP7 [Deciding whether or not to perform an act by balancing the positive consequences of the act against the negative consequences of the act is immoral.]	.126	.137	.068	-.088	.676
EP8 [The dignity and welfare of people should be the most important concern in any society.]	.692	.034	-.033	.008	-.063
EP9 [It is never necessary to sacrifice the welfare of others.]	.234	-.357	.344	-.023	.474
EP10 [Moral actions are those which closely match ideals of the most 'perfect' action.]	.087	-.004	.026	.095	.084
EP11 [There are no ethical principles that are so important that they should be part of any code of ethics.]	-.238	.164	-.096	.286	.659
EP12 [What is ethical varies from one situation and society to another.]	.027	.701	.038	.306	-.093
EP13 [Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.]	.089	.736	.228	.056	.019
EP14 [Different types of moralities cannot be compared as to 'rightness'.]	.069	.658	.141	.047	.167
EP15 [Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.]	-.036	.580	.431	.002	.230
EP16 [Moral standards are simply personal rules which indicate how a person should behave, and are not to be applied in making judgments of others.]	.137	.181	.765	.188	-.099
EP17 [Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.]	.000	.286	.772	.139	.127
EP18 [Rigidly codifying an ethical position that prevents certain types of actions could stand in the way of better human relations and adjustment.]	.235	.216	.372	.212	.067
EP19 [No rule concerning lying can beformulated; whether a lie is permissible or not totally depends on the situation.]	-.001	.121	.105	.883	.015
EP20 [Whether a lie is judged to be moral or immoral depends upon the circumstances surrounding the action.]	.059	.167	.238	.848	.060

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalisation.
a. Rotation converged in 9 iterations.

The second component is 'personal values', which explains 16.296 per cent of variations. It represents a set of values depicted by variables EP12, EP13, EP14 and EP15. This set of values indicates the impetus given to personal values as against 'universal moral values'. The third component is 'interpersonal values', which explains 7.065 per cent of variations. It represents a set of values depicted by variables EP16, EP17 and EP18. This set of values indicates the impetus given to interpersonal values rather than sticking to universal moral values (Table 3).

The fourth component is 'situational values', which explains 6.667 per cent of variations. It includes EP19 and EP20, which is the extent to which individuals are flexible in adapting or rejecting universal moral values based on situations. The fifth component is 'dogmatism', which explains 5.202 per cent of variations. It includes EP7, EP9 and EP11, which indicate commitment towards universal values (Table 3).

The descriptive statistics related to the five principal values are given in Table 4.

Table 4: Descriptive Statistics of the Extracted Five Sets of Values

	N	Mini-mum	Maxi-mum	Mean	Standard Deviation
Benevolence	136	1.00	9.00	7.4137	1.48992
Personal	136	1.00	9.00	6.3750	1.56463
Interpersonal	136	2.00	9.00	6.1194	1.59699
Situational	136	1.00	9.00	6.2985	2.10363
Dogmatism	136	1.00	9.00	4.8557	1.64596
Valid N (list wise)	136				

There was a significantly high pair-wise correlation between 'personal values', 'interpersonal values' and 'situational values' and also between 'benevolence' and 'interpersonal values' as indicated in Table 5.

Table 5: Correlation Coefficient between Five Sets of Values Extracted from the EPQ

		Benevolence	Personal	Interpersonal	Situational	Dogmatism
Benevolence	Pearson Correlation	1	.123	.267**	.085	.145
	Significance (2-tailed)		.156	.002	.327	.095
	N	136	136	136	136	136
Personal	Pearson Correlation	.123	1	.518**	.346**	.180*
	Significance (2-tailed)	.156		.000	.000	.037
	N	136	136	136	136	136
Interpersonal	Pearson Correlation	.267**	.518**	1	.423**	.202*
	Significance (2-tailed)	.002	.000		.000	.019
	N	136	136	136	136	136
Situational	Pearson Correlation	.085	.346**	.423**	1	.165
	Significance (2-tailed)	.327	.000	.000		.057
	N	136	136	136	136	136
Dogmatism	Pearson Correlation	.145	.180*	.202*	.165	1
	Significance (2-tailed)	.095	.037	.019	.057	
	N	136	136	136	136	136

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

Ethical Value

In general, the students were found to be sensitive to the feelings of others, were compassionate and were not likely to resort to activities that might hurt others. They seemed to value interpersonal relationships and were willing to deviate from universal values if the situation demanded, such as in protecting interpersonal relationships, and if it did not interfere with their personal set of values. A significantly high positive correlation was found in benevolence and interpersonal values, personal and interpersonal values, personal and situational values and interpersonal and situational values.

Conclusions

By using Forsyth's Ethical Positioning Value, we find that the vast majority of the students are Situationists, that is,

they may have a high regard for universal values. In decision making,however, they may be judgemental and rationalistic and may not give importance to universal values. The next major group comprised individuals who were high in idealism and low in relativism. This implies that they have a high regard for universal values and will never change their stance. However, they may feel stressed if the corporate-bureaucratic-governmental system under which they function is unethical or corrupt. This may be of concern because India ranks very low (94th position in 2013) in the Corruption Perception Index of Transparency International.

There were no significant differences found between genders, regions or area of specialisation. Factorial analysis generated five sets of values: benevolence, interpersonal, personal, situational and dogmatic values. Future studies must investigatehow individuals who have a high inclination towards benevolence and interpersonal values may act when persons whom they admire or feel affiliated to break the ethical codes of conduct or when they are required to make decisions against such people or situations. It will also be of interest to know their thoughts on social responsibility, sustainability issues and situations where personal cultural values will be in conflict with universal values.

References

Allmon, D.E., Page, D., and Roberts, R. (2000). 'Determinants of Perceptions of Cheating: Ethical Orientation, Personality and Demographics'. *Journal of Business Ethics*, 23(4), 411–422.

Barnett, T., Bass, K., Brown, G., and Hebert, F.J. (1998). 'Ethical Ideology and the of Tim Barnett Judgments Professionals Marketing'. *Journal of Business Ethics*, 17(7), 715–723.

Cui, C.C., Mitchell, V., Schlegelmilch, B., and Cornwell, B. (2005). 'Measuring Consumers' Ethical Piosition in Austria, Britain, Brunei, Hong Kong, and USA'. *Journal of Business and Industrial Marketing*, 62, 57–71.

Davis, M.A., Andersen, M.G., and Curtis, M.B. (2001). 'Measuring Ethical Ideology in Business Ethics: A Critical Analysis of the Ethics Position Questionnaire'. *Journal of Business Ethics*, 32, 35–53.

Forsyth, D.R. (1980). 'A Taxonomy of Ethical Ideologies'. *Journal of Personlaity and Social Psychology*, 39(1), 175–184.

Henle, C.A., Giacalone, R.A., and Jurkiewicz, C.L. (2005). 'The Role of Ethical Ideology in Workplace Deviance: The Role Ideology Deviance of Ethical in Workplace'. *Journal of Business Ethics*, 56(3), 219–230.

Redfern, K., and Crawford, J. (2014). 'An Empirical Investigation of the Ethics Position Questionnaire in the People's Republic of China'. *Journal of Business Ethics*, 50(3), 199–210.

Tansey, R., Brown, G., Hyman, M.R., and Dawson (Jr), L.E. (1994). 'Personal Moral Philosophies and the Moral Judgments of Salespeople'. *The Journal of Personal Selling and Sales Management*, 14(1), 59–75.

For success of any mission, it is necessary to have creative leadership. Creative leadership is vital for government, non-governmental organisations as well as for industries. —**A.P.J. Abdul Kalam**

Feature

Effect of Knowledge Management on Organizational Performance: A Systematic Literature Review

RUCHI PAYAL AND ROMA MITRA DEBNATH

This paper aims to identify the state of the art related to the research problem 'The effect of Knowledge Management on Organizational Performance'. The systematic literature review includes 42 papers published between 2010 and 2012. The selected papers were classified according to research approach used, the country and industry of the sample population, research parameters/constructs studied, Data Analysis and software tools used and the research gaps in the inspected studies. The paper is the first effort towards a systematic literature review of the research problem. The paper can act as a starting point for future researches on the research problem.

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Introduction

Knowledge management (KM) has become critical in the contemporary business environment that mandates continuous adaptation and change by organizations, and requires employees to strive to improve their company's work processes. It can help organizations gain competitive advantage and improve organizational performance. It is the reason why KM literature has seen a large growth in the last two decades. The present paper aims to review the existing literature on the effect of KM on organizational performance through a systematic review methodology. The primary goal of the paper is to direct and support the future research on the effect of KM on organizational performance. The literature related to the research topic is classified according to the research designs employed, country/industry in which the study took place and various statistical analyses adopted by the researchers. This is the first of its kind of systematic literature review in relation to the research problem at hand.

Research Methodology

A systematic literature review has been used as a research tool in the paper. The systematic review is based on a process, which is a defined and methodical way of identifying, assessing, and analyzing published primary studies in order to investigate a specific research question (Kitchenham and Charters, 2007; Staples and Niazi, 2007; Tranfield et al., 2003). The basic steps of a systematic review process followed in the paper are shown in Figure 1 in the form of a flowchart (Kitchenham, 2004; Staples and Niazi, 2007; Tranfield et al., 2003).
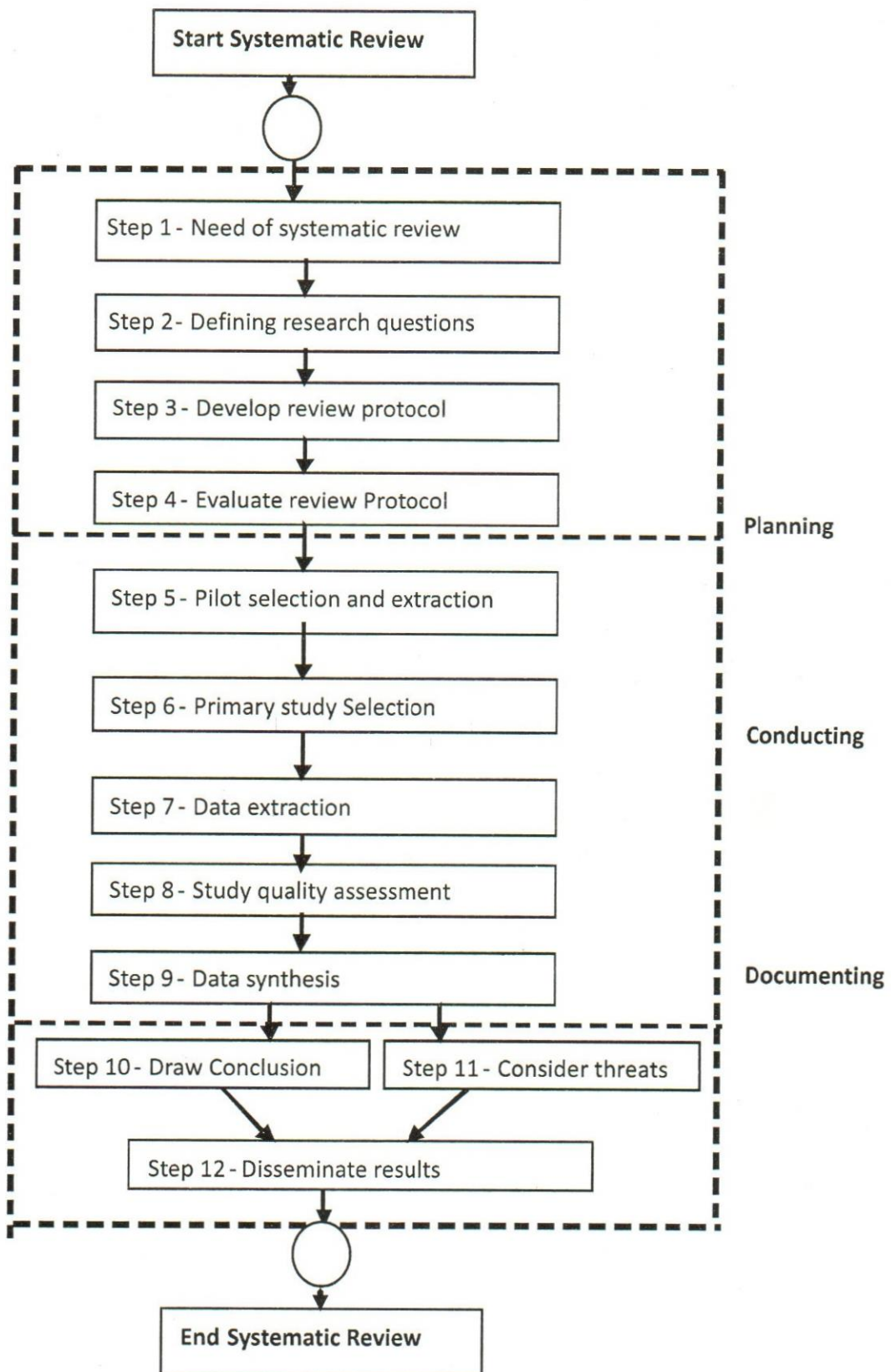
Figure 1: Systematic Review Process (Adapted from Kitchenham and Charters, 2007).

Following research questions have been used to analyse the various issues like research approaches used, context of the studies, the constructs evolved, statistical tools used and the research gaps related to the research topic.

Research Question (RQ1): What is the state of the art related to the research problem 'The Effect of KM practices on organizational performance'?

RQ1a: What is the research approach used by the various researchers to study the above research problem?

RQ1b: What is the context (country and industry) in which the researchers have studied the above research problem?

RQ1c: What are the various parameters that are considered in the previous researches on the above research problem?

RQ1d: What are the various non-statistical/statistical tools/software tools used by the researchers to study the above research problem (if any)?

RQ1e: What are the existing research gaps in the area related to the above research problem?

A review protocol was developed and evaluated to reduce potential researcher bias and to permit a replication of review in the future. A summary of the protocol is given in subsequent sections.

Review Protocol for Conducting Systematic Literature Review

Search Strategy

In order to determine if similar work has been done, the databases were searched. The following keywords and strings were used to search within keywords, title and abstract.

(Knowledge Management) AND (Systematic review OR Research Review OR Research synthesis OR Research integration OR Systematic overview OR systematic research synthesis OR integrative research review OR integrative review)

None of the reviewed publications were related to our objectives which are expressed in the research question. For the identification of the research papers, the process depicted as flowchart in Figure 2 is used.

Source: Adapted from Kitchenham and Charters, 2007
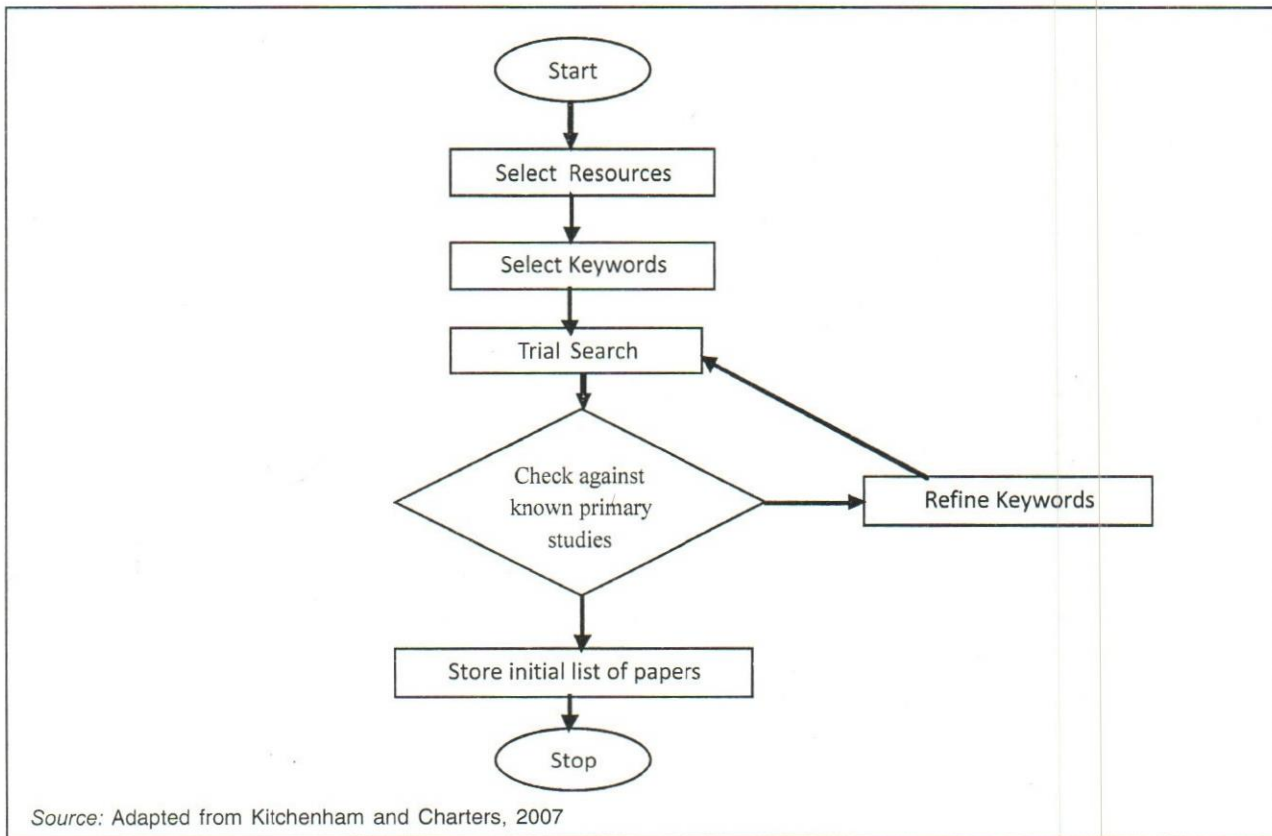
Figure 2: Search Strategy Process

The selected databases and the number of publications that were retrieved from each of them are shown in Table 1. The keywords for the search were derived from the research questions. The search keywords used

Table 1: Primary Study Selection

1	Proquest	1106	115	69	18
2	Science Direct	181	13	8	4
3	Emerald	613	71	55	12
4	EBSCO	154	1	0	0
5	IEEE	84	27	13	6
6	IGI Global	5	5	2	0
7	JSTOR	5	5	2	0
8	Sage	3	3	0	0
9	Springer	74	1	1	1
10	TaylorFrancis	1	1	1	1
11	Wiley	25	0	1	0

for retrieving the relevant studies from the vast literature available on KM are given in Table 2.

Table 2: Search Keywords

Population	Intervention
Knowledge Management	Organizational Performance OR Business Performance OR Corporate Performance OR Organizational Results OR Organisational Benefits OR Organisational Survival OR Firm Performance OR Sustainable Competitiveness OR Competitive Advantage OR Financial Performance OR Business Impact.

Study Selection Criteria

Inclusion and exclusion criteria were used as a guide for selecting and assessing the studies for potential inclusion. A theoretical, conceptual or empirical study focusing on the effect of KM on organizational performance was selected for the review process. The keywords 'knowledge management' and 'organizational performance' (or its synonyms as in Table 2) should be in its title or abstract; only full text literature in English language published between 2000 and 2012 was included. However, later Sthe scope of the study was further reduced to include only the papers published from 1 January 2010 to 31 September 2012.

Study Selection Procedure

Primary study selection was done in three steps. In the first phase, a computerized search was carried out by using multiple keywords and their strings in the following

11 databases: ABI Inform ProQuest, Elsevier Science Direct, Emerald, Academic Search Elite (EBSCO), IEEE, IGI Global, JSTOR, SAGE, Springer, Taylor Francis and Wiley. In the second phase, the studies were scanned in 'Title' and 'Abstract' for selection. In the third phase, the studieswere selected after quality assessment (quality assessment technique is explained in subsequent section).

Study Quality Assessment

The study quality assessment (Step 8) of each publication was done during the data extraction process by answering the questions given in Table 3.

Table 3: Quality Assessment

ID	Quality Assessment Question
QA1	Is the aim of the research sufficiently explained?
QA2	Is the presented research approach clearly explained?
QA3	Is it clear in which context the research is carried out?
QA4	Are the threats to validity taken into consideration?
QA5	Are the findings of the research clearly stated?

Data Extraction

The data extraction was performed in an iterative manner. An initial extraction form with the properties listed in Table 4, which shows also the mapping to the respective research questions answered by the property, was prepared. The compiled extraction forms were reviewed and the extracted data was consolidated. In the second data extraction iteration, the established categorization was confirmed and used for data synthesis (Step 9) and drawing conclusions (Step 10).

Table 4: Data Extraction Properties

ID	Property	Research Question
P1	Research Design (Empirical or conceptual)	RQ1a
P2	Country/Industry (Manufacturing/ Service)	RQ1b
P3	Parameters	RQ1c
P4	Statistical Tools	RQ1d
P5	Research Gaps	RQ1e

Result and Analysis

Due to the heterogeneity of the studies reviewed in terms of the date of publication, methodology and theoretical framework, a meta-analysis, i.e., employing statistical and

econometric procedures for synthesizing findings and analyzing data (Transfield et al. 2003), was not appropriate for this review. The analysis conducted was descriptive by nature.

Research Approach (RQ1a)

The inspected studies were categorized according to the applied research method. We defined the following categories and criteria to classify the studies consistently:

1) Conceptual Research

2) Empirical Research

Conceptual research focuses on developing a theory to explain specific phenomena or behaviours. Empirical research is defined as research based on observed and measured phenomena. It was found that empirical studies (84%) constitute a clear majority of the studies with only 16% of the studies being conceptual studies (Table 5).

Table 5: Research Design (RQ1a)

Research Design	Studies	Frequency
Conceptual	[1], [2], [14], [30], [42]	5
Empirical	[3], [4], [5], [6], [7], [8], [9], [10], [11], [12], [13], [15], [16], [17], [18], [19], [20], [21], [22], [23], [24], [25], [26], [27], [28], [29], [31], [32], [33], [34], [35], [36], [37], [38], [39], [40], [41]	37

Study Context (RQ1b)

The study settings were categorized on the basis of the country of the target sample population and the type of the industry from which the sample was taken. It was found that the highest numbers of studies (26%) were based on sample population from Taiwan. The second highest numbers of studies (7%) were based on sample from India. There were two studies each that had sample population from Brazil, Greece, Jordon and Korea. Sample population from China, Hong Kong, Jamaica, Iraq, Italy, Malaysia, Pakistan, Spain, Slovania/Croatia, Uganda, the US and South Africa each had one study. Studies ([13], [26]) had diversified sample population. Study [13] has sample from Sweden, Taiwan, Italy, France, the UK, Belgium, Finland, Germany, and the US. Study [26] had research sample from four advanced countries, the US, Japan, Germany and the UK. Country of the sample was not stated for 18% studies out of which 37% studies were conceptual studies (Table 6 [a]).

Table 6(a): Study Context (RQ1b)

Country based on Target Sample Population	Studies	Frequency
Taiwan	[7], [9], [13], [20], [21], [22], [23], [25], [36], [38], [39]	11
India	[17], [30], [34]	3
Brazil	[16], [40]	2
Greece	[32], [37]	2
Jordon	[3], [28]	2
South Korea/Korea	[12], [35]	2
China	[15]	1
Hong Kong	[8]	1
Jamaica	[29]	1
Iraq	[2]	1
Italy	[6]	1
Malaysia	[41]	1
Pakistan	[19]	1
Spain	[27]	1
Slovania/Croatia	[33]	1
Uganda	[4]	1
US	[31]	1
South Africa	[24]	1
Diverse Sample	[13], [26]	2
Not stated	[1], [5], [10], [11], [14], [18], [26], [42]	8

With respect to the study sample it was found that most of the studies (40%) had sample both from manufacturing and service industries. Equal number of studies (14%) had sample from manufacturing and service industry, each. For some studies (30%) the industry to which the sample belonged was not mentioned (Table 6 [b]).

Table 6 (b): Study Settings (RQ1b)

Context/Industry	Studies	Frequency
Service	[2], [4], [8], [28], [29], [36]	6
Manufacturing	[3], [5], [17], [25], [37], [39]	6
Both	[7], [10], [13], [15], [16], [22], [23], [24], [26], [27], [31], [32], [33], [34], [38], [40], [41]	17
Not Stated	[1], [6], [9], [11], [12], [14], [18], [19], [20], [21], [30], [35], [42]	13

Research Parameters (RQ1c)

The data extraction from the inspected studies found that a large number of KM and organizational performance constructs/indicators have been used by the researchers to study the effect of KM on organizational performance.

KM constructs employed by the researchers in studies studying the effect of KM on organizational performance are critical success factors of KM, KM strategies, KM Processes, Marketing Knowledge Management, applied channel logistics knowledge, KM infrastructure, KM capability, Knowledge Stock, Knowledge Ambiguity, Knowledge resources, Knowledge Sharing, Knowledge capacity, KM Maturity, Dynamic Capability, KM enablers, KM Orientation, KM evolution, Knowledge Management Technologies and Customer Knowledge Management. The respective indicators employed by the inspected studies to measure/define the dimensions of the various KM constructs are indicated in Table 7.

It is found that the inspected studies have used both

Table 7: Research Parameters (RQ1c)

	Construct and Indicator	Other Variable	Studies
KM construct	Organizational performance constructs		
Customer KM (team learning, sharing intellectual capital, collaborating innovation, creating customer value)	Motivation models, leadership, organizational culture and environment, work design, human resource management policy	Moderating variable—Learning organization (personal mastery, improving mental models, building shared vision, communication and cooperation)	Shieh, C. J. (2011)
KM configuration	Profit variation, sales variation, variation in the number of employees	Strategy typologies	Carlo B., Marco V. (2012)
KM organizational factors (collaborative experience, culture for change, mutual trust, size, naturalness in ICT use) KM technologies (focus on the use of those electronic tools that support a) the development of electronic knowledge bases and b) that guarantee standard procedures for knowledge transfer.)	Financial performance (profitability, return on investment [ROI], return on sales [ROS] and overall financial performance), speed to market, new product performance		Vaccaro, A., Parente, R. and Veloso, F. M. (2010)
KM strategy (codification and personalization)	Financial performance, process performance, internal performance	Mediating variable—Innovation	Lopez-Nicolas, C.; Merono-Cerdan, A.L. (2011)
Knowledge evolution strategy—Mutation (internal-driven), crossover (external driven)	BSC (Financial performance, customer performance, internal process performance, learning and growth)	Moderating variable— environmental variation (EV), knowledge density (KD), IT capabilities (IT), sharing culture (SC)	Chen, D.N. and Liang, T.P. (2011)
KM strategy—System, Human	Business Performance (Growth, Profitability)	ITM strategy—IT environment scanning, strategic use of IT HRM strategy—HR flow (recruitment, selection, training and development), work system (control, team work, job specificity), reward system (wages and performance assessments)	Chen, Yue-Yang and Huang, Hui-Ling (2012)

table 7 to be continued.....

	Construct and Indicator	Other Variable	Studies
Critical success factor (leadership and top management, culture, technology, people, structure, performance mgt.) KM strategy (human oriented, system, internal, external) KM Process—Acquisition and creation, collection and storage, sharing, use)	BSC (Financial, Customer, Internal business, innovation & learning)		Akhavan, A., Owlia, M. S., Jafari, M. and Zare, Y. (2011, December)
Knowledge management orientation (organizational memory, knowledge sharing, knowledge absorption, and knowledge receptivity)	Firm performance-Subjective, Objective (profit)	Mediating variable (MO)-intelligence generation, intelligence dissemination, and responsiveness Control variable for market orientation-age, size, industry classification and strategic type	Du, P. (2011, August)
Knowledge enhancement capability (knowledge acquisition, knowledge conversion processes), Knowledge Utilization Capabilities: (knowledge application processes).	Firm Performance: return on asset and earnings per share	Mediating variable—Innovation (firm's pursuit of product and service innovations to differentiate the firm from its competitors	Hsu, I. C. and Sabherwal, R. (2011)
Chief Information Officer's Education	Organizational Performance EPS Diluted = Diluted earnings per share1; EPS Basic = Basic earnings per share2; ROA = Returns on assets	Control variables include: NI/REV = Net income ratio measured by net incomeover total revenues; RESTR = 1 if firm had restructuring, 0 otherwise; LEV = Percentage of total debts over total assets; SQSEG = Square root of the number of business segments reported on Compustat; GROWTH = Sales growth (percent change in sales from theprior year); PHD = 1 if the new CIO has a PHD degree, else 0; RD/REV = Ratio of research and development expense to total revenues; PHD*RD/REV = Interaction of research and development activities and CIO's education.	Chen, Y. T., Yan, Y. C., Huang, H.W., and Huang, H.W. (2011, June)
KM System KM process-creation [SECI], organization [storage, codification, retrieval, maintenance], transfer [absorption, diffusion], Application [Integration, leverage])	Organizational performance (indicator not stated)	Moderating variable-CIO's education (PHD degree) Mediating variable-KM capability, KMS	Han, W. and Wang, Y. (2012, May)
KM infrastructure KM innovation	Competitive advantage (not stated)		Mundra, N., Gulati, K. and Vashisth, R. (2011)

	Construct and Indicator	Other Variable	Studies
KM strategy (Human, system),	OP (indicator not stated)		Roy M., Chatterjee T. and Linnane L. (2012)
KM effectiveness (Ratio of R&D expenses to total revenues.) KM enablers (leadership, culture, KM strategy, IT, People)	Firm performance (market share, profitability)		Theriou N., Maditinos D. and Theriou G. (2011).
Market KM (acquisition of market knowledge, conversion of market knowledge, application of market knowledge, and protection of market knowledge) dynamic capabilities-sensing capability, absorptive capability and learning capability	Business performance-financial and non-financial indicators (market performance-market shares, sales growth rates, customer satisfaction, and the success rate of new product. Financial performance- return on investment and profitability)		Hou, J. J. and Chien, Y. T. (2010)
KM Maturity ((1) information technology (the ability of technology to capture knowledge and usage of information systems), (2) organisation (people, organisational climate and processes) and (3) knowledge (knowledge accumulation, utilisation, sharing practices and knowledge ownership identification)	Organizational Performance - Financial perspective - Supplier perspective - Innovation and learning perspective - Customer perspective - Internal processes perspective - Reputation		Rasul J., Bosilj Vu ksic V. and Indihar Štemberger M. (2012)
(Knowledge sharing, Knowledge absorption, Knowledge storage, Knowledge conversion),	OP (Sales growth, EPS)		Huang, C.L. (2011)
Knowledge acquisition, knowledge dissemination, responsiveness to knowledge.	Objective organizational high performance Perceived high organizational performance (perceived organizational performance, perceived market performance) Competitive Advantage		Bagorogoza, J. and Waal, Andre de (2011)
KM Process-K Acquisition, K creation, K dissemination, K accumulation	Organizational Performance, Competitive advantage	Influencing Variable HRM- Work design, Recruit selection, Training Development, Performance evaluation, salary & Rewards.	Wang, Keh-Luh, Chiang, Chi and Tung, Chiu-Mei (2012)
Top management support for KM and technical infrastructure for KM	Organizational performance (quick response of market demand and changing environment, predict the new prospect for products and services, strong position of firm in the industry, competitive edge over competitors and substantial market share in term of its major rivals)	Mediating variable-Knowledge application (experience and mistakes, utilize in new product development, long term plans and growth of the organizations and quickly response to the critical competitive needs).	Hague, A. and Anwar, S. (2012)

	Construct and Indicator	Other Variable	Studies
KM activities (responsiveness to knowledge, response to market knowledge, response to client needs), Knowledge acquisition (market, financial), Knowledge dissemination (tacit, explicit), Knowledge utilization	Balanced scorecard (BSC) Financial performance • Performance from customer perspective • Performance from process perspective • Performance from learning and growth perspective	The internal business environment – Organizational environment (organizational culture (value and principles), organizational climate (rules, policies, procedures, structure, incentive systems, etc.) Technical environment (technological infrastructure and its ability to respond to the increasingly dynamic work environment)	Chen, L. and Mohamed, S. (2010)
KM maturity-ICT Management, Information management, KM issues (principle, policy, strategy), KM implementation, ubiquities knowledge, assessment of KM growth	Performance Assessment tool (Profitability, Liquidity, Leverage, Shareholder satisfaction,Growth, Intangible value, Customer satisfaction, Employee satisfaction)		Kruger, C.J.N. and Johnson, R.D. (2011)
KM Infrastructure • Identify and appoint domain leaders • Identify and appoint affinity groups ateach plant • Seek and assimilate knowledge in the respective domains • Submit knowledge capture documents to affinity groups in their respective • Electronically submit captured knowledge to domain leaders KM Imperatives • Capture knowledge from all locations • Classify knowledge, create categories • Approves documents uploaded in the KM portal • Facilitates and assists domain Leaders • Users download knowledge documents at all locations	Sustainable Competitive Advantage		Goel, A., Rana, G. and Rastogi, R. (2010)
Knowledge management capability (knowledge learning and acquiring, sharing, creating and improving)	Product or service quality; product or service innovation; employee attraction; employee retention; customer satisfaction; management and employee relation; employee relations	Human resource management (personnel staffing, performance appraisal, reward and compensation, training and development, employee participation) Organizational learning (information-sharing patterns, inquiry climate, learning practices, achievement mindset) Organizational innovation (Technological Innovation [product, process and services innovation], Administrative innovation [organizational strategy, structure, system, cultural innovation])	Kuo, Tsung-Hsien (2011)

	Construct and Indicator	Other Variable	Studies
KM capability-Knowledge Infrastructure capability (Technology, Organizational culture, Organizational Structure) Knowledge process capability (knowledge acquisition, knowledge conversion, knowledge application, knowledge protection)	Organizational Performance		Mills, Annette M. and Smith, Trevor A. (2011)
Knowledge capacity (acquisition, sharing and application)	Organizational and community improvement (Building shared values, improving female and youth employment, promoting social participation, enabling people to have a sense that they are engaged in a common enterprise, facing shared challenges and having equal opportunities to be included in the process of capacity building.)	Strategic human resource management practices (Staffing, Training, Participation, Performance Appraisal and Rewards) Employee improvement (employees' talents and skills, motivation, the structure and the design of their work, employees' job satisfaction, their behaviour and performance.)	Pekka-Economou, V. and Hadjidema, S. (2011).
Knowledge sharing (information technology IT Infrastructure and systems, open communication, organizational learning and sharing)	Business Performance (business competitiveness [level of profitability, sales growth and total quality cost, as well as the ability of the company to gain or retain new business] Manufacturing performance [Engineering change rates, production cycle times, operational cost, and internal and/or external customer satisfaction.]and process efficiency [Firm's overall reputation] Process efficiency [Increased internal production rate, Improved customer response time, Reduced products defect rate])	Control Variables (CV), namely firm size and nature of business New product development (employee involvement, design simplification and modular design) Integrated supplier management (supplier evaluation and selection, supplier involvement,)	Tsu-Te Andrew Huang, L.C. and Stewart, R.A. (2010)
Knowledge-based resources Knowledge management capability (activities and technologies related to acquisition and utilization of knowledge within the firm)	Resource utilization (Return on investment, Equipment utilization, Energy usage/cost, Total cost of resources used, Distribution costs including transportation and handling, Manufacturing including labor, maintenance, and re-work. Inventory Other Output measures related to supply chain	Supply chain technology investments	Collins, J.D., Worthington, W.J., Reyes, P.M. and Romero, M. (2010)
Knowledge sharing	Competitive advantage	Agile capability (Responsiveness, competency, Quickness, Flexibility)	Almahamid, S., Awwad, A. and McAdams, A.C. (2010)
Knowledge management capacity (acquisition and dissemination)	Profitability and sales growth, cash turnover, financial goal achievement, and risk management with respect to competitors	Moderating/Interacting Variable-Social Interaction (Coordination, Communication Control variable-firm size (number of employees), Industry type (manufacturing, service)	Hsiao, Y.C., Chen, C.J. and Chang, S.C. (2011)

	Construct and Indicator	Other Variable	Studies
Dynamic capabilities (absorbing, creating, storing and applying knowledge resources) Knowledge resources (customer-related and competitor-related knowledge resources.) Customer-related knowledge resources (customer perceptions of the firm's products, promotion, and market Segments toward the firm.) Competitor-related knowledge resources (competitors' promotions, market segments and customers) Learning mechanisms (experience accumulation, knowledge articulation, and knowledge codification)	Performance (subjective assessment of store's quality of service, level of sales, current profitability, sales growth rate, and overall store performance)		Chien, S. Y. and Tsai, C. H. (2012)
Knowledge Ambiguity (Knowledge tacitness of innovations, knowledge complexity of innovations, knowledge specificity of innovations)	Innovation-related performance (market, coordination, efficiency, R&D)	Control variable-type of innovation (process, administrative), its degree of novelty, and whether or not the innovation is tailor-made. Subsidiary age and subsidiary size	Ciabuschi, F. and Martín, O.M. (2012)
Effective KM (knowledge acquisition, knowledge conversion, use)	Percentage of new product sales to total sales, market share, and return on investment (ROI), agility of internal processes and reduction in response time to market changes	Innovativeness (Open to innovation in terms of culture values and beliefs.) strategic orientation (customer orientation, competitor orientation and inter-functional coordination)	Ferraresi, A.A., Quandt, C.O., dos Santos, S.A. and Frega, J.R. (2012)
Knowledge Stock (Number of recent patents)	Firm performance (ROA)	Moderator variable-Firm Size (total number of employees), Ambidextrous learning (exploratory proportion of previously unused citations by a firm in a focal year, as determined by the list of patents and citations in the previous five years. and exploitative learning-average number of times a firm used the same citation in the patents it applied for) Control variable-country, technology opportunity, prior performance (ROAt-1), slack (debt ratio, current ratio), firm size (logarithm of total annual sales at the end of the year), firm age (numbers of years a firm has been in existence).	Lee, C.Y. and Huang, Y.C. (2012)
KM Capability (Infrastructure [technological, structural, cultural], process [acquisition, conversion, application and protection of knowledge])	Firm Performance (return on investment (ROI), market share, profit margin on sales, growth of ROI, growth of sales, and growth of market share)	SCM practices (information sharing, integration, on-time delivery, response time and communication of strategic needs)	Wai Peng Wong, Kuan Yew Wong, (2011)

table 7 to be continued.....

	Construct and Indicator	Other Variable	Studies
Knowledge Conversion Socialization Externalization Combination Internalization	Corporate Performance Financial performance Market/customer Process People development Future	Organizational Cultures Clan culture Hierarchy culture Adhocracy culture	Tseng, S.M. (2010)
KM infrastructure-culture (collaboration, trust, learning culture), structure (Decentralization), management (Top management support, promotion), technology (IT support) Knowledge process capability (Acquisition, conversion, application, protection)	Subjective Organizational Performance-The capability to develop new products/services, the capability to predict business or risks, the improvement of capability to cope with new information of markets		Sangjae Lee, Byung Gon Kim and Hoyal Kim (2012)
Applied channel logistics knowledge: warehouse staging systems proximate to customers; information from customers on future production plans, information from customers that improves delivery and inventory management; suppliers' warehouse staging systems proximate to buyer's firm; suppliers' application of buyer's production plans; and information from suppliers that improves delivery and inventory management	Financial Performance (1) average return on investment over the past three years; (2) average profit over the past three years; and (3) profit growth over the past three years.	Control variable-size (the natural logarithm of the number of employees) and demand uncertainty (tapping sales predictability, sales forecast accuracy, and ease of monitoring market trends)	Birou, L., Germain, R.N. and and Christensen, W.J. (2011)
Marketing KM (Built-in marketing assets, Invested-in marketing assets, Internal marketing capabilities, External marketing capabilities)	Organizational performance-market performance (contribution to organization's non-financial assets, organization's ability to develop new services, and organization's image), customer performance (customer satisfaction, loyalty, and ability to attract new customers), financial performance (return on investments, profitability, Market share and contribution to organization's financial assets).		Mamoun, N. Akroush and Samer, M. Al-Mohammad (2010)
Organizational culture that affects Knowledge Processes: (1) credibility; (2) respect; (3) fairness; (4) pride and (5) camaraderie	Organizational Performance-firm value(Price/earnings ratio, Tobin's q ratio), Operating performance (Operating margins, operating income per employee, and return on assets (ROA))and growth rate)		Nold III, H. A. (2012)
Knowledge Sourcing Strategy(System oriented, person oriented, external oriented, internal oriented)	Firm performance (Degree of overall success, market share, growth rate, profitability, and innovativeness in comparison with major competitors)	Control variable-Size (Logarithm of the number of employees), Age (The number of years a firm has existed), R&D investment (Averaged R&D expenditures during the past three years), Industry Type	Choi, B. and Lee, Jae-Nam (2012)

	Construct and Indicator	Other Variable	Studies
Critical Success Factor of KM (human resource management, information technology, leadership, organizational learning, organizational strategy, organizational structure and organizational culture) KM strategies (codification and personalization) KM processes (knowledge creation, knowledge org, knowledge storage, knowledge sharing and knowledge utilization.)	Organizational Performance (Financial perspective, Customer perspective, internal process perspective, learning and growth)	Middle Manager's Role (Analyst, Intuitive, Pragmatic)	Al-Hakim, Laith Ali Yousif and Hassan, S. (2011)

the subjective and objective measures of organizational performance. Most of the studies have relied on subjective measures of organizational performance. Only few studies have used objective measures for organizational performance. A large number of studies have adopted the balanced scorecard (BSC) as a measurement framework for the organizational performance (OP) construct. One study [36] has used the core components of organizational performance instead of using general criteria of organizational performance, such as return on investment, reduced cost, market share, etc. The core components used are motivation models, leadership, organizational culture and environment, work design, human resource management policy. The various indicators used by the inspected studies for measuring organizational performance can be referred to in Table 7.

Statistical/Non-statistical Tools (RQ1d)

On data extraction from the inspected studies, it is found that a large number of the studies used EFA (35% studies) and CFA (40% studies) to determine the validity and reliability of the measures used in the research. Also, structural equation modeling was used by a large number of the studies (30% studies) for hypothesis testing. Second most popular methods used for path testing were correlation (16.6% studies) and regression analysis (16.6% studies). Other tests used in the studies toassess the effect of KM on organizational performance were t-test, z-test, chi-square test, Wald test, Wilcoxon Signed Ranks Test, cluster analysis, profile deviation analysis, percentage analysis and interview analysis (Table 8 [a]).

Table 8(a): Statistical tools used (RQ1d)

Tool Used	Studies	Frequency
t-test	[3], [40]	2
z-test	[30]	1
Chi-Square test	[6]	1
Wilcoxon Signed Ranks Test	[31]	1
Wald test	[12]	1
ANOVA	[6], [38]	2
EFA	[4], [6], [8], [12], [16], [19], [20], [21], [28], [29], [33], [34], [36], [37], [39]	15
CFA	[8], [10], [11], [15], [16], [18], [19], [22], [23], [25], [27], [28], [29], [33], [37], [40], [41]	17
SEM	[9], [11], [15], [16], [19], [22], [23], [27], [28], [29], [33], [40], [41]	13
Correlation Analysis	[8], [19], [26], [32], [36], [38], [39]	7
Regression Analysis	[3], [13], [21], [26], [35], [38], [39], [41]	8
Cluster Analysis	[6], [34]	2
Profile Deviation Analysis	[11]	1
Percentage Analysis	[30]	1
Interview Analysis	[17]	1
Not stated	[1], [2], [5], [7], [14], [24], [42], [43]	8

Table 8 b: Software Used (RQ1d)

Software Used	Studies	Frequency
SPSS	[6], [7], [16], [18], [28], [29], [33], [36], [38], [39]	10
LISREL	[5], [15], [25], [27], [33], [37], [41]	7
EQS	[10], [28]	2
SAS	[24]	1
AMOS	[8], [16], [18], [22]	4
PLS Graph	[29]	1
Not stated	[1], [2], [3], [4], [9], [11], [12], [13], [14], [17], [19], [20], [21], [23], [26], [30], [31], [32], [34], [35], [40], [42]	22

Most popular software tool used for the data analysis was SPSS (23.8% Studies). Lisrel was the second most used software tool (16.6% studies). Other software tools used for analysis were AMOS (9.5% studies), SAS (1 study), EQS (4.7% studies) and PLA Graph (2.3% studies).

Research Gaps Identified (RQ1e)

The research gaps were identified from the limitations and the future research prospects related to the research problem provided by the various researchers in their respective studies. It was found that a large number of studies (64% studies) indicated that generalizability of the results of the studies was not feasible. The reasons cited were the small sample size of the studies and concentration of sample population on single/few companies/industry/country. It is recommended that to increase the generalizability of the studies, same studies must be replicated in different environments. About 54.7% studies felt that the sample size used by them in the research was inadequate to generalize the results of the study. A large number of the studies (54.7% studies) focused on the fact that there is a need to make the research models more comprehensive. This can be done by adding more constructs to the research models. About nine studies indicated that a longitudinal study is required to study the dynamic aspects of the effect of knowledge management on organizational performance. Other research gaps identified from the studies were use of quantitative secondary data (7.1% studies), use of single key informant for data collection (11.9% studies), use of

Table 9: Research Gaps (RQ1e)

Research Gaps	Studies	Frequency
Size of the sample is limited	[3], [4], [6], [7], [8], [11], [12], [16], [19], [21], [23], [24], [25], [27], [28], [29], [30], [31], [33], [35], [39], [40], [41]	23
Generalizability of results is limited	[3], [4], [6], [7], [8], [11], [12], [13], [16], [19], [20], [21], [23], [24], [25], [26], [27], [28], [29], [30], [31], [33], [35], [38], [39], [40], [41]	27
A longitudinal study is required	[3], [6], [9], [13], [21], [27], [35], [40], [41]	9
Need of empirical studies on the subject particularly in the context of vast and developing economies like India, Africa	[16], [17], [24], [34]	4
Self-reported measure	[16], [12], [19], [21],	4
Other variables/constructs can be added to the research study to make it more integrative	[3], [4], [7], [9], [11], [12], [13], [15], [16], [18], [20], [21], [26], [27], [28], [29], [31], [32], [35], [39], [40], [41]	22
Quantitative secondary data	[23], [24], [26]	3
Single Key informant	[12], [15], [16], [25], [29]	5
Perceptual data	[3], [9], [13], [16], [21], [27]	6
Single Data Source	[3], [35]	2
A case study is required	[3], [4], [16], [39]	4
Not Stated	[1], [2], [5], [10], [14], [17], [22], [36], [37], [42]	10

self-reported measures or perceptual data (23.8% studies), use of single data source (4.7% studies) and requirement of a case study (7.1% studies). The researchers of the inspected studies emphasize that that perceptual data/ self-reported measure that is collected from respondents is more likely to be subjective. Because perceptual data is mostly based on the respondents' expectations for the future rather than on the reality of the present, the data validity in this case is questionable and open to criticism. Also, the researchers point towards the shortcoming of single data sources that prevents data-triangulation which might lessen the researchers' abilities to understand and analyze underlying pillars of the research constructs correctly. An important research gap found in the study was the need of empirical studies on the effect of knowledge management on organizational performance in developing countries like India. Only 7.1% studies had sample population from India. Out of those studies, one was case study [17], one was case study supported by perceptual data [30] and one was a cluster analysis study [34] (Table 9).

Conclusion

The systematic literature review conducted in this study is the first of its kind in relation to the research problem under study, i.e.,'Effect of Knowledge Management on Organizational Performance'. This paper significantly contributes to the literature. First, the study has identified and gathered if not all, then at least the immense majority of 'state of the art' concerning the research problem from January 2010 to September 2012. Second, despite the complications generated by the diversity of the research approaches, research constructs, sample population, the study has been able to aggregate the individual properties, thus leading to a higher level of evidence about the pieces of knowledge about the research problem under investigation. The results of this review encourage further research on the effect of knowledge management on organizational performance. These conclusions might not be surprising or unexpected; however, these notions about the field have never been reviewed before through such a rigorous systematic review of the literature.

Like other research studies, this study also has its own limitations. First, only the literature published from January 2010 to September 2012 was included in the review. Also the dissertations were not included in the review. This was done to keep the scope of the research paper within control of the researcher. In future researches, the systematic literature review on the problem can be made more comprehensive by adding more research studies, if not all. Second, the study tried to keep the search process as systematic as possible; however, there may be some literature that may not have got included in the study. Third, the properties extracted from the studies were totally based on the claims made by the respective studies. This may lessen the robustness of the results of the study. In the future researches, data must be extracted from the existing studies with a more robust data extraction strategy in place. These limitations notwithstanding, it is believed that the findings offer some noteworthy insights.

References

Kitchenham, B. and Charters, S. (2007). Guidelines for Performing Systematic Literature Reviews in Software Engineering. Technical Report EBSE-2007–01, Software Eng. Group, Keele Univ. and Dept. of Computer Science, Univ. of Durham, UK.

Staples, M., and Niazi, M. (2007). Experiences Using Systematic Review Guidelines. The Journal of Systems and Software, 80(30), 1425-1437.

Tranfield, D., Denyer, D. and Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review, British Journal of Management, 14(9), 207–222.

References of studies used in Systematic literature review

Akhavan, A., Owlia, M.S., Jafari, M., and Zare, Y. (2011, December). A Model for Linking Knowledge Management Strategies, Critical Success Factors, Knowledge Management Practices and Organizational Performance; the Case of Iranian Universities. In Industrial Engineering and Engineering Management (IEEM), pp. 1591–1595.

Al-Hakim, Laith Ali Yousif, and Hassan, S. (2011). 'The Role of Middle Managers in Knowledge Management Implementation to Improve Organizational Performance in the Iraqi Mobile Telecommunication Sector'. Interdisciplinary Journal of Contemporary Research in Business, 3(5).

Almahamid, S., Awwad, A., and McAdams, A.C. (2010). 'Effects of Organizational Agility and Knowledge Sharing on Competitive Advantage: An Empirical Study in Jordan'. International Journal of Management, 27(3), 387.

Bagorogoza, J., and Waal, Andre de (2011). 'The Role of Knowledge Management in Creating and Sustaining High Performance Organisations'. World Journal of Entrepreneurship, Management and Sustainable Development, 6(4).

Birou, L., Germain, R.N., and Christensen, W.J. (2011). 'Applied Logistics Knowledge Impact on Financial Performance'. International Journal of Operations & Production Management, 31(8), 816–834.

Carlo, B., and Marco, V. (2012). 'The Impact of Knowledge Management and Strategy Configuration Coherence on SME Performance'. *Journal of Management and Governance*, 1–33.

Chen, D.N., and Liang, T.P. (2011). 'Knowledge Evolution Strategies and Organizational Performance: A Strategic Fit Analysis'. *Electronic Commerce Research and Applications*, 10(1), 75–84.

Chen, L., and Mohamed, S. (2010). 'The Strategic Importance of Tacit Knowledge Management Activities in Construction'. *Construction Innovation: Information, Process, Management*, 10(2), 138–163.

Chien, S.Y., and Tsai, C.H. (2012). 'Dynamic Capability, Knowledge, Learning, and Firm Performance'. *Journal of Organizational Change Management*, 25(3), 434–444.

Chen, Y.T., Yan, Y.C., Huang, H.W., and Huang, H.W. (2011, June). 'Knowledge Management, Education and Firm's Performance'. In *Fuzzy Systems (FUZZ), 2011 IEEE International Conference on* , pp. 2007–2012. IEEE.

Chen, Yue-Yang, and Huang, Hui-Ling. (2012). 'Knowledge Management Fit and Its Implications for Business Performance: A Profile Deviation Analysis'. *Knowledge-Based Systems*, 27, 262–270.

Choi, B., and Lee, Jae-Nam. (2012). 'Complementarities and Substitutabilities Among Knowledge Sourcing Strategies and Their Impact on Firm Performance'. *Journal of Association for Information Systems*, 13(7), 498–545.

Ciabuschi, F., and Martín, O.M. (2012). 'Knowledge Ambiguity, Innovation and Subsidiary Performance'. *Baltic Journal of Management*, 7(2), 143–166.

Collins, J.D., Worthington, W.J., Reyes, P.M., and Romero, M. (2010). 'Knowledge Management, Supply Chain Technologies, and Firm Performance'. *Management Research Review*, 33(10), 947–960.

Du, P. (2011, August). 'An Empirical Study on the Relationships of Knowledge Management Orientation, Market Orientation, and Firm Performance'. In *Management and Service Science (MASS), 2011 International Conference on* , pp. 1–6. IEEE.

Ferraresi, A.A., Quandt, C.O., dos Santos, S.A., and Frega, J.R. (2012). 'Knowledge Management and Strategic Orientation: Leveraging Innovativeness and Performance'. *Journal of Knowledge Management*, 16(5), 688–701.

Goel, A., Rana, G., and Rastogi, R. (2010). 'Knowledge Management as a Process to Develop Sustainable Competitive Advantage'. *South Asian Journal of Management*, 17(3), 104.

Han, W., and Wang, Y. (2012, May). 'Knowledge Management, Knowledge Management System, and Organizational Performance: An Empirical Study'. In *Systems and Informatics (ICSAI), 2012 International Conference on* , pp. 2488–2492. IEEE.

Haque, A., and Anwar, S. (2012). 'Linking Top Management Support and IT Infrastructure with Organizational Performance: Mediating Role of Knowledge Application'. *Canadian Social Science*, 8(1), 121–129.

Hou, J.J., and Chien, Y.T. (2010). 'The Effect of Market Knowledge Management Competence on Business Performance: A Dynamic Capabilities Perspective'. *International Journal of Electronic Business Management*, 8(2), 96–109.

Hsiao, Y.C., Chen, C.J., and Chang, S.C. (2011). 'Knowledge Management Capacity and Organizational Performance: The Social Interaction View'. *International Journal of Manpower*, 32(5/6), 645–660.

Hsu, I.C., and Sabherwal, R. (2011). 'From Intellectual Capital to Firm Performance: The Mediating Role of Knowledge Management Capabilities'. *Engineering Management, IEEE Transactions on*, 58(4), 626–642.

Huang, C.L. (2011). 'The Influence of Knowledge Management Implementation on Organizational Performance at Taiwan-listed Integrated Circuit Companies: Using Intellectual Capital as the Mediator'. *Journal of Global Business Management*, 7(2).

Kruger, C.J.N., and Johnson, R.D. (2011). 'Is There a Correlation between Knowledge Management Maturity and Organizational Performance?' *VINE*, 41(3), 265–295.

Kuo, Tsung-Hsien. (2011). 'How to Improve Organizational Performance through Learning and Knowledge'? *International Journal of Manpower*, 3(5/6), 581–603.

Lee, C.Y., and Huang, Y.C. (2012). 'Knowledge Stock, Ambidextrous Learning, and Firm Performance: Evidence from Technologically Intensive Industries'. *Management Decision*, 50(6), 1096–1116.

Lopez-Nicolas, C., and Merono-Cerdan, A.L. (2011). 'Strategic Knowledge Management, Innovation and Performance'. *International Journal of Information Management*, 31(6), 502–509.

Mamoun, N. Akroush, and Samer, M. Al-Mohammad (2010). 'The Effect of Marketing Knowledge Management on Organizational Performance: An Empirical Investigation of the Telecommunications Organizations in Jordan'. *International Journal of Emerging Markets*, 5(1), 38–77.

Mills, Annette M., and Smith, Trevor A. (2011). 'Knowledge Management and Organizational Performance: A Decomposed View'. *Journal of Knowledge Management* 15(1), 156–171.

Mundra, N., Gulati, K., and Vashisth, R. (2011). 'Achieving Competitive Advantage through Knowledge Management and Innovation: Empirical Evidences from the Indian IT Sector'. *The IUP Journal of Knowledge Management*, 9(2), 7–26.

Nold III, H.A. (2012). 'Linking Knowledge Processes with Firm Performance: Organizational Culture'. *Journal of Intellectual Capital*, 13(1), 16–38.

Pekka-Economou, V., and Hadjidema, S. (2011). 'Innovative Organizational Forms That Add Value to Both Organizations and Community: The Case of Knowledge Management'. *European Research Studies*, 14(2).

Rasul, J., Bosilj Vu ksic, V., and Indihar Štemberger, M. (2012). 'The Impact of Knowledge Management on Organisational Performance'. *Economic and Business Review*, 14(2), 147–168.

Roy, M., Chatterjee, T., and Linnane, L. (2012). 'Exploring Effective Knowledge Management to Improve Organizational Performance in Globalized Environment: An Empirical Study'. *Advances in Management & Applied Economics*, 2(1), 205–213.

Sangjae Lee, Byung Gon Kim, and Hoyal Kim. (2012). 'An Integrated View of Knowledge Management for Performance'. *Journal of Knowledge Management*, 16(2), 183–203.

Shieh, C.J. (2011). 'Study on the Relations among the Customer Knowledge Management, Learning Organization, and Organizational Performance'. *The Service Industries Journal*, 31(5), 791–807.

Theriou, N., Maditinos, D., and Theriou, G. (2011). 'Knowledge Management Enabler Factors and Firm Performance: An Empirical Research of the Greek Medium and Large Firms'. *European Research Studies*, 14(2), 97–134.

Tseng, S.M. (2010). 'The Correlation between Organizational Culture and Knowledge Conversion on Corporate Performance'. *Journal of Knowledge Management*, 14(2), 269–284.

Tsu-Te Andrew Huang, L.C., and Stewart, R.A. (2010). 'The Moderating Effect of Knowledge Sharing on the Relationship between Manufacturing Activities and Business Performance'. *Knowledge Management Research & Practice*, 8(4), 285–306.

Vaccaro, A., Parente, R., and Veloso, F.M. (2010). 'Knowledge Management Tools, InterorganizationalRelationships, Innovation and Firm Performance'. *Technological Forecasting & Social Change*, 77(7), 1076–1089.

Wai Peng Wong and Kuan Yew Wong. (2011). 'Supply Chain Management, Knowledge Management Capability, and Their Linkages towards Firm Performance'. *Business Process Management Journal*, 17(6), 940–964.

Wang, Keh-Luh, Chiang, Chi, and Tung, Chiu-Mei. (2012). 'Integrating Human Resource Management and Knowledge Management: From the Viewpoint of Core Employees and Organizational Performance'. *The International Journal of Organizational Innovation*, 5(1).

We have a social responsibility, a constitutional opportunity and a moral obligation to help others.

—*Janie Lewis*

Impact of Farm Finance and Investment on Profitability of Farms in Tamilnadu

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Investment plays a vital role in the agricultural production process. It induces production and savings; further investment helps in the development of the economy. The present study focuses on different sources and pattern of investment in farm firms. Investment in agriculture is vital for millions of the poor. It is widely accepted that agricultural investment, when appropriately structured, can lead to capital deepening, technology transfer, and can accelerate broader economic development of the country. The challenge today is to recast agriculture in the new environment of globalization, rising prices, growing domestic demand and greater private sector involvement. This will require greater investments to increase farmer's yield and profitability.

Introduction

India is mainly an agricultural country. In India about 52 per cent of people are employed in agriculture and share of agriculture to the total Gross Domestic Product (GDP) accounted for about 17 per cent. According to the Committee on World Food Security (1999), investment in agriculture is a necessary, if not sufficient, condition for increasing agricultural production and productivity and thereby to ensure the availability and accessibility of food to the population. The orientation of Indian agriculture is changing from subsistence to market economy and from agriculture to agribusiness. With the gradual opening up of the economy under the World Trade Organization (WTO) regime, Indian agriculture is exposed to global markets and this will further strengthen the process of commercialization and diversification of agriculture.

Investment in agriculture is made by both public as well private sectors. While public sector investment in agriculture is made for building necessary infrastructure, private investment in agriculture is either for augmenting productivity of natural resources or for undertaking other allied activities which supplement income sources of farmers. In India private sector investment comprise investments made by private corporate and households. Public sector investment includes investment made by Central and State Governments and investments through their Departmental Commercial Undertakings (DCUs) and Non-Departmental Commercial Undertakings (NDCUs). The public sector investment to the total investment made in agriculture has increased from 17.28 per cent in 1999–2000 to 28.95 per cent in 2007–08, whereas the private sector investment to the total investment in agriculture has decreased from 82.70 per cent in 1999–2000 to 71.05 per cent in 2007–08.

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The role of credit institutions and the flow of institutional credit play a major role on the productive ability of the agriculture sector. The ratio of institutional credit to private gross capital formation has increased from 1.37 in 2000–2001 to 3.11 in 2007–08. However, the GCF in agriculture relative to GDP in this sector has shown an improvement from 11.23 per cent in 1999–2000 to 15.24 per cent in 2007–2008. This investment would need to be increased to about 16 per cent of agricultural GDP to achieve 4 per cent agricultural growth target during the Eleventh five year Plan.

Objectives

The overall objective of the study is to analyse the impact of farm finance and investment on profitability of farms. The specific objectives are as follows:

1. To analyse the factors determining agricultural investment of the farm firms.

2. To analyse the factors influencing the returns to agricultural investment.

3. To analyse the impact of agricultural investment on profitability of the farm firms.

Methodology

This study was conducted in Annur block of Coimbatore district, Tamil Nadu. In the studyblock, Pasur, Pogalur, Kunnathur and Allapalayamwerepurposively selected for the study, as agriculture was the predominant sector in these villages. From each village, twenty samples were collected, i.e., ten borrowers and ten non-borrowers were randomly selected. Thus, the sample consists of forty borrowers and forty non-borrowers, resulting in a total sample size of eighty. Required primary data were collected by personal interviews of the selected respondents using a pre-tested questionnaire.

Tools of Analysis

Keeping in view the specific objectives of the study, the data collected were analysed and subjected to the following economic tools.

1. Cropping Intensity

Cropping intensity is the ratio of sum of area planted under different crops and harvested in a single year, to the net cultivated area. The cropping intensity was expressed in percentage. The formula of cropping intensity is given below (Raju and Rao, 2007).

$$\text{Cropping Intensity (CI)} = \frac{\text{Gross cropped area}}{\text{Net cropped area}} \times 100$$

2. Cost Concepts

The technique of tabular presentation was used to assess the cost, returns and profits of crops in the study area. The percentages and averages of variable costs and fixed costs were computed based on the methodology followed by the Commission on Agricultural Costs and Prices (CACP). The cost concepts like Cost A, Cost B and Cost C, listed below, were used for the study.

3. Three Stage Least Squares

Three Stage Least Squares (3SLS) is asymptotically equivalent to two Stage Least Squares (2SLS). 3SLS is generally consistent and more efficient than 2SLS asymptotically. It applies generalized least squares to the large equation of all the identified equations of the system. 3SLS is used when there is error correlation in different structural form equations and also for over-identified equations. In the present, 3SLS method is used. 3SLS is applied to the borrower farm firms and non-borrower farm firms separately. Each borrower farmornon-borrower farm has two equations, namely determinants of farm investment and returns to investment.

3.1 Borrower Farm Firms

Determinants of Farm Investment

Average farm investment function for borrower farms is defined as

$$Y_{11} = f\{X_{11}, X_{12}, X_{13}, X_{14}, X_{15}, X_{16}, X_{17}, X_{18}\}$$

Assuming a linear functional form and adding the random error tem, the estimable form of the linear function is specified as below:

$$Y_{11} = \alpha_0 + \alpha_1 X_{11} + \alpha_2 X_{12} + \alpha_3 X_{13} + \alpha_4 X_{14} + \alpha_5 X_{15} + \alpha_6 X_{16} + \alpha_7 X_{17} + \alpha_8 X_{18} + u_1$$

Where,

Y_{11}	=	Average Farm Investment (rupees/annum)
X_{11}	=	Size of Farm Holdings (hectares)
X_{12}	=	Institutional Credit (rupees/annum)
X_{13}	=	Cropping Intensity (per cent)
X_{14}	=	Family Size (numbers)
X_{15}	=	Livestock Unit
X_{16}	=	Lagged Returns to Investment (lag by one year) (rupees/annum)

X_{17}	=	Labour Usage (man days/annum)
X_{18}	=	Non-farm Income (rupees/annum)
α_0	=	Regression constant
$\alpha_1, \alpha_2,......\alpha_8$	=	Regression coeffcients
u_1	=	Random error term

Determinants of Returns to Investment

To analyse factors influencing returns to investment or determinants of returns to investment in farm firms, a linear functional form is to be used.

A returns to investment function for borrowers farms is defined as

$$Y_{12} = f\{Y_{11}, X_{12}, X_{13}, X_{15}, X_{17}, X_{18}\}$$

The estimable form of linear function for borrower farms is given below:

$$Y_{12} = \alpha_0 + \alpha_1 Y_{11} + \alpha_2 X_{12} + \alpha_3 X_{13} + \alpha_4 X_{15} + \alpha_5 X_{17} + \alpha_6 X_{18} + u_2$$

Where,

Y_{12}	=	Returns to investment (rupees/annum)
Y_{11}	=	Average farm investment (rupees/annum)
X_{12}	=	Institutional credit (rupees)
X_{13}	=	Cropping intensity (per cent)
X_{15}	=	Livestock unit
X_{17}	=	Labour usage (man days/annum)
X_{18}	=	Non-farm Income (rupees/annum)
α_0	=	Regression constant
$\alpha_1, \alpha_2,.......\alpha_6$	=	Regression coeffcients
u_2	=	Random error term

Exogenous and Endogenous Variables in 3SLS Analysis of Borrower Farm Firms

The exogenous and endogenous variables in 3SLS analysis of borrower farm firms are:

Variable	Description
Endogenous variable	Y_{11}, Y_{12}
Exogenous variable	$X_{11}, X_{12}, X_{13}, X_{14}, X_{15}, X_{16}, X_{17}, X_{18}$

3SLS is applied to estimate the two equations simultaneously.

$$Y_{11} = \alpha_0 + \alpha_1 X_{11} + \alpha_2 X_{12} + \alpha_3 X_{13} + \alpha_4 X_{14} + \alpha_5 X_{15} + \alpha_6 X_{16} + \alpha_7 X_{17} + \alpha_8 X_{18} + u_1$$

$$Y_{12} = \alpha_0 + \alpha_1 Y_{11} + \alpha_2 X_{12} + \alpha_3 X_{13} + \alpha_4 X_{15} + \alpha_5 X_{17} + \alpha_6 X_{18} + u_2$$

3.2 Non Borrower Farm Firms

Determinants of Farm Investment

Average farm investment function for non-borrowers farms is defined as

$$Y_{21} = f\{X_{11}, X_{12}, X_{13}, X_{14}, X_{15}, X_{16}, X_{17}\}$$

Assuming a linear functional form and adding the random error term, the estimable form of the function is specified as below,

$$Y_{21} = \beta_0 + \beta_1 X_{11} + \beta_2 X_{12} + \beta_3 X_{13} + \beta_4 X_{14} + \beta_5 X_{15} + \beta_6 X_{16} + \beta_7 X_{17} + u_1$$

Where,

Y_{21}	=	Average Farm Investment (rupees/annum)
X_{11}	=	Size of Farm Holdings (hectares)
X_{12}	=	Owned Capital (rupees/annum)
X_{13}	=	Cropping Intensity (per cent)
X_{14}	=	Family Labour Utilization (man days/annum)
X_{15}	=	Livestock Unit
X_{16}	=	Lagged Returns to Investment (lag by one year) (rupees/annum)
X17	=	Non-farm Income (rupees/annum)
β_0	=	Regression constant
$\beta_1, \beta_2,.......\beta_7$	=	Regression coeffcients
u_1	=	Random error term

Determinants of Returns to Investment

A returns to investment function for non-borrower farms was formally defined as

$$Y_{22} = f\{Y_{21}, X_{12}, X_{13}, X_{14}, X_{15}, X_{17}\}$$

The estimable form of linear function for non-borrower farms was given below:

$$Y_{22} = \beta_0 + \beta_1 Y_{21} + \beta_2 X_{12} + \beta_3 X_{13} + \beta_4 X_{14} + \beta_5 X_{15} + \beta_6 X_{17} + u_2$$

Where,

Y_{22}	=	Returns to Investment (rupees/annum)
Y_{21}	=	Average Farm Investment (rupees/annum)
X_{12}	=	Owned Capital (rupees/annum)
X_{13}	=	Cropping Intensity (per cent)
X_{14}	=	Family Labour Utilization (man days/annum)
X_{15}	=	Livestock Unit
X_{17}	=	Non-farm Income (rupees/annum)
β_0	=	Regression constant
$\beta_1, \beta_2, \ldots \beta_6$	=	Regression coeffcients
u_2	=	Random error term

Exogenous and Endogenous Variables in 3SLS Analysis of Non-borrower Farm Firms

The exogenous and endogenous variables in 3SLS analysis of non-borrower farm firms are:

Variable	Description
Endogenous variable	Y_{21} , Y_{22}
Exogenous variable	$X_{11}, X_{12}, X_{13}, X_{14}, X_{15}, X_{16}, X_{17}$

3SLS is applied to estimate the two equations simultaneously.

$$Y_{21} = \beta_0 + \beta_1 X_{11} + \beta_2 X_{12} + \beta_3 X_{13} + \beta_4 X_{14} + \beta_5 X_{15} + \beta_6 X_{16} + \beta_7 X_{17} + u_1$$

$$Y_{22} = \beta_0 + \beta_1 Y_{21} + \beta_2 X_{12} + \beta_3 X_{13} + \beta_4 X_{14} + \beta_5 X_{15} + \beta_6 X_{17} + u_2$$

As far as the 3SLS is concerned, we have the following three stages of estimation.

Stage 1:

In the first stage the reduced form of all the equations of the system is estimated

$$Y_{11} = \alpha_0 + \alpha_1 X_{11} + \alpha_2 X_{12} + \alpha_3 X_{13} + \alpha_4 X_{14} + \alpha_5 X_{15} + \alpha_6 X_{16} + \alpha_7 X_{17} + \alpha_8 X_{18} + u_1$$

$$Y_{12} = \alpha_0 + \alpha_1 Y_{11} + \alpha_2 X_{12} + \alpha_3 X_{13} + \alpha_4 X_{15} + \alpha_5 X_{17} + \alpha_6 X_{18} + u_2$$

$$Y_{21} = \beta_0 + \beta_1 X_{11} + \beta_2 X_{12} + \beta_3 X_{13} + \beta_4 X_{14} + \beta_5 X_{15} + \beta_6 X_{16} + \beta_7 X_{17} + u_1$$

$$Y_{22} = \beta_0 + \beta_1 Y_{21} + \beta_2 X_{12} + \beta_3 X_{13} + \beta_4 X_{14} + \beta_5 X_{15} + \beta_6 X_{17} + u_2$$

Where,

Y_{11}	=	Average farm investment of borrowed farms (rupees per annum)
Y_{12}	=	Returns to investment of borrowed farms (rupees per annum)
Y_{21}	=	Average farm investment of non-borrowed farms (rupees per annum)
Y_{22}	=	Returns to investment of non-borrowed farms (rupees per annum)

We thus obtain estimated values of the endogenous variables of Y_{11}, Y_{12}, Y_{21}, and Y_{22}.

Stage 2:

The above calculated values of the endogenous variable are substituted in the RHS of the structural equations and least squares are applied to the transformed equation. We thus obtain the coefficient of the RHS, which in turn is used for the estimation of the error terms for the various equations. The variance and co-variances of the estimated error terms may easily be computed by the formula of the co-variances.

$$\sigma\, e_1 e_2 = \frac{\Sigma\, e_{1i} e_{2i}}{n} \quad \text{and so on}$$

Where,

N = Number of observations

Stage 3:

The above variances and co-variances of the error terms is used in order to obtain the transformation of the original variables for the application of generalized least squares. (Koutsoyiannis, 2000).

3.3 Purpose of using 3SLS Method over the Single Equation Model

Purpose of using 3SLS method in the present study over the single equation model is that there is more than one dependent variable and more than one equation in contrast to the single equation model relating a single dependent variable to a set of explanatory variables which are either non-stochastic or if stochastic are assumed to be distributed independently of the stochastic disturbance term.

A unique picture of the 3SLS analysis is that the dependent variable in one equation may appear as an explanatory variable in another equation of the analysis. In the present analysis, the average farm investment (Y_{11})

appears as a dependent variable in the first equation of the borrower farm firm analysis whereas the same variable appears as an explanatory variable in the second equation. Similarly, in the non-borrower farm firm analysis average farm investment (Y_{21}) appears as a dependent variable in the first equation and the same variable appears as an explanatory variable in the second equation of the analysis. Hence, Y_{11} and Y_{21} are endogenous variables for borrower farms and non-borrower farms, respectively. Therefore, such a dependent explanatory variable becomes stochastic and is usually related with the disturbance term of the equation in which it appears as an explanatory variable. In this situation, the classical least square method may not be applied because the estimators thus obtained are inconsistent, i.e., they do not converge to their true values no matter how large the sample. Thus 3SLS method is used in the present analysis.

Research Findings

The sources of finance which were borrowed by the borrowers in the study area are grouped into commercial banks, cooperatives, RRBs, friends and relatives, and money lenders. Among these different sources, commercial banks (55.00 per cent) contributed major share in the farm investment as compared to the other sources of finance. It was followed by regional rural banks (15.00 per cent), cooperatives (15.00 per cent), friends and relatives (12.50 per cent) and money lenders (2.50 per cent) to the total farm investment in the borrower's farm firms. Whereas non-borrowers made their investment on farms from various sources of income like income from crops and livestock, owned funds, savings from non-farm income,viz.,petty shops, machineries, teacher,etc.,and from off-farm incomes,viz., agricultural labourers,etc.

Pattern of Farm Investment

The annualized investment made on the fixed assets was higher in borrower farms (Rs. 28774.88), whereas it was lower in case of the non-borrower farms (Rs.14825.13). Similarly the investment made on the working assets per hectare was also higher in borrower farms (Rs. 67636.49) than that of the non-borrower farms (Rs. 52432.30). Overall, the total investment was higher in the borrower farms (Rs. 96411.36) whereas in the non-borrower farms it was Rs. 80665.25.

Returns to Investment Ratio per Hectare

Returns from investment were higher in the borrower farms as the returns from investment ratio was 1.61, whereas in case of the non-borrowers it was 1.15.

Net Cash Income per Hectare

The net cash income obtained was higher in the borrower farms (Rs.154818.76) than that of the non- borrower farms (Rs. 92980.67).

3SLS

3SLS analysis was taken up for the borrower and non-borrower farm firms separately. Two categories namely determinants of average farm investment and determinants of returns to investment were analysed for borrower and non-borrower farm firmsseparately.

Borrower Farm Firms

The results of the 3SLS analysis to assess the determinants of average farm investment in the borrower farm firms revealed that the size of farm holdings, the institutional credit, cropping intensity, livestock unit, lagged returns from the farm, labour usage and non-farm income significantly and positively influenced the average farm investment. The variable family size was found to have a negative impact on average farm investment because as the family size increased, the consumption expenditure also increased and thus reduced the savings and, in turn, the capital investment was also been reduced. Thus, family size and farm investment were negatively related.

The results of the 3SLS analysis to assess the determinants of returns to investment in borrower farm firms revealed that the average farm investment, institutional credit, cropping intensity, livestock unit, labour usage and non-farm income significantly and positively influenced the returns to investment.

Non-borrower Farm Firms

The results of the 3SLS analysis to assess the determinants of average farm investment in the non-borrower farm firms revealed that the size of farm holdings, owned capital, cropping intensity, family labour utilization, livestock unit, lagged returns from the farm and non-farm income significantly and positively influenced the average farm investment.

The results of the 3SLS analysis to assess the determinants of returns to investment in non-borrower farm firms revealed that average farm investment, owned capital, cropping intensity, family labour utilization, livestock unit and non-farm income significantly and positively influenced the returns to investment.

Conclusions

The institutional credit also helped on costly investments like drip irrigation, farm buildings and farm machineries in borrower farms, while the non-borrowers made lesser investments on these assets as compared to the borrowers, due to non-borrowing of credit from any source of finance and due to the usage of owned capital which was lesser. Also the investment made on circulating capital varied between the borrowers and non-borrowers.

The 3SLS analysis was taken up for the borrower and non-borrower farms separately with the view to determine the factors influencing farm investment. It was inferred that the coefficients of independent variables such as size of farm holding, institutional credit in borrowers and owned capital in non-borrowers, livestock unit, labour usage, family labour utilization, cropping intensity, lagged net returns, and non-farm income were found to have positive impact on farm investment and also found to be statistically significant. The coefficient of the family size in the borrower farms was found to have a negative impact on farm investment, because as the family size increased, the consumption expenditure increased and this reduced the savings and, in turn, the capital investment would also been reduced.

Similarly, the 3SLS analysis was taken up for the borrower farms and non-borrower farms separately with the view to determine the factors influencing returns to investment. It was inferred that the coefficients of independent variables such as average farm investment, labour usage, family labour utilization, institutional credit in borrowers and owned capital in non-borrowers, cropping intensity, livestock unit and non-farm income were found to have positive impact on the returns to investment and also found to be statistically significant.

Policy Implications

Based on the analytical results and the established conclusions, the following policy prescriptions were drawn.

➤ Investment augmenting area, like drip irrigation and livestock, ranks first among different types of investment. This should, therefore, find top priority in institutional credit supply.

➤ Research efforts to evolve a suitable cropping pattern for this area for the maximum utilization of the resources are necessary.

➤ The crop loans aided the farmers in the timely application of required quantities of inputs like high yielding variety seeds, farm yard manure, fertilizer, human labour and machine power for cultivating commercial crops like turmeric, banana, etc. The net returns obtained from these crops were also higher in the borrower farms than that of the non-borrower farms. Hence, bankers may take up lending activity to help in cultivation of these crops on a large scale.

➤ Rigid lending procedures, non-flexibility of repayment schedule and demanding of high-valued securities were expressed as problems faced by the borrowers. The financial institutions could make an attempt to solve these problems so that more number of small and marginal farmers could be covered.

➤ Rapid implementation of schemes, like Kisan Credit Card (KCC) scheme and Mobile Banking, will help in the increased coverage of farmers under institutional credit.

➤ The scale of finance may be reviewed and reconstructed.

➤ In few cases of the borrowers a portion of the loan given for production purpose was diverted for consumption purposes. So special interest should be given for the consumption loans.

Above all, farmers must come forward to make the best use of the facilities provided by the Government. This involves conscious efforts on management of credit and investment planning on the part of the farmers. Extension efforts should be geared towards this end to achieve a higher growth in agriculture.

Table 1: Source-wise Farm Investment in Borrowers Farm Firms

Sl. No.	Sources	Total Number of Farms	Per cent to Total
1.	Commercial Banks	22	55.00
2.	Cooperatives	6	15.00
3.	Regional Rural Banks	6	15.00
4.	Relatives and Friends	5	12.50
5.	Money lenders	1	2.50
	Total	40	100.00

Table 2: Pattern of Circulating Capital Investment in Sample Farms

Sl. No.	Particulars	Amount (Rs/ha)	
		Borrowers	Non-borrower
1.	Human Labour	15091.35	12033.58
2.	Animal Labour	3574.17	2271.56
3.	Machine Power	4359.14	2816.33
4.	Seed/Seedlings	25598.55	20367.55
5.	Manure and Fertilizers	7361.58	6195.03
6.	Plant Protections	8362.62	6384.76
7.	Miscellaneous	2146.52	1501.12
8.	Interest on Working Capital	1142.54	862.38
	Total	**67636.47**	**52432.31**

Table 3: Total Capital Invested in Sample Farms

Sl. No.	Particulars	Investment on Fixed Assets (Rs/ha/annum)	Investment on Working Assets (Rs/ha/annum)	Total Capital Invested (Rs/ha/annum)
1.	Borrowers	28774.88	67636.49	96411.36
2.	Non-borrowers	14825.13	52432.30	80665.25
	Average	21800.005	60034.395	88538.305

Table 4: Gross Income Obtained in Sample Farms

Sl. No.	Particulars	Crop income (Rs/ha)	Livestock Income (Rs/ha)	Non-Farm Income (Rs/ha)	Gross Income (Rs/ha)
1.	Borrowers	141548.02 (45.04)	109682.09 (34.90)	63070.93 (20.06)	314301.07 (100.00)
2.	Non-borrowers	120332.70 (57.82)	53313.22 (25.62)	34470.43 (16.56)	208116.40 (100.00)
	Average	**130940.40**	**81497.65**	**48770.68**	**261208.70**

Table 5: Returns from Investment in Sample Farms

Sl. No.	Particulars	Gain from the Investment (Rs/ha)	Cost of the Investment (Rs/ha)	Returns from the Investment (Rs/ha)
1.	Borrowers	251230.1	96411.36	1.61
2.	Non-borrowers	173645.9	80665.25	1.15
	Average	212438	88538.31	1.37

Table 6: Estimates of Factors Influencing Farm Investment on Borrower Farm Firms

Variables	Coefficients	Standard Error	t Stat
Intercept	605.2672	488.4732	1.2391
Size of farm holdings (X_{11}) in hectares	3952.5279**	1115.3361	3.5438
Institutional credit (X_{12}) in rupees	1.0989**	0.2881	3.8133
Cropping intensity (X_{13}) in percentage	13.9981*	5.2333	2.6748
Family size (X_{14}) in numbers	-6355.6102**	2143.4724	-2.9651
Livestock unit (X_{15}) in numbers	7452.8936	4317.2644	1.7263
Lagged returns to investment (X_{16}) in rupees	0.5248**	0.1883	2.7869
Labour usage (X_{17}) in man days per annum	145.4833**	51.9910	2.8443
Non-farm income (X_{18}) in rupees	0.8433	0.5716	1.4751
R Square	0.7864	–	–
F Value	13.9254	–	–
No. of samples	40	–	–

** Significant at 1 per cent level.

* Significant at 5 per cent level.

The results obtained could be expressed in equation form as

Y_{11} = 605.2672 + 3952.5279X_{11} + 1.0989X_{12} + 13.9981X_{13} - 6355.6102X_{14} + 7452.8936X_{15} + 0.5248X_{16} + 145.4833X_{17} + 0.8433X_{18}

R square = 0.7864

F value = 13.9254

N = 40

Table 7: Estimates of Factors Influencing Returns to Investment on Borrower Farm Firms

Variables	Coefficients	Standard Error	t Stat
Intercept	871.9538	548.3296	1.5902
Average farm investment (Y_{11}) in rupees	1.4121**	0.4285	3.2952
Institutional credit (X_{12}) in rupees	1.2468**	0.3647	3.4178
Cropping intensity (X_{13}) in percentage	15.0793*	6.1968	2.4334
Livestock unit (X_{15}) in numbers	1399.9684	793.2731	1.7648
Labour use (X_{17}) in man days per annum	233.2738**	82.9182	2.8133
Non-farm income (X_{18}) in rupees	0.2352	0.1689	1.3923
R Square	0.7545	–	–
F Value	16.6698	–	–
No. of samples	40	–	–

** Significant at 1 per cent level.

* Significant at 5 per cent level.

The results obtained could be expressed in equation form as

Y_{12} = 871.9538 + 1.4121Y_{11} + 1.2468 X_{12} + 15.0793X_{13} + 6399.9684X_{15} + 233.2738X_{17} + 0.2352X_{18}

R square = 0.7545

F value = 16.6698,

N = 40

Table 8: Estimates of Factors Influencing Farm Investment on Non-borrower Farm Firms

Variables	Coefficients	Standard Error	t Stat
Intercept	493.3281	316.6215	1.5581
Size of farm holdings (X_{11}) in hectares	1301.8263**	438.1925	2.9709
Owned capital (X_{12}) in rupees	1.0748**	0.3017	3.5618
Cropping intensity (X_{13}) in percentage	7.9715**	2.8319	2.8148
Family labour utilization (X_{14}) in man days per annum	119.1833**	36.2821	3.2849
Livestock unit (X_{15}) in numbers	2722.9741*	1457.9290	1.8677
Lagged returns to investment (X_{16}) in rupees	0.7457**	0.2405	3.0999
Non-farm income (X_{17}) in in rupees	0.9693	0.8287	1.1696
R Square	0.6454	–	–
F Value	8.2785	–	–
No of samples	40	–	–

** Significant at 1 per cent level.

* Significant at 5 per cent level.

The results obtained could be expressed in equation form as

$Y_{21} = 493.3281 + 1301.8263X_{11} + 1.0748X_{12} + 7.9715X_{13} + 19.1833X_{14} + 2722.9741X_{15} + 0.7457X_{16} + 0.9693X_{17}$

R square = 0.6454

F value = 8.2785

N = 40

Table 9: Estimates of Factors Influencing Returns to Investment on Non-borrower Farm Firms

Variables	Coefficients	Standard Error	t Stat
Intercept	376.6344	406.6886	0.9261
Average farm investment (Y_{21}) in rupees	0.9412*	0.3565	2.6395
Owned capital (X_{12}) in rupees	1.0767**	0.3208	3.3554
Cropping intensity (X_{13}) in percentage	24.3394*	8.9158	2.7299
Family labour utilization (X_{14}) in man days per annum	207.0627**	59.57267	3.4758
Livestock unit (X_{15}) in numbers	1727.3567	866.5813	1.9933
Non-Farm income (X_{17}) in rupees	0.7922	0.5890	1.3448
R Square	0.6958	–	–
F Value	12.3696	–	–
No. of samples	40	–	–

** Significant at 1 per cent level.

* Significant at 5 per cent level.

The results obtained could be expressed in equation form as

$Y_{22} = 376.6344 + 0.9412Y_{22} + 1.0767X_{12} + 24.3394X_{13} + 207.0627X_{14} + 3727.3567X_{15} + 0.7922X_{17}$

R square = 0.6958

F value = 12.3696

N = 40

References

Adinew, T., Abate, R., Reddy, K., Mahesh, N., and Acoth, L. (2007). 'Significance and Efficiency of Agricultural Credit in Karnataka's Agricultural Economy'. *Finance India*, 21(1): 223–232.

Agarwal, N.L., and Kumawat, R.K. (1974). 'Potentialities of Increasing Farm Income Through Credit and New Technology'. *Agriculture Situation in India*, 28(9): 489–493.

Anjani Kumar, D., Singh, K., and Kumar, P. (2007). 'Performance of Rural Credit and Factors Affecting the Choice of Credit Sources'. *Indian Journal of Agricultural Economics*, 62(3): 297–313.

Gandhimathi, A., and Vanitha, S. (2010). 'Determinants of Borrowing Behaviour of Farmers–A Comparative Study of Commercial and Co-operative Banks', Avinashilingam University for Women, Coimbatore, Tamil Nadu.

Jeyakumar, P.M. (1999). 'A Micro Level Study on Poverty and Food Insecurity of Rural Households in Kancheepuram District of Tamil Nadu', (Unpublished M.Sc (Agri) Thesis, Submitted to Department of Agricultural Economics, Tamil Nadu Agricultural University, Coimbatore.

Kamalakannan, K., and Namasivayam, N. (2007). 'Institutional Agricultural Credit in Post Reform Period'. *Southern Economist*, 13–15.

Koutsoyiannis, A. (2000). *Modern Microeconomics*. MacMillan Ltd., London, pp. 105–106.

Naidu, V.B., and Sankar, A.S. (2007). 'Factors Influencing Agricultural Credit: A Case Study'. *Southern Economist*, 46(8): 28–30.

Prabha, T., Goswami, K., and Chatterjee, B. (2009). 'Impact of Infrastructure and Technology on Agricultural Productivity in Uttar Pradesh'. *Agricultural Economics Research Review*, 22: 61–70.

Innovation distinguishes between a leader and a follower.

—Steve Jobs

Measurement of Technical Efficiency: A Comparative Study of Private and Foreign Sector Banks in India

SIMMI ARORA AND POOJA SHARMA

Banking sector is one of the most important pillars of the economy which fosters the economic growth and development of the nation. Presently, the contribution of service sector is more than 65 per cent at world level and banking sector contributes very significantly to the growth of service sector. It remains the principal resource for households, small and medium enterprises and also caters to the need of the large scale industries. Indian banking sector predominately ruled by government was liberalized in the early 90s. The competitive forces coupled with the entry of many private sector banks and then foreign sector banks posed a challenge for public sector banks to perform better or at least at par. The study aims to analyse the efficiency of the all private sector banks and foreign banks operating in India and further investigates the difference in the efficiency level among different ownership groups using a DEA approach and other statistical tools. Study finds that there is no significant difference in old and new private sector banks while old private sector banks reported greater efficiency in comparison to foreign sector banks. Further, the relationship between non-performing assets (NPAs) and efficiency indices also reported a low negative correlation as both these sector of banks take greater caution in granting loans and follows a strong recovery mechanism.

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Introduction

Services sector has now become a crucial supporter to the economy. The contribution of services sector is significant and the banking sector contribution is substantial in services sector. Hence, it poses a challenge for the banking industry to perform in an extraordinary manner to achieve the needed pace of growth. India is the second fastest growing services with its CAGR at 9.0 pc, just below China at 10.9 pc, during the period of 2001–2012 (Economic Survey, 2013–2014). The share of services in the Gross Domestic Product (GDP) of India has increased to 56.5 pc (at factor cost) in 2012–2013 from 33.3 pc in the mid of the twentieth century.

Financial services of the country comprise commercial banks, financial institutions, stock exchanges and a wide range of financial instruments. The Indian banking industry is the backbone of the country's economy as it always played a vital role in the prevention of an economic catastrophe from reaching a terrible stage in the country. It has achieved enormous appreciation for its strength, particularly in the wake of the worldwide economic disasters, which pressed its worldwide counterparts to the edge of a downfall. It works like fuel to the engine of growth of economy. Banking and insurance jointly share 11.8 pc (at factor cost) in 2012–2013 services of the country (pg. 176, Economic Survey 2013–2014). The sector has envisaged tremendous growth over time and gets a completely different and much techno advanced picture in present times. E-banking, m-banking, customer satisfaction, technology, green banking, financial inclusion, priority sector lending, globalization and branch expansion

and competition totally altered the structure and functioning of traditional banking system.

After Independence, the banking sector of India was not in a very good position. There was a need to revive the whole economy with a strong and competent banking sector that can lubricate the wheels of the real economic growth and development. The financial repression started with the nationalization of 14 commercial banks in 1969. Then the influential reports by the Chakarvarty Committee (1985), Vaghul (1987), and Narasimham Committee (1991) set the blueprints for financial reforms. Finally, in 1991, the Indian economy became an open economy with the introduction of LPG (Liberalization, Privatization and Globalization) which changed the whole financial structure of Indian economy. It brought fierce competition, efficiency and new and improved technology which changed the bank's traditional portrait. Since the 90s, the banking sector has undergone many changes—many new banks entered the market, some old bank left out and many joined their hands through mergers or acquisitions.

In the early era of LPG, Indian banking sector was dominated by public sector banks. The present structure of Indian banking system comprised two main categories: Scheduled Commercial Banks and Scheduled Cooperative Banks. These two categories further comprised Public Banks, Private Banks, Foreign Banks, RRBs (Regional Rural Banks), Scheduled Urban Cooperative Banks and Scheduled State Cooperative Banks. The present study focuses on Private Sector Banks and Foreign Sector Banks. Private Sector Banks are further divided in two categories, i.e., Old Private Banks (13) and New Private Banks (7) (Reserve Bank of India). The only difference between these two categories is that the old sector banks existed prior to the nationalization of banks in 1969 and kept their independence because they were either too small or specialist to be included in nationalization. The new private sector banks are those that have gained their license after the 1990s liberalization process. But as far as their working culture is concerned, difference in technology and management of these two significantly differ. Thus these two have been taken as a separate category in this study.

Objectives of the Study

The present study intends to measure the following objectives:

1. To analyse the efficiency of private and foreign sector banks in India.

2. To find out if there is any significant difference in the efficiency of old private sector banks, new private sector banks and foreign banks.

3. To find out the relationship between non-performing assets (NPAs) and efficiency of banks.

The study is divided in sections to achieve the desired objectives. The first section gives a brief introduction of the evolution and the current banking scenario. The second section covers review of the related literature to state the relevance and need of the study. The third section explains the logical approach adopted in methodology and the fourth section consists of analysis and interpretations, findings and discussions along with the implications and limitations of the study.

Review of Literature

The efficiency of banking system contributes in an extensive way for higher economic growth in any country. Thus, the studies undertaken in this nature are very relevant to policy makers, industry leaders and all other sections related to banks. This section puts a light on the past studies done by eminent researchers in evaluating the efficiency and productivity of banks at domestic and international level.

Meeker and Laura (1987) using the regression analysis compared the NPA statistics with examiner classifications of assets and suggests that the NPA information can be a useful aid in analysing the asset quality of banks. Bhattacharyya et al. (1997) found that the publicly owned banks were the most efficient, and the private banks the least efficient in terms of utilizing the resources at their disposal to deliver financial services to their customers. The most striking revelation in the study is that over the study period, efficiency of foreign banks has been on the rise and of the publicly owned banks on the decline. Foreign banks were found to be least efficient in the beginning of the sample period but by the end of the study period, the efficiency estimates were similar to that of the publicly owned banks. Das (2000) observed that the State Bank of India (SBI) and its associate banks have performed better than nationalized banks, and displayed lower dispersion as compared to nationalized banks. Using regression, he found that size and non-performing loans were negatively correlated with efficiency estimates. Sathye (2001) calculated the efficiency estimates using the Data Envelopment Analysis (DEA) methodology using two different sets of inputs and outputs.

The study shows that as per one model, public sector banks have a higher mean efficiency score as compared to the private sector and foreign commercial banks in India. As per the other model, they have a lower efficiency score than the foreign banks, but still score higher than the private sector commercial banks. Sanjeev (2006) makes an attempt to evaluate the technical efficiency of the banks operating in India in the post-reform era. A non-parametric linear programming-based technique DEA is used to determine the technical efficiency of the public, private and foreign banks operating in India. The researcher has also investigated the relationship between the efficiency and the percentage of NPAs of the commercial banks operating in India. The efficiency of banks has significantly improved over time and foreign banks have outperformed both private and public sector banks. Competition has increased sharply amongst the banks in the post-reform era. The study evidenced significantly that banks have responded positively to the reform and it is concluded that the Indian banking sector is likely to witness a greater thrust in reforms in the coming years. Das (2010) analyses the performance of the Indian banking sector after the financial liberalization and also aims to measure the efficiency of the banking sector during the post-reform period. Using a stochastic Frontier Approach (cost frontier) over the panel data of 60 Indian commercial banks the study finds no significant change in the cost efficiency of the public sector banks. Further the comparison among different ownership categories domestic private banks is found to be more efficient in comparison to its counterparts. While public sector banks are found to be more cost efficient than the private and the foreign banks. Shahroudi and Assimi (2010) analysed the efficiency of 29 bank branches of GuilanSaderat Bank using two different models of DEA, i.e., BCC and CCR model. The CCR model reported 27.5pc branches are efficient while the BCC model identified 44.4pc branches are efficient and 55.6pc are inefficient for the same period. Kavitha (2012) studied the impact of NPAs on the profitability of bans in India. Credit of total advances was in the form of doubtful assets in the past and has an adverse impact on profitability of all public sector banks affected at very large extent when NPAs work with other banking and also affect productivity and efficiency of the banking groups. The study observed that there is increase in advances over the period of the study. Raiyani and Bhatasna (2013) investigate the technical efficiency of 49 commercial banks and report that foreign banks were slightly more efficient than public and private sector banks while the study was indifferent about the

efficiency of public and private sector banks. Vinod (2013) analysed the efficiency of private sector banks in India for the period 2008–2012 and finds the Catholic Syrian Banks tops the efficiency chart from 2008 to 2011 and which was replaced by Dhanlaxmi Bank in the year 2012. Murat and Kurtaran (2013) analysed the efficiency of 13 commercial banks in India. Foreign-owned commercial banks were found to have lower efficiency scores compared to both state-owned and privately owned commercial banks. Further, the results also suggest that inefficient banks should especially improve their non-cash loans and should focus on their annual personnel expenditure. Gupta et al. (2008) measured and compared the productive efficiency of Indian banking sector for the period 1999–2003. The researchers used the non-parametric frontier methodology of DEA and further applied the TOBIT model to identify the determinants of efficiency scores. SBI and its group reported the highest efficiency scores, followed by private banks and other nationalized banks. Further, the TOBIT model identified a significantly positive impact of capital adequacy ratio on the productive efficiency of banks whereas the study of Tandon et al. (2014) reported the non-interest income as the most important determinant of productive efficiency of banks in India. Performance of the public and private sector banks is almost at par with respect to technical efficiency whereas the foreign banks lays scope for improving scale efficiency.

The related literature has shown a variety of studies undertaken for measuring efficiency of banks in India. But a lag was found because the studies mainly focused on public sector banks or either the other banks as a whole, which leaves a wide scope for measuring efficiency over other ownership structures. Thus a deep analysis is undertaken here to measure the efficiency of private sector and foreign banks working in India.

Research Methodology

The present study evaluates the technical efficiency of private sector banks working in India using the DEA approach. The study is purely based on secondary data, which is drawn from the annual reports of corresponding banks, various publications and online database maintained by the Reserve Bank of India (RBI) and Indian Banks' Association (IBA). The study period is for five years, i.e., 2008–2013. All old (13) and new (7) private sector banks are included in the study while 25 banks are taken from the category of foreign sector banks which are working for a longer period in India.

DEA Framework

The DEA is a non-parametric approach which evaluates the relative efficiency of DMUs (Decision Making Units, Banks in our case) operating in the same business environment. The work of Farrel (1957) on 'the measurement of productive efficiency' laid the foundation for measuring inefficiency with a frontier. After that, generalizing Farrel's work, the model of DEA is developed by Charnes et al. (1978) known as CCR model which evaluates the efficiency of DMUs considering Constant Returns to Scale. This model is further extended by Banker et al. (1984) to consider impact of returns to scale, i.e., Variable Return to Scale (either increasing or decreasing) within the group of DMUs to be analysed. Thus, the DEA is a non-parametric method which uses the linear programming methodology to measure the efficiency of DMUs. It evaluates the relative efficiency of a set of organizations in their use of multiple inputs to produce multiple outputs, where the efficient production function is not known or easily specified. It identifies the relatively more efficient or best practice subsets of firm. The model is run repetitively with each firm appearing in the objective function to identify the individual efficiency scores of all DMUs. If a unit scores E = 1, implies relative efficiency (or best practice unit) and E < 1, implies relative inefficiency of that particular unit (Colwell and Davis, 1992).

Efficiency = *Weighted Sum of Outputs/Weighted Sum of Inputs*

Selection of Inputs and Outputs

One of the vital tasks in the DEA approach is a selection of variables for measuring efficiency of firms. The researcher can select these variables according to the nature of industry and objective of study. Unlike the manufacturing sector, service industry's inputs and outputs are not well defined. There are two approaches that are used predominantly for the selection of variables in banking sector: Production Approach and Intermediation Approach. According to the production approach banks are treated as firms which use capital and labour as inputs to produce different categories of deposits and loans. On the other hand, Intermediation Approach considers banks as intermediaries of financial services rather than producers of loans and deposits account services. Although there is no perfect approach both the approaches have been used by different researchers. The present study has undertaken the intermediation approach for variable selection because

this approach includes interest expenses in itself which accounts for one-half to two-third of total cost (Tandon et al., 2014). After going through a deep analysis of choice of variables by researchers and considering the availability of data the selection of variables is made. The inputs are taken in the form of Deposits, Interest Expenses and Operating Expenses while the outputs are Advances, Interest Income, Other Income and Investment (Gupta et al., 2008; Das 2000; Sathye, 2001). Further, regarding the choice of input- or output-oriented model the study intakes the input-oriented model as it identifies the efficient consumption of resources while holding outputs constant.

Analysis and Interpretation

The average efficiency scores for 2008–2013 are reported in Table 1. The table clearly reveals the point that only five banks were found to be efficient over the study period and all of them are foreign banks. Further, though private banks failed to secure its position in the top, they still performed at par and maintained their position in the middle order, which left the foreign banks in the last positions.

Table 2 reveals that none of the groups were found to be efficient over the study period because as per the DEA benchmark no group has achieved the efficiency frontier, i.e., 1. But an inter comparison of the table reveals that technical efficiency of old private banks is slightly more than new private banks and foreign sector banks. Further, all the ownership structures have seen wide fluctuations in the efficiency scores. On an average under CRS, old private sector banks depict 93.55 pc efficiency, new private sector banks have 90.33 pc efficiency and foreign banks are 84.34 pc efficient. It can also be interpreted as the old private banks need to reduce its inputs by 6.45 pc to achieve the efficiency score of 1 which is the case when all the DMUs would lie on the efficiency frontier. The same is 9.67 pc in case of new private banks and 15.66 pc in case of foreign banks.

After observing and analysing the descriptive statistics given in Table 3, it is apparent that overall technical efficiency is highest in case of old private banks which are closely followed by new private banks and lastly preceded by foreign counterparts. As it is clear from the table, where foreign banks succeed to gain efficiency score of 1 (also shown in rank score of Table 1) the minimum score is also achieved by foreign bank (.4644 by Bank of Ceylon) and that is why the standard deviation (.1397) of foreign banks is high in comparison to its counterparts.

Table 1: Average Efficiency Scores and Ranks of Banks

Rank	Bank Name	Efficiency	Rank	Bank Name	Efficiency
1	AMERICAN EXPRESS BANKING CORPORATION	1.000000	24	INDUSIND BANK	0.904199
1	ANTWERP DIAMOND BANK	1.000000	25	BANK OF TOKYO MITSUBISHI UFJ	0.888816
1	BANK INTERNASIONAL INDONESIA	1.000000	26	NANITAL BANK	0.878416
1	JP MORGAN CHASE BANK	1.000000	27	KOTAK MAHINDRA BANK	0.876278
1	SOCIETE GEENRALE BANK	1.000000	28	TAMILNADU MERCENTALIE BANK	0.87347
6	KARNATKA BANK	0.993113	29	FEDRAL BANK	0.8552
7	DHANLAXMI BANK	0.991337	30	ABU DHABI COMMERCIAL BANK	0.853319
8	CATHOLIC SYRIAN BANK	0.985711	31	AXIS BANK	0.844532
9	RATNAKAR BANK	0.972234	32	BANK OF AMERICA	0.834265
10	YES BANK	0.970593	33	MIZUHO CORPORATE BANK	0.830338
11	SOUTH INDIAN BANK	0.969852	34	MASHREQBANK	0.822313
12	BARCLAYS BANK	0.967832	35	BNP PARIBUS	0.813184
13	DEVELOPMENT CREDIT BANK	0.966757	36	HDFC BANK	0.810777
14	DBS BANK	0.96369	37	SONALI BANK	0.803817
15	STATE BANK OF MAURITIUS	0.962406	38	BANK OF BAHRAIN AND KUWAIT	0.788163
16	LAKSHMI VILAS BANK	0.952014	39	DEUTSCHE BANK	0.744841
17	ICICI BANK	0.950062	40	HSBC	0.725709
18	BANK OF NOVA SCOTIA	0.948243	41	KRUNG THAI BANK	0.719851
19	KARUR VYSYA BANK	0.942392	42	CITIBANK	0.691633
20	CHINATRUST COMMERCIAL BANK	0.941077	43	STANDARD CAHRTEDERED BANK	0.684302
21	CITY UNION BANK	0.922491	44	AB BANK	0.637702
22	ING VYSYA BANK	0.920092	45	BANK OF CEYLON	0.464484
23	JAMMU AND KASHMIR BANK	0.90561			

Source: Author's self calculation.

Table 2: Mean Efficiency Scores of Banks over Ownership Structures for the Period 2008–2013

Years	Private Sector Banks (Old)	Private Sector Banks (New)	Foreign Sector Banks
2008-09	0.962069	0.968133	0.833765
2009-10	0.890648	0.841028	0.869016
2010-11	0.950347	0.916264	0.868369
2011-12	0.908851	0.860949	0.780447
2012-13	0.965754	0.930196	0.865610
Average Efficiency	0.935533	0.903314	0.843439

Source: Author's self compilation.

Table 3: Descriptive Statistics of Efficiency Measures over Ownership Structures

Statistics	Private Sector Banks (Old)	Private Sector Banks (New)	Foreign Sector Banks
No. of Banks	13	7	25
Mean	.9355	.9033	.8434
Std. Deviation	.04713	.06258	.13975
Minimum	.86	.81	.46
Maximum	.99	.97	1.00

Source: Authors' self compilation.

Table 3 reveals that old private banks are leading in overall technical efficiency score. The statistical test that can be used for analyzing the difference in the efficiency scores of the three bank groups can be either parametric or non-parametric depending upon the normality of the data where parametric tests assume that the data is normally distributed and non-parametric tests don't go with the assumption of normality. Therefore, statistical tests for comparing efficiency would either be (ANOVA) or (Kruskal Wallis H test). At this stage, the normality of the data has been checked using Kolmogorov-Smirnov and Shapiro-Wilk test where the data reported to be non-normally distributed (Table 4).

As the study consists of only 45 units (small sample) the Shapiro Wilk test value will be considered here. Null hypothesis has been rejected as the value of p is less than 0.05. Thus it has been concluded that the data is not

Table 4: Tests for Normality

	Tests of Normality					
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Efficiency Score	.150	45	.013	.872	45	.000
a. Lilliefors Significance Correction.						

Table 5(a): Kruskal-Wallis H Test

	Banks	N	Mean Rank
Average Efficiency	1.00	13	28.69
	2.00	7	23.43
	3.00	25	19.92
	Total	45	

Source: Author's self calculation.

Table 5(b): Test Statistics[a,b]

	Efficiency Scores
Chi-Square	3.829
Df	2
Asymp. Sig.	.147

(*Source*: Author's Self Calculation)
Notes: a. Kruskal Wallis H Test;
b. Grouping Variable: Banks
Source: Author's self calculation.

normally distributed which directly effects the choice of statistical test used for further analysis.

Following the results of Table 4, the data is not normally distributed and meeting other condition Kruskall Wallis H Test from the non-parametric category of statistical tests is the obvious choice to achieve the second objective of the study.

Following the interpretation of the results of Tables 5(a) and 5(b), we see that the p value of OTE score is more than 0.05, so we fail to reject the null hypothesis (at 95 pc confidence level) and conclude that there is no significant difference in the performance of the new private banks, old private banks and foreign banks. Following the results of Kruskal Wallis test the post-hoc analysis has been conducted to deeply understand the difference in efficiency among the different ownership groups. Dunn-Bonferroniisis the post hoc analysis in case of KWH test.

Table 6 clearly reports the significant difference in efficiency of old private sector banks and foreign banks which imply old private banks are more technically efficient in comparison to foreign sector banks. While all other combinations fails to reports any significant difference in their efficiency level. Here, the results are of post hoc are contradicted with KW H test which reveals all the three groups are indifferent.

Table 6: Post-hoc Analysis among Different Ownership Structures (Dunn Bonferroni Test)

(I) VAR00002	(J) VAR00002	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	.03220	.05198	1.000	-.0976	.1620
	3.00	.09705*	.03819	.045	.0017	.1924
2.00	1.00	-.03220	.05198	1.000	-.1620	.0976
	3.00	.06485	.04763	.542	-.0540	.1837
3.00	1.00	-.09705*	.03819	.045	-.1924	-.0017
	2.00	-.06485	.04763	.542	-.1837	.0540

*The mean difference is significant at the 0.05 level.

Relationship between NPAs and Efficiency of Banks

NPA is defined as an advance where payment of interest or repayment of installment of principal (in case of term loans) or both remains unpaid for a certain period. In India, the definition of NPAs has changed over time. According to the Narasimham Committee Report (1991), those assets (advances, bills discounted, overdrafts, cash credit etc.) for which the interest remains due for a period of four quarters (180 days) should be considered as NPAs. Subsequently, this period was reduced, and from March 1995 onwards the assets for which the interest has remained unpaid for 90 days were considered as NPAs. A number of studies have established a direct negative linkage between NPAs and performance of banks and bank failure. The failure of many banks was characterized due to the poor management of credit and loans, debt recovery and lesser efficiency. Jemric and Vujcic (2002) in their study clearly find that, those Croatian Banks are more technical efficient have lesser amount of non-performing assets. Sanjeev (2006) in his study finds a negative relationship between NPAs and efficiency (-0.2861) and further highest negative relationship between both is reported in case of public sector banks (-0.52358). The percentage of gross NPAs (GNPAs) for the banking sector was 3.9 per cent of advances in financial year 2013–2014 and expected to rise 4-4.2 per cent in 2014–2015 as reported by ICRA. The given table shows here the relationship between efficiency index and NPA of the banks (here net NPA to advances ratio has been taken).

Table 7 reports a low negative correlation between efficiency index and NPAs (-0.159). As the ratio is not two high the reason being all private and foreign banks are very cautious in granting credit and recovery mechanism of debt is also very strong. While this case is not very much same in public sector banks.

Table 7: Relationship between NPAs and Efficiency Index

Correlations				NPA	Efficiency Index
Spearman's rho	NPA	Correlation Coefficient		1.000	-.159
		Sig. (2-tailed)			.296
		N		45	45
	Efficiency Index	Correlation Coefficient		-.159	1.000
		Sig. (2-tailed)		.296	
		N		45	45

Source: Authors' self compilation.

Discussion

The findings of the study suggest that the overall old private sector banks are more efficient than foreign sector banks while no significant difference was find out between old and new private sector banks. After a thorough study and review of core studies in this field it-has been identified that greater reduction in expenses is required. All the three groups need to reduce their inputs to achieve an efficiency frontier (on an average 10.59 pc reduction is required). Further, non-interest income is one of the key factors which determine the efficiency of banks so these need an extra attention of policy maker and management (Sanjeev, 2006; Tandon et al., 2014). Secondly, where private sector banks performed at par (neither too high nor too low), foreign banks have shown a wide dispersion in their efficiency index. The results of the study contradict where foreign banks were found to be relatively efficient one and private sector banks lags behind in the race (Sathye, 2001). The reason being over the period all the banks have adopted new technologies and due to other improvements private sector banks improved their efficiency indices.

Limitations and Scope for future study

A greater caution has been taken during the study; still some key points needed an explanation. First the choice of variables, there is always a debate about the selection of variables. For this a deep analysis of the review has been done and then the researchers have selected the inputs and outputs for the present study.

Implications and Scope for Future Research

The study will contribute towards the eminent literature in the field of banking and help the policy makers to find out loopholes in their efficiency so that they can meet their efficiency frontier. For the future researches, researcher can adopt an inter-country comparison so that some fruitful ideas for improving the efficiency of country's banking sector can be brought in to light.

References

Berger, A.N., and Humphrey, D.B. (1997). 'Efficiency of Financial Institutions: International Survey and Directions for Future Research'. *European Journal of Operational Research*, 98, 175–212.

Bhattacharyya, A., Lovell, C.A.K., and Sahay, P. (1997). 'The Impact of Liberalization on the Productive Efficiency of Indian Commercial Banks'. *European Journal of Operational Research*, 98, 332–345.

Charnes, A., Cooper, W.W., and L. Edwardo, R. (1978). 'Measuring the Efficiency of Decision Making Units'. *European Journal of Operational Research*, 2(6), 429–444.

Chhikara, S.K., and Rani, S. (2013). 'A Study of Efficiency Measurement of General Insurers of India through the Application of Data Envelopment Analysis (DEA)'. *Gurukul Business Review*, 9, 69–79.

Colwell, R.J., and Davis, E.P. (1992). 'Output and Productivity in Banking'. *Scandinavian Journal of Economics*, 94, 111–129.

Das, A. (2000). 'Technical, Allocative and Scale Efficiency of Public Sector Banks in India. Reserve Bank of India'. *Occasional Papers*, 18(2&3), 279–301.

Farrell, M.J. (1957). 'The Measurement of Productive Efficiency'. *Journal of the Royal Statistical Society, Series A*, CXX, Part 3, 253–290.

Gupta, O.K., Doshit, Y., and Chinubhai, A. (2008). 'Dynamics of Productive Efficiency of Indian Banks'. *International Journal of Operations Research*, 5(2), 78–90.

Isik, I., and Hassan, M.K. (2003). 'Financial Deregulation and Total Factor Productivity Change: An Empirical Study of Turkish Commercial Banks'. *Journal of Banking & Finance*, 27, 1455–1485. Online available at www.sciencedirect.com.

Jalan, Bimal. (2002). *Indian Banking and Finance-Managing New Challenges*. Banking Economists Conference, Kolkata, 14 January 2002.

Raiyani, J.R., and Bhatasna, R.B. (2013). 'A Study of Technical Efficiency of Indian Banks: A Comparative Study'. *BVIMR Management Edge*, 6(1), 1–13.

Rajan, S.S., and Pandit, V. (2012). 'Efficiency and Productivity in Indian Banking'. *Margin-The Journal of Applied Economic Research*, 6(4), 467–486.

Sanjeev, G.M. (2006). 'Data Envelopment Analysis for Measuring Technical Efficiency of Banks'. *Vision-The Journal of Business Perspective*, 10(1), 13–27.

Sathye, M. (2001). 'X-efficiency in Australian Banking: An Empirical Investigation'. *Journal of Banking and Finance*, 25, 613–630.

Shahroudi, K., and Assimi, S. (2010). 'Performance Evaluation of Banks Using DEA (Case study: GuilanSaderat Bank branches)'. *Iranian Journal of Optimization*, 2, 375–387.

Tandon, D., Tandon, K., and Malhotra, N. (2014). 'An Evaluation of the Technical, Pure Technical and Scale Efficiencies in the Indian Banking Industry Using Data Envelopment Analysis'. *Global Business Review*, 15(3), 545–563.

If somebody offers you an amazing opportunity but you are not sure you can do it, say yes—then learn how to do it later!

—**Richard Branson**

Feature

Agricultural Production in Uttar Pradesh in the New Economic Regime: An Empirical Analysis Based on Cobb Douglas Production Function

RAUSHAN KUMAR, SHARAD RANJAN AND CHHAYA CHANCHAL

This paper evaluates the progress of UP agriculture since 1980s. Cobb Douglas Production Function approach is used to analyse the determinants of agricultural productivity from the periods 1986–87 to 2007–08, i.e., during pre and post-WTO[1] periods. The estimation of the aggregate agricultural production function with both slope and year dummies indicates that UP agriculture sector is in Decreasing Returns to Scale phase after the WTO agreements, reflecting that the input availability is under strain during the same period.

Introduction

The agricultural sector contributes significantly to the Indian economy in terms of income and employment. Despite the fact that Uttar Pradesh (UP) is the largest producer of food grains amongst Indian states, the study of its agricultural productivity has not been accorded due significance. The economy of UP is characterised by the dominance of agricultural sector. Nearly, 73 per cent of UP's population depends on agriculture for their livelihood. As agriculture is the main source of income generation, a bad crop year in the state (or in any district), sets a danger to the food security of the people. Since the green revolution, measures have been taken by the Government of India and also by all state governments to accelerate the production of food grains.

The WTO agreements initiated in 1995 largely focused on fiscal adjustments, foreign trade and investment, industry and financial sectors. Some of the measures—especially reduction of subsidies, tariff reduction and trade liberalization—do affect agriculture. There is widespread complaint and understanding that the Government of India has minimised the subsidy support to agriculture for reducing public expenditure under the pressure of WTO. The reduction in fertiliser subsidies has raised the input costs for agriculture, giving rise to trepidation that fertiliser use and, consequently, agriculture production would be adversely affected. Banking reforms have also strained the banks to curtail risk prone credit that banks provide to the agriculturalists.

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[1]WTO means World Trade Organization.

This paper is an attempt to examine two distinct queries. *Firstly,* to explore the determinants of agricultural productivity through the Cobb Douglas production function. As there are many other important variables which explain the agricultural productivity in a significant manner, this study is limited to five factors, namely, agricultural productivity, labour, irrigation, fertiliser and rainfall. In our analysis, agricultural productivity is the per hectare agricultural output at 90–93 constant prices. Labour is the number of agricultural workers per hectare. Irrigation is the proportion of area irrigated (irrigated area/hectare). Fertiliser is the fertiliser consumption per hectare (kgs/ha). Rainfall is the rainfall during the Kharif and in the Rabi seasons. The major source of data for the analysis is collected from Directorate of Agricultural Statistics, Ministry of Agriculture, Uttar Pradesh (various issues). The study covers the period from 1986–87 to 2007–08.

Secondly, this paper attempts to determine the state of returns to scale in the state's agricultural sector productivity, particularly after the WTO agreements during the pre- and post-WTO periods.

Production of Food Grains and Changes in Cropping Pattern

Table 1 suggests that the period 1986–87 to 1995–96 marks a turning point in UP's agricultural development. However, in the post-WTO period, the agricultural growth

Table 1: Trends[2] in Production of Major Food Grain Crops (In Percentages)

Crops	Before WTO	After WTO
	1986–87 to 1995–96	1996–97 to 2007–08
Rice	5.70	3.12
Wheat	3.40	2.66
Pulses	0.65	-0.83
Total Food Grain Production	3.55	2.28

Source: Department of Agricultural Statistics, Uttar Pradesh.

Table 2: Cropping Pattern in the State of Uttar Pradesh

Period	Rice	Wheat	Pulses	Total Food Grains	Non-food Grains
1986–87	20.42	31.49	11.64	83.30	16.70
1995–96	20.32	33.29	11.38	79.43	20.57
2007–08	23.86	36.37	10.55	80.16	19.84

Source: Department of Agricultural Statistics, Uttar Pradesh.

has declined. The growth in production with respect to total food grain crops witnessed during 1986–87 and 1995–96 was 3.55 per cent in comparison to 2.28 per cent growth observed in 1996–97 to 2007–08. The growth of major food grain crops, such as rice and wheat, was considerably higher at 5.70 and 3.40 per cent during 1986–87 to 1995–96, as compared to 3.12 and 2.66 per cent, which was observed between 1996–97 and 2007–08. Pulses too grew at .65 per cent but its growth suffered a decline thereafter. The changes in cropping pattern in the state are depicted in Table 2. Inter-temporal comparison shows that the percentage of area under food crops has declined during the period 1986–87 to 2007–08. Thus, there is a shift towards non-food commercial crops over time. However, the shift towards commercial crops is negligible at less than one per cent.

Conceptual Framework

In most of the empirical studies on agricultural productivity, the Cobb-Douglas production function has extensively been employed to measure the nature and contribution of individual factors to output. Studies of Carrasco-Tauber and Moffitt (1992) and Das et al. (2006) are the most well-received studies in which agricultural production function is empirically tested using the same methodology. To gauge the impact of inputs on UP agricultural productivity, we have used first differenced estimator model[3] (Wooldridge, 2006) which is specified as following. Table 3 shows the variable explanations.

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[2]Trend Growth Rate has been taken in the entire analysis.

[3]In first differenced equation, each variable is differenced over time. For a cross sectional observation i, we write the two years as

$y_{i2} = (\beta_0 + \alpha_0) + \beta_1 x_{i2} + a_i + u_{i2}$ (t = 2)

$y_{i1} = \beta_0 + \beta_1 x_{i1} + a_i + u_{i1}$ (t = 1)

By subtracting second equation from first, we obtain

$y_{i2} - y_{i2} = \alpha_0 + \beta_1 (x_{i2} - x_{i1}) + (u_{i2} - u_{i1})$,

$\Delta y_i = \alpha_0 + \beta_1 \Delta x_i + \Delta u_i$,

where Δ denotes the change from t = 1 to t = 2. The unobserved effect, ai has been differenced away. Also the intercept term is actually the change in the intercept from t = 1 to t = 2.

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Table 3: Variables and definitions

Δ (lpdty)	*One period difference in log of agricultural productivity at 1990-93 constant prices*
Δ lfer	*One period difference in log of the fertiliser consumption per hectare (Kgs/ha)*
Δ lfer_d	*One period difference in log of the fertiliser consumption per hectare in phase two*
Δ llab	*One period difference in log of number of agricultural workers per hectare*
Δ llab_d	*One period difference in log of number of agricultural workers per hectare in phase two*
Δ lrn_kh	*One period difference in log of the rainfall in the Kharif season*
Δ lrn_kh_d	*One period difference in log of the rainfall in the Kharif season in phase two*
Δ lrn_rbi	*One period difference in log of the rainfall in the Rabi season*
Δ lrn_rbi _d	*One period difference in log of the rainfall in the Rabi season in phase two*
Δ lirr_ar	*One period difference in log of the proportion of area irrigated (irrigated area/hectare)*
Δ lirr_ar_d	*One period difference in log of the proportion of area irrigated in phase two*
Yr_j	*Difference in year dummy when year is j & j = 1983,1984......, 2003*
GSDP	*Gross State Domestic Product*
L	*Log*
T	*Year*
CD	*Cobb Douglas*
WTO	*World Trade Organisation*

$$\Delta\log(pdty_{it}) = \alpha_0 + \beta_1 \Delta\log(fer_{it}) + \beta_2 \Delta\log(lab_{it}) + \beta_3 \Delta\log(rn\_kh_{it}) + \beta_4 \Delta\log(rn\_rbi_{it}) + \beta_5 \Delta\log(irr\_ar_{it}) + \alpha_3 d\, yr\_3_t + \alpha_4 d\, yr\_4_t + \alpha_5 d\, yr\_5_t + \alpha_6 d\, yr\_6_t + \alpha_7 d\, yr\_7_t + \alpha_8 d\, yr\_8_t + \alpha_9 d\, yr\_9_t + \alpha_{10} d\, yr\_10_t + \alpha_{11} d\, yr\_11_t + \alpha_{12} d\, yr\_12_t + \alpha_{13} d\, yr\_13_t + \alpha_{14} d\, yr\_14_t + \alpha_{15} d\, yr\_15_t + \alpha_{16} d\, yr\_16_t + \alpha_{17} d\, yr\_17_t + \alpha_{18} d\, yr\_18_t + \alpha_{19} d\, yr\_19_t + \alpha_{20} d\, yr\_20_t + \alpha_{21} d\, yr\_21_t + \alpha_{22} d\, yr\_22_t + \Delta u_{it} \quad ....(1)$$

where i denote districts and t denotes time. Coefficients β_i (i = 1, 2, 3, 4, and 5) are the elasticities of the respective variables with respect to agricultural productivity. The value of elasticity measure the per cent change in agricultural productivity (pdty) with 1 percent change in explanatory variable. As suggested by Wooldridge (2006), 'the model is estimated using panel data techniques because these allow for the unobserved effect, a_i to be correlated with explanatory variables' like fertiliser, irrigation rainfall and workers. As the model describes a linear relationship and assuming a random sample from the cross section; an expected value of the idiosyncratic error, given the explanatory variables in all time periods and the unobserved effect of zero; no perfect linear relationship among the explanatory variables; no heteroskedasticity in the idiosyncratic error term; and uncorrelated idiosyncratic errors, the economic model will be estimated using OLS on the first differenced estimator (Wooldridge, 2006). *Due to high positive correlated idiosyncratic errors, we have not used the economic model using OLS on the fixed effect transformation.* The summation of above β parameters gives information about returns to scale; it means that, the response of the output to proportionate change in inputs. If sum of these parameters is 1, then it is assumed that there is a *Constant Return to Scale*; if the sum is less 1 it means there is *Decreasing Returns to Scale* and if the sum is greater than 1 it means there is *Increasing Returns to Scale* (Berndt,1996). Dummy variable for each year has been included to account for secular changes that are not being modelled (Wooldridge, 2006).

Results

Table 4 reveals the result of our analysis. Our results point that fertiliser and workers show positive and significant effect on the agricultural productivity. The worker coefficient, i.e., the elasticity of workers per hectare input with respect to output per hectare is 0.16. It suggests that if the worker input increases by 1 per cent, the output increases in 0.16 percent. From the table it is clear that the worker is an important variable with higher coefficient value. The

Table 4: First Differenced Estimates of Equation (1)

Variables	Coefficients	Standard Error
Constant	-0.00	(0.01)
Δlifer	0.09***	(0.03)
Δlab	0.16**	(0.07)
Δlrn_kh	0.00	(0.01)
Δlrn_rbi	0.00	(0.00)
Δlirr_ar	0.03	(0.02)
d Yr_3	0.07***	(0.02)
d Yr_4	0.03	(0.02)
d Yr_5	0.00	(0.03)
d Yr_6	0.02	(0.02)
d Yr_7	0.01	(0.03)
d Yr_8	0.03	(0.02)
d Yr_9	0.10***	(0.02)
d Yr_10	-0.04	(0.03)
d Yr_11	0.05**	(0.02)
d Yr_12	-0.04	(0.04)
d Yr_13	0.00	(0.02)
d Yr_14	0.01	(0.03)
d Yr_15	0.04	(0.03)
d Yr_16	0.00	(0.03)
d Yr_17	0.08***	(0.01)
d Yr_18	-0.02	(0.02)
d Yr_19	0.03	(0.02)
d Yr_20	0.10***	(0.03)
d Yr_21	-0.06	(0.02)
d Yr_22	-0.04	(0.05)
R²	0.22	
Number of Observations	956	
F (30,925)	11.39**	

Note: Significance at 1%, 5% and 10% indicated by ***, ** and * respectively.

coefficient is also significant at 1 per cent level. The coefficient of fertiliser consumption per hectare is 0.09 per cent. The coefficient of rainfall in the Rabi season is insignificant because the rainfall in the Rabi season does not have any effect on the productivity level of agriculture.

Irrigation facility has positive effect on productivity but it remains statistically insignificant. The R square value of this model is 0.22, which means that about 22 per cent of the variation in the log of the dependent variable is explained by the log of these five variables. This model shows that agriculture in UP has witnessed Decreasing Returns to Scale stage for the period 1986–87 to 2007–08. Figure 1 further shows the productivity trends.
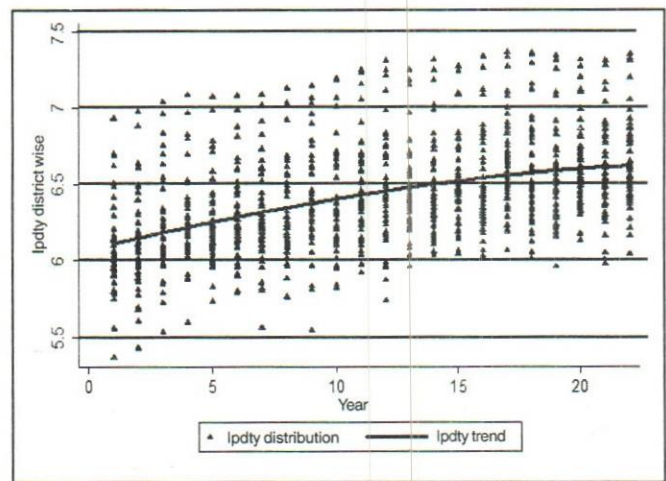
Figure 1: Trends in AgriculturalProductivity

From the graph it is clear that the growth rate of productivity has been higher in pre-WTO period as compared to post-WTO period.

Output elasticities estimated by equation 1 are constant over a period of time. But in reality it is not true, i.e., output elasticities are variables over a period of time. This is because of structural changes that occurred in economy during a period of time. The structural changes also occurred in UP agriculture. There is a trend break in 1995–96 when agricultural growth decelerates. It means that there are two growth regimes in UP agriculture. One is the pre-WTO period and the other is the post-WTO period. We have used dummy variables, i.e., 0 for observations 1986/87–1995/96 and 1 for observations in 1996/97–2007/08 in equation 2. Next we hypothesised that output elasticities have changed between these two regimes of agricultural growth.To capture these differences, we have incorporated slope dummy in equation 1, which becomes as following.

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$$\Delta\log(pdty_{it}) = \alpha_0 + \beta_1 \Delta\log(fer_{it}) + \beta_2 \Delta\log(lab_{it}) + \beta_3 \Delta\log(rn\_kh_{it}) + \beta_4 \Delta\log(rn\_rbi_{it}) + \beta_5 \Delta\log(irr\_ar_{it}) + \beta_6 \Delta\log(fer\_d_{it}) + \beta_7 \Delta\log(lab\_d_{it}) + \beta_8 \Delta\log(rn\_kh\_d_{it}) + \beta_9 \Delta\log(rn\_rbi\_d_{it}) + \beta_{10} \Delta\log(irr\_ar\_d_{it}) + \alpha_3 d\,yr\_3_t + \alpha_4 d\,yr\_4_t + \alpha_5 d\,yr\_5_t + \alpha_6 d\,yr\_6_t + \alpha_7 d\,yr\_7_t + \alpha_8 d\,yr\_8_t + \alpha_9 d\,yr\_9_t + \alpha_{10} d\,yr\_10_t + \alpha_{11} d\,yr\_11_t + \alpha_{12} d\,yr\_12_t + \alpha_{13} d\,yr\_13_t + \alpha_{14} d\,yr\_14_t + \alpha_{15} d\,yr\_15_t + \alpha_{16} d\,yr\_16_t + \alpha_{17} d\,yr\_17_t + \alpha_{18} d\,yr\_18_t + \alpha_{19} d\,yr\_19_t + \alpha_{20} d\,yr\_20_t + \alpha_{21} d\,yr\_21_t + \alpha_{22} d\,yr\_22_t + \Delta u_{it} \quad \ldots\ldots(2)$$

Table 5: First Differenced Estimates of Equation (2)

Variables	Coefficients	Standard Error
Constant	0.00	(0.02)
Δlfer	0.07*	(0.04)
Δlfer_d	0.03	(0.03)
Δllab	0.19***	(0.07)
Δllab_d	-0.04**	(0.03)
Δlrn_kh	0.00	(0.01)
Δlrn_kh_d	0.04***	(0.01)
Δlrn_rbi	0.01***	(0.01)
Δlrn_rbi _d	-0.02	(0.01)
Δlirr_ar	0.03	(0.02)
Δlirr_ar_d	0.00	(0.05)
d Yr_3	0.07***	(0.02)
d Yr_4	0.03	(0.02)
d Yr_5	0.00	(0.03)
d Yr_6	0.00	(0.02)
d Yr_7	0.01	(0.03)
d Yr_8	0.03	(0.02)
d Yr_9	0.10***	(0.02)
d Yr_10	-0.05*	(0.03)
d Yr_11	0.09	(0.28)
d Yr_12	-0.03	(0.04)
d Yr_13	0.00	(0.02)
d Yr_14	-0.03	(0.03)
d Yr_15	0.03	(0.03)
d Yr_16	0.00	(0.03)
d Yr_17	0.03	(0.02)
d Yr_18	-0.00***	(0.02)
d Yr_19	-0.03	(0.02)
d Yr_20	0.06**	(0.03)
d Yr_21	-0.05**	(0.02)
d Yr_22	-0.04	(0.05)
R^2	0.24	
Number of Observations	956	
F (30,925)	10.66***	
Significance at 1%, 5% and 10% indicated by ***, **, *, respectively.		

Table 5 results (based on equation 2) display the Decreasing Returns to Scale stage observed for the decades of 80s and 90s in the UP agricultural sector. The Table 5 results are for both pre- and post-liberalisation periods. In the first period, variables fertiliser, workers and rainfall in Rabi season shows direct (statistically significant) positive association with the dependent variable. The variable irrigation shows positive value of elasticity which is not statistically significant. Our result for pre-WTO period shows that the UP agriculture sector had witnessed the decreasing stage. In Table 5, for the period 1996–97 to 2007–08, we have used dummy variable to examine the impact of the new economic policy and India's membership of the WTO, on the determinants of agricultural productivity. Against this backdrop we examined the elasticity values of various inputs and their respective contribution in agricultural growth. Our findings show that inputs, such as fertiliser, irrigation and rainfall in Rabi season are not statically significant in either a positive or negative way. The coefficient values of the worker is (0.19 + (-0.04)) = 0.15 whereas for rainfall in Kharif season is 0.04, which are statistically significant. An important finding of the post-liberalisation age can be concluded as the UP agricultural sector had witnessed Decreasing Retunes to Scale as the contribution of important variables, such as fertiliser and irrigation, are found to be statistically insignificant. This might have resulted due to weak supply of inputs to agricultural sector during the period. Our results based on the 1990s advocate that there is an urgent need to build a capacity of all necessary inputs to meet the problem of food security and for all-round development of this sector.

Conclusions and Policy Implication

The overall findings of our empirical exercise shows that UP agricultural sector had witnessed the Decreasing Returns to Scale phase in the decade of eighties, nineties and in the first decade of 2000. Another observation is that, fertiliser bears the statistically significant association with agricultural productivity in the first phase but not in post-WTO period. During pre- and post-WTO periods, UP agriculture sector is in the Decreasing Returns to Scale phase. This finding proves that input availability was under strain during that period, hence there is urgent need to increase the flow of agro-inputs to meet the global challenge of food security, poverty reduction and unemployment.

References

Angrist, J., and Pischke, J.S. (2009). *Mostly harmless econometrics*, Princeton University Press.

Berndt, Ernst R. (1996). *The practice of econometrics: classic and contemporary*, Addison- Wesley Publishing Company.

CaCameron, A.C., and Trivedi, P. (2009). *Microeconometrics using Stata*, Stata Press.

Carrasco-Tauber, C., and L.J. Moffitt. (Feb 1992). 'Damage control econometrics: functional specification and pesticide productivity'. *Amer. J. Agric. Econ.*

Gujarati, Damodar N. (2005). *Basic econometrics*, fourth edition, Tata McGraw-Hill.

Srivastava, Ravi, and Lieten, G.K. (1999). *Unequal partner: power relations, devolution and development in Uttar Pradesh*, SAGE Publication.

Wooldridge, Jeffrey M. (2006). *Introductory econometrics: A modern approach*, third edition, Thomson South-Western.

Wooldridge, Jeffrey M. (2006). *The econometric analysis of cross section and panel data*, MIT Press.

> *Successful people have a social responsibility to make the world a better place and not just take from it.*
>
> —*Carrie Underwood*

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*Agricultural Production in Uttar Pradesh in the New Economic Regime:
An Empirical Analysis Based on Cobb Douglas Production Function*

Corporate Social Responsibility: Spending by Some Major Indian Companies

RAJESH SUND

Introduction

Though the new Companies Act, 2013, which made spending 2 per cent of their profits on CSR mandatory, came into force only in April 2014, the last couple of years have seen a significant increase in CSR expenditure by firms. This can be attributed to the desire of companies to project themselves as socially responsible. Sustainable CSR programmes mean a consistent mix of economic, legal, ethical and philanthropic tenets. In today's changed business scenario, there is an increased focus on giving back to society and creating a model which works long term and is sustainable.

According to a recent pilot survey by CII in Tamil Nadu (*Express Buzz*), only 40 per cent companies practice CSR initiatives. The survey highlighted that a majority of the companies did not take CSR seriously and those who did are doing it only with a philanthropic frame of mind. The survey also revealed that more than 50 per cent of the companies made their employee welfare activities as part of their CSR initiative, not really contributing to an outside community or its development.

Studies have shown that there is a wide range in terms of the size of corporate CSR expenditure. Most companies contribute below 2 per cent of their profits, though some are well above this level. This new 'mandate' is expected to generate a substantial amount of new CSR spending—at least $3.62 billion across India (Ernst & Young, *Economic Times*, 5 June 2014). Of the 15 major companies, CSR spending as illustrated in Table 1, only six of them noted CSR spending at or above 2 per cent of net profits (Essar Oil did not disclose its specific CSR spending). Looking at the five largest government-owned firms in Table 2 (Public Sector Undertakings or PSUs), it appears that the mandate will impact this group of

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Table 1: CSR Expenditure of India's Largest Private-sector Companies

Company	2013–14 CSR Spending (USD million)	CSR Spending as Percentage of Net Profits
Reliance Industries	119.88	3.24
Tata Motors	2.84	5.17
Tata Steel	34.7	3.31
ESSAR Oil	N/A	N/A
Hindalco Industries	5.28	1.81
Bharti Airtel	6.62	1.46
Larsen & Toubro	12.6	1.40
TCS	15.06	0.48
ICICI Bank	80.59	2.00
Mahindra & Mahindra	5.35	0.87
SesaSterlite	28.32	1.40
Adani Enterprises	0.9	3.08
Infosys	1.47	0.09
JSW Steel	4.42	2.00
HDFC Bank	11.52	0.83

Source: Report of the Center for Strategic and International Studies, Wadhwani Chair in U.S., India Policy Studies by Richard M. Rossow, March 2015.

companies to a large extent since their current CSR spending is well below the mandated 2 per cent.

Just seven states—Maharashtra, New Delhi, Karnataka, Tamil Nadu, Haryana, West Bengal and Gujarat—are home to 87 per cent of ET250 companies (Table 5). Large states such as Uttar Pradesh, Rajasthan, and Madhya Pradesh have a total of 15 companies among the ET250.

Table 2: CSR Expenditure of Public Sector Undertakings, or PSUs

Company	2013–14 CSR Spending (USD million)	CSR Spending as Percentage of Net Profits
Indian Oil Corporation	13.7	1.20
Bharat Petroleum Corporation	5.59	0.85
Hindustan Petroleum Corporation	3.86	1.37
State Bank of India	24.26	1.37
Oil and Natural Gas Corporation	55.49	1.55

Source: Report of the Center for Strategic and International Studies, Wadhwani Chair in U.S., India Policy Studies by Richard M. Rossow, March 2015.

Table 3: Steel Public Sector Undertakings (PSUs) in India (2011–12 to 2014–2015, upto December 2014)

(Rs. in Lakh)

Public Sector Undertaking	2011–12 Budgeted	2011–12 Expenditure	2012–13 Budgeted	2012–13 Expenditure	2013–14 Budgeted	2013–14 Expenditure	2014–15* Budgeted	2014–15* Expenditure^
SAIL	6400.00	6125.00	4200.00	5329.00	4000.00	4487.00	7800.00	1287.00
RINL	1200.00	1062.22	750.00	1600.00	750.00	2031.00	1423.00	1129.00
NDMC	8013.00	8671.00	14530.00	10110.00	17105.00	13142.00	25018.00	7652.00
MOIL	628.00	655.91	680.00	1056.00	863.00	1036.34	1519.00	330.00
KIOCL	130.00	119.00	283.00	79.00	93.00	227.00	110.00	8.84
MSTC	150.00	166.00	355.00	193.28	260.00	483.00	120.00	120.00
FSNL	9.00	9.06	9.00	9.00	4.00	4.50	25.27	3.50
MECON	325.00	220.51	497.49	235.33	460.46	272.33	468.76	183.63
HSCL	0.00	7.51	0.00	24.02$	0.00	0.00	0.00	9.00
BGC	38.00	26.00	17.00	48.00	64.00	92.27	36.35	24.10
Total	16893.00	17062.21	21321.49	18683.63	23825.46	21775.44	36520.38	10747.07

Notes: *Provisional
$Spent form the earned over fund of last year.
^Upto December 2014

Source: Ministry of Steel, Government of India (16406) Lok Sabha Unstarred Question.

Abbr :
KIOCL : Kudremukh Iron Ore Company Limited
MECON : Metallurgical and Engineering Consultants (India) Limited
FSNL : Ferro Scrap Nigam Limited
HSCL : Hindustan Steelworks Construction Limited
NDMC : National Mineral Development Corporation
MSTC : Metal Scrap Trade Corporation
SAIL : Steel Authority of India Limited.
RINL : Rashtriyalspat Nigam Limited.
MOIL : Manganese Ore India Limited
BGC : Bird Group of Companies

Table 4: Funds Utilized for Profit Making Central Public Sector Enterprises (CPSEs) under CSR in India (2011–12 to 2014–15)

				(Rs. in Lakh)
Name of CPSE	2011–12	2012–13	2013–14	2014–15*
Andrew Yule & Co. Ltd.	19.84	30.91	37.10	–
BBJ Construction Co. Ltd.	2.20	4.60	–	70.50
Bharat Bhari Udyog Nigam Ltd.	–	–	–	3.22
Bharat Heavy Electricals Ltd.	487.50	6330.00	10870.00	2656.20
Bridge & Roof Co. (India) Ltd.	14.57	63.20	64.59	–
Cement Corporation of India.	16.00	135.00	0.01	–
Engineering Project (India) Ltd.	25.00	25.00	133.00	–
Hindustan Salts Ltd.	210.00	125.00	392.00	–
HMT (International) Ltd.	0.25	0.85	3.51	0.25
Rajasthan Electronics & Instruments Ltd.	15.20	17.58	30.80	–
Sambhar Salts Ltd.	3996.00	3097.00	1237.00	–

Source: Lok Sabha Unstarred Question No. 1368, dated 3 February 2015.
Note: *Provisional

Table 5: India's 250 Largest Companies Headquarters

State	Number of ET 250 Companies	Percent of ET 250 Companies
Maharashtra	106	42
New Delhi	33	13
Karnataka	19	8
Tamil Nadu	17	7
Haryana	17	7
West Bengal	14	6
Gujarat	12	5
Uttar Pradesh	10	4
Telangana	7	3
Madhya Pradesh	3	1
Punjab	3	1
Kerala	3	1
Rajasthan	2	1
Goa	1	<1%
Uttarakhand	1	<1%
Orissa	1	<1%
Jammu and Kashmir	1	<1%

Source: Report of the Center for Strategic and International Studies, Wadhwani Chair in U.S., India Policy Studies by Richard M. Rossow, March 2015.

Table 6: Hunger, Poverty and Health

State	Percentage of Children Severely Malnourished	Percentage of Population below Poverty Line [15]	Infant Mortality (per 1,000 live births)	Total Patients Registered for TB Treatment, 2013
Delhi	0.03	9.9	25	50727
Haryana	0.05	11.2	42	38104
Maharashtra	2.61	17.4	25	137237
Tamil Nadu	0.02	11.3	21	80407
Uttarakhand	1.19	11.3	34	13700
Gujarat	4.56	16.6	38	74086
Punjab	0.05	8.3	28	37258
Andhra Pradesh (pre-split)	0.08	9.2	41	103707
Kerala	0.08	7.1	12	24204
Karnataka	2.84	20.9	32	61446
West Bengal	4.08	19.9	32	90423
Rajasthan	0.33	14.7	49	94698
Jammu and Kashmir	0.06	10.1	39	11038
Chhattisgarh	1.97	39.9	47	25889
Odisha	0.72	32.6	53	45269
Madhya Pradesh	1.88	31.7	56	92420
Assam	0.46	31.9	55	35624
Jharkhand	0.7	36.9	38	34941
Uttar Pradesh	0.21	29.4	53	256733
Bihar	25.94	33.7	43	67020
Top 10 Average	1.2	12.3	29.8	62087.6
Bottom 10 Average	3.6	28.1	46.5	75405.5

Source: Report of the Center for Strategic & International Studies, Wadhwani Chair in U.S., India Policy Studies by Richard M. Rossow, March 2015.

Table 7: Education

State	Literacy (per cent)	Enrollment Class 5 vs 100 Enrollment Class
Delhi	86.34	87
Haryana	76.64	94
Maharashtra	82.91	90
Tamil Nadu	80.33	**89**
Uttarakhand	79.63	64
Gujarat	79.31	75
Punjab	76.68	92
Andhra Pradesh (presplit)	67.66	80
Kerala	93.91	106
Karnataka	75.6	97
West Bengal	77.08	67
Rajasthan	67.06	40
Jammu and Kashmir	68.74	71
Chhattisgarh	71.04	68
Odisha	73.45	61
Madhya Pradesh	70.63	84
Assam	73.18	40
Jharkhand	67.63	36
Uttar Pradesh	69.72	49
Bihar	63.83	29
Top Half	**80**	**87.4**
Bottom Half	**70.2**	**54.5**

Source: Report of the Center for Strategic & International Studies,Wadhwani Chair in U.S., India Policy Studies by Richard M. Rossow, March 2015.

The Companies Act, 2013, urges covered companies to devote their CSR activities in the vicinity of the company's operations. It is reasonable to expect that Indian states with the highest levels of economic activity will receive the largest share of this new CSR spending. Six of the social issues highlighted in the Companies Act along with data for a company's CSR activities are given in Table 6 to Table 8.

The vast majority of social problems included as targets for companies CSR programmes are focused on states likely to receive smaller shares of the development funds generated through the CSR provisions in the Companies Act. This could ultimately augment regional development disparities. While companies would likely prefer to focus CSR efforts in the areas where they have a physical presence, they should be encouraged to conduct CSR activities in other regions for the benefit of states where the concentration of companies is less.

References

Corporate Social Responsibility in India: How the Companies Act May Augment Regional Disparities,A Report of the Center for Strategic and International Studies Wadhwani Chair in U.S., India Policy Studies by Richard M. Rossow, March 2015.

Ministry of Steel, Government of India.

Lok Sabha Unstarred Question

Table 8: Social Inequities

State	Sex Ratio	Male Literacy	Female Literacy	Male–Female Literacy Gap
Delhi	868	91.03	80.93	10.1
Haryana	879	85.38	66.77	18.61
Maharashtra	929	89.82	75.48	14.34
Tamil Nadu	996	86.81	**73.86**	**12.95**
Uttarakhand	963	88.33	70.7	17.63
Gujarat	919	87.23	70.73	16.5
Punjab	895	81.48	71.34	10.14
Andhra Pradesh (pre-split)	993	75.56	59.74	15.82
Kerala	1084	96.02	91.98	4.04
Karnataka	973	82.85	68.13	14.72
West Bengal	950	82.67	71.16	11.51
Rajasthan	928	80.51	52.66	27.85
Jammu and Kashmir	889	78.26	58.01	20.25
Chhattisgarh	991	81.45	60.59	20.86
Odisha	979	82.4	64.36	18.04
Madhya Pradesh	931	80.53	60.02	20.51
Assam	958	78.81	67.27	11.54
Jharkhand	948	78.45	56.21	22.24
Uttar Pradesh	912	79.24	59.26	19.98
Bihar	918	73.39	53.33	20.06
Top 10 Average	**950**	**86**	**73**	**13**
Bottom 10 Average	**940.40**	**79.57**	**60.29**	**19.28**

Source: Report of the Center for Strategic & International Studies,Wadhwani Chair in U.S., India Policy Studies by Richard M. Rossow, March 2015.

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