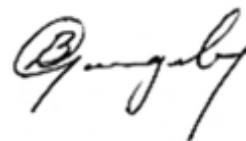# IUJ Journal of Management

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From the Editor ...

In the last few years, IUJ Journal of Management has risen to a prominent as well as a popular academic altar for both the individual talents as well as for organizational approach. This issue brings together empirical research and its theories from diverse scholars who have been instrumental in placing their readers for accessing knowledge from different fields. This journal emphasizes systematic knowledge which is the main driving force behind 'Economy of ideas' conferring creation of knowledge, development, organization and also taking the leverage to be the prime focus for improving society as a whole. The article relating to Agro-based development by Anil Kumar Mishra and Rabinarayan Patnaik maximizes the understanding of the relationship between land and its productivity. Article by S.K Padhi and Madhumita Dey also emphasizes the synchronization of liberalization, privatization, and globalization. Article by Nagapavan Chintalapati and Venkata Srinivas Kumar DaruriIn highlights that in today's world which bases itself upon social media and internet with its role in prevalence to society and individual at large. Article by K. Satyalakshmi and Pallavi explores where the Millennials are considered the most entrepreneurial generation among the workforce. Seema R Laddha explains in detail the importance of the Internet which is a prime source of information for enhancing knowledge for better productivity & increasing efficiency. The article by Vishal Kumar and B.M Singh has also made an attempt to identify the emerging trends of research in the field of finance – an entity without which span of life perhaps would seize to exist.
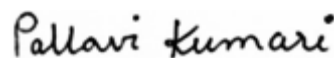
Another article by Khushbu Agarwal and Rumna Bhattacharyya has made an attempt to exemplify the changes in the organizational standards and their perceptions for survival and prosperity which comprises basically as how to become a market leader in the competitive world. Article by Ranjan Dasgupta has specified an interesting modus –operandi of 'Five Personality traits' which explores the psyche behavior of an individual and their performance to usher -in new heights with its changes for any organization to develop.

Last, but not the least, beyond the ethical entity, perhaps not a 'leaf' of management stirs including life as far as Indian ethos is concerned because it is a masterpiece all by itself has been very beautifully placed by Prabhat Kumar Pani and Rajesh Kumar that in every management 'ethos' applies to the core values for survival and logically takes into this ethical fragrance of all religions to practice and promote the wisdom for ethical existence as well as development of a nation.

This issue of the journal is a compilation of all contemporary arena, of talented scholars with their findings and to prove a holistic preview of all the contents to be read as well as to analyze their perception, the reader's perception as well as the worthy contents of the articles to be understood in its best panoramic visions.

(Dr. Bijoya Ganguly)
Associate Editor

(Dr. Pallavi Kumari)
Associate Editor

Effectiveness of Agro-Marketing in Odisha : An Empirical Study on the Relationship between Major Factors

Anil Kumar Mishra[1]   Rabinarayan Patnaik[2]

In an agro-based region like Odisha, when most of the developments are taking place related to maximizing the benefits to the stakeholders of rural places, the time has come to understand the underlying factors responsible for developing the framework of this process. There are various opinions related to make this development process visible, and at the same time providing scope to evaluate the outcomes. Amidst all these policies and strategic dimensions, the most eligible factors, i.e. the productivity of resources (mostly in terms of fertility factor) and the space utilized for the said purpose can be put on a measurement platform. The present study of ours makes an attempt to understand the underlying relationship between the use of these main variables of the land and productivity in regard to the agro-developmental processes.

Keywords : Cluster, cropping intensity, land, irrigated area, NCA.

Introduction

Odisha as a coastal state of India, has been mostly dependent on agro- products along with other industries for its development processes since long. There are several factors which have given rise to understand the progress of agro- marketing issues in Odisha, e.g. how to maximize the level of output from the available/ limited land and infrastructure. In addition, while studying the productivity factor which ultimately decides the scale of agro-success, the nature of the topography, the human factors etc. have got their own impact on the experiment as well. Coming to understand such a scenario, the relationship between farm size and productivity becomes one of the most vital debates in the Indian agricultural scenario and continues to attract the attention of the researchers even today. The schools of thought, differing in this important aspect of agro-status provide an insight to understand the scalability of agriculture by utilizing optimally the area of the farm. The origin of the problem can be bound to the ongoing food shortages, which India has been facing ever since a few eras. The second school addressed to the question of farm organization to achieve high level of productivity and competence through suitable land reforms. The present study of ours, based mostly on the primary data collected in the state of Odisha, makes an attempt to empirically establish the association between the scales of output measured vis-à-vis the area of land used for the purpose.

The Factors

There are three sets on finding the relationship between farm size and productivity that can be identified from the literature.

The first set [Sen (1962); Bhagawati and Chakravarthy (1969); Bharadwaj (1974); Reddy (1993), etc.] stated that the surveys were mostly based on farm management and cost of cultivation data, which supported the existence of an inverse relationship between farm size–productivity.

The second set [Chadha (1978); Rudra and Sen (1980); Bagai and Soni (1983), etc.] of the debate are associated with contradictory results, they used different data sets are analyzed the same with different statistical tool by integrating some new modifications, argued with the new agricultural technology, the inverse relationship either weakened or even has got reversed. They found a positive relation of farm size and productivity.

Opposing to both the sets, there are few studies (third set) that found no relationship between farm size and productivity. In addition to this, the advent of latest technologies and progressive policies related to agriculture and agro- marketing in India as well as in the state of Odisha has raised doubts related to any kind of substantial relationship existing between these two prime factors. However, various studies undertaken in this regard have come into a serious scanner because of the framework of study as well as the tools used for the purpose and so on. Still the importance of these variables has remained almost uninterrupted.

In overall, the literature evidences show though it is not a common phenomenon, output per unit of available land, labour and input intensity in production are inversely related to farm size, even when compensating for factors such as land quality and availability of irrigation, etc. In other words, it is said there exist an inverse relationship between farm size and agricultural production by using more labour and less capital and vice versa .Certain financial and non-financial factors have also gained importance in causing the difference in opinion, e.g. the wage factor in regard to the kind of labour (mostly taken from the family of labors), cannot be made compliant to the standard wage policy and so on. In addition, the market price offered for technical gadgets sometimes creates hindrance in the expected output of an available area of land.

Hypotheses

The studies in the literature have revealed that there exists an inverse relationship between farm size and agricultural production by using more labour and less capital and vice versa. That is, there is the presence of the inverse relationship between farm size and productivity. Therefore, to examine the present status, in this study, we shall test following hypothesis using cost of cultivation data.

- Farm Size and Land Productivity are inversely related.
- Farm Size and Cropping Intensity are inversely related.

Methodology

The main objective of the current study is to examine the effect of farm size on productivity, labour use, cropping intensity, the proportion of irrigated area, and other ancillary inputs. We use cost of cultivation data of Odisha to examine these hypotheses. The, information on 600 farm households, distributed among 120 villages from 60 tehsils/sets, belonging to five zones is collected under the cost of cultivation scheme. As per Cost of Farming studies, 'Farm size' is well-defined as Land or Physical Area of the farmer. Average farm size is categories into five sets like below one hectors, one to two hectors, two to four hectors, four to six hectors and lastly six hectors and above. Here onwards, we explain the above hypothesis, showing the relationship between farm size and agricultural productivity with the help of linear and log linear equations.

Here, we tried both linear and log-linear functions, in which log-linear estimations are strong in many aspects in the analysis. We find that linear regression function is said to be more appropriate to find the inverse relationship between farm size and productivity, considering the intensity of irrigation along with the factors like regional and seasonal concepts.

The purposeful form used for the analysis is :

$$Y = \alpha + \beta_1 X_1$$
$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2$$

The purposeful form used for the log-linear analysis is :

$$\log Y = \log \alpha + \beta_1 \log X_1$$
$$\log Y = \log \alpha + \beta_1 \log X_1 + \beta_2 X_2$$

Where Y is dependent variable, X_1 is farm size in hectares; and X_2 is the dummy variable (regional and seasonal factors) and are constant terms.

In the present sample, we find that there are rare farmers who do not implement HYV, nor use tractors and irrigate land. To find the relationship between factors influencing the adoption of technology with farm size OLS method found not beneficial. It is therefore necessary to use alternate statistical method to examine these relationships. After converting the dependent variable into (0, 1) dichotomous form the logistic regression can be used to examine the relationship between farm size and productivity.

If the dependent variable has only two possible values, for example 0 and 1, methods such as multiple regressions become worthless because predicted values of Y would not be unnatural to lies between 0 and 1. As the dependent variable is dichotomous the probability that the event will occur lies between 0 and 1 in logistic regression. Logistic regression has the additional advantage that all of the predictors can be binary, a mixture of categorical or continuous variable.

The logistic model is written as

$$\log (p/1-p) = a + b \log X$$

The left side of the equation is known, as the logit of the dependent variable is a transformation of the probability. The logistic equation can be further written as:

Log [Prob. (Event)/Prob. (No event)] =
$$b_0 + b_1 X_1 + b_2 X_2 + \ldots + b_p X_p$$

The above log linear equation shows same multiple regressions, but it shows each one unit change in log-independent variables is associated with a change in log- dependent variable.

There is a non-linear relationship exist between p and its logit.

Empirical Verification

Land use

The most vital of the issues discussed in the literature was the question of the relationship between farm size and productivity per unit of land. A series of studies, based on different data sources in various parts of India claimed to find an inverse relationship between farm size and productivity; the larger the farm size, is the smaller amount produced per unit of land and vice versa. Although the results varied in comparability and significance, on the whole, the statistical evidence favored the negative relationship hypothesis.

In this study, we analysis between farm size and agricultural productivity, individually with eight different log linear equations. The initial four log linear equations estimate the value of gross cropped area production as the dependent variable. The last four log linear equation considers net cropped area production as the dependent variable.

Table- I: Farm size and value of agricultural production

Farm Size of Production (Equation number)	Dependent Variable	Constant	Farm Size	R^2
1	Log- Production/GCA	9.44 (208.23)	8.71 (2.39)	.01
2	Log- Production/ GCAt	9.83 (50.98)	0.13* (4.48)	.45
3	Log- Production/ GCAz	9.67 (147.53)	0.11 * (2.89)	.09
4	Log- Production/ GCAs	9.63(80.44)	8.52 (2.33)	.04
5	Log- Production/NSA	9.51 (78.75)	-0.24 (-2.51)	.01
6	Log- Production/NSAt	9.05 (16.31)	-0.19 (-2.36)	.35
7	Log- Production/NSAz	9.81(54.75)	-0.22 (-2.34)	.05
8	Log- Production/NSAs	10.96 (34.99)	-0.31* (-3.28)	.07

Note: a) Figures in parentheses are t-values. b) (*) -Statistically significant at 5% level. c) Equations with superscript't, z, and s' refers to estimations done with tehsils, zones and seasonal dummies respectively.

The analysis of the study is explained as shown in the above table. In first four equations where we take a gross crop area, we find a positive relationship between farm size and agricultural productivity. This outcome contradicts the hypothesis. We expected negative relationship but found a positive relationship between farm size and agricultural productivity. When productivity is defined as a ratio of the total value of production and gross cropped area, the impact of multiple cropping is eliminated in the above state. Again from the above table it also reflects that in case of log-production of gross cropped area whether we are using a dummy or using in case of zones, tehsils., and seasonal dummies in all cases there exist a positive relationship between log production and farm size. Whereas, again from the above table it also reflects that in case of log-production of net cropped area whether we are using a dummy or using in case of zones, tehsils., and seasonal dummies in all cases there exist a negative relationship between log production and farm size.

The interesting point is that he found the negative relation for individual crop and we found it for total production. Cropping Intensity is well-defined as a ratio of gross cropped area of land holding in proportions. One would imagine an adverse association between farm size and productivity. This has also been originated by many researchers, the observed signal showed a tendency of cropping intensity to vary contrariwise with the farm size, regardless of level of irrigation and disintegration of land holdings. That is, small farmers cultivate more number of crops compared to large farmers in various parts of India.

Table-II : Farm Size with Cropping Intensity

Equation number	Dependent Variable	Constant	Farm Size	R^2
1	Log-Cropping Intensity	4.79 (125.85)	-.21* (-6.69)	.07
2	Log-Cropping Intensityt	4.41 (26.87)	-.20* (-8.11)	.46
3	Log-Cropping Intensityz	5.11 (94.39)	-.19* (-6.78)	.18
4	Log-Cropping Intensitys	5.61 (66.04)	-.26* (-9.95)	.36

Note: a) Figures in parentheses are t-values. b) (*) Statistically significant at 5% level. c) Equations with superscripts', z, and s' refers to estimations done with tehsils, zones and seasonal dummies respectively.

From the above table we observe that there exists a negative relationship between log-cropping intensity in the case of using without dummy, and using dummy for tehsil, zonal and seasonal factor cases. The explanations put forward by us for the inverse relationship between cropping intensity and farm size, is due to the labour intensity differences that is, more intensive use of family labour and total labour used. These findings are statistically substantial and strong. This implies that the prospect charge of household labour is less than the market wage rate due to occurrence of mass joblessness and surplus labour in agriculture, as magnitude small farms will hire family labour more helpful.

Irrigation plays an important role in crop cultivation. Given the partial opportunities for bringing additional field of fallow lands under cultivation, it is generally observed that irrigation is capable of playing a useful role in agricultural production. The nature plays an important role in the availability of water for agricultural production. It expands the relative economic position of the farming public and makes drive of growth and productivity. The proportion of irrigated area has the probable for higher cropping intensity and rise in the total value of farms agricultural production.

Table -III : Cropping Intensity with Production in Irrigated Area (PIA)

Equation number	Dependent Variable	Constant	PIA	R^2
1	Log-Cropping Intensity	4.41 (180.84)	-.54 (-17.10)	.33
2	Log-Cropping Intensityt	5.06 (37.02)	-.58 (-18.75)	.64
3	Log-Cropping Intensityz	4.72 (112.52)	-.53 (-17.53)	.42
4	Log-Cropping Intensitys	4.95 (61.19)	-.43 (-13.49)	.43

Note: a) Figures in parentheses are t-values. b) (*) -Statistically significant at 5% level. c) Equations with superscript't, z, and s, refers to estimations done with tehsils, zones and seasonal dummies respectively.

It is observed from the above table that there exist an inverse relationship between log-cropping intensity in the case of tehsils, zones and seasonal dummies respectively. As observed from the above outcomes, the intensity of cropping is indirectly related to proportion of area under irrigated, which is statistically significant. The coefficient witnessed is –0.54 when the estimation is done without considering for regional and seasonal factors. A similar observation undergoes even after inclusion of regional and seasonal dummy variables in the estimation. The coefficients are shows statistically significant. This implies cropping intensity is a little low and the agricultural proportion of the irrigated area is higher on large farm, compared to that of the small farm.

Due to different type of irrigations pattern and cropping pattern significant negative relationship between cropping intensity and agricultural production in irrigated area particularly paddy production. Even though in irrigated area the farmers unable to find profit in case of multiple cropping pattern, because of costly labour input where as in case of small farmer it is profitable because the cost of family labour is almost zero. For that reason the large farmer leaves their available land after the first crop remain idle.

Conclusion

The expenses or the capital deployed for the success of agro-marketing efforts need to be analyzed experimentally to understand the intrinsic variables affecting the process. With the prime objective of understanding the nature of these factors, the current study makes an attempt to explore the prime variables taken from past studies and with the help of analytical tools to establish an empirical relationship between these two, viz. The area of the farm related to the output capacity of the same. As we found out from the earlier ones, lands having small area could yield higher productivity because of possibility of utilizing the available resources (labour, capital etc.) in a reasonably less extent. This paradoxical conclusion prompted the current study to understand the reverse relationship in a better way by using the log-linear estimation vis-à-vis the functions both linear and non-linear. As can be seen, the outputs of the study also generated the fact that area of the firm and extent of output is inversely proportional. This also brought out certain other factors related to human resources, mostly labour, and its substantial utilization in small sized firms. In addition to that, it can also be concluded that the weather factor, i.e. the smaller sized firms hardly consider crops for higher durability rather they intend to cultivate those crops which can be instantaneously cultivated and produced for a short-time or so as to say timely commercial return. On the other side, the larger firms can be considered to yield outputs mostly depending on a durability factor (however facilitated by certain supportive factors like irrigation, government assistance, etc.), i.e. to cater to a market in the long run and striving for returns consistently as well.

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Impact of Trade Liberalisation on Agricultural Products in India : A Comparative Analysis of Pre and Post Reform
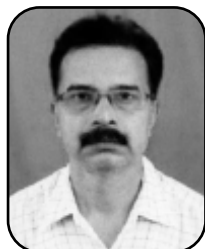
S.K.Padhi[1]   Madhumita Dey[2]

This paper aims to investigate how the 'liberalisation of trade' which is a part of the global synchronisation namely LPG (Liberalisation, Privatisation, and Globalisation) has affected the trend, composition, and pattern of trade in agricultural products in India, by studying 34 years of performance during the post-reform period (1990-91 to 2013-14) and the immediate pre-reform period (1980-81 to 1989-90). It demonstrates that the post-reform period has been characterized by an acceleration in the growth rate of production of tradable agricultural products as well as increasing trend in its share in total national trade. The results are empirically tested with simple descriptive statistics like dummy variable regression model and annual growth model with the help of different variables and their ratios like TAP to TT, TAT to TT, TAT to GDP at factor cost, agricultural export and agricultural import. The economic interpretation of the result reveals that there is positive ascendancy over the concerned ratios and the share of agricultural trade to Total Trade has been increasing in the post-reform period. But in the face of global competitiveness and a shortage of food grains in the domestic market, it is becoming hard to maintain a constant level of contribution in export and earn a surplus in agricultural trade. More solid and consistent trade policies needed to be initiated in order to reap the benefit out of trade liberalization on our primary sector.

Key Words : *Trade liberalisation, Agricultural export and import, 1991 Reform.*

1.1 Introduction :

It is a saying that, "Everything Else Can Wait but Not Agriculture."

LPG (Liberalisation, Privatisation, and Globalisation) is the new buzzword that has come to the world since the dawn of the nineties of the last century. Liberalisation as a part of this worldwide phenomenon (LPG) has become a major component in the reform process of the Indian economy in the year of 1991, July 24 with the introduction of New Reform Policy. Liberalisation has initially been employed in the trading sector to bring out changes, but soon has spread and grabbed another sphere of the economy as well. Agriculture is the backbone of Indian society and considered as the primary sector in Indian economy. Thus it is important to study the growth and development of agriculture when the economy is changing through this new phenomenon of trade liberalisation. Liberalisation can be defined as "complete freedom of enterprise, reduction in government regulations for economic activities to the minimum and reduction in tariffs and taxes." In the light of this definition, agricultural trade is already been liberalised. From the pre-British period, India was quite famous for foreign trade and was always a nation of primary products exporter. However, the pattern of trade in the agricultural sector has been changed and this reform process had brought new opportunities for trade in the agricultural sector in India.

1.2 Theoretical Background:

India needed a reform of her agricultural policy-measures as her productivity in agriculture is far below the level of the world's average. India ranks 15th in the paddy production (2145 kg/ha against the world average of 2340 kg/ha), 11th in the wheat production (2032 kg/ha against the world average of 2340 kg/ha), 13th in the maize production (1355 kg/ha against the world average of 3656 kg/ha) and 14th in the pulse production (544 kg/ha against the world average of 807 kg/ha) before 1991. History says that a marked rise in agricultural production always preceded by industrial development. Revolutionary changes in agriculture can bring about a viable base for modern industrial structure in India.

Mr. B.B. Ramaiah, the union minister of state for commerce, had announced a five year Ex-Im policy (1997-2002). This policy significantly cut down the list of quantitative restriction on imports as well as exports, simplifies procedures, and provides special incentives for trade in agricultural products. Among the two-thirds of the items which are removed from the restricted list to Special Import Licence (SIL) and Open General Licence (OGL) lists, some agro-products such as corn flakes, coffee, edible gums etc were the important one. The policy aims at consolidating and tries to restructuring the schemes to achieve further gains from the liberalisation of trade in agricultural products. The national income from agriculture has risen from Rs. 58,921 cores in 1990-91 to 60,934 cores in 1993-94 (1.1% per annum). The food grains production of 21.4 million tonnes in 1991-95 has increased by 189.8 million tonnes in 1994-95 in just four years. India had a 0.6% of total world trade in agricultural products. Liberalisation of trade may involve a rise in the domestic relative prices of food grains by about 15 to 20%. [WB Report: 2000].

1.2.1 Impact of Trade Liberalisation on Agriculture:

It has been one of the principal aims of the government from the beginning of the first Five Year Plan to raise the share of agricultural products in national trade. To ensure free trade and trade openness facilities in agricultural products, several steps have been taken to keep pace with the growing competition created by trade liberalisation. Some of them are, (i) Many of the quantitative restrictions on agricultural trade have been dismantled and decanalised. (ii) The government has recently

allowed hedging of agricultural products in global exchanges. (iii) The government has amended the Forward Market Commission and freed the agricultural products, to let them enter into the international markets.

Opening up of agricultural trade, among various possibilities, can bring major economic acceleration by exploiting the comparative advantage in the agricultural sector in India. By granting the farmer access to world markets, can increase his incentive to invest in the farming. An important thing to notice is that as the import content of agricultural sector in Total Trade (hereafter TT) is insignificant in comparison to the non agricultural sector, the total gains from trade as well as foreign exchange earned through agro-export, is more.

1.3 Setting objectives for the study

1. While the era of reform was establishing a new economic foundation, the agricultural trading was also in the process of simultaneous change through the help of liberalisation. Therefore it has become necessary to study that "how liberalisation of trade had affected the trend, share, composition and pattern of trade in the agricultural products, by comparing the pre and post liberalisation or reform period". It starts on the foundation of two research questions viz. one is "what is the performance of the agricultural product in the field of trade after being influenced by trade liberalisation?" And second is "how the pattern and composition of agricultural trading products change over time after trade liberalisation?" Based on these said research questions, the following two important objectives are taken in the paper.

2. To measure the influence of trade liberalisation on total agricultural trading products

3. To examine how trade liberalisation had affected the composition and pattern of trade in agricultural products

The paper has been organized into 5 sections. Besides the section-1 of introduction, section- 2 deals with the review of the works of literature focusing on nature of the relationship between liberalisation of trade and agricultural production. Section-3 is the brief description about the variable, data sources and proposed methodology used in the analysis. The empirical analysis is explained in section-4. Lastly, the section-5 concerns with the concluding remarks and suggests certain policy implications of the results derived from the present research.

2.1 Reviews of Literatures

The review in this study is restricted mainly to the literature on the impact of trade liberalisation on the agricultural sector. There are also studies at international level, comparing the developed as well as developing countries and studies at the national level. However, with respect to the timeframe, the methodology employed, the nature of data used, the number of variables examined and the estimation procedures adopted, the conclusion of the studies varied widely. The studies reviewed are arranged in chronological order so that it enables us to trace their historical evolution, the improvement in data coverage and estimation procedure, which contribute to the stock of knowledge for researching this study.

The review of voluminous works of literature those are available on the liberalisation of trade and its impact upon Indian agricultural products reveal a strange mixture of outcomes. Here, some of the most relevant works of literature, which focus on positive, negative or both sides of the said relationship, are critically analysed below.

2.1.1 The International Scenarios:

Many variations have been found in the researches done in different developing nations. Brandao and Will Martin (1993) had viewed that, the policy of trade liberalisation imposed a positive impact on the developing economies. Tengku Ahmad, Tawang (1999) as well as Vyas (1996) had tried to find the effects

of agricultural trade liberalisation and the issues faced by the policymakers in certain developing countries of Asia. Bureau, Jean, and Matthews (2005) gave very different views suggesting that the impact of agricultural trade liberalisation on developing economies is very unequal. They had found a negative growth trend in agricultural trade over the last few decades after liberalising the trade in agricultural commodities. Giving suggestions Maralusiddaiah et al (2015) suggested that, India has to be carefully guiding its course in order to reap the benefits out of trade liberalisation in the agricultural sector.

2.1.2 The National Scenarios:

Hanumantha Rao and Ashok Gulati (1994) has also agreed on their findings and reckoned that Indian agriculture is moving in a positive direction towards a new era because of economic reforms and opening up of Indian agriculture into the global market. For achieving this, they suggested broad policy changes as well as a major reform on the supply side. Parikh et al. (1995) have examined the impacts of liberalisation, reduction of input subsidy and safety net programmes for Indian agriculture after the New Economic Policy was initiated in 1991 and found an astonishing result that trade liberalisation in non-agricultural sector is more important for agricultural growth than the trade liberalisation in the agricultural sector. Similarly, Srinivas (1996) analysed the emerging global trade regime and liberalisation of trade and he found a negative impact of trade liberalisation on the sustainability of agriculture. Misra (1998) discussed both the positive and negative effects of globalisation on Indian agriculture from pre-reform (green revolution) period to post-reform till 2006-07 and found a favourable effect of liberalisation on the trade of agricultural commodities. Chand Ramesh (1999) found that liberalisation leads to an opposite or inverse impact on consumer and producer surplus and it earned negative gains from trade with a loss of social welfare.

Meanwhile, Nayyar et al. (1994), Deshpande et al (2004), Ranga Reddy et al (2008), did a comparative study of pre and post-reform period and discovered that performance of the primary sector's contribution in trade for long-term was quite satisfactory during the period of globalisation but it led to a conclusion of bad performance during the nineties while comparing the aggregate growth analysis. They discussed the macro level changes (positive and negative sides) of globalisation on Indian agriculture. Moreover, Krishna Kumar et al (1995), giving emphasis on export of 'tea' showed a supply and price relationship between essential agricultural commodities. Bhalla (1996) introduced a negative growth trend of liberalisation on agricultural trade through examining the demand and supply of agricultural commodities in general and some other commodities like food grains in particular, in domestic as well as in international market. Likewise, Gulati et al (1997) found that India can reap significant gains from trade liberalisation if it frees up imports and exports of agricultural products at zero duty. But, Minocha (1995) pointed out that the trade policies of the government had always discriminated against agriculture. In addition, Vaidyanathan (2000) supported this argument and described the inefficiencies of Indian economy and her incapability of drawing any benefits from the process of liberalisation.

Here some of the works of literature advocated that there is the positive association between trade liberalisation and agricultural trade by following a well-defined mechanism. They were of saying that trade liberalisation had a positive impact on the export-import indicators of the Indian economy through discarding bans on international trade, farm subsidies, market reforms, and liberalisation of farm input sector, an adaptation of agricultural export promotion & agricultural import substitution etc. Other literatures were there which argued the negative compatibility of said variables. They prescribed the ways of heavy export of agricultural raw materials, heavy import of agricultural proceed items, the departure of agricultural item

manufacturing units from the market due to tight competition in the global market etc, by which the trade liberalisation had affected the agricultural trading scenario unfavourably.

After discussing these kinds of arguments, it can be summarised that there is no concrete link between the concerned variables. Thus, the impact of trade liberalisation on agricultural products was very inconclusive, un-simplified as well as conditional so far.

3.1 Variables, Data Base and Its Sources :

The present study comprises annual time series data on the variables like Total Agricultural Trade (hereafter TAT), the total volume of national trade or Total Trade (TT), growth rate of GDP (proxy for economic growth) as well as Agricultural Export (AE) and Agricultural Import (AM) of different crops. The study also includes three critical and proxy variables like TAT to GDP ratio, TAT to TAP ratio and TAT to TT ratio in order to capture the influence of trade liberalisation on total agricultural trading products. The dataset has been sourced from the secondary database namely Planning Commission of India, Indiastat, Hand Book of Statistics (RBI), Ministry of Agriculture (GoI), Directorate General of Commercial Intelligence and Statistics. The data comprises of the periods of 34 years spanning from 1980-81 to 2013-14, classified on the basis of pre-reform (1980-81 to 1990-91) and post-reform (1991-92 to 2013-14) period.

3.2 Specification of Methodology :

So far as the methodology to be applied in the current study is concerned, the simple descriptive statistics (both graphical and tabulation) formulas are employed in order to examine the trend, pattern, and composition of different critical variables. For empirical analysis, the dummy variable regression model and its estimation with Ordinary Least Square (OLS) and annual growth rate model have been used in order to determine the statistical significance of trade liberalization on different variables.

The section-2 explained some description about the data sources and methodology, which is to be employed to give an empirical touch to the theoretical nexus of the interesting variables, inflicted in the study.

3.2.1 Dummy Variable Regression Model :

Dummy variable model can be of two types, ANOVA and ANCOVA. Regression models that contain only dummy explanatory variables are called analysis-of-variance (ANOVA) model. On the other hand, a model is said to be ANCOVA, if the regression equation carries both quantitative and qualitative explanatory variables. The operation and usability for dummy variable analysis can be explained by a simple example. Let us take an example of simple dummy variable regression model implying a relationship between salary 'Y' and graduation 'X'. It is assumed that the salary offered is the function of the educational qualification of the workers, i.e. higher payment with higher qualification. In order to capture the influence of qualification differentiation of the salary payment, the following regression should be run,

$$Y_i = \beta_0 + \beta_1 D_i + u_i$$

Where,

Y_i = salary of the 'i' th worker

D_i = dummy variable for educational qualification

D = 1, if worker has graduation

D = 0, if worker has no graduation

u_i = disturbance term, (satisfying the white noise condition)

Estimation of the Equation :

Mean salary of the workers below graduation equals to,

$$E(Y_i / D_i = 0) = \beta_1 + \beta_2(0) = \beta_1$$

Mean salary of the workers above graduation equals to,

$$E(Y_i / D_i = 1) = \beta_1 + \beta_2$$

Interpretation of the Equation :

The intercept term β_1 gives the average or mean salary of non graduated students, and that the slope coefficient β_2 tells us by how much the mean salary of graduate students' counterpart; ($\beta_1 + \beta_2$) gives the mean salary of graduated students.

Testing of the estimated co-efficient :

Here, "student t test" will be entertained in order to ascertain the statistical significance of the estimated co-efficient like β_1 and β_2. In econometrics, it is customary to take null hypothesis to do the said testing.

The null hypothesis is H_0 : $\beta_1 = 0$

The alternative hypothesis is H_1 : $\beta_1 \neq 0$

$$t^* = \text{estimated } \beta 1 / SE_{\text{estimated } \beta 1}$$

The computed t^* value is compared to the tabulated values of t with n-K degrees of freedom.

If $t^* > t_{0.025}$, we reject the null hypothesis and we accept the estimated β_1 is statistically significant.

If $t^* < t_{0.025}$, we accept the null hypothesis and we conclude that the estimated β_1 is statistically insignificant at 5% of level of significance.

Similar testing approach will be followed for testing the statistical significance of other parameter i.e. β_2

The null hypothesis is H_0 : $\beta_2 = 0$

The alternative hypothesis is H_1 : $\beta_2 \neq 0$

$$t^* = \text{estimated } \beta_2 / SE_{\text{estimated } \beta 2}$$

The computed t^* value is compared to the tabulated values of t with n-K degrees of freedom.

If $t^* > t_{0.025}$, we reject the null hypothesis and we accept the estimated β_2 is statistically significant. It exposes that mean salary of graduated student is higher than non-graduated student by β_2 amount, which is nothing but co-efficient of dummy variable. Finally, we conclude that dummy variable arrests the nominal features of the variables framed in the regression equation.

If $t^* < t_{0.025}$, we accept the null hypothesis and we conclude that the estimated β_2 is statistically insignificant at 5% of level of significance.

Use of dummy variable for measuring structural break: The dummy variable model, as an alternative model to Chow test, examines the structural stability of a regression model, in which either intercept or slope or both parameters undergo a change over time. In simple language, the structural changes demonstrate the value of the parameters of the model doesn't remain the same through the entire time period.

Let us define the model as

$$Y_t = \alpha_1 + \alpha_2 D_t + \beta_1 X_t + \beta_2(D_t X_t) + u_t \ldots \ldots (1)$$

Where,
Y = saving
X = income
t = time
D = 1 for observation belong to 1980-91
D = 0 otherwise (i.e. for observation belong to 1991-2013)

Mean saving function for 1980-91

$$E (Y_t / D_t = 0, X_t) = \alpha_1 + \beta_1 X_t \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(2)$$

Mean saving function for 1991-2014

$$E (Y_t / D_t = 1, X_t) = (\alpha_1 + \alpha_2) + (\beta_1 + \beta_2) X_t \dots\dots\dots\dots\dots\dots\dots(3)$$

In equation (1), α_2 is the differential intercept, and β_2 is the differential slope co-efficient. The slope drifter indicating by how much the slope co-efficient of the second period's (1991 to 2014) saving function, i.e. the dummy variable of 1 differs from that of the first period (1980 to 1991). The main regression equation (equation-1) can be used to test a variety of hypothesis.

Therefore, the dummy variable has a distinct advantage in its use and approach. It not only tell us the two regression equations are different unlikely in Chow test but also explains the sources of the differentiability; whether it is due to change in intercept or slope or both.

3.2.2. Annual Growth Model:

Our Growth Model (4) is as follows :

$$Log(Y) = C_1 + C_2 (T) + e \qquad\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(4)$$

Here,   Y = Sales Volume (in dollar) but in converted to log

   C_1 = constant

   C_2 = coefficient

   T = Time period, 1980 to 2013

   e = residual

The equation (4) is a semi-log model as only one variable (in this case the dependent variable) is in log form.

What is the sales growth rate over time?:

This paper shall be estimating the equation (4) and to the residual tests. The estimated model (4) should not have serial correlation or auto correlation, residual should be free from heteroscedasticity and residual must be normally distributed. In addition to this, residual of model (4) should be stationary. For testing the stationary, we shall be using correlogram (Q statistics). Here,

Null Hypothesis (H_0): Residual is stationary

Alternative Hypothesis (H_1): Residual is not stationary

The estimation shows,

- There is no serial correlation.
- The residual is normally distributed.
- There is no heteroscedasticity.
- The residual is stationary.

So, we can say that our estimated semi-log model (4) is valid. This model is alright for growth prediction or growth estimation.

4.0 Empirical Analysis

Here different empirical analyses are applied on different variables owing to address the stipulated objectives of the paper.

4.1 Section-1: In this section, the simple descriptive statistics (both graphical and tabulation) formulas are employed in order to measure the influence of trade liberalisation on total agricultural trading products over the periods of 1980-81 to 2013-14.

4.1.1 Analysis of Average Growth Rate of GDP and TAP :

Figure-1
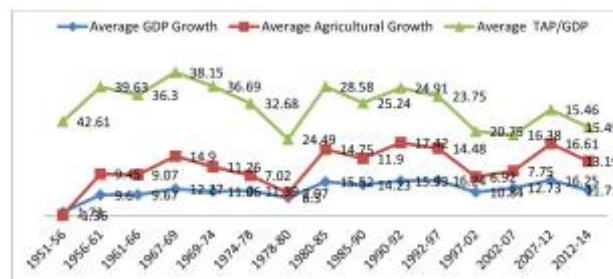
Source : Author's Estimation

This first figure and appendix : Table-1 reflects the trend of the average growth rate of GDP, agricultural products and the ratio of average TAP to GDP. It analysed the trend on the basis of division of pre reform into phases of Green Revolution (GR), which are further sub-divided into planning periods. It shows that the Average Growth rate of GDP increased from 1.73% in 1951-56 in pre GR to 12.27% in 1969-74 in early GR period. During the same time period, i.e. the 1st phase of GR, the average agricultural growth increased at a much higher rate i.e. 14.9%. This becomes possible because of prioritising agriculture in the 1st FYP as well as for implementation of GR in Indian agriculture. So that it becomes possible to reach the highest average growth ratio of Total Agricultural Product to GDP of 38.15%, in that 1st phase. After that period, in the 3rd phase of mature GR period, both GDP and agricultural growth has gone down which leads to a fall in the ratio of Total Agricultural Trade (TAT) to GDP to 24.49%. Then the reform has started and new policy of trade liberalisation has lead to a rise in the agricultural production which can be seen in the figure. *The New Economic Policy (NEP) in Indian economy was initiated with focusing on the development of agricultural sector by path of trade liberalisation. At the starting of 5th phase, the growth trend was not much significant as it was again decreased to 15.49% by the end of 2012-14. Thus India has to be carefully guiding its course in order to reap the benefits out of trade liberalisation in agricultural sector.*[8]

4.1.2 Trend and Growth Analysis of Agricultural Trade to Total Trade:

Figure-2
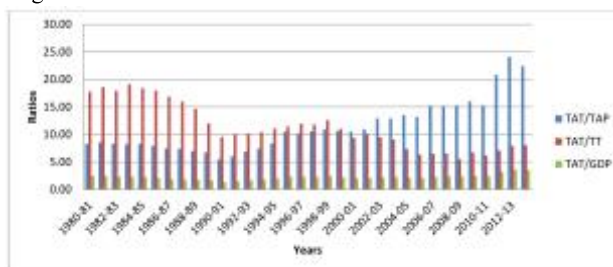
Source : Author's Estimation

At the first look, the figure suggests that the ratio of TAT to TAP at the primary stage was down to 8.28%, which reached to 24.10% by the year of 2012-13. It only ever started to fall in the mid-1980s and reached its minimum point in the year 1990-91 at 5% before the liberalisation. By liberalisation, the share of agricultural trade has always been rising up in the post-Economic Reform period. Similarly, the ratio of TAT to TT in the figure indicates that it was just the opposite of the case of TAT to TAP. It was highest at the primary stage and fall down afterward. This suggests that, although the ratio of agricultural trade to agricultural production is increased, the share of agricultural

trade to total trade is decreasing. The Economic Reform has touched other two sectors of the economy and increased the productivity more prominently than that of the primary sector. Thus the ratio of TAT to GDP is also not very promising, which is also suggested by the figure. From the above analysis, it is cleared that the percentage of TAT to TT is not very encouraging over the years. The figure demonstrates a downward trend about the share of agricultural products to the total volume of trade.

4.1.3 Empirical Analysis and its Results: The present analysis takes TAT to GDP ratio, TAT to TAP ratio and TAT to TT ratio as proxy variables to be examined in order to know the previously mentioned performance. In addition, it will compute the presence of structural breaks in the series.

4.1.3.1 Dummy variable Estimation and its Results: The three dummy variable equations of three different ratios can be written in the following manner.

$TAT\_GDP = \alpha_0 + \beta_0 \, DUMMY \, (T-1991) + u_0 \ldots \ldots (1)$

$TAT\_TAP = \alpha_1 + \beta_1 \, DUMMY \, (T-1991) + u_1 \ldots \ldots (2)$

$TAT\_TT = \alpha_2 + \beta_2 \, DUMMY \, (T-1991) + u_2 \ldots \ldots (3)$

Where, α_s = intercept co-efficient

β_s = dummy variable co-efficient or slope parameter

u_s = white noise stochastic or disturbance term

Here,

Dummy = 0, if the time period belong to 1980 -1990 (pre reform)

Dummy = 1, if the time period belong to 1991–2013 (after reform)

After performing ordinary least square method of estimation of dummy variable regression co-efficient, the following results tabulated in table-1 have been derived.

Variables	TAT to GDP Ratio (TAT_GDP)		TAT to TAP Ratio (TAT_TAP)		TAT to TT Ratio (TAT_TT)	
Equation	$TAT\_GDP = \alpha_0 + \beta_0$ DUMMY(T-1991) + u_0		$TAT\_TAP = \alpha_1 + \beta_1$ DUMMY(T-1991) + u_1		$TAT\_TT = \alpha_2 + \beta_2$ DUMMY(T-1991) + u_2	
Estimated Co-efficient	$\alpha_0 = 1.70^*$	$\beta_0 = 0.38^*$	$\alpha_1 = 6.82^*$	$\beta_1 = 2.82^*$	$\alpha_2 = 13.80^*$	$\beta_2 = -2.99^*$
Standard Error	0.11	0.14	0.79	0.94	0.79	0.94
t-statistics	14.23	2.74	8.60	2.99	17.31	-3.16
Prob.	0.00	0.01	0.00	0.00	0.00	0.00

Source: Author's Estimation

In equation (1), the value of the intercept co-efficient $(\hat{\alpha}_0)$ and slope co-efficient $(\hat{\beta}_0)$ are 1.70 and 0.38 respectively. In order to conform the statistical significance of these estimated co-efficient, the 't' test has been entertained. Here, their 't' statistics are 14.23 and 2.74 which are derived from the ratio of the corresponding estimated co-efficient and standard error. However, this test says that both parameters are statistically significant at 1 % level of significance. Therefore, the test reject null hypothesis of $\alpha_0 = \beta_0 = 0$ simultaneously. Thus, there is the structural break TAT_GDP ratio variable in two different periods. The economic interpretation of the result reveals that since the dummy variable co-efficient is positive $(\hat{\beta}_0 = 0.38)$ has a positive ascendancy over the concerned ratio. It implies that after 1991, the share of TAT in GDP, on an average, has been increasing by 0.38 units.

As far as the estimation of the equation (2) is concerned, both intercept $(\hat{\alpha}_1 = 6.82)$ and slope parameter $(\hat{\beta}_1 = 2.82)$ are statistically significant at 1 % level of significance. So, the null hypothesis of there is no structural change in the questioned variable over the time periods is rejected by t test and notice presence of structural breaks in the series. The economic explanation behind the result that as the $\hat{\beta}_1 > 0$, TAT_TAP ratio has been following a upward trend after the emergence of trade liberalization in 1991.

In case of equation (3), it is inferred from the 't' test that there is the presence of structural breaks in the variable because both the intercept parameter $(\hat{\alpha}_2 = 13.80)$ and slope parameter $(\hat{\beta}_2 = -2.99)$ are statistically significant at 1% level of significance. By referring to the result of negative and significant dummy variable coefficient, it can be inferred that share of TAT in TT displays a declining direction, implying negative impact of trade liberalization on TAT to TT ratio.

4.1.3.2 Annual Growth Rate Model and its Results :

The Annual Growth rate shows the agricultural growth of a variable per unit change over the time. In the other word, the annual growth is nothing but it is per unit change in average growth rate of a phenomenon over the time period.

Here, the four agricultural growth equations of the four variables of the study are given :

$Log \, (GDP) = C_1 + C_2 (T) + u_1 \ldots \ldots (4)$

$Log \, (TAT) = C_3 + C_4 (T) + u_2 \ldots \ldots (5)$

$Log \, (TAP) = C_5 + C_6 (T) + u_3 \ldots \ldots (6)$

$Log \, (TT) = C_7 + C_8 (T) + u_4 \ldots \ldots (7)$

Table-2

Variable	Coefficient of Time	Growth Rate	Std. Error	t-Statistic	Prob.
GDP	0.1295	12.95%	0.0010	120.0756	0.00
TAT	0.1411	14.11%	0.0036	38.7399	0.00
TAP	0.1076	10.76%	0.0020	53.3829	0.00
TT	0.1748	17.48%	0.0023	74.2918	0.00

Source: Author's Estimation

The analysis shows that, over the time period, the growth rate of TAT has been increasing than that of growth rate of GDP. Since the statistical significant growth rate of TAT (14.11%) is higher than the statistical significant growth rate of GDP (12.95%), it indicates definitely a positive sign of the development. Similarly, in case of TAT to TAP ratio, the growth rate of TAT is more (14.11%) than that of the growth rate of TAP (10.76%). It also gives statistically significant values and gives an impression of agricultural development. It shows that trade in agricultural product is more than that of agricultural production. But, in case of the ratio percentage of TAP to TT, the contribution of agricultural product to total trade is not significantly increasing. The growth rate of total trade shows 17.48% while growth rate of TAP is only 10.76%, which is not very encouraging, and it needs an improvement in its share.

4.2 Section-2

This section examines how trade liberalisation had affected the composition and pattern of trade in agricultural products, over the periods of 1980-81 to 2013-14.

4.2.1 Composition of Agricultural Trade :

The composition of agricultural trade is analysed with the help of estimating Agricultural Export (here after AE) and Agricultural Import (here after AM) with respect to Total Agricultural Trade (here after TAT) over the pre and post Reform period. In this figure-3 and appendix: table-3, the share of AE and AM in TAT are demonstrated. By taking time periods of 34 years spanning from 1980-81 to 2012-13 (including pre and post Reform period), the ratio of AM to TAT and AE to TAT is calculated. The figure-3, at a first look suggests that the share of AE in TAT was always greater (average of AE/TAT: 67.34%) than the share of AM (average of AM/TAT: 32.66%). In 1990-91 to 1992-93 the

share of AE to TAT increased to 84.39% which was possible due to the introduction of New Economic Policy (NEP) on Indian economy which focused on the development of agricultural sector by path of Liberalisation, Privatisation and Globalisation (LPG). Also the global trading-environment gives opportunity to Indian economy for a favourable Terms of Trade (TOT) for agricultural commodities. The figure also indicates a rise in the share of import of agricultural products in the year of 1988-89 (AM/TAT: 49.60%) in the pre Reform period. Tyagi (1987) has analysed TOT on agricultural sector and finds that it has an adverse effect on the agricultural export during that period. Thus the whole figure gives a favourable picture of Indian agricultural trade during the post reform period.

Figure-3
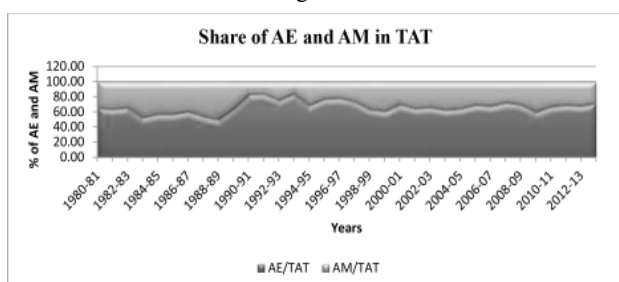
Source : Author's Estimation

4.2.2 Analysis on Patterns of Agricultural Trade : Here a comparative study of different types of tradable agricultural crops is taken, as illustrated in the table-3.

Table-3

Periods	Food Crops			Non- Food Crops			All Crops		
	A	P	Y	A	P	Y	A	P	Y
1980-89	126.81	146.54	1156	32.21	988	64953	159.02	1134	66108
1990-99	123.61	188.56	1526	39.94	1297	74936	163.56	1486	76461
2000-09	121.47	210.52	1731	40.72	1544	73595	162.2	1755	75326
2010-14	124	256.48	2059	46.08	46.08	61938	170.08	2094.48	63997

Sources: Computed data from Indiastat and Economic and Political Weekly Research Foundation Note: Here the star (*) value signifies presence of high volatility within the concerned periods.

In this table-3, appendix: figure-1, figure-2 and figure-3, the variable like periods of Reform i.e. pre Reform (1980-89), Reform (1990-99) and post Reform periods (2000-09 to 2010-14) are compared with some selected crop items which includes the major food crops as well as cash crops, in agricultural trade in India. Some other important variables like A=Area (Million Hectare), P= Production (Million Tone), Y=Yield (KG/Hectare) etc. which gives information about the production areas, production and yield of these crops. The table demonstrates that the pattern of crops yield has moved in a singular path till the end. But of course the 1991 trade liberalisation has put its significant effects on the composition by changing the pattern, which at first comprises mostly of food grain crops, but later on shifted to the trade in commercial (non-food grains) crops varieties. Instead of facing increasing competitiveness of production of food grains like rice, wheat, cereals, the farmer opted for cash crops and oil seeds, which deliberately changed the pattern of trade.

5.1 Summary and Implication of the Results :

The result of dummy variable regression model and its estimation with ordinary least square suggests that, although the ratio of agricultural trade to agricultural production is increased, the share of agricultural trade to total trade has been decreasing after trade liberalisation. The causes of slashing down of the TAT to TT ratio traced to impediment of duality (higher subsidy to the industrial sector), strong and worldly competitiveness of agricultural marketing, non-symmetrical treatment to agricultural sector and world food & fuel crisis in 2008. The empirical finding also reveals that though there is a statistically significant increment in TAT to GDP ratio after the reform of 1991, this increment is not promising. The analysis of the second objective shows that the share of agricultural export was always greater (average of AE/TAT: 67.34%) than the share of agricultural import (average of AM/TAT: 32.66%). It has been inferred from the annual growth analysis that, the annual average growth of agricultural trade (TAT) has been substantially higher than the agricultural products (TAP) and GDP in their corresponding value, despite been lower than the annual average growth rate of total trade (TT).

The finding of the study that the percentage share of agricultural products in GDP and in TAP has been increasing, is also is in confinement with the findings of the literatures of Reddy (2009), Sharif (2009), Joshi (2010) and Ghatak (2010). Hence, it can be inferred that although agricultural trade was not very encouraging during pre-reform period, the percentage share of agricultural products in total national trade was very high. Only it has started to fall during the reform period due to more policy emphasis was given to industrialisation and service sector growth. But, the commencement of WTO policy measures for the agricultural sector in worldwide developing countries like India, agricultural productivity per area, as well as its yield, has been improvised significantly. The data analysis demonstrates an upward trend about the contribution of agricultural products in GDP after 2000-01 or we can say in the post-reform period. Hence it can be said that in the process of economic development, the period of reform following the path of trade liberalisation, have put a very significant impact on the agricultural sector in India, by raising agricultural productivity as well as increasing its share in international trade.

As the trade policies of the government have always discriminated against agriculture, Maralusiddaiah and Ramesha (2015) suggested that India has to be carefully guiding its course in order to reap the benefits out of trade liberalisation in the agricultural sector. In the face of accelerated GDP growth after reform, the degrading agricultural contribution in trading sector needs an in-depth analysis by the researchers. Moreover, when reforms directly affecting agriculture will be initiated in an economy, only then agriculture can derive the full benefits from those macroeconomic reforms introduced so far after 1991. In addition, India can reap significant gains from trade liberalisation, if it frees up imports and exports of agricultural products at zero duty. Also, India needs formulation of a consistent policy framework on the basis of comparative advantage for export of agricultural products and emphasising on freedom of the exporters to enter into long-term contractual agreements with international farms. Somehow the terms of trade have shown a favourable tendency in influencing private investment in Indian agriculture. Thus, more favourable terms of trade to agriculture would raise the aggregate production/ marketed surplus. By reducing the protection of industries, the terms of trade becomes favourable for agriculture. The study reveals that impact of liberalisation differs from crops to crops and there is a scope for increasing its benefits by formulating commodity-specific policies on pricing, production, tariffs, and

trade. Overall there is a need for a proper policy framework to close the gap between the potential and actual performance of agricultural trade in the global market.

APPENDIX :

Figure-1 (Area in Million Hectares)
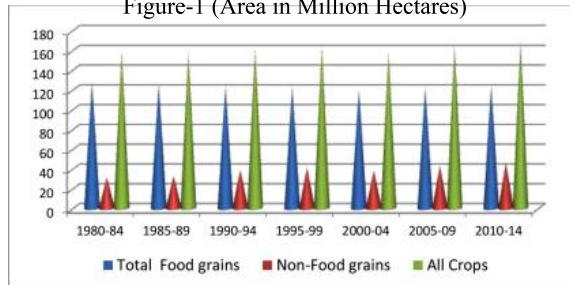
Source: Author's Estimation

Figure-2 (Production in Million Tone)
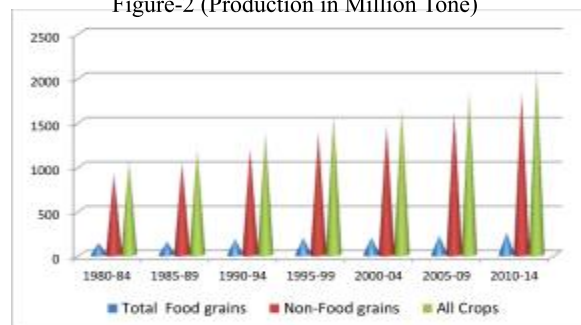
Source: Author's Estimation

Table-1: (Analysis of Average Growth Rate of GDP and TAP)

Phase (Period)	5th year plan (period)	Average GDP Growth	Average Agricultural Growth	Average TAP/GDP
		Figures are in percentage (%)		
Pre-Green Revolution (1950-51 to 1965-66)	1st (1951-56)	1.73*	-1.36*	42.61
	2nd (1956-61)	9.6	9.45*	39.63
	3rd (1961-66)	9.67	9.07*	36.30
Early Green Revolution (1967-68 to 1979-80)	3 annual plans (1966-69)	12.27	14.9	38.15
	4th (1969-74)	11.06	11.26	36.69
	5th (1974-78)	11.39	7.02*	32.68
	Rolling plan (1978-80)	8.30	2.07	24.49
Mature Green Revolution (1980-81 to 1989-90)	6th (1980-85)	15.52	14.75	28.58
	7th (1985-90)	14.23	11.90	25.24
Early Economic Reforms (1990-91 to 2001-02)	Annual plan (1990-92)	15.93	17.42	24.91
	8th (1992-97)	16.24	14.48	23.75
	9th (1997-2002)	10.84	6.92*	20.75
Post Economic Reforms (2002 onwards)	10th (2002-07)	12.73	7.75*	16.38
	11th (2007-12)	16.25	16.61	15.46
	2012-14	11.71	13.19	15.49

Sources: Computed data from Planning Commission of India (GoI), Hand book of Statistics (RBI) and Indiastat. Note: The star (*) value indicates presence of at least one negative value

Figure-3 (Yield in KG/Hectare)

Source: Author's Estimation

Table-2: (Share of AE and AM in TAT)

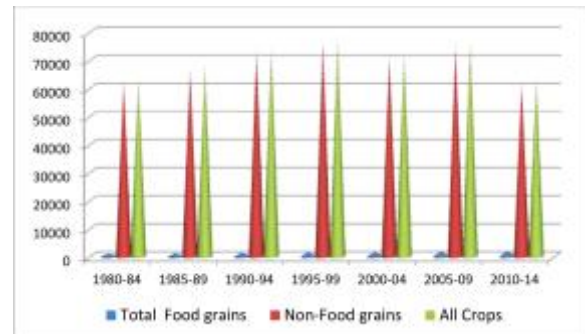| Years	AE	AM	TAT	AE/TAT	AM/TAT
1980-81	2247.1	1172.98	3420.08	65.70	34.30
1981-82	2547.92	1434.94	3982.86	63.97	36.03
1982-83	2727.62	1419.87	4147.49	65.77	34.23
1983-84	2594.39	2302.79	4897.18	52.98	47.02
1984-85	3055.45	2271.97	5327.42	57.35	42.65
1985-86	3142.05	2350.42	5492.47	57.21	42.79
1986-87	3346.62	2141.63	5488.25	60.98	39.02
1987-88	3284.3	2773.44	6057.74	54.22	45.78
1988-89	3581.41	3524.93	7106.34	50.40	49.60
1989-90	4879.8	2685.47	7565.27	64.50	35.50
1990-91	6012.76	1205.86	7218.62	83.30	16.70
1991-92	7838.13	1478.27	9316.4	84.13	15.87
1992-93	9040.3	2876.25	11916.55	75.86	24.14
1993-94	12586.55	2327.33	14913.88	84.39	15.61
1994-95	13222.76	5937.21	19159.97	69.01	30.99
1995-96	20397.74	5890.1	26287.84	77.59	22.41
1996-97	24161.29	6612.6	30773.89	78.51	21.49
1997-98	24843.45	8784.19	33627.64	73.88	26.12
1998-99	25510.64	14566.48	40077.12	63.65	36.35
1999-00	25313.66	16066.73	41380.39	61.17	38.83
2000-01	28657.37	12086.23	40743.6	70.34	29.66
2001-02	29728.61	16256.61	45985.22	64.65	35.35
2002-03	34653.94	17608.83	52262.77	66.31	33.69
2003-04	37266.52	21972.68	59239.2	62.91	37.09
2004-05	41602.65	22811.84	64414.49	64.59	35.41
2005-06	49216.96	21499.22	70716.18	69.60	30.40
2006-07	62411.42	29637.86	92049.28	67.80	32.20
2007-08	79039.72	29906.24	108946	72.55	27.45
2008-09	85951.67	37183.03	123134.7	69.80	30.20
2009-10	89341.33	59528	148869.3	60.01	39.99
2010-11	117483.61	57334.32	174817.9	67.20	32.80
2011-12	187609.33	82819.15	270428.5	69.37	30.63
2012-13	232041.11	109610.68	341651.8	67.92	32.08
2013-14	268469.05	105149	373618.1	71.86	28.14

Source : Ministry of Agriculture, Govt. of India.

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Use of Social Media for Communication by Top Business Schools in India

Nagapavan Chintalapati[1]   Venkata Srinivas Kumar Daruri[2]

Social Media (SM), a part of communications strategy of any organization, is a hybrid channel as the control of the organization on messaging through social media is limited. The prevalence of the Internet and the online social networks has increased the reach of messages within a limited time span reducing the response time available to organizations. The organization's ability to engage with the different stakeholders through social media has to be studied and mechanism for understanding the same has to be evolved. In this context, a study was conducted on the use of social media by 105 of the top Business Schools in India. The study used Internet based data through websites and SM sites. The metrics are defined for Facebook and Twitter and performance of various Business Schools were statistically analyzed. This is descriptive research, where the sampled institutions were compared on different demographic variables using appropriate statistical tests.

Key Words : Social Media; Business Schools; User Generated Content (UGC).

Introduction

Organizations communicate to their stakeholder through various channels of communication. The mass media communication may be termed as advertising or publicity. The direct communication is termed as direct marketing. The advances in communication technology have created Social Media, capable of communicating with large groups of stakeholder as well have personalized messages. The selection of the media is critical to ensuring the message conveys to the to the appropriate target audience at an appropriate time.

The media may be broadly classified into traditional (hoardings, print, radio, and television) and new media (Internet and mobile). The newest form of media is Social Media (SM) which combines digital content with increased consumer control on the message dissemination. SM is not a homogenous entity and like channels of television, it also has multiple avenues, each with its own characteristics, content and interactive capabilities. Organizations have to respond promptly and suitably so that the consumer messages do not hamper or harm the achievement of the organizational goals. They have to therefore identify the most influential social media alternatives which are channels for the individual messages, and establish their official presence on these channels for more effective response.

This research, therefore, examines the following questions: a) What are the preferred SM alternatives for Business Schools; b) examine if there is any difference in preferences due to different analysis criteria; c) what the metrics for measuring the performance of the Business Schools on Facebook and Twitter and d) Examine if there is any significant difference in performance metrics due to different analysis criteria. The study used probability estimates from sample data to rank the social media alternatives and identify the most used social media alternatives. The hypothesis of significant difference between different sample groups on individual social media presence is tested using Chi-Square tests, whereas the difference in total social media presence is tested using ANOVA and independent sample t-test. Mann Whitney U Test and Independent samples Kruskal Wallis Tests (Nonparametric tests) are used to test the significance of different analysis criteria on the performance metrics of Facebook and Twitter.

Purpose of Communication

Communication is intended to convey an idea to the audience eliciting a behavioural response. The messages conveyed to the customers and other external stakeholders are vital for the business success of any business or nonprofit organization. Communication is key to the building of relationships with the customers(Andersen, 2001). The role of communications in marketing relations is providing an understanding of partners intentions and capabilities (Andersen, 2001). The selection of the appropriate communication channel is one of the most difficult challenges for marketers due to the availability of large and diverse means of communication (Keller, 2001) Internet has changed the way the service organizations communicate to the customers (Holm, 2006; Lagrosen, 2005) Service organizations can go for customized communication targeted at building relationships or undertake mass communication aimed at specific transaction goals (Lagrosen, 2005). The effect of the messaging is to create a brand identity (Dahlén et al, 2010; Ghodeswar, 2008) of the organization.

The Internet is becoming the primary component of the communication platform as it is more cost-effective and has the potential for mass customized communication (Castronovo and Huang, 2012). Integrating the SM communication strategy of an organization is a challenge. The word of mouth marketing and social media marketing have become more and more important due to the increasing penetration of the Internet and the popularity of the SM. Internet-based digital communications are becoming more and more important in business operations (Caporale et al, 2013; Groß, 2013; Milolidakis et al, 2014; Piotrowski, 2012; Trainor et al, 2014). The communication mix used to communicate with the external stakeholders includes social media (Erskine et al, 2014; Mangold and Faulds, 2009).

[1]Assistant Professor, Centre for Business Administration, Central University of Jharkhand, cnp.cuj@gmail.com
[2]Assistant Professor, School of Management Studies, University of Hyderabad, Central University campus (PO), Hyderabad

The audience of messaging aimed for customers through any media should be the target market for the products offered. Since the users of SM are predominantly in the age group of 18 to 34 years(Bolton et al, 2013), it is considered to be an appropriate mode of reaching the prospective students of a Business School. However, the question regarding which SM alternative is to be used needs to be addressed since it is costly and less effective to use a variety of SM. One approach is to imitate the competitors (Shenkar, 2010).

The focus of the study is to identify whether Social Media is used by Business Schools as part of their communication activity and then verify whether the use of SM in communication is varying based on demographic characteristics of the institutions.

Social Media

Social media technology is helping individual and group conversations through telecommunication networks. Social media is a communication mechanism without central control centre "Social media employ mobile and web-based technologies to create highly interactive platforms via which individuals and communities share, co-create, discuss, and modify user-generated content". The social media is interactive, scalable and accessible to general masses. It uses digital content and provides facilities for social conversations or dialogues. For the purpose of this research, we define Social Media as any Internet resource that provides the facility of interaction between and among the Business School and the external stakeholders (primarily students) through Internet to share ideas, personal messages, and other content.

Social media harnesses the potential of now-pervasive online connectivity in our everyday lives . Social media is a hybrid element of the promotional mix of the organizations , since control on the messaging is not with the organization.

Types of social media

The variety of social media include blogs, social networking sites, review and rating sites, video sharing sites, online communities, collaborative gaming sites where users work with user generated content . *Kaplan and Haenlein classified the social media into six different types based on theories from media research and social processes as* Collaborative projects, Blogs and Microblogs, Content Communities, Social Networking Sites, Virtual Game Worlds and Virtual Social Worlds.

Influence of Social Media

Social media is also a good source understanding the perceptions and attitudes of customers towards brands (Gensler et al, 2015). The ubiquitous and dynamic nature of social media has significantly influenced brand management practices (Gensler et al, 2013). The measurement of brand performance in terms of brand awareness, brand engagement and word of mouth is easier

in the social media (Hoffman and Fodor, 2010). Managing the brand in the era of user-generated communications has been a subject of recent studies (Campbell et al, 2014; Gensler et al, 2013; Habibi et al, 2014; Pérez-Latre et al, 2011). The advent of social media has resulted in brand managers losing the command and control over the story-telling about their brands (Kuksov et al, 2012). Measuring influence requires appropriate metrics capable of benchmarking with competing organizations. This research provides metrics for SM use by Business Schools.

Research Approach and Outline of the Research

The research has found that prospective students or customers prefer using the Internet and social networking sites (SNS) for information search regarding most of their decisions (Bolton et al, 2013; Gunter et al, 2009). Students formulate their opinions/perceptions regarding higher education using social media (Constantinides and Stagno, 2012; Constantinides, n d). A study was conducted on the use of social networking for educational recruitment and marketing and has found that the current employees are ill-equipped to take the optimum benefit of the full potential of social media sites (Kuzma and Wright, 2013). The benefits of social media use for specific purposes of marketing, recruitment, learning and/or student engagement in higher education is not examined by researchers (Davis III et al, 2012).

The variety of SM makes it a challenge to identify the SM alternative organizations should monitor and participate. Therefore, a need for a study identifying the current preferences of the different business schools is felt by the researchers. Two approaches were identified by the researchers to address the gap. One approach is to search, the user profiles for the business school on the different social media alternatives. Another approach was to visit the website of the organizations and identify the links to the different social media alternatives. The first approach was rejected since the types of social media available are plenty and a complete listing was also not available to the researchers. Another challenge is to identify the official SM account of the organization. The researcher has, therefore, chosen the second approach. The current research addresses the gap in the literature in this regard and aims to identify the preferred social media alternatives for Business Schools in India. It also examines whether there are any significant factors that can explain any possible difference in the preferences of business schools on the social media alternatives.

Three dimensions – Reach, Discussions and Outcomes – were proposed to study the contribution of social media to marketing efforts (Murdough, 2009) Though the practitioner literature refers to broad metrics as part of Social Media Analytics, use of these metrics for Business Schools in the Indian context was not found in the academic literature. The operational definitions for different SM metrics used in the study are given in Table 1.

Table 1 : Operational Definitions of Different Social Media Metrics

Social Media Metric	Definition
Social Media Presence	Business school having a user account on the social media acknowledged on their website
Total Social Media Presence	The number of different social media alternatives (selected for the study) where the Business School has a user account
Facebook	
Number of Likes	The number of individuals who may be considered as Fans of the page or individual interested in the page and
User rating	The rating given by the users on a scale of 1 to 5 on the page
Twitter	
Number of Tweets	The 140 character messages sent to the social media app
Followers	The users on whose timeline your message will be displayed
Following	The users whose messages will become part of your timeline, whose content you will like to be updated about

Objectives of the Study

- To identify the preferred social media alternatives for Business Schools in India
- To examine whether there is any significant differences in the social media presence of individual alternatives and total social media presence based on various analysis criteria.
- To identify metrics for Facebook and Twitter
- To examine whether there are any significant differences in different performance metrics for Facebook and Twitter based on the analysis criteria.

Methodology

The study is a cross sectional study based on data collected from the Internet. There are more than 3400 institutions offering PG level programs in Management in India. This study looks at 105 institutions which are considered among the top Business Schools in India. This study uses Internet research , which is planned and structured mechanism for collecting data from Internet sources which are publicly available. The source of data is the websites of the Business Schools and the social media pages of these institutions. The official websites of the Business Schools were identified using Google Search. The websites are reviewed for links of Social media on the home page, contact page, etc. The social media alternatives linked to the website of the Business Schools were identified and tabulated for official social media presence. The data were collected manually by the researchers by visiting each website and respective social media pages MS-Excel and SPSS 20.0 were used for tabulation, coding and statistical analysis.

More than eight social media alternatives were identified during the data collection activity. However, social media alternatives preferred by at least 25 business schools or more are only considered for further analysis with regard to metrics. The metrics of top two social media alternatives were identified for social media analytics.

Analysis criteria used

The analysis carried out includes probability estimates to identify the preferred SM alternative. We examined the possible differences in samples based on the location of the institution, funding support and multiplicity of program offered. Another comparison is between the IIM and non IIM institutions. The statistical tests used are ANOVA and Independent samples t test. Non parametric test was also used to test the hypothesis regarding the metrics of Facebook and Twitter.

Results and Discussion

The total sample of 105 Business Schools consisted of 13 from East Zone, 33 of North Zone; 27 from South Zone; and 32 from West Zone. There are 60 Business Schools from Metro location and 45 Business schools from Non Metro locations. The cross tabulated descriptive for the metro and the zone are presented in Table 2.

Table 2 : Metro and Zone Cross tabulation of Top Indian Business Schools

	Zone				Total
	East	North	South	West	
Non Metro	8	13	11	13	45
Metro	5	20	16	19	60
Total	13	33	27	32	105

Social Media Presence

The researchers identified eight social media alternatives by accessing the websites of the Business Schools. Blog a traditional format of user generated content generation; Facebook, a popular social networking service; Twitter a microblogging service; YouTube a content sharing service for video files; LinkedIn, a professional social networking

alternative; Google Plus, a social networking alternative which replaced Orkut; PagalGuy, a community for Business School aspirants, and Wikipedia, a wiki of the content developed through volunteer users. SM links to Picasa, Pinterest, groups and forums by very few organizations are ignored in further research.

Preferred Social Media Alternatives

The interval estimates for presence of Business Schools on different social media alternatives was calculated to identify the preferred social media alternative for Business Schools in India.

Table 3 : Estimates for probable presence for different social media alternatives

Presence on social media site	Facebook	Twitter	LinkedIn	YouTube	Blog	Google +
No	26	38	67	56	62	80
Yes	79	67	38	49	43	25
Proportion of "Yes" in sample	0.752	0.638	0.361	0.466	0.409	0.238
Standard Error for proportions	0.042	0.046	0.046	0.048	0.047	0.041
Lower confidence level of estimate	0.669	0.546	0.269	0.371	0.315	0.156
Higher confidence level of estimate	0.834	0.730	0.453	0.562	0.503	0.319

Note : Estimating population parameter based on sample proportions **when n/N <0 05;** z value (97 5%) = 1.96

We may conclude the order of preference as Facebook, Twitter, YouTube, Blogs, LinkedIn, and Google Plus. The zone wise presence for different SM alternatives is detailed in Table 4.

Table 4 : Zone wise presence of Indian Business Schools on different SM alternatives

	Zone				Total
	East	North	South	West	
Facebook	10	26	18	25	79
Twitter	9	22	15	21	67
LinkedIn	3	17	8	10	38
YouTube	7	16	12	14	49
Blog	3	16	13	11	43
Google +	5	7	5	8	25

Chi-Square test of independence is used to evaluate whether the number of institutions having presence on individual social media alternatives is significantly different on the analysis criteria of different analysis criteria. The results are summarized in the Table 5.

Table 5 : Probability values of Chi-Square test of independence at α = 5% for individual social media alternatives and different analysis criteria

Analysis Criteria	Facebook	Twitter	LinkedIn	YouTube	Blog	Google+
Metro and non-metro	0.151	0.907	0.348	0.693	0.819	0.290
Zone	0.694	0.771	0.160	0.924	0.303	0.551
IIM and Non-IIM institutions	0.880	0.664	0.425	0.220	0.684	0.185
Funding Source	0.003	0.131	0.255	0.001	0.364	0.420
Programs offered	0.432	0.607	0.949	0.386	0.572	0.562

There is no difference in terms of presence of individual social media alternatives except for Facebook and Twitter between private and public institutions. It is observed that the presence on Facebook and YouTube is significantly different for institutions funded by government and private sources. In case of Twitter, the difference is not statistically significant at a

significance level of five percent. Though there is 17 government funded institution with Twitter a/c against 50 private institutions, it is not statistically significant. Whether a large sample study will validate the same finding has to be examined by researchers in the future. The lack of significant difference in other cases may be attributed to the low number of institutions with a presence on other social media alternatives as given in Table 3. The 18 public and 61 private institutions with a Facebook page, whereas 7 public and 42 private funded institutions were present on YouTube. We may infer that SM use by a government-funded institution is not appropriate in comparison to their private competitors.

Total Social Media Presence

Total social media presence is defined as the total number of social media alternatives officially acknowledged by the Business School on their website. The study identified eight social media alternatives in the initial stages of the research. Hence, the maximum score for total social media presence is 8. The total social media presence for each business school is calculated and was found that the maximum is 7 for a Business school with an average of 3.41 and standard deviation of 2.42. The data have normality as examined using Q-Q plots. The study examined whether the total social media presence is significantly different based on various analysis criteria.

Table 6 : Hypothesis Testing of Total Social Media Presence at α = 5% on different criteria

Analysis Criteria	Type of test used	Probability value
Metro and non-metro	Independent sample t test	0.209
Zone	ANOVA	0.839
IIM and Non-IIM institutions	Independent sample t test	0.745
Funding Source	Independent sample t test	**0.026**
Programs offered	Independent sample t test	0.410

Significant results

The significance of the zone was tested using ANOVA since there are 4 zones and the significance of other analysis criteria is tested using the independent sample t-test as there are only two groups. It is concluded that there is a significant difference in the total social media presence between government funded Business Schools and private Business Schools.

Performance Metrics for Facebook and Twitter

The other objective of the study is to examine the performance of business schools on Facebook and Twitter on defined criteria in terms of reach, discussions, and outcomes. This study considers the measure for reach for both Facebook and Twitter and Discussion is measured only for Twitter. The business schools which have not linked to Facebook and Twitter accounts on their websites were also identified through the search feature on the social media alternative. Therefore the number of Business schools with a Facebook profile has increased from 79 to 92 and the number of Twitter handles has increased from 67 to 79. The data are not normally distributed and therefore non-parametric tests are used for hypothesis testing (Gibbons and Chakraborti, 2011).

Table 7 : Hypothesis testing of Facebook metrics at α = 5% on different analysis criteria

Analysis Criteria	Number of Likes	Average User Rating
Metro and non-metro	0.792	0.168
Zone	0.493	0.080
IIM and Non-IIM institutions	0.531	0.004[#]
Funding Source	0.043[#]	0.008[#]
Programs offered	0.413	0.206
# Significant results		

Independent Samples Kruskal – Wallis Test and Mann – Whitney U Test (non parametric tests) are used for testing the hypothesis developed to examine the statistical significance on different analysis criteria for Number of Likes and Average User Rating. The average user rating is different for IIM institution vis-à-vis non-IIM institutions. It is as per the expectations that the premium institution brand is better recognized and rated. The "reach" measured through number of likes is significantly different between the government funded institutions and the private funded institutions. The number of likes for private institutions is more than the government funded institutions, whereas in terms of average user rating the government funded institutions are better rated than the private institutions.

Table 8 : Hypothesis testing of Twitter metrics at α = 5% on different analysis criteria

Analysis Criteria	Number of Likes	Average User Rating
Metro and non-metro	0.792	0.168
Zone	0.493	0.080
IIM and Non-IIM institutions	0.531	0.004[#]
Funding Source	0.043[#]	0.008[#]
Programs offered	0.413	0.206

Significant results

A significant difference in the samples is observed in three cases. In case of 'Following' by the business school between IIM and non IIM institutions, the number of individuals followed by non IIM business schools is significantly more than the IIMs. The significant difference is also observed between the government funded institutions and private institution in terms of 'number of tweets' and the 'Following' metrics for Twitter. In both these situations the performance of the private institution is significantly better than the government institutions.

Non parametric tests help us in drawing conclusions regarding the sample data collected and does not support generalization of the findings to a larger population. Another issue with the metrics is the huge range, low means and high standard deviations in the continuous data of the different metrics, indicating the need for a large sample study and also a comparative study between Indian institutions and the Business Schools from developed countries with better social media penetration and usage.

Discussion of the results

The first objective of the study helps the business schools to have a better informed social media communication strategy. The study has empirically ranked the preferred SM alternatives of competitors which may be imitated. The location of the business school may not be a hurdle and therefore the same strategy in terms of social media presence is applicable to all business schools. There is a significant difference between the government funded and private business schools. It indicates to the government institutions to revisit their communication practices and adopt more interactive communication methods. Social Media as a communication channel is a new idea and it is still to be a major communication alternative. The communication policies which are compartmentalized into admissions, industry relations, alumni relations, etc are getting converged as social media have increased transparency and reach of the messages to different stakeholders. The addressing of this challenge needs to be studied theoretically and models developed for empirical evaluation.

The low values in the "reach" metric of Facebook (likes) and Twitter (followers) indicates freshness of the media. The opportunity for other business schools that have not started their social media journey to be competitive in this media space is still available as the communication channel is new and not very popular in usage.

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The significant differentiators are between the IIMs and non IIMs; and between private and government funded institutions. This indicates that the premium brand identity may have an effect on the customer acceptance of communication, whereas private institutions have first mover advantage in the use of social media.

Suggestions for Future Research

The study provides a basis for a broader study with a larger sample. Another possible research dimension is a longitudinal study capturing the growth in the usage of the social media and the changing performance metrics over time. Other research dimension is the development of metrics for other social media alternatives. Social media as a communication channel is a new idea and needs to be explored in greater detail so that customized communication is possible to different target audience – students, parents and recruiters.

Conclusion

This study has ranked the social media alternatives and has suggested that the Business Schools should have a presence on Facebook, Twitter, YouTube and LinkedIn to effectively integrate the SM as a communication channel to messaging through other media. The significant difference between government funded and private institutions indicate that the institutions have to establish processes to handle this dynamic media. Private institutions predominantly led by promoter administrators have more freedom to communicate than the government institution with established hierarchy and approval structure for external communications. A detailed study on the institution communication strategy and culture is required to validate this proposition.

The performance metrics are defined for use by the future researchers. The most basic infrastructure required for social media is access to the internet and it is free to use. Therefore, organizations have established their presence. However, the metrics indicate very low to medium use and communication strategy for personalized communication through this new media has to be developed.

This research, an initial study into the use of social media, addressed a gap in academic literature and forms the foundation for further study on the use of social media for various functional activities by institutions in India. Social Media is a new area of study and the increasing penetration of the mobile has necessitated research to help optimize the results from this new technology driven medium.

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Transactional Efficacy of Internet in Rural India

Seema R Laddha[1]

The Internet is developed as a source of information for enhancing knowledge for better productivity & increase efficiency. But over time, with developments in social media, internet is considered an effective medium for entertainment and social networking. Although internet penetration in rural India is also growing at a fast speed but the major use of the internet is only for social media for increasing communication. Transactional use like enhancing knowledge, business opportunity, and eCommerce it was very less. Therefore, this paper aims to identify the factors influencing the expected use of internet in rural India and the impact of demographic factors on Internet adoption and usage in rural areas. Finally the results of the study lead us to conclude that demographic factors like age, occupation is not the deciding factor for the use of internet but the income, education and digital literacy are the major reason for the effective use i.e for business or knowledge building activities on the internet.

Key words: Internet, Rural, demographics, social media, expected use.

Introduction

An article in Livemint, "Internet usage picks up in rural India" Bharat is getting online faster than India. By 2020, share of rural India will jump to 48%, creating a huge opportunity for brands and marketers in places where establishing a physical presence is still a challenge, Indian government has bought several policy initiatives, including the provision of subsidized Personal Computers and affordable internet connectivity to support Internet access in rural areas. Access to the internet over mobiles due to the availability of low cost smartphones, data package and increasing awareness of popular apps such as Whatsapp, Facebook etc.are growth drivers of rural users.

The internet is primarily considered as a source of information for knowledge enhancement, but with developments in social media and eCommerce, Internet is considered an effective medium for social networking and enhancing economic benefits. According to the report, Mobile Internet in India 2015, 52% of people said their primary reason for accessing the internet was entertainment followed by Communication and social networking at 37% and 39% respectively.

The Internet forms the basic tool of governance, especially in rural areas, where people's access to institutions is limited, due to poor physical and institutional availability besides access to knowledge and economic opportunities. This gap leads to both inefficiencies in service provision and excluded from knowledge, economic opportunities and governance.

Major problem is the availability of infrastructure for access to the Internet. Low penetration of Internet in rural is also due to unaffordability of smart phone & computers, lower education profile and digital literacy in villages. Thus, it is important to study drivers of Internet use in rural India not only to plan the strategies, but also theoretical and empirical perspective for business and government. For this primary research is to understand factors influencing the expected use of the internet and the further, studies have indicated that age, occupation, income, education and gender are factors that could lead to differential use of the Internet.

Literature Review

According to the study by Boston consultancy group titled, "The rising connected consumer in Rural India" almost 70% of the rural Indian use internet to access social networks followed by the gaming media, emailing.
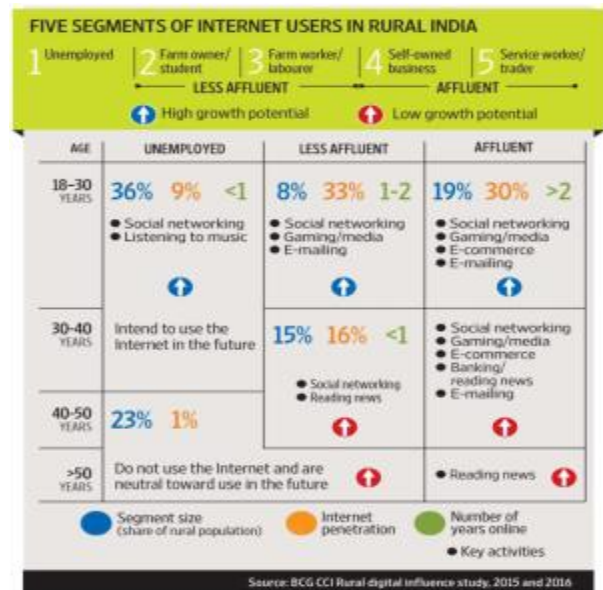
Use of Internet for governance

Electronic government (e-Government) is one of the most important ways to bridge the digital divide in developing countries.Viswanath Venkatesh1, Tracy Ann Sykes2 and Srinivasan Venkatraman3 (2013) conducted a field study in a village in India of e-Government portal use and observed that demographic variables and personality traits are being significant and explaining 40% of the variance in e-Government portal use.

Factors for adoption of Internet Usage

Prof Rekha Jain (October 1, 2016), 'Factors Influencing Perceived Impact of Internet Use on Individuals in Rural India' TPRC44, Research Conference on Communications, Information and Internet Policy, Arlington, VA, examine internet adoption and usage in rural India from a socioeconomic perspective while considering factors like social capital, economic and knowledge enhancement and exchange in assessing the perceived impact.

Dhyan Singh (Nov 2014, Volume-IV), Online International Interdisciplinary Research Journal, 'A Systematic Review of Literature on effect of Internet Use on Students in India' study concludes that internet users still face many problems while surfing the internet in which low speed, downloading problems, availability of reliable information, location and other handling problems are primary. It is also found that both faculty members and students are not updated about their internet knowledge. VivekPai ,(November 18, 2015) in his Report titled, '25% of India's population uses the Internet: IAMAI-IMRB" compare the purpose of usage of internet in urban and rural area' he has interviewed 5000 respondents of various age group. 71% of the urban respondents mentioned that they used the internet for communication, followed by 67% for social networking and 59% for entertainment. 24% of urban users used the internet to purchase products while 23% used it to book tickets.

In rural areas on the other hand, 44% of the users used the internet for entertainment, 37% of communication, 33% of social media, 14% for online ticketing and 5% of online shopping, indicating that online shopping hasn't yet really taken off in rural areas.

Digital Literacy

Government to launch Digital literacy mission for 60 million rural Indians IANS Jun 26, 2016, India will soon launch a Rs1,800 crore ($265 million) Digital Literacy Mission for 60 million people in rural areas.

Research Problem

Various studies and reports shows that there is an increase in the usage of the internet in rural India. Studies in this area have focused on individuals and understanding what drives Internet use. As discussed primary use of the internet by the rural people is entertainment which is followed by communication and social media. The difference in the use of urban and rural is may be due to poor physical infrastructure. But in rural areas the need of internet connectivity for receiving social and market related information in the absence of proper roads and transportation may be greater. Reach for bigger market and understanding of market dynamism is more. But Internet penetration for this business and knowledge purpose is less. Internet adoption and usage may be very different in rural areas depending on the education and income profile. Therefore, it has become important to study the factors influencing Internet adoption and their usage in an increasing number of internet users and mobile Internet penetration in rural areas.

Objective of Research

- To identify the factors influencing the expected use of internet (Market, economic knowledge and governance) in rural India.

- To analyze the impact of demographic factors (age, occupation, education, digital literacy and income) on Internet adoption and usage in rural areas

Research Methods

The study is based on a survey in two rural areas of Vidharbha in Buldhana district. Intention of the survey is to understand the Internet adoption and usage profile of rural India.

The questionnaire used with a Likert Scale is made to understand the usage of internet for social networking, business and knowledge related activities. The scale had five categories ranging from Strongly Disagree (1), Disagree (2), Neither Agree or Disagree (3), Agree (4) to Strongly Agree (5). The number of survey respondents was 100.

Internet users were asked to rate how the outcomes of Internet use helped them in developing their social relations, creating economic opportunities and exchanging knowledge.

Three components that are used for analysis are:

Increase in efficiency of Work : Use of Internet helps in increasing the number of customer, increase in reach of the wider geographical area, reducing costs by developing efficiency in transaction and also by reducing time for travel, searching information, less time for processing transactions, the increase in new and existing job opportunities etc.

Empowerment : Due to availability of current information on the Internet, developing a social network, getting help in an emergency, and help in knowledge creation to understand different topic without the help of others.

Efficiency in Transaction : Performing transactions related to banking, online shopping

ANOVA is used as a statistical tool for analysis

Sample size : 100 samples collected from two districts of Vidharbha, (Akola , Buldhana)

Reliability test for the sample is attached in Appendix 2 and

Descriptive analysis is in Appendix 1 for understanding the sample

The profile of users in the survey is provided in Table 1

Table 1: Demographic Profile of Users

District	Akola	47
	Bhuldhana	53
Age	Up to 25 years	48
	Above 25 years	52
Occupation	Business	41
	Others	59
Digital Literacy	Digitally Less Literate	55
	Digitally More Literate	45
Income	Up to Rs 15,000	47
	Above Rs 15,000	53
Education	Undergraduate	69
	Graduation/Post Graduation	31

Findings

Impact of age on Expected Use of Internet :

Ho:- There is no significant difference between the different age groups and Efficiency of Work, Empowerment, Efficiency in Transaction

Ha1:- There is significant difference between the different age groups and Efficiency of Work, Empowerment, Efficiency in Transaction

According to Table 2, One way ANOVA result for 'Age' up to 25 years and above 25 years on three components Increase in Efficiency of Work, Empowerment, Efficiency in Transaction at 5 % level of significance shows that no statistically significant differences in responses with respect to 'Age'. Hence the null hypothesis is accepted.

Table 2: Impact of age on Expected Use of Internet

		Sum of Squares	df	Mean Square	F	Sig.
1.Adoption of internet increases the competition	Between Groups	8.823	1	8.823	4.428	.038
	Within Groups	195.287	98	1.993		
	Total	204.110	99			
2.Internet helped me to find new ways of doing work	Between Groups	10.002	1	10.002	5.085	.026
	Within Groups	192.748	98	1.967		
	Total	202.750	99			
3.Helped me to increased my existing business/work (deal with more people in the same amount of time)/	Between Groups	8.823	1	8.823	4.428	.038
	Within Groups	195.287	98	1.993		
	Total	204.110	99			
4.Internet help me to identify new business opportunity or job opportunity	Between Groups	9.403	1	9.403	4.774	.031
	Within Groups	193.037	98	1.970		
	Total	202.440	99			
5.Internet helped me to increase my customer base and professional network	Between Groups	3.480	1	3.480	1.680	.198
	Within Groups	202.960	98	2.071		
	Total	206.440	99			
6.Due to use of internet I reduce my travelling effort and expenses	Between Groups	10.002	1	10.002	5.085	.026
	Within Groups	192.748	98	1.967		
	Total	202.750	99			
7.It helped me in searching for new information related to business/work	Between Groups	.263	1	.263	.153	.097
	Within Groups	168.647	98	1.721		
	Total	168.910	99			
8.Helped searching information on topics related to Business/work	Between Groups	3.362	1	3.362	1.725	.192
	Within Groups	190.998	98	1.949		
	Total	194.360	99			
9.Helped me collaborating with others for business/ work	Between Groups	3.754	1	3.754	1.932	.168
	Within Groups	190.436	98	1.943		
	Total	194.190	99			
10.Due to knowledge of competitive rates from different vendors help me to reduced cost as I get accurate information from the Internet	Between Groups	.021	1	.021	.011	.015
	Within Groups	179.769	98	1.834		
	Total	179.790	99			
11.Helped viewing videos for learning and understanding in a better way	Between Groups	8.823	1	8.823	4.428	.038
	Within Groups	195.287	98	1.993		
	Total	204.110	99			
12.Helped searching and understanding the subjects that I would not have been able to understand otherwise	Between Groups	8.262	1	8.262	4.058	.047
	Within Groups	199.498	98	2.036		
	Total	207.760	99			
13.Helped in getting a chance to talk to other people who are interested in the same topics as I am interested in	Between Groups	9.403	1	9.403	4.677	.033
	Within Groups	197.037	98	2.011		
	Total	206.440	99			

14.Enabled me to be in touch with my friends' friends which has increased my social interactions	Between Groups Within Groups Total	9.403 197.037 206.440	1 98 99	9.403 2.011	4.677	.033
15.Has increased my interactions with my relatives/friends (through emails/social networking sites etc)	Between Groups Within Groups Total	8.823 195.287 204.110	1 98 99	8.823 1.993	4.428	.038
16.Helped in exchanging ideas about work with other people	Between Groups Within Groups Total	9.403 197.037 206.440	1 98 99	9.403 2.011	4.677	.033
17.Helped in being more confident in expectation of my work requirement/job role	Between Groups Within Groups Total	8.823 195.287 204.110	1 98 99	8.823 1.993	4.428	.038
18.Helped in getting accurate information	Between Groups Within Groups Total	10.002 192.748 202.750	1 98 99	10.002 1.967	5.085	.026
19.Helped to do some part of my work without being at the place of work, physically	Between Groups Within Groups Total	8.823 195.287 204.110	1 98 99	8.823 1.993	4.428	.038
20.Internet provide me an opportunity to take help in case of emergency	Between Groups Within Groups Total	9.403 193.037 202.440	1 98 99	9.403 1.970	4.774	.031
21.Helped in banking online for business/work related transactions /conducting online transaction (booking railway, airline, bus etc/shopping for clothes/shoes/electronic items/books etc.)	Between Groups Within Groups Total	3.480 202.960 206.440	1 98 99	9.403 1.970	4.774	.031
22.Helped in Getting feedback on business/work related issues	Between Groups Within Groups Total	10.002 192.748 202.750	1 98 99	10.002 1.967	5.085	.026

Impact of Occupation on Expected Use of Internet :

Ho2:- There is no significant difference between the occupation and Efficiency of Work, Empowerment, Efficiency in Transaction

Ha2:- There is a significant difference between the occupation and Efficiency of Work, Empowerment, Efficiency in Transaction

One way ANOVA result of occupation in Table 3, on three components Increase in Efficiency of Work, Empowerment, Efficiency in Transaction at 5 % level of significance shows that there is no statistically significant differences in responses. Hence the null hypothesis is accepted.

Table 3: Impact of Occupation on Expected Use of Internet

		Sum of Squares	df	Mean Square	F	Sig.
1.Adoption of internet increases the competition	Between Groups	49.119	1	49.119	31.057	.000
	Within Groups	154.991	98	1.582		
	Total	204.110	99			
2.Internet helped me to find new ways of doing work	Between Groups	46.810	1	46.810	29.417	.000
	Within Groups	155.940	98	1.591		
	Total	202.750	99			
3.Helped me to increased my existing business/work (deal with more people in the same amount of time)/	Between Groups	49.119	1	49.119	31.057	.000
	Within Groups	154.991	98	1.582		
	Total	204.110	99			
4.Internet help me to identify new business opportunity or job opportunity	Between Groups	47.957	1	47.957	30.423	.000
	Within Groups	154.483	98	1.576		
	Total	202.440	99			
5.Internet helped me to increase my customer base and professional network	Between Groups	45.182	1	45.182	27.458	.000
	Within Groups	161.258	98	1.645		
	Total	206.440	99			
6.Due to use of internet I reduce my travelling effort and expenses	Between Groups	46.810	1	46.810	29.417	.000
	Within Groups	155.940	98	1.591		
	Total	202.750	99			
7.It helped me in searching for new information related to business/work	Between Groups	29.537	1	29.537	20.769	.000
	Within Groups	139.373	98	1.422		
	Total	168.910	99			
8.Helped searching information on topics related to Business/work	Between Groups	41.751	1	41.751	26.811	.000
	Within Groups	152.609	98	1.557		
	Total	194.360	99			
9.Helped me collaborating with others for business/ work	Between Groups	48.324	1	48.324	32.466	.000
	Within Groups	145.866	98	1.488		
	Total	194.190	99			
10.Due to knowledge of competitive rates from different vendors help me to reduced cost as I get accurate information from the Internet	Between Groups	37.181	1	37.181	25.550	.000
	Within Groups	142.609	98	1.455		
	Total	179.790	99			
11.Helped viewing videos for learning and understanding in a better way	Between Groups	49.119	1	49.119	31.057	.000
	Within Groups	154.991	98	1.582		
	Total	204.110	99			
12.Helped searching and understanding the subjects that I would not have been able to understand otherwise	Between Groups	50.294	1	50.294	31.301	.000
	Within Groups	157.466	98	1.607		
	Total	207.760	99			
13.Helped in getting a chance to talk to other people who are interested in the same topics as I am interested in	Between Groups	47.957	1	47.957	29.655	.000
	Within Groups	158.483	98	1.617		
	Total	206.440	99			

14.Enabled me to be in touch with my friends' friends which has increased my social interactions	Between Groups Within Groups Total	47.957 158.483 206.440	1 98 99	47.957 1.617	29.655	.000
15.Has increased my interactions with my relatives/friends (through emails/social networking sites etc)	Between Groups Within Groups Total	49.119 154.991 204.110	1 98 99	49.119 1.582	31.057	.000
16.Helped in exchanging ideas about work with other people	Between Groups Within Groups Total	47.957 158.483 206.440	1 98 99	47.957 1.617	29.655	.000
17.Helped in being more confident in expectation of my work requirement/job role	Between Groups Within Groups Total	49.119 154.991 204.110	1 98 99	49.119 1.582	31.057	.000
18.Helped in getting accurate information	Between Groups Within Groups Total	46.810 155.940 202.750	1 98 99	46.810 1.591	29.417	.000
19.Helped to do some part of my work without being at the place of work, physically	Between Groups Within Groups Total	49.119 154.991 204.110	1 98 99	49.119 1.582	31.057	.000
20.Internet provide me an opportunity to take help in case of emergency	Between Groups Within Groups Total	47.957 154.483 202.440	1 98 99	47.957 1.576	30.423	.000
21.Helped in banking online for business/work related transactions /conducting online transaction (booking railway, airline, bus etc/shopping for clothes/shoes/electronic items/books etc.)	Between Groups Within Groups Total	45.182 161.258 206.440	1 98 99	45.182 1.645	27.458	.000
22.Helped in Getting feedback on business/work related issues	Between Groups Within Groups Total	46.810 155.940 202.750	1 98 99	46.810 1.591	29.417	.000

Impact of income on Expected Use of Internet :

One way ANOVA result of occupation in Table 4, on three components Increase in Efficiency of Work, Empowerment, and Efficiency in Transaction at the 5 % level of significance shows that all values are above 0.05. This shows that there are statistically significant differences in responses Hence the null hypothesis is rejected.

Table 4: Impact of income on Expected Use of Internet

		Sum of Squares	df	Mean Square	F	Sig.
1.Adoption of internet increases the competition	Between Groups	2.264	1	2.264	1.099	.297
	Within Groups	201.846	98	2.060		
	Total	204.110	99			
2.Internet helped me to find new ways of doing work	Between Groups	2.866	1	2.866	1.405	.239
	Within Groups	199.884	98	2.040		
	Total	202.750	99			
3.Helped me to increased my existing business/work (deal with more people in the same amount of time)/	Between Groups	2.264	1	2.264	1.099	.297
	Within Groups	201.846	98	2.060		
	Total	204.110	99			
4.Internet help me to identify new business opportunity or job opportunity	Between Groups	2.556	1	2.556	1.253	.266
	Within Groups	199.884	98	2.040		
	Total	202.440	99			
5.Internet helped me to increase my customer base and professional network	Between Groups	9.008	1	9.008	4.472	.037
	Within Groups	197.432	98	2.015		
	Total	206.440	99			
6.Due to use of internet I reduce my travelling effort and expenses	Between Groups	2.866	1	2.866	1.405	.239
	Within Groups	199.884	98	2.040		
	Total	202.750	99			
7.It helped me in searching for new information related to business/work	Between Groups	2.018	1	2.018	1.185	.279
	Within Groups	166.892	98	1.703		
	Total	168.910	99			
8.Helped searching information on topics related to Business/work	Between Groups	1.323	1	1.323	.671	.415
	Within Groups	193.037	98	1.970		
	Total	194.360	99			
9.Helped me collaborating with others for business/ work	Between Groups	1.578	1	1.578	.803	.372
	Within Groups	192.612	98	1.965		
	Total	194.190	99			
10.Due to knowledge of competitive rates from different vendors help me to reduced cost as I get accurate information from the Internet	Between Groups	.112	1	.112	.061	.805
	Within Groups	179.678	98	1.833		
	Total	179.790	99			
11.Helped viewing videos for learning and understanding in a better way	Between Groups	2.264	1	2.264	1.099	.297
	Within Groups	201.846	98	2.060		
	Total	204.110	99			
12.Helped searching and understanding the subjects that I would not have been able to understand otherwise	Between Groups	1.990	1	1.990	.948	.333
	Within Groups	205.770	98	2.100		
	Total	207.760	99			
13.Helped in getting a chance to talk to other people who are interested in the same topics as I am interested in	Between Groups	1.956	1	1.956	.937	.335
	Within Groups	204.484	98	2.087		
	Total	206.440	99			

14. Enabled me to be in touch with my friends' friends which has increased my social interactions	Between Groups	1.956	1	1.956	.937	.335
	Within Groups	204.484	98	2.087		
	Total	206.440	99			
15. Has increased my interactions with my relatives/friends (through emails/social networking sites etc)	Between Groups	2.264	1	2.264	1.099	.297
	Within Groups	201.846	98	2.060		
	Total	204.110	99			
16. Helped in exchanging ideas about work with other people	Between Groups	1.956	1	1.956	.937	.335
	Within Groups	204.484	98	2.087		
	Total	206.440	99			
17. Helped in being more confident in expectation of my work requirement/job role	Between Groups	2.264	1	2.264	1.099	.297
	Within Groups	201.846	98	2.060		
	Total	204.110	99			
18. Helped in getting accurate information	Between Groups	2.866	1	2.866	1.405	.239
	Within Groups	199.884	98	2.040		
	Total	202.750	99			
19. Helped to do some part of my work without being at the place of work, physically	Between Groups	2.264	1	2.264	1.099	.297
	Within Groups	201.846	98	2.060		
	Total	204.110	99			
20. Internet provide me an opportunity to take help in case of emergency	Between Groups	2.556	1	2.556	1.253	.266
	Within Groups	199.884	98	2.040		
	Total	202.440	99			
21. Helped in banking online for business/work related transactions /conducting online transaction (booking railway, airline, bus etc/shopping for clothes/shoes/electronic items/books etc.)	Between Groups	9.008	1	9.008	4.472	.037
	Within Groups	197.432	98	2.015		
	Total	206.440	99			
22. Helped in Getting feedback on business/work related issues	Between Groups	2.866	1	2.866	1.405	.239
	Within Groups	199.884	98	2.040		
	Total	202.750	99			

Impact of Education on Expected Use of Internet:

Ho4:- There is no significant difference between the education and Efficiency of Work, Empowerment, Efficiency in Transaction

Ha4:- There is a significant difference between the education and Efficiency of Work, Empowerment, Efficiency in Transaction

For Education Table 5, on three components Increase in Efficiency of Work, Empowerment, and Efficiency in Transaction at the 5 % level of significance shows that there are mixed responses. But more number of values are above 0.05 conceded that the null hypothesis is neither rejected nor accepted.

Table 5: Impact of Education on Expected Use of Internet

		Sum of Squares	df	Mean Square	F	Sig.
1.Adoption of internet increases the competition	Between Groups	8.183	1	8.183	4.093	.046
	Within Groups	195.927	98	1.999		
	Total	204.110	99			
2.Internet helped me to find new ways of doing work	Between Groups	6.565	1	6.565	3.279	.073
	Within Groups	196.185	98	2.002		
	Total	202.750	99			
3.Helped me to increased my existing business/work (deal with more people in the same amount of time)/	Between Groups	8.183	1	8.183	4.093	.046
	Within Groups	195.927	98	1.999		
	Total	204.110	99			
4.Internet help me to identify new business opportunity or job opportunity	Between Groups	7.352	1	7.352	3.693	.058
	Within Groups	195.088	98	1.991		
	Total	202.440	99			
5.Internet helped me to increase my customer base and professional network	Between Groups	16.070	1	16.070	8.272	.055
	Within Groups	190.370	98	1.943		
	Total	206.440	99			
6.Due to use of internet I reduce my travelling effort and expenses	Between Groups	6.565	1	6.565	3.279	.073
	Within Groups	196.185	98	2.002		
	Total	202.750	99			
7.It helped me in searching for new information related to business/work	Between Groups	7.387	1	7.387	4.482	.037
	Within Groups	161.523	98	1.648		
	Total	168.910	99			
8.Helped searching information on topics related to Business/work	Between Groups	10.547	1	10.547	5.623	.020
	Within Groups	183.813	98	1.876		
	Total	194.360	99			
9.Helped me collaborating with others for business/ work	Between Groups	11.538	1	11.538	6.191	.015
	Within Groups	182.652	98	1.864		
	Total	194.190	99			
10.Due to knowledge of competitive rates from different vendors help me to reduced cost as I get accurate information from the Internet	Between Groups	18.532	1	18.532	11.263	.001
	Within Groups	161.258	98	1.645		
	Total	179.790	99			
11.Helped viewing videos for learning and understanding in a better way	Between Groups	8.183	1	8.183	4.093	.046
	Within Groups	195.927	98	1.999		
	Total	204.110	99			
12.Helped searching and understanding the subjects that I would not have been able to understand otherwise	Between Groups	9.059	1	9.059	4.468	.037
	Within Groups	198.701	98	2.028		
	Total	207.760	99			
13.Helped in getting a chance to talk to other people who are interested in the same topics as I am interested in	Between Groups	8.571	1	8.571	4.245	.042
	Within Groups	197.869	98	2.019		
	Total	206.440	99			

14.Enabled me to be in touch with my friends' friends which has increased my social interactions	Between Groups	8.571	1	8.571	4.245	.042
	Within Groups	197.869	98	2.019		
	Total	206.440	99			
15.Has increased my interactions with my relatives/friends (through emails/social networking sites etc)	Between Groups	8.183	1	8.183	4.093	.046
	Within Groups	195.927	98	1.999		
	Total	204.110	99			
16.Helped in exchanging ideas about work with other people	Between Groups	8.571	1	8.571	4.245	.042
	Within Groups	197.869	98	2.019		
	Total	206.440	99			
17.Helped in being more confident in expectation of my work requirement/job role	Between Groups	8.183	1	8.183	4.093	.046
	Within Groups	195.927	98	1.999		
	Total	204.110	99			
18.Helped in getting accurate information	Between Groups	6.565	1	6.565	3.279	.073
	Within Groups	196.185	98	2.002		
	Total	202.750	99			
19.Helped to do some part of my work without being at the place of work, physically	Between Groups	8.183	1	8.183	4.093	.046
	Within Groups	195.927	98	1.999		
	Total	204.110	99			
20.Internet provide me an opportunity to take help in case of emergency	Between Groups	7.352	1	7.352	3.693	.058
	Within Groups	195.088	98	1.991		
	Total	202.440	99			
21.Helped in banking online for business/work related transactions /conducting online transaction (booking railway, airline, bus etc/shopping for clothes/shoes/electronic items/books etc.)	Between Groups	16.070	1	16.070	8.272	.005
	Within Groups	190.370	98	1.943		
	Total	206.440	99			
22.Helped in Getting feedback on business/work related issues	Between Groups	6.565	1	6.565	3.279	.073
	Within Groups	196.185	98	2.002		
	Total	202.750	99			

6.5. Impact of Digital Literacy on Expected Use of Internet:

Ho5:- There is no significant difference between the digital literacy and Efficiency of Work, Empowerment, Efficiency in Transaction

Ha5:- There is significant difference between the digital literacy and Efficiency of Work, Empowerment, Efficiency in Transaction

By using Table 6 for Digital Literacy we reject the null hypothesis. This shows that there is a significant statistical difference in the values at 5 % level of significance.

		Sum of Squares	df	Mean Square	F	Sig.
1.Adoption of internet increases the competition	Between Groups	6.672	1	6.672	3.312	.072
	Within Groups	197.438	98	2.015		
	Total	204.110	99			
2.Internet helped me to find new ways of doing work	Between Groups	5.578	1	5.578	2.773	.099
	Within Groups	197.172	98	2.012		
	Total	202.750	99			
3.Helped me to increased my existing business/work (deal with more people in the same amount of time)/	Between Groups	6.672	1	6.672	3.312	.072
	Within Groups	197.438	98	2.015		
	Total	204.110	99			
4.Internet help me to identify new business opportunity or job opportunity	Between Groups	6.113	1	6.113	3.051	.084
	Within Groups	196.327	98	2.003		
	Total	202.440	99			
5.Internet helped me to increase my customer base and professional network	Between Groups	5.159	1	5.159	2.512	.116
	Within Groups	201.281	98	2.054		
	Total	206.440	99			
6.Due to use of internet I reduce my travelling effort and expenses	Between Groups	5.578	1	5.578	2.773	.099
	Within Groups	197.172	98	2.012		
	Total	202.750	99			
7.It helped me in searching for new information related to business/work	Between Groups	5.023	1	5.023	3.004	.086
	Within Groups	163.887	98	1.672		
	Total	168.910	99			
8.Helped searching information on topics related to Business/work	Between Groups	6.724	1	6.724	3.512	.064
	Within Groups	187.636	98	1.915		
	Total	194.360	99			
9.Helped me collaborating with others for business/worsk	Between Groups	8.436	1	8.436	4.451	.037
	Within Groups	185.754	98	1.895		
	Total	194.190	99			
10.Due to knowledge of competitive rates from different vendors help me to reduced cost as I get accurate information from the Internet	Between Groups	3.608	1	3.608	2.007	.160
	Within Groups	176.182	98	1.798		
	Total	179.790	99			
11.Helped viewing videos for learning and understanding in a better way	Between Groups	6.672	1	6.672	3.312	.072
	Within Groups	197.438	98	2.015		
	Total	204.110	99			
12.Helped searching and understanding the subjects that I would not have been able to understand otherwise	Between Groups	7.255	1	7.255	3.546	.063
	Within Groups	200.505	98	2.046		
	Total	207.760	99			
13.Helped in getting a chance to talk to other people who are interested in the same topics as I am interested in	Between Groups	6.113	1	6.113	2.990	.087
	Within Groups	200.327	98	2.044		
	Total	206.440	99			

14.Enabled me to be in touch with my friends' friends which has increased my social interactions	Between Groups Within Groups Total	6.113 200.327 206.440	1 98 99	6.113 2.044	2.990	.087
15.Has increased my interactions with my relatives/friends (through emails/social networking sites etc)	Between Groups Within Groups Total	6.672 197.438 204.110	1 98 99	6.672 2.015	3.312	.072
16.Helped in exchanging ideas about work with other people	Between Groups Within Groups Total	6.113 200.327 206.440	1 98 99	6.113 2.044	2.990	.087
17.Helped in being more confident in expectation of my work requirement/job role	Between Groups Within Groups Total	6.672 197.438 204.110	1 98 99	6.672 2.015	3.312	.072
18.Helped in getting accurate information	Between Groups Within Groups Total	5.578 197.172 202.750	1 98 99	5.578 2.012	2.773	.099
19.Helped to do some part of my work without being at the place of work, physically	Between Groups Within Groups Total	6.672 197.438 204.110	1 98 99	6.672 2.015	3.312	.072
20.Internet provide me an opportunity to take help in case of emergency	Between Groups Within Groups Total	6.113 196.327 202.440	1 98 99	6.113 2.003	3.051	.084
21.Helped in banking online for business/work related transactions /conducting online transaction (booking railway, airline, bus etc/shopping for clothes/shoes/electronic items/books etc.)	Between Groups Within Groups Total	5.159 201.281 206.440	1 98 99	5.159 2.054	2.512	.116
22.Helped in Getting feedback on business/work related issues	Between Groups Within Groups Total	5.578 197.172 202.750	1 98 99	5.578 2.012	2.773	.099

Findings

Age, occupation and education at a certain level is not the deciding factor, but the income, and digital literacy are the major reason for the effective use i.e for business or knowledge building activities of the internet. The above statistics indicates that possibly the individuals who used the Internet had high expectation on the enhancement of the scope of work by using the Internet. But actually people in rural areas are not using it in the proper direction. Effectiveness and efficiency of internet usage in rural area are very less which leads to less awareness, information and knowledge of the world leads to inefficiency in the market as compared to urban areas.

Major hindrances in the understanding and effective use of internet are found to be educated and digital literacy. The gap between the usage of internet for entertainment and effective usage could also be due to the individuals not getting enough support for enhancing their scope of the profession. Individuals in rural areas may be encountered problem in finding enough or relevant content for their profession.lack of content in local language, Internet connectivity problem may be other reasons for effective usage.

Studies of Internet adoption indicate that users initially begin with the usage of Internet for social purposes. Only when they feel comfortable with various uses of Internet and see the benefits of online transactions, they may use for it.

On-line transactions, use payment wallet for e-commerce and other services are a relatively newer phenomena and many individuals in rural areas may not be able to participate due to not having Internet banking, delivery of services to rural area, lack of trust in on-line transactions.

Basic education is playing an important role in understanding the effective and efficient use of the internet which lacks in rural individuals.

Future Scope of Work

Internet adoption generally starts from social media for networking and all and then once the trust is generated and they are looking for the benefit of the online transaction will go for other usages. For this, it is an early stage of the study.

This study was done in limited rural areas so it could be possible, different areas have a different result from adoption and usage.

The government is also bringing various initiatives and awareness campaigns sometimes force for making the habit of online usage, which definitely results in increase in effective usage of internet.

Thus, further study after lowering prices of data usage because of disruption in the telecom industry, increase in accessibility by improvement in services and infrastructure, a government awareness campaign of online usage and improving quality of services may provide greater opportunity for various online services and promotions of business. Also, this study focused only on Internet users. Further work needs to be done to make it applicable to a general population.

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Appendix 1 : Descriptive Statistics

	N	Min-imum	Max-imum	Mean	Std. Deviation
1. Adoption of internet increases the competition	100	1	5	3.33	1.436
2. Internet helped me to find new ways of doing work	100	1	5	3.35	1.431
3. Helped me to increased my existing business/work (deal with more people in the same amount of time)/	100	1	5	3.33	1.436
4. Internet help me to identify new business opportunity or job opportunity	100	1	5	3.34	1.430
5. Internet helped me to increase my customer base and professional network	100	1	5	3.34	1.444
6. Due to use of internet I reduce my travelling effort and expenses	100	1	5	3.35	1.431
7. It helped me in searching for new information related to business/work	100	1	5	3.47	1.306
8. Helped searching information on topics related to Business/work	100	1	5	3.42	1.401
9. Helped me collaborating with others for business/ work	100	1	5	3.41	1.401
10. Due to knowledge of competitive rates from different vendors help me to reduced cost as I get accurate information from the Internet	100	1	5	3.61	1.348
11. Helped viewing videos for learning and understanding in a better way	100	1	5	3.33	1.436
12. Helped searching and understanding the subjects that I would not have been able to understand otherwise	100	1	5	3.32	1.449
13. Helped in getting a chance to talk to other people who are interested in the same topics as I am interested in	100	1	5	3.34	1.444
14. Enabled me to be in touch with my friends' friends which has increased my social interactions	100	1	5	3.34	1.444
15. Has increased my interactions with my relatives/friends (through emails/social networking sites etc)	100	1	5	3.33	1.436
16. Helped in exchanging ideas about work with other people	100	1	5	3.34	1.444
17. Helped in being more confident in expectation of my work requirement/job role	100	1	5	3.33	1.436
18. Helped in getting accurate information	100	1	5	3.35	1.431
19. Helped to do some part of my work without being at the place of work, physically	100	1	5	3.33	1.436
20. Internet provide me an opportunity to take help in case of emergency	100	1	5	3.34	1.430
21. Helped in banking online for business/work related transactions /conducting online transaction (booking railway, airline, bus etc/shopping for clothes/shoes/electronic items/books etc.)	100	1	5	3.34	1.444
22. Helped in Getting feedback on business/work related issues	100	1	5	3.35	1.431
Valid N (listwise)	100				

Appendix 2 : Reliability Test

Case Processing Summary

		N	%
Cases	Valid	100	100.0
	Excluded[a]	0	.0
	Total	100	100.0

a. Listwise deletion based on all variables in the procedure

Reliability Statistics

Cronbach's Alpha	N of Items
.986	27

Addressing The Complex Issue of Understanding Entrepreneurial Intentions of Indian Millennials : Adopting A Intention-Driven, Theory-Based Model

K. Satyalakshmi[1]   Pallavi Kumari[2]

The Millennials are considered the most entrepreneurial generation among the workforce. Given the unique traits and characteristics of this generation, understanding and predicting entrepreneurial intentions (EI) among Millennials will go a long way in facilitating new venture creation and start-up culture in the country. The Theory of Planned Behavior (TPB) that has been successfully applied to understanding consumer behavior can be applied to understand EI among Indian Millennials (Kolvereid). Shapero & Sokol's theory of the entrepreneurial event (SEE) is an intention-based model aiming to explain entrepreneurial intentions and better understand subsequent behavior.

Applying both the models of TPB and SEE to understand EIs of Indian Millennials requires a well-researched and contextual research design that includes all the elements impacting EI. This paper puts forth a research design using a conceptual framework/model containing the linkages between various mediating and independent variables and their subsequent impact on the dependent variable. The different parameters proposed to be used to understand EI have been carefully chosen after a diligent literature review. The research design is visualized keeping the tools used for collecting data from target respondents in mind.

Keywords : Entrepreneurial intentions, Theory of planned behavior, Shapiro Entrepreneurial event, research design, conceptual framework.

Introduction

According to Schumpeter (1912) "entrepreneurs are individuals who exploit market opportunities through technical and/or organizational innovation".

While enough has been written about the importance of Indian entrepreneurs and their contributions to the nation's economy, concrete and systematic research on entrepreneurial intentions is too few and far in-between. Research that throws light on the factors that promote or impede the entrepreneurial aspirations of the Indian entrepreneur would go a long way in facilitating entrepreneurial activity in a big way.

Literature review reveals that EI was found to be impacted by factors like gender, education, having an entrepreneurial parent(s) or enterprise (Crant, 1998), (JC Carr, 2007). There are a number of studies on education affecting students' attitude towards entrepreneurship (Basu and Virick, 2008). Studies have brought out the relation between entrepreneurial self-efficacy (ESE) and entrepreneurial intentions (EI)(Shinnar, Hsu, Powell, 2014).The relationship between entrepreneurial self-efficacy, self-regulation and entrepreneurial intention using Bandura's structural path model has also been pursued (Pihie, Z.A.L. & Bagheri, A, 2013). The statistically significant relationship between personality attributes and entrepreneurial intentions has been reported by researchers (Ozaralli and Rivenburgh 2016). The influence of cultural dimensions on entrepreneurs has been widely studied using the Hofstede Model

(Ratsifandrihamanana, 2014; JR Fitzsimmons, 2005; Urban, 2008).

Study of entrepreneurial intentions (EIs) among Indian students revealed a number of factors that can have a significant impact (NC Bhandari, 2015). Part-time work experience and social network effects are found to be the strongest in shaping entrepreneurial intentions with equal impact on both male and female genders (Noel Saraf, 2015). The impact of age and educational qualification on entrepreneurial intent has been studied in Indian students (Arunkumar Velusamy, 2014).

However, demographic models have been found to have limited use in understanding EI. Similarly, personality traits are found to explain only 10% of the variance in behavior (Ajzen, 1987). Models based on demographics, personality traits or attitudinal approaches have been found to less predictive and are considered to be less robust approaches of studying EI (Tiurenkov, 2011).

Instead, it is proposed that entrepreneurial intentions (EI) be studied through the use of the intention model, which offers a coherent, parsimonious and highly generalizable theoretical framework to predict intentions (Krueger, Reilly & Carsrud, 2000).

In the social psychology literature, intentions have proved to be the best predictor of planned individual behaviors, especially when the target behavior is rare, difficult to observe, or involves unpredictable time lags (Krueger, Reilly, and Carsrud 2000). The entrepreneurial intention is most often expressed studied

[1] Research Scholar, ICFAI University Jharkhand, satyalakshmi.2010@gmail.com
[2] Assistant Professor, ICFAI University Jharkhand, pallavikumari@iujharkhand.edu.in

antecedent of venture creation. This kind of approach draws on a well-established body of literature linking intention of subsequent actions (Ajzen, 1987, 1991) and has been proposed several times as the best predictor of entrepreneurial behavior (Shapero, 1982; Honig, 2004). The present study incorporates the theories espoused by Ajzen and Shapero in the form of a conceptual framework to study EIs of population samples.

Theory of Planned Behavior

Ajzen's Theory of Planned Behavior (TPB) is widely used in psychology to understand the behavior of individuals (Krueger, Carsrud, 1993). TPB and its precursor, Theory of Reasoned Action focus on the theoretical constructs concerned with individual motivational factors as determinants of the likelihood of performing specific behaviors (DE Montano, D Kasprzyk, 2015). Intentions to perform behaviors of different kinds can be predicted with high accuracy from attitudes toward the behavior, subjective norms, and perceived behavioral control (J Cheon, S Lee, SM Crooks, J Song,2012, CJ Armitage, 2001, Koe, 2012); and these intentions, together with perceptions of behavioral control, account for considerable variance in actual behavior. Research works have demonstrated that the Ajzen's framework is a solid model for explaining or predicting entrepreneurial intentions (Kolvereid, 1992).

According to TPB, human action is guided by three kinds of considerations.

- Behavioral beliefs(beliefs about the likely consequences of the behavior)
- Normative beliefs (beliefs about normative expectations of others)
- Control beliefs (beliefs about the presence of factors that may facilitate/impede performance of the behavior)


Fig 1
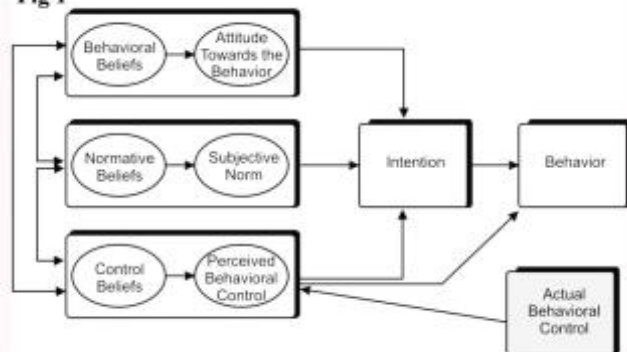
Source: Icek Ajzen, 1992

Shapero's Entrepreneurial Events (SEE)

Shapero's model assumes that inertia guides human behavior until something interrupts or displaces that inertia. Displacement can be negative or positive. Displacement precipitates a change in behavior and the decision maker seeks the best opportunity available from her or his enacted set of alternatives (Katz, 1992).The choice of the resulting behavior depends on the relative "credibility" of alternative behaviors (in this situation to this decision maker) plus some "propensity to act" (without which the decision maker may not take any significant action).


Fig 2
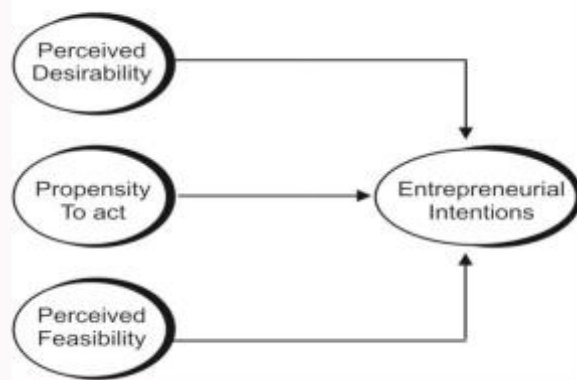
Both models (Shapero and Ajzen) have been used in a large number of studies undertaken to study EI. The models have been used separately and together with good results.

Major studies of EI carried out using TPB and/or SEE

NF Krueger, AL Carsrud	1993
JC Carr, JM Sequeira	2007
CJ Armitage, M Conner	2001
NF Krueger, MD Reilly, AL Carsrud	2010
C Schlaegel, M Koenig	2014
WL Koe and others	2012
Parvaneh Gelard , Majid Ghanbarinejad Esfaghansary and Mahdi Rahemi	2014
Rajeev Mukundan; Sam Thomas	2016
Tiurenkov V	2011

It is observed that both models show some degree of mutual compatibility. Both the TPB and SEE models provide comparable interpretations of entrepreneurial intentions (Krueger, N.F., 1993; 2000). Krueger demonstrated that attitudes and subjective norms in the Theory of Planned Behavior model are conceptually related to perceived desirability in SEE; while perceived behavioral control in TPB corresponds to perceived feasibility in the SEE model. Essentially, perceived desirability and perceived feasibility are fundamental elements of intentional behavior.

Compatibility between TPB and SEE (Krueger 2000)
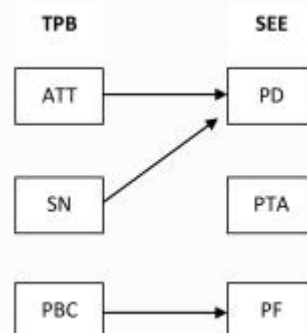
(ATT=attitudes; SN= subjective norms; PBC= perceived behavior control; PD=Perceived desirability; PTA= propensity to act; PF= perceived feasibility)

Taking the similarities into consideration, an integrated model containing the elements of both the models is being used in the present study. This is done to avoid repetition and ambiguity. The model of entrepreneurial potential by Krueger and Brazeal (1994) is taken as a standard to create a model suitable for use on the targeted populations.

The target population

Indian Millennials are the chosen target population for this research study. Millennials or Gen Y refers to that group of individuals born between the year 1980 and year 2000(Hartman, McCambridge, 2011). Among the four generations (Silent Generation, Baby Boomers, Gen X and Gen Y) understanding the factors that influence the entrepreneurial intentions of the millennials are considered to be the most significant (Koe et al, 2012).

The influencing factors of millennials across the globe vary from region to region and the contextual factors impacting Indian millennials need to be understood.

Taking the case of the Indian context, post-liberalization leading to the opening up of markets after 1991 saw this group impacted by significant cultural, socio-economic changes. All these factors culminated in creating characteristics in the Millennials like increasing demand for ethical behavior, accountability, and transparency.

Encouraging entrepreneurial intention among this generation would result in intense entrepreneurial activity in diverse geographic regions.

Proposed model

Based on the review of the literature and previously tested models the following framework/model was conceived by the researcher for the study and is proposed to be used for the study of EI.

Proposed framework/model
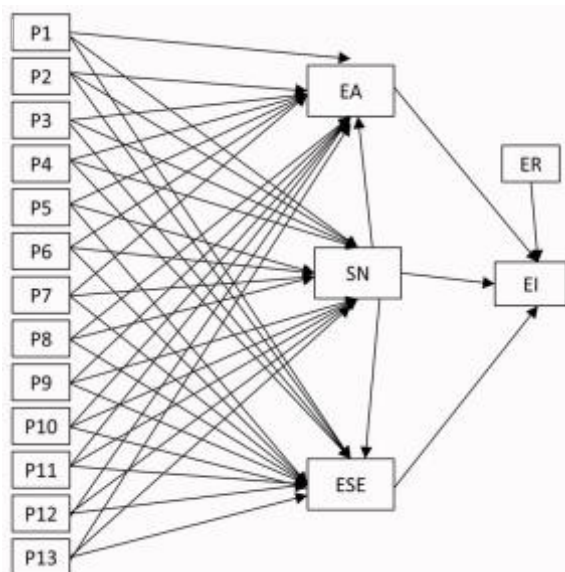
(EI=Entrepreneurial intentions; ER=entrepreneurial resistance; EA=entrepreneurial attitudes; SN=subjective norms; ESE=entrepreneurial self efficacy; p1-13 different parameters for studying EA, SN and ESE).

The proposed model is based on a review of the literature to arrive at a pattern of association between the main variable EI and other dependent variables. The model also reveals the relationship between the variables as shown in the schematic diagram. The influence of various factors on the independent variable EI will be understood and analyzed through this model.

The various researches undertaken on different populations across the globe are used as a basis for the conception of this model. The details of the researchers are given below in the table.

Details of research work done using models of EI

Study by	*Thrust of the research*
Krueger, Norris, 1993	Feasibility and desirability perceptions and propensity to act each proved significant antecedents of entrepreneurial intentions.
Norris F. Krueger JR, Michael D. Reilly, Alan L. Carsrud	Promoting entrepreneurial intentions by promoting public perceptions of feasibility and desirability are feasible
Davidsson	An economic-psychological model of factors that influence individuals' intentions to go into business for themselves is developed and tested on Swedish subjects
Kolvereid a	Using a sample of 128 Norwegian undergraduate business students, it was found that employment status choice intentions only indirectly through their effect on attitude, subjective norm, and perceived behavioral control
Kolvereid b	Study developed a classification scheme of reasons given for preferring self-employment versus organizational employment using Norwegian master degree students
Alexei Tkachev, Lars Kolvereid	Hypothesis based on TPB tested on 512 Russian students
Raijman R	Determination of EI tested on Mexican immigrants based in Chicago
Douglas, Evan and Shepherd, Dean	Study explores the relationship between entrepreneurial attitudes and the intention to be self-employed of alumni of Australian University
Phillip H. Phanpoh Kam Wongclement K. Wang	Relationships between EI and determinants among university students of Singapore
Luthje and Franke	Testing of EI model on engineering students of MIT
Tein Kristiansen and Nurul Indarti	Testing models of entrepreneurial intent among Norwegian and Indonesian students
Wilson, Fiona; Marlino, Deborah; Kickul, Jill	Testing entrepreneurial intentions among teens
CC Chen, PG Greene, A Crick	The results of this study demonstrate the potential of entrepreneurial self-efficacy as a distinct characteristic of the entrepreneur.

The proposed model is intended to study the impact of various parameters on EI of students in final year management and engineering. These students are crucial for the study as they are about to embark on careers and will be making major decisions regarding their future career plan.

While EI is the dependent variable in the model, entrepreneurial attitude (EA), subjective norms (SN) and entrepreneurial self-efficacy (ESE) will be the mediating variables (Koe et al, 2012). The impact of various parameters P1-P12 on EI will be mediated by these variables. Selection of various parameters is based on literature review and the results of the pilot study conducted by the researcher. These parameters will act as dependent variables in the study.

Factors impacting EI

Independent variables P1-P12 are used in the model to study their impact on all the three mediating variables. The different variables are discussed below:

P1-Gender: Gender of the respondent will be collected as part of the general information questions

P2-previous entrepreneurial experience: Previous studies show that previous entrepreneurial experience can positively impact EI (JC Carr, JM Sequeira)

P3-Entrepreneurial skill: This parameter is a factor that contributes to understanding entrepreneurial self-efficacy (Kautonen Gelderen Fink, 2015; Man TWY, 2000). Studies by Davidsson (1995) have demonstrated the relevance of using this parameter to measure ESE.

P4-Innovation orientation: a Behavioral component of attitude and its impact on EI is assessed by inclusion of this parameter. Experiential activities known to promote creative thinking like exposure to other cultures, new experiences and art events were found to contribute to perceived innovativeness (N Ozarelli, 2016).

P5- Fear of failure: a Pilot study conducted on Millennials and their entrepreneurial intentions has revealed that fear of failure is a significant factor that impacts EI.

P6- Achievement orientation: By including this parameter in the model, the impact of achievement orientation of EI can be assessed. Literature review has revealed that this parameter has been positively associated with EI (Zhao, Sibert, Lumpkin, 2009)

P7- Individual control: Individual's control over his/her behavior is found to account for significant amounts of variance of EI (Armitage, Conner, 2001)

P8-Previous entrepreneurial experiences of parents: Together with P9 and P10 this parameter accounts for notable impact of EI as part of subjective norms (Kolvereid 1996, Davidsson 1995)

P9- Previous entrepreneurial experience of siblings: Part of subjective norms

P10- Previous entrepreneurial experience of friends/acquaintances: Part of subjective norms- The above three parameters bring out the relevance of role models in furthering EI (Linen, Chen, 2009)

P11-Perceived support for entrepreneurship from policymakers: Dedicated efforts in the promotion of entrepreneurs by governments, institutions, and individuals are found to

positively impact EI. (Goel, Vohra, Zhang, Arora, 2007)

P12-Presence of the entrepreneurial environment: Literature review shows that enhancing ESE is to work in the environment of potential and actual entrepreneur's supportive environment (Chen, Greene, Crick, 1998; (Kolaba, 2014)).

The proposed model is expected to bring out the linkages between each of the independent variables with each of three mediating variables.

Methodology and Data analysis

The above-described model will be used to create a focused and structured questionnaire. Students of Engineering and Management are the target population for administering this questionnaire. The questions included in the questionnaire are proposed to be Likert style questions.

The relationships envisaged in the model cannot be categorized as deductive or linear in nature. Use of multiple regression models may also be insufficient. The model needs to be proved by a robust statistical analysis involving structure equation modeling.

Conclusion

Drawing from the findings of a pilot study conducted on 60 Gen Y employees of a game designing firm, this article presents a research design aimed at understanding the entrepreneurial intentions of Millennials. The target research sample, instruments of research and the framework/model to be used in research are all carefully designed keeping in mind that understanding EI is a complex process. It involves careful analysis and understanding of the impact of multiple determinants that directly or indirectly impact EI.

The study has focused on Millennials' entrepreneurial intentions for two reasons; one, their numbers (40% of the Indian population) which is expected to swell significantly in the next decade. Second, the innovativeness and risk-taking propensity associated with the Millennials have been identified as important factors to become an entrepreneur (Kolaba, 2014). Choice of Indian Millennials as target population is justified by these two reasons. The target population for this study is the Millennials who are in the final year of study and are soon about to embark on a career path.

The research framework/model carefully assimilates all the factors that have been associated with EI or theories of TPB and SEE in earlier studies. A questionnaire will be prepared to bring out the linkages as indicated in the framework/model. Analysis of the results made available through the research instrument is expected to contribute to the understanding of EI of Indian Millennials. Additionally, answers to some often-asked questions as indicated below are also expected to come out of the study.

(1) Why is it that only some persons choose to become entrepreneurs but not others?

(2) Why is it that only some persons recognize opportunities for new products or services that can be profitably exploited but not others?

(3) Why are some entrepreneurs so much more successful than others?

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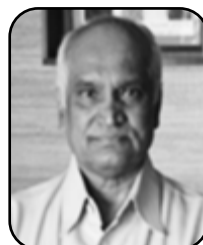
Emerging Trends of Research In The Field of Finance - A Review

Vishal Kumar[1]   B.M. Singh[2]

An endeavour has been made in this article to identify and indicate the emerging trends of research in the field of finance in India on the basis of research gaps. Foreign Direct Investment (FDI) means an investment through which the non-resident investor and foreign company can start a new company can acquire an effective share in an existing company in India with the specific objective of carrying on industrial activities or business in India.

Foreign institutional investor (FII) means an institution established or incorporated outside India which proposes to make an investment in India in securities. FII' include "Overseas pension funds, mutual funds, investment trust, asset management company, nominee company, bank, institutional portfolio manager, university funds, endowments, foundations, charitable trusts, charitable societies etc.(fund having more than 20 investors with no single investor holding more than 10 percent of the shares or units of the fund) ". The list is indicative and not exhaustive. However, this will provide a lot of inputs to researchers and academician engaged in research in the area of finance in our country and would provide some inputs for pondering over emerging areas of research.

***Keywords**: Foreign Direct Investment, Foreign institutional investor, Portfolio, Endowments.*

Introduction

A. Foreign Investment {Foreign Direct Investment (FDI), foreign institutional investor (FII)}

Developed economies consider FDI as an engine of market assessment in developing and less developed countries vis-à-vis for their own technological progress and in maintaining their own economic growth and development. Developing nations look at FDI as a source of filling the savings, foreign exchange reserves, revenue, trade deficit, management and technological gaps.

Foreign investment is necessary not only to supplement domestic capital but also to secure scientific, technical and industrial knowledge. In view of this, the government adopted a liberal attitude by providing many incentives such as tax concessions, simplification of licensing procedures and de-reserving some industries such as drugs, aluminum, heavy electrical equipments, fertilizers, etc in order to further boost the FDI inflows in the country.

Recent trends of research in foreign investment

1. Effectiveness of "Make in India" campaign on FDI in India.

2. Effectiveness of FDI on Government Reserve, foreign exchange reserve, Export, Exchange Rate, Employment, Management and Technical gap.

3. Effect of FDI on competitive business environment in various sectors such as Banking, Insurance, Automobile, and Infrastructure.

4. Effect of double taxation avoidance agreement (DATT) on FDI in India.

5. An exploratory study of foreign investment as an effective tool in reducing the defect of BOP.

6. Study could be based on "to find out the requirement of amount of foreign investment in India, for its economic development".

7. Analyze the trend and role of FDI & FIIs in improving the quality and availability of goods.

8. Find out how FDI is seen as an important economic catalyst for Indian economic growth by stimulating domestic investment, increasing the human capital formation and by facilitating the technology transfers.

9. The FDI policy paving the way where FDI inflow can be utilized as means of enhancing domestic production, savings, and exports through the equitable distribution among states by providing much freedom to states.

10. The study could be based on "which sectors are required more foreign investment for economic development".

11. Relationship and dependence of investment by FII on total FDI in India.

[1] Asst. Professor, ICFAI University Jharkhand, kumarvishalgupta@gmail.com
[2] Registrar and Dean, ICFAI University Jharkhand, registrar@iujharkhand.edu.in

12. Framing an empirical model finding the relationship between FDI and inflation in India.

13. Framing an empirical model finding the dependency of GDP on FDI in India.

14. Need for Caution in Retail FDI

B. Foreign exchange rate and its impact on Indian economy

An exchange rate (also known as a foreign-exchange rate, forex rate, ER, FX rate) between two currencies is the rate at which one currency will be exchanged for another. It is also regarded as the value of one country's **currency** in relation to another **currency.**

Recent trends of research in Foreign Exchange Rate

1. Impact of exchange rate on trade and GDP

2. Find out the relationship between Exchange rate, oil Price and Indian Economy.

3. Impact of exchange rate on Balance of Payment.

4. Global economy & foreign exchange strategy.

5. Impact of foreign exchange rate on foreign investment.

6. To Study and analyze relation between market Index with fluctuating Indian Rupee.

7. To Study and analyze various reasons which impact the Indian Currency Market.

8. The Effect of OPEC Oil Pricing on Output, Prices, and Exchange Rates In the India and Other Industrialized Countries.

9. Effectiveness of hedging in foreign exchange market.

10. Importance of technical analysis in foreign exchange market.

C. Valuation methods of stock, stock market, and Mutual fund

Technical Analysis can be defined as an art and science of forecasting future prices based on an examination of the past price movements.

Fundamental analysis examines the economic environment, industry performance, and company performance before making an investment decision. Investment is a financial activity that involves risk. The objective of an investor is specified as maximisation of return and minimisation of risk. It is highly essential for the investor to do both fundamental and technical analysis for deciding the suitable stock.

Recent trends of research in stock market

1. Which methods of technical analysis are most suitable in finding Trends?

2. Find out the relationship between fundamental and technical analysis during a specific time for certain company.

3. The effectiveness of fundamental and technical analysis in evaluating of intrinsic value of stock.

4. Stock valuation models: a study of models in use and development of customized model in India

Mutual Funds provide a platform for a common investor to participate in the Indian capital market with professional fund management irrespective of the amount invested. The Indian mutual fund industry is growing rapidly and this is reflected in the increase in Assets under management of various fund houses. Mutual fund investment is less risky than directly investing in stocks and is, therefore, a safer option for risk-averse investors.

Recent trends of research in mutual fund

1. Identify the areas required for improvement in order to create greater awareness among investors regarding investment in mutual fund.

2. Compare and evaluate the investment performance of mutual funds with relevant benchmark indexes.

3. Analyse the investor's perception towards different type of mutual funds like ELSS, Diversified equity fund.

4. Comparative study on ELSS and ULIP

5. Impact of fund rating on investment performance and investor perception.

6. Impact of mutual fund distribution channels on fund inflow

7. Impact of financial advisors on investor's perception towards mutual funds

8. Creating a model for different type of mutual funds benchmarking.

9. Performance persistence of Mutual funds in comparison with other investment alternatives.

Derivatives - Derivatives is a security with a price that is dependent upon or derived from one or more underlying assets. The derivative itself is a contract between two or more parties based upon the asset or assets.

Recent trends of research in Derivative

1. Impact of introduction of derivative products on spot market volatility in Indian stock markets.

2. Understanding of the casual direction between economic growth and derivative market.

3. Derivatives Market in India and its Current Position in Global Financial Derivatives Markets.

4. Comparative Analysis of Indian Stock Market with International Markets.

D. Mergers and acquisitions with special reference to banking Industry in India.

The banking industry is one of the rapidly growing industries in India. The growth rate of this sector is remarkable and it has become the most preferred banking destinations for International Investors.

Mergers and acquisitions (M&A) are defined as consolidation of companies. Differentiating the two terms, Mergers is the combination of two companies to form one, while Acquisitions is one company taken over by the other.

Recent trends of research in Mergers and acquisitions

Consolidation may happen in three different segments of Indian banking – state owned, privately managed, and the old private

sectors community dominated banks for three different reasons. The government is no more willing to keep pouring capital into the black hole, equity investors are shunning old private banks with no management vision, and the new age private ones may be just getting bit bolder.

1. Analysis of physical performance of merged banks emphasizes on improvements in Deposits, Advances, Businesses and Number of Employees of banks.

2. Study on Merger as a useful strategy in order to achieve financial performance of commercial banks by achieving economies of scale, competitiveness, and increased efficiency and Market share.

3. Analysis of share price performance of merged banks shown that, there is no consistent pattern of Abnormal Returns of selected merged banks.

4. Study on improvement in the financial statement of the company in pre and post merger period

5. The impact of mergers and acquisitions on employees in the financial services sector.

6. The impact of M&As on employees, staff representatives and their unions in banking sectors.

7. The impact of M&As on shareholders, customers `s perception

8. Trends in the nature and quality of employment in the banking services sector after merger.

9. The impact of restructuring and mergers on working conditions and the industrial relations climate.

10. The role of employee representation in mergers and restructuring.

11. Analysing the reactions of the stock market to merger announcements, ex-ante studies, and - ex-post studies

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Employee Resistance : Failure To Change Program

Khushbu Agarwal[1] **Rumna Bhattacharyya**[2]

In the competitive business world, each and every organization wanted to survive and grow as a market leader. To remain competitive organizations perceive change as very important for its survival and prosperity. Human resources are the biggest and most important assets for all the organizations. The success and failure of the organization depend on the performance of employees. In this paper, we intended to access the employee behavior towards change program, reasons for resistance towards change program. The main point that we can conclude for this paper is that employee resistance is one of the major factor that leads to failure of the change program. For a change program to be successful, it is very important to be faced with minimum resistance. An effective communication system needs to establish so that any chances of mis-communication are avoided. Participatory management should be there to provide a platform for all concerned parties to voice their opinion. The leader should develop a habit of listening to other. Although a supervisor can't always make people feel comfortable with change, however, they can minimize discomfort. And feedback from resistors can even be helpful in improving the process of gaining acceptance towards change.

Keyword : Organizational Change, Employee Resistance, Failure of Change program

Introduction

In this competitive business world change is an inevitable phenomenon. Change is the only constant factor and is very important to the firm. In order to survive all organization needs to acknowledge the importance of change. An organization needs to perceive change as an important factor for its survival and prosperity in today's world.

Change acts as an instrumental tool in dealing with new business challenges. Change initiative needs to be taken to keep with the pace of changing the environment and new challenging competition. The success and performance of an organization depend on its ability to match its operation and functioning in the external world. It is a fact that sustaining the success of an organization depends on its ability to adapt to a changing environment. Unfortunately, it has been found that 70% of organizational transformations fail (Jayme Alexandre de Lima 2009).

Change is a common occurrence within organizations, and resistance to change is just as common. Employee resistance is viewed as one of the main reasons for the failure of change program in many organizations. Resistance is the resultant employee's reaction of opposition to organizational change (Keen, 1981; Folger & Skarlicki 1999). Employee resistance has usually negative implication for the organizational change program. Employees play an important role in the implementation of the change program, thus employees' involvement in the change program is a must for its success.

The process of change is ubiquitous, and employee resistance has been identified as a most critically important contributor towards the failure of many well-intend and well-conceived efforts to initiate change within the organization. It has been found that in many case obstacles to change program is due to employee resistance at all levels: front-line, middle managers, and senior managers. Studies show that employee resistance is the prime reason due to which most change does not succeed or get implemented (Egan & Fjermestad, 2005). We can say that at times, many change programs fail as the organization is not able to win its employees' commitment to making the change program a success.

In an organization, people feel that change is the problem they faced, but in reality, it's not change but resistance which is a major problem. The tendency of people to avoid change and reality of need of change is the major problem in an organizational setting. To address the issue of employees resistance and aid in making change program success properly planned change management program is needed, which most of the organization lacks.

Many individuals believe that a charismatic leader can turn a change program into a successful one. This is true to a certain degree but is not a complete truth. To lead a successful change

[1]Research Scholar, ICFAI University Jharkhand, khushbumeet@yahoo.com
[2]Associate Professor, ICFAI University Jharkhand , Email: rumna2006@gmail.com

program charismatic leader also needs employee who believes in the need of the change program. At times subordinates make it extremely difficult for their leaders to be good leaders. The uncooperative behavior of subordinates makes it difficult for leaders to guide them in an effective manner. Leaders who fail to understand their subordinates may not be able to lead the change program effectively. It is found that organizational change can generate doubt and resistance in employees, making it sometimes difficult or impossible to implement organizational improvements.

If management does not understand, accept and make an effort to work with resistance, it can undermine even the most well-intentioned and well-conceived change efforts. Coetsee (1999). Any management's ability to achieve maximum benefits from change depends in part of how effectively, they create and maintain an organizational climate that minimizes resistant behavior and encourages acceptance and support.

Employee Resistance

It is human nature to resist something new and unfamiliar to them. Human being prefers predictability and stability in both their personal and professional lives (Garrison Wynn 2005). Employees tend to avoid situations which challenge their beliefs, upset their status quo, threaten their self-interests, increase stress or involve risk. It is believed that employees resist change as it is a fundamental human behavior to object when they have to be imposed on others will. Employees resist change until they are able to recognize the benefits of change and perceive the gains to be worth more than the risk or threats to their self-interests.

Early Research

The importance of the concept of resistance to change was bought into highlight by Kurt Lewin. Kurt Lewin emphasized the importance of individual behavior that must be addressed in order to bring about effective organizational change. To overcome employees' resistance towards change, it is necessary to increase the pushing force that is directed towards the change and decrease the restraining forces. To achieve this, three stages of change, i.e. unfreezing, moving, and refreezing need to be followed.

In unfreezing, stage leaders focus on removing the influence of old practices and situation from the mind of employees. Only when the old habits are removed it provides an opportunity for adapting to the new one. In moving, stage leaders facilitates employees through the transition from old practices to new ones. In refreezing stage, leaders focus on reinforcing the new practices and stabilizing it.

"Overcoming Resistance to Change" was the first research conducted regarding resistance to change. The research highlighted the importance of employee participation in decision making, which minimizes the chance of occurrence of resistance on the part of employees. The research opined that resistance to change is a combination of an individual reaction to frustration with strong group-induced forces (Coch and French 1948)

Research findings

I have used finding from three different research/articles to analyze why employees resist change. They are presented below:

1. A review of past empirical research reveals three different emphases in conceptualizations of resistance: as a cognitive state, as an emotional state, and as a behavior (Piderit 2000). It is believed that employee resistance change when they have negative thoughts or beliefs about the proposed change. Employees believe that the effort they put in the change program won't lead to desired outputs. The negativity towards the proposed change makes employees resist the change which leads to failure of the change program.

   At times even the resistance arises due to employees emotional factors. Aggression and frustration are the major emotional factor that leads to undesirable behavior and resistance to change (Argyris and Schon 1978). Employees also resistance when they are emotionally attached to the old way of doing things. Change is viewed as a threat to their identity. It is said that resistance to change is a defense mechanism caused by frustration and anxiety (Piderit 2000). Individual behavior also leads to resistance towards change. Resistance to change has also been defined as intentional acts of defiance or omission. Some employees have the habit of sticking with the old way and resisting new one. It is some people's behavior that they don't like anything changing around them. They prefer their comfort and space. This type of behavior also leads to resistance towards change.

2. Another empirical study conducted states that a potential cause of employee resistance towards change is, goal conflict between owners and employees. Usually, a change program involves a change in organizational goal, which results in shifting focus towards new goals. This requires increased focus towards a new goal to make it attainable. The firm's increased concentration and self-centered focus on its goals which ultimately affects employees' personal goals, and as a result it becomes very difficult for employees to succeed on their own goals and satisfy their needs.

   This concept is supported by "principal agent theory". This theory states that employees are the agents who strive to maximize their benefit while owners are the principal who strives for maximizing organization's profitability. The conflict between the interests of two parties leads to resistance. Unless and until the parties are able to address mutual benefit resistance towards change is inevitable.

3. Employees' resistance to change can be categorized under different headings. Understanding these different types of resistance helps in understanding ways to reduce resistance and encourage compliance with change. Resistance to change can be broken down into three groups: organization-level resistance, group-level resistance, and individual-level resistance (George et al.). Organizational level resistance arises due to the existence of power conflict among the

members. When people felt that the change may affect their status, they tend to resist it. Even the culture followed and adopted by the organization aids in resistance towards change. An organization where the culture is more inclined towards stability, employees working their resist any kind of change.

Group level resistance arises when there are informal norms and expectations. When the expectations are not stated clearly people resist it as they don't know what they are expected to do. Resistance also occurs when change alters interactions between group members. Resistance also arises due to group cohesiveness. When members of a cohesive group wish to keep things, such as members or tasks, the same within the group resistance arises. Individual level resistance arises when they don't possess the ability both technical as well as physical to adopt the change. In time individual resistance is also supported by their political and cultural affiliation.

Reasons for resistance

Based on various articles and journals, the main reasons for resistance are as follows :

- Lack of awareness about the change. When employees' don't know why change is happening and the reasons behind the change initiative, they resist it due to doubts that they have. Change is always done for something new. New things always bring new result which is mostly unknown to the employee. The fear of the unknown makes employee resist change.

- Comfort with the way things are. Many people love their space and don't want to change the things and want them to remain as they are. The fear that their comfort zone might be disturbed makes employee resist change.

- At times change threatens the interest, identity and security of the employee. The employee doesn't want to disturb the perceived status quo that exists in the organization. The believed needed to safeguard themselves from the threats of change, employees resists change.

- At times resistance also arises when employees misunderstand the implications of the change. When the purpose of the change is unclear, it is difficult for the employees acknowledge the need for change.

- When employees are self satisfied and don't feel the need to achieve anything new, they resist change.

- When employees are working in a traditional organizational culture, where stability is given the utmost importance they resist change.

- Resistance also comes when employees feel that change is being imposed on them. The feeling that others will is being imposed on them makes an employee rest change.

- Resistance also arises when there is a conflict of interest between the interest of the owner and employee

- Employees resist change when their friends or colleague resists it. The social pressure and peer group pressure compels them to resist change.

- Employees also resist change when they don't like or believe in the action of change agent

- Resistance also arises when the change is taking place too rapidly and employees are not able to comprehend it.

How employee resistance leads to failure of the change program

Employees are the one with whose help change program is to be implemented. Without employees support and help change program cannot be implemented. It has been viewed that many change programs fail as leaders, fails to get employee commitment towards the program. Until and unless employees believe in the program and work for its success, the chance of failure of the program is very high. Change in not an event, but a long process, so to make it success support of all staff members is a must. Thus, before implementing any change effort leaders need to make sure that there is organizational readiness.

How to deal with employee resistance

People will only take active steps toward the unknown if they genuinely believe in it. It is important that employees feel the need and believe in need of change. Employees' needs to be assured that the risks of standing still are greater than those of moving forward in a new direction. To address the resistance of employee, leader should be able to communicate effectively why the change is needed. The benefit of the change needs to be communicated properly. Employees also need to know the risks involved if the change initiative is not taken. All the communicated information must be truthful.

Leaders should use numbers whenever they can. The benefits in numbers are more believable that just stating the change will be beneficial. The benefits shared in numbers are more rational and employees can compare the benefit of the change effected. If leaders only communicate the benefit of change based on idealistic and unseen promises of reward, it will be difficult to move employee towards change.

It is important that the change manager anticipate, and plan strategies for dealing with resistance. We know change is common phenomenon so is resistance, so it is always good to be prepared to address the resistance. This applies not only at the introduction of the change, but there must be follow-through, so that the change manager observes the change over the long-term, and being alert for difficulties as it appears.

To deal with resistance, first of all it is most important to differentiate between the resistance to change symptoms, and the causes behind it. These behaviors fall into two categories: active-resistance or passive-resistance. Symptoms of active-resistance include ridiculing, finding fault, appealing to fear, and manipulating. Passive-resistance symptoms include agreeing

verbally, but not following through, feigning ignorance and withholding information.

Agency theory proposes different solutions to address employee resistance. It states the alignment of employees' goals with the owner's goals is needed, to allow them to work on a common ground and achieve the firm goals. To align the goals of two parties following steps can be taken: a) establishing appropriate incentives for the agents to motivate them towards the principal's goals, b) Efficiently monitoring and observing agents' behavior, c) Evaluating or monitoring the outcomes of the behavior and d) Making efficient contracting with the agent (Jensen & Meckling, 1976; Hill Charles and Jones Thomas 1992).

The importance of employee participation in decision making is very important in addressing employee's resistance towards change. When employees themselves are part of change decision the chances that they will resist change is very minimal. Thus, the participatory management style is an influential tool while dealing with employees' resistance. In order to facilitate a smooth transition from the old to the new and minimize employee resistance organizations must be competent in effective change management. The change management process consists of getting of those involved and affected to accept the introduced changes as well as manage any resistance to them.

We should never underestimate the power of observational learning while dealing with employee resistance. If you want to change to work, act as a role model. Employees when they see their leader as a role model for the initiated change, they tend to follow and act the change. Leaders need to have the imagination to create new possibilities that do not currently exist.

Leaders need to acknowledge the facts that change program not only need employees' acceptance, but also needs : the *desire* to change, the *ability* to change, and the *permission* to change. Most humans will not change their beliefs, habits, or behaviors unless they are motivated to do so. Most will not change, even if the change is for the better, unless there is come compelling reason. Thus leader needs to create awareness of the need to change. What are the compelling reasons to move away from the familiar and comfortable and move to something different and perhaps uncomfortable?

Leaders need to provide some assistance in developing the skills necessary for the change. Ignorant of the dynamics of human behavior, we assume that once people understand the need for change, they will miraculously move in that direction. Finally, there is the issue of permission. There is a misconception that change is always initiated by top level management. At times change may be initiated by subordinates or employees from lower level of management, permission must be granted by those in power. When a change is personal, we only have to give ourselves permission to change.

A feedback system needs to be established to facilitate change as well as address the issue, why employees are resisting change after all the effort needs to be acknowledged. An effective feedback system should be placed. Employees need to know not only what will change, but why the new reality will be better. People who resist change are often the ones most concerned about getting things right. Give them the chance to help you make a good change initiative better. To build participation and engagement. (Jeffrey D. Ford, Laurie W. Ford 2009)

Conclusion and Recommendation :

This paper has been prepared with references from numerous publication/ articles/ journals. The main point that we can conclude for this paper is that employee resistance is one of the major factor that leads to failure of the change program. For a change program to be successful, it is very important to be faced with minimum resistance.

To deal with resistance, a change process should constantly develop to make it more responsive and receptive to the contentment and the needs of all stakeholders including employees. An effective communication system needs to establish so that any chances of miscommunication are avoided. Participatory management should be there to provide a platform for all concerned parties to voice their opinion. The leader should develop a habit of listening to other. And all organizational members need to be prepared to adjust to change

It is very important to acknowledge that fact that, change is a process, not an event (Tom Ehrenfeld 1992). In a practical sense employees are not resisting the change. The process of change is simply moving from the current way of doing things in a new and different way of doing things. But rather employee may be resisting the loss of status, loss of pay, or loss of comfort. As change involves an individual's psyche, there is no concrete answer regarding how to deal with resistance. Since each individual is different, their perceptions and reasons for resisting are also different. The best way to do is to understand the unique circumstances within each individual that is causing their particular resistance.

At times rather than focusing on overcoming resistance, resistance can also be used in a positive way. Resistance to change is a valuable employees' passion which can be channeled more constructively. Employees' resistance can be taken as an opportunity to improve the change plan by utilizing rather than just overcoming.

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Role of Supplier Relationship Practices (SRP)
On Organizational Performance : A Dairy Industry Study

Rajeev Kumar[1]

In supply chain management strategies, supplier relationship management activities play an important role. A successful strategic alliance and integrated relationship with a supplier is very much needed. It should be revolved around trust, loyalty, positive-sum game (a win-win relationship), cross-functional team, achieving common goals and collaboration. Supplier Relationship Practices (SRP) entails creating closer and more collaborative relationship with key suppliers in order to uncover and realize the new value and reduce risk. Relationship quality can represent a competitive advantage for dairy supply chains and should, therefore, be improved using tools of supplier relationship management.

The research paper attempts to find out the relationship between the supplier relationship management (SRP) practices and organizational performance of Indian dairy industry. Various practices of SRP through extensive literature review are taken into account for establishing the relationship with organizational performance. Multiple regression analysis was performed on the dairy plant (DP), milk cooperative (MC) and milk retailer (MR) questionnaire in order to find out the impact or role of adopted SRP practices on organizational performance matrix.

Keywords : *Suppler Relationship Management (SRP), Supply Chain Management (SCM), Organizational Performance, Indian Dairy Industry.*

Supply Chain Management Practices with reference to Dairy Industry of India

Milk supply chains are more concerned with controlling of milk quality and supply fluctuations which are unique to this sector. Perishable goods like milk require a time efficient supply chain. This perishable factor can affect the milk supply chain. Supply chain management has seen as a source of gaining competitive advantage in the business world. Due to pressures from increased competition resulting from globalization of supply, processing and distribution networks, high levels of service expectations and competitive pricing, the supply chain management has become more important in recent years. For the success of a dairy industry, efficient supply chain management is a pre-requisite. Thus, the supply chain performance of the processing units is a deciding factor for the success of the unit. The Indian supply chain for milk products is affected by abnormal wastage and poor handling. The wastage occurs because of multiple points of handling. Shortage of cold storage facilities and refrigerated transport equipment lead to inefficiencies in handling milk products. There is a compelling requirement for appropriate infrastructure for storage and transportation such as temperature controlled warehouses and

vans. By practicing improved supply chain management practices, there will be a significant reduction in the wastages of milk and milk products which in turn will benefit both the farmers as well as the consumers by means of increased returns and decrease in price respectively. Supply chain management (SCM) over past two decades had played an important role on emphasizing the interdependence of buyer and supplier firms working collaboratively to improve the performance of the entire supply which has generated huge significance in both academic and industry. In particular, with the increasing trend of business globalization, how a firm gains and retains its competitive advantage while facing domestic and international challenges has drawn a lot of attention (Huo et al., 2008; Kannan and Tan, 2005). SCM provides benefits to suppliers and customers by enhancing upstream and downstream linkages. Additionally, firms have begun to integrate their external customer-firm-supplier relationships and internal contextual factors as a mean to improve customer satisfaction, firm performance, and firm competitiveness (Ou et al, 2010). SCM has been recognized as an important issue and has generated a substantial amount of interest among managers and researchers. Since the 1980s, SCM has been regarded as one of the most

effective ways for firms to improve their competitive advantage. SCM has been documented to be positively associated with enhanced competitiveness and improved firm performance (Li et al., 2006). In addition, SCM has been widely considered to be an effective management tool for firms to maintain business stability, growth, and prosperity. Supporting this claim, Harrison and New (2002) in his report show 70 percent of the respondents thought that their supply chain strategy was currently important in achieving competitive advantage and in the future 91 percent thought that this would be the case and in the same context Indian dairy industry has been dramatically increasing towards supply chain management because of recent years certain significant changes that are affecting the industry. The rapid development of globalization, shifting consumer demand, dismantling state support schemes and technological progress has so caused a declaration of industrialization of the dairy industry. Various literature shows that there are various SCM practices which have a significant role in the dairy industry in recent years because of noteworthy changes which are taking place in the market environment. Effective supply chain management (SCM) has become a potentially valuable way of securing competitive advantage and improving organizational performance since competition is no longer between organizations but among supply chains. In fact, firms no longer competitively can survive in isolation of their suppliers, customers and other entities of the supply chain. Additionally, SCM also improves market responsiveness, reduction in logistics cost, added economic value and optimum utilization of capital cost. Substantially, SCM has been considered one of the critical areas in the development of dairy industry to meet the global market demand.

Role of Supplier Relationship Practices (SRP) on Indian Dairy Industry

Supplier Relationship Practices (SRP) entails creating closer and more collaborative relationship with key suppliers in order to uncover and realize the new value and reduce risk. Relationship quality can represent a competitive advantage for agri-food supply chains and should, therefore, be improved using tools of supplier relationship management. Milk buyers can build a loyal base with their suppliers as a mean to secure uninterrupted milk-supplies. One of the major efforts which should be made is that milk buyers are encouraged to use collaborative communication with their suppliers by having frequent communication, proper feedback and adequate information sharing with their supplier which encourages problem-solving and avoids misunderstandings in their relationships. In supply chain management strategies, supplier relationship management activities play an important role (Wisner, 2003). Long-term relationship refers to the intention that the arrangement is not going to be temporary (Chen and Paulraj, 2008). A successful strategic alliance and integrated relationship with a supplier are very much needed. It should be revolved around trust, loyalty, positive-sum game (a win-win relationship), cross-functional team, achieving common goals and collaboration (Chandra and

Kumar, 2000). A firm success is linked to the strength of its relationship with supply chain partners and it could reduce and increase revenue (Spekman, Kamauff, and Myhr, 1998). In the today competitive business environment, companies are relying on their supply chain as a source of competitive advantage. Purchasing and supply chain management has achieved a higher level of importance. So for this purpose, there is greater dependence on the supplier. Supplier relationship management (SRP) has played a strategic role in the organization, and have significantly engaged in creating a competitive advantage and their action has a positive impact on organizational performance (Jabbour and Jabbour, 2009). Closer long-term relationships with suppliers imply the use of joint quality planning (e.g. forming of quality requirements and product specifications, use of quality control, etc.) and joint production planning (e.g. use of JIT system) between buyer and supplier (Maloni and Benton, 1997; Monczka et al., 1995). Suppliers are increasingly viewed as partners. They become more deeply involved in co-operative problem solving, in new product development and in workgroups with buyer's representatives in order to identify areas of improvement (Harland et al., 1999; Stuart and McCutcheon, 2000; Shin et al., 2000; Ragatz et al., 1997; Wynstra and Pierick, 2000; Stanley and Wisner, 2001). The main purpose of close, long-term relationships with suppliers is the achievement of high-quality products and services that satisfy customer needs. Often, suppliers lack the abilities and competencies required to deal with the high-quality standards required by their buyers. Therefore, supplier development is necessary. Supplier development activities vary widely and they may include raising performance expectations, education and training on quality requirements and know-how for supplier personnel, recognition of supplier's achievements and performance in the form of rewards, placement of engineering and other buyer personnel at the supplier's premises and direct capital investment by the buying firm in the supplier (Krause and Ellram, 1997; Monczka et al., 1998). The relationship with the supplier is considered to be a partnership and is valuable to the firm (buyer) as it can be a source of competitive advantage. Various previous researches show that the ultimate success or failure of a supply chain alliance is determined by the level of commitment, trust, and cooperation of its members (Monczka et al., 1998; Handfield et al, 2002; Walter et al., 2003). Thus, each part must be aware of other part's needs and should align its expectations and goals with its partners' expectations and goals (Stuart and McCutcheon, 2000; Spekman et al., 1998).

Research Methodology

Research Problem

Indian dairy industry has played a prominent role in strengthening India's rural economy. It has been recognized as an instrument to bring about socio-economic transformation. The white revolution has transformed India's dairy industry. It has increased the availability of milk as well as providing a reliable source of income and employment to millions of rural families. India has the distinction of being the largest producer of milk in

the world for which the credit goes to operation flood program that has linked rural farmers to urban cities. Keeping pace with the country's increasing demand for milk and milk products, the industry has been growing rapidly. It has been seen that Indian dairy industry comes a long way over the years from a milk production of 55.7 MT in 1991-92 to 135 million tons by 2015 and it is estimated to reach180 million tons by 2021-22. Presently, the Indian dairy market is growing at an annual rate of 7 percent. Despite the increase in production, a demand-supply gap has become imminent in the dairy industry due to the changing consumption habits, dynamic demographic patterns, and the rapid urbanization of rural India. It means that there is an urgent need for the higher growth rate of the dairy sector to match the rapidly growing Indian economy. Despite being one of the largest milk producing countries in the world, India accounts for a negligible share in the worldwide dairy trade. So, in order to retain and sustain in a highly competitive business environment of global dairy industry, companies are now trying to improve their organizational performance and achieve competitive advantage. The entire competition in dairy industry revolves around two prominent factors i.e., quality and availability. Quality and availability of dairy products become crucial due to the high degree of product perishability, which requires altogether a different kind of supply chain commonly known as Cold Chain. So the research problem of the research is basically revolved around the supplier relationship practices of the dairy industry. In nutshell, the problem of research lies in the optimization of the dairy industries supply chain so as to meet the future domestic requirements and remain competitive in global markets. The present research study tried to find the actual happenings and accordingly analyze the mechanism for betterment in those processes so as to create a win-win situation for all the stakeholders of the dairy supply chain.

Research Question

How to manage and strategize the supplier relationship practices (SRP) in a way that the Indian dairy industry improves its performance and achieves competitive advantage?

Objectives of the Study

The objectives of the study are derived from the research problem. The objectives of the study are listed as:

• To critically analyze the impact of adopted supplier relationship practices (SRP) on the organization's performance.

• To suggest a roadmap for improving the performance of the Indian dairy industry through supplier relationship practices (SRP).

Research Hypotheses

The study has been carried out with following alternate hypotheses:

• H1: Supplier relationship practices would serve as an enabler to improve organizational performance.

Research Design

The proposed research is a kind of exploratory study aimed at finding out the nitty-gritty of the Indian dairy supply chain management, followed by a descriptive research design which helps in evaluating the impact of supplier relationship practices (SRP) on the dairy industry.

Sampling of the Indian Dairy Industry

Supply chain in the Indian dairy industry start from milk production, which is brought about by large scale, medium scale and small or marginal farmers and executed by various milk cooperative societies; from there, milk moves to the dairy processing plants where storing, chilling, processing, packaging, and transportation are done under the supervision of the plant manager and after that processed milk and milk products are distributed and marketed to various milk retail outlets, supermarkets etc. from where they reach to the end consumers. So, keeping that in mind the research is being carried out with three identified group of respondents, who are basically the supply chain members of the dairy industry.

A. Milk Processing Unit (Chilling, Processing, Packaging and Transportation)

B. Milk collection center (Milk Cooperative Societies, Contractors of Private Dairies)

C. Retailers (Marketing and Distribution)

Population

Population means the aggregate of all the elements sharing some common set of characteristics that comprises the universe for the purpose of the research problem. The proposed research covers three groups of respondent which are given below:

A. First group of respondents (Milk Processing Unit) – All milk processing units operating in UP and New Delhi-NCR.

B. Second group of respondents (Milk Collection Centre) – All milk collecting centers situated in UP and New Delhi-NCR.

C. Third group of respondents (Retailers) – All the retailers selling milk and milk products in UP and New Delhi-NCR.

Sample Frame

It is the representation of the elements of the target population and consists of a list or set of directions for identifying the target population. The sample frame of the research is identified as:

A. First group of respondents (Milk Processing Unit) -- All registered milk processing units situated in UP and New Delhi-NCR i.e. 59.

B. Second group of respondents (Milk Collection Centre) -- All associated milk collection centers with registered milk processing units in UP and New Delhi-NCR.

C. Third group of respondents (Retailers) -- All associated retailers with registered milk processing units in UP and New Delhi-NCR.

Sample Units

The sample units of the research are as follows:

A. First group of respondents (Milk Processing Unit) – Individual registered milk processing unit.

B. Second group of respondents (Milk Collection Centre) -- Individual milk collection center associated with a registered milk processing unit.

C. Third group of respondents (Retailers) -- Individual milk retail store owner.

Sampling Techniques & Size of Sample

- First group of respondents (Milk Processing Unit) – Judgmental sampling based on the market position of the organization and plant production capacity (i.e. one lakh liter per day), has been being opted for to select the various milk processing units. Ten dairy plants have been taken and from each dairy plant, three respondents i.e., head of the dairy company, operations head, and marketing head were targeted for the study, which renders the sample size to be thirty respondent.

- Second group of respondents (Milk Collection Centre) -- Simple Random Sampling has been used on the provided list of milk collection centers associated with the selected milk processing unit. Randomly, five milk cooperative units have been selected from each milk processing unit, which turned out to be fifty milk cooperatives.

- Third group of respondents (Retailers) – Simple random sampling has been being used to select retail outlets from each selected milk processing unit. Ten milk retail outlets have been selected from each milk processing unit, which turned out to be a hundred milk retail outlets.

Primary Data Sources

Primary data is collected through survey method using structures questionnaire for all four respondents i.e. 10 dairy companies operating in UP and New Delhi-NCR region, and from each dairy plant 3 respondents were taken i.e. head of the dairy plant, marketing head of dairy plant and operation head of the dairy plant, so total sample size is 30. 50 milk cooperative societies which are associated with dairy companies, 100 milk retailers associated with dairy companies and 1000 customers who are consuming milk and milk products.

Structure of Questionnaire

The study used various variables. A variable is something that changes. It changes according to different factors. Some variables change easily while other variables are almost constant. A study often seeks to measure variables. The variable can be a number, a name, or anything where the value can change. The study defines variables according to objectives. As per my research sample plan, there are four respondents for which four structured questionnaires have been developed which needed to be different for a different group of respondents. The three categories of respondents are given below.

- Milk Processing Units
- Milk Collection Centers
- Retailers

Pre-testing and Administering the Questionnaire

The researcher pre-tested the questionnaire by administering it to experts in academics and dairy industry. The academicians were senior professors of the Institute of Agricultural Sciences, BHU (especially the dairy department), Institute of Management Studies-BHU and managers who work in dairies companies such as Parag Dairy etc. The questionnaire was 'self-administered' to the respondents.

Measurement and Scaling Design

'Measurement' means assigning numbers or other symbols to characteristics of objects, according to certain pre-specified rules. The most important aspect of measurement is the specification of rules for assigning numbers to characteristics (Malhotra, 2007).

For Dairy Plant, Milk Cooperative and Milk Retailer

Primarily, two types of scale were used as agreement continuum and adoption continuum (on five point Likert type scale) for the three respondents' i.e. dairy plant, milk cooperative and milk retailer, which help in assessing the response of the respondents such as:

- Agreement continuum for measuring agreement level of these three respondents for the concerned practices.

- Adoption continuum for measuring adoption level of these three respondents for the concerned practices.

These meaning of the two continuums is stated below :

Agreement continuum

1= Strongly Disagree, 2= Disagree, 3= Indifferent, 4= Agree, 5= Strongly Agree

Adoption continuum

1= Will not adopt at all, 2= Not adopted, 3= Indecisive for adoption, 4= partly adopted, 5= Fully adopted

Besides that, a few questions were are on the dichotomous scale.

Validity and Reliability

The reliability of this study was checked by the internal consistency method. Internal consistency estimates reliability by grouping the questions in a questionnaire that measure the same concept. One common way of computing correlation values among the questions on the instruments is by using Cronbach's Alpha.

The content validity of the instrument is the extent to which it provides adequate coverage of the investigative questions guiding the study. A good way to check content validity is to use a panel of persons to judge how well the instrument meets the standards (Cooper & Schindler, 2006). The validity of the instrument was checked by administering it to various experts in the academia and industry during pre-testing.

Data Analysis Design

Multiple regression analysis was performed on dairy plant (DP), milk cooperative (MC) and milk retailer (MR) questionnaire in order to find out the impact or role of adopted SRP practices on organizational performance matrix.

Cronbach's alpha for dairy plant (DP), milk cooperative (MC) and milk retailer (MR) Questionnaire was calculated as .827, 0.831 and 0.826 respectively. The values were more than 0.6 showing a high correlation, indication scale is having high reliability.

Multiple Regression Analysis

[On Dairy Plant Employee's Opinion on Performance Metrics]

Multiple regression analysis, in stepwise selection mode, was carried out to identify key predictors for dependent variables, using SPSS 16.0 software. Predictor variables for the analysis were as per the questions of the questionnaire for respondents. Dependent variables were the question statements in the performance metrics of the questionnaire. Based on multiple regression model summaries, inferences about predictors were deduced for each of the dependent variables.

Summary of Multiple Regression Analysis of the dependent variable, "Level of Supplier's Defect Free Deliveries" is given in Table 1.

Table-1 : Multiple Regression Analysis Summary Table

Step No.	Predictor Variables Entered	Standardized Beta Coefficients	T	Sig. (p)	R	Adjusted R^2	F	Sig. (p)
I	(SRP)	.667	4.732	.000	.444	.424	22.391	.000

For dependent variable 'Level of supplier's defect-free deliveries', one significant predictor variables was found i.e. supplier relationship practices (SRP), (F=22.391, p=0.000). The variable has a positive significant correlation with the dependent variable.

At step I, supplier relationship practices (SRP), entered into the regression analysis. The value of adjusted R^2 (=.424) indicated that the maximum amount of various in response to queries was attributable to supplier relationship practices (SRP).

Standardized Beta coefficients, .667 (p=.000) for the one predictor variable, of multiple regression analysis indicated that one unit increase in the supplier relationship practices (SRP) was likely to significantly increase the mean value of dependent variable, distribution cost, by .667 unit

Summary of Multiple Regression Analysis of the dependent variable, "On Time Delivery" is given in Table 2.

Table-2 : Multiple Regression Analysis Summary Table

Step No.	Predictor Variables Entered	Standardized Beta Coefficients	T	Sig. (p)	R	Adjusted R^2	F	Sig. (p)
I	SRP	.802	7.094	.000	.643	.630	18.958	.000

For dependent variable 'on time delivery', one significant predictor variable was found i.e. supplier relationship practices (SRP), (F=18.958, p=0.000). The variable has a positive significant correlation with the dependent variable.

At step I, supplier relationship practices (SRP), entered into the regression analysis. The value of adjusted R^2 (=.630) indicated that the maximum amount of various in response to queries was attributable to supplier relationship practices (SRP).

Standardized Beta coefficients, .802 (p=.000), for the one predictor variables, of multiple regression analysis indicated that one unit increase in the Supplier relationship practices (SRP) was likely to significantly increase the mean value of dependent variable, on time delivery, by .802 unit.

Summary of Multiple Regression Analysis of the dependent variable, "Backorder Rate" is given in Table 3.

Table-3 : Multiple Regression Analysis Summary Table

Step No.	Predictor Variables Entered	Standardized Beta Coefficients	T	Sig. (p)	R	Adjusted R^2	F	Sig. (p)
I	(SRP)	.761	6.212	.000	.580	.568	10.597	.000

For dependent variable 'backorder rate', one significant predictor variables was found; SRP, and (F=10.597, p=0.000). These variables had a positive significant correlation with the dependent variable.

At step I, supplier relationship practices, entered into the regression analysis. The value of adjusted R^2 (=.568) indicated that the maximum amount of various in response to queries was attributable to information and communication technology practices.

Standardized Beta coefficients, .761 (p=.000), for the one predictor variables, of multiple regression analysis indicated that one unit increase in the Supplier relationship practices was likely to significantly increase the mean value of dependent variable, backorder rate, by .761 unit.

Summary of Multiple Regression Analysis of the dependent variable, "Cash to Cash Cycle" is given in Table 4.

Table-4 : Multiple Regression Analysis Summary Table

Step No.	Predictor Variables Entered	Standardized Beta Coefficients	T	Sig. (p)	R	Adjusted R^2	F	Sig. (p)
I	SRP	.628	4.276	.000	.395	.373	14.837	.000

For dependent variable 'on cash to cash cycle', one significant predictor variables was found i.e. supplier relationship practices (SRP), (F=14.837, p=0.000). The variable has a positive significant correlation with the dependent variable.

At step I, supplier relationship practices, entered into the regression analysis. The value of adjusted R^2 (=.373) indicated that the maximum amount of various in response to queries was attributable to supplier relationship practices.

Standardized Beta coefficients, .628 (p=.000) for the one predictor variable, of multiple regression analysis indicated that one unit increase in the supplier relationship practices was likely to significantly increase the mean value of dependent variable, cash to cash cycle, by.628 unit.

Multiple Regression Analysis

[Milk Cooperative Employee's Opinion on Performance Metrics]

Summary of Multiple Regression Analysis of the dependent variable, "Procurement Cost" is given in Table 5.

Table-5 : Multiple Regression Analysis Summary Table

Step No.	Predictor Variables Entered	Standardized Beta Coefficients	T	Sig. (p)	R	Adjusted R^2	F	Sig. (p)
I	SRP	.286	2.066	.044	.082	.063	4.268	.044

For dependent variable 'procurement cost', one significant predictor variables was found i.e. supplier relationship practices (SRP) (F=4.268 p=0.044). The variables had a positive significant correlation with the dependent variable.

At step I, supplier relationship practices (SRP), entered into the regression analysis. The value of adjusted R^2 (=.063) indicated that the maximum amount of various in response to queries was attributable to supplier relationship practices (SRP).

Standardized Beta coefficients, .286 (p=.044), for the one predictor variables, of multiple regression analysis indicated that one unit increase in the supplier relationship practices (SRP) was likely to significant increase the mean value of the dependent variable, procurement cost, by.286 unit.

Summary of Multiple Regression Analysis of the dependent variable, "Level of Supplier Defect Free" is given in the Table-6.

Table-6: Multiple Regression Analysis Summary Table

Step No.	Predictor Variables Entered	Standardized Beta Coefficients	T	Sig. (p)	R	Adjusted R^2	F	Sig. (p)
I	SRP	.284	2.049	.046	.080	.061	4.200	.046

For dependent variable 'level of supplier defect free', one significant predictor variables was found i.e. supplier relationship practices (SRP) (F=4.964, p=0.031). The variable has a positive significant correlation with the dependent variable.

At step I, supplier relationship practices (SRP), entered into the regression analysis. The value of adjusted R^2 (=.061) indicated that the maximum amount of various in response to queries was attributable supplier relationship practices (SRP).

Standardized Beta coefficients, .284 (p=.046), for the one predictor variable, of multiple regression analysis indicated that one unit increase in the Supplier relationship practices (SRP) was likely to significantly increase the mean value of dependent variable, sales growth, by.284 unit.

Multiple Regression Analysis

[Milk Retailer Employee's Opinion on Performance Metrics]

Summary of Multiple Regression Analysis of the dependent variable, "Order Fulfillment Cycle Time" is given in Table 7.

Table-7: Multiple Regression Analysis Summary Table

Step No.	Predictor Variables Entered	Standardized Beta Coefficients	T	Sig. (p)	R	Adjusted R^2	F	Sig. (p)
I	SRP	.298	3.085	.003	.089	.079	5.887	.017

For dependent variable 'order fulfillment cycle time', one significant predictor variable was found i.e. supplier relationship practices (SRP) (F=5.887, p=0.017). These variables had a positive significant correlation with the dependent variable.

At step I, supplier relationship practices, entered into the regression analysis. The value of adjusted R^2 (=.079) indicated that the maximum amount of various in response to queries was attributable to supplier relationship practices.

Standardized Beta coefficients, .298 (p=.003), for the one predictor variable, of multiple regression analysis indicated that one unit increase in the supplier relationship practices was likely to significantly increase the mean value of dependent variable, order fulfillment cycle time by.298 unit.

Summary of Multiple Regression Analysis of the dependent variable, "Cash to Cash Cycle" is given in Table 8.

Table-8 : Multiple Regression Analysis Summary Table

Step No.	Predictor Variables Entered	Standardized Beta Coefficients	T	Sig. (p)	R	Adjusted R²	F	Sig. (p)
I	SRP	.302	3.095	.002	.089	.080	4.709	.000

For dependent variable 'cash to cash cycle', one significant predictor variables was found i.e. supplier relationship practices (SRP) (F=4.709, p=0.000). The variable has a positive significant correlation with the dependent variable.

At step I, supplier relationship practices, entered into the regression analysis. The value of adjusted R^2 (=.080) indicated that the maximum amount of various in response to queries was attributable to supplier relationship practices.

Standardized Beta coefficients, .302 (p=.002), for the one predictor variables, of multiple regression analysis indicated that one unit increase in the supplier relationship practices was likely to significantly increase the mean value of dependent variable, cash to cash cycle by.302 unit.

Hypothesis Testing :

Supplier relationship practices would serve as an enabler to improve organizational performance (H1).

Multiple regression analysis was performed to check the proposed hypothesis on DP, MC, and MR. As per analysis discussed earlier, supplier relationship practices (SRP) emerged as organization performance predictor variables such as level of supplier's defect-free deliveries, on time delivery, backorder rate, on time delivery, cash to cash cycle time in the case of the dairy plant (DP). Similarly, supplier relationship practices (SRP) linked with procurement cost and level of supplier's defect-free deliveries performance predictor of the milk cooperative (MC). For milk retailer (MR), supplier relationship practices (SRP) is associated with order fulfillment cycle time and cash to cash cycle time.

In conclusion, the alternate hypothesis (H1) is accepted for all the dairy supply chain members i.e., DP, MC & MR.

Conclusion based on Multiple Regression Analysis on Performance Metrics [Appearing only in Dairy Plant (DP), Milk Cooperative (MC) and Milk Retailer (MR) Questionnaire]

Multiple regression analysis was performed on the dairy plant (DP), milk cooperative (MC) and milk retailer (MR) questionnaire in order to find out the impact or role of adopted SRP practices on organizational performance matrix.

From the above analysis for dairy plant, it was found out that there is various organizational performance parameter i.e. level of supplier's defect-free deliveries", "on time delivery", "backorder rate" and cash to cash cycle time" which were dependent on adopted SRP practices.

Similarly, multiple regression analysis was performed on milk cooperative (MC) and milk retailer (MR) questionnaire and was found that there are various organizational performance parameter i.e. "procurement cost", and "level of supplier's defect-free deliveries", for milk cooperative and "cash to cash cycle time", for milk retailer were dependent on adopted SRP practices.

So, it can be concluded from the above-mentioned result that there is significant impact or role of adopted SRP practices on organizational performance matrix.

Recommendations based on Multiple Regression Analysis on Performance Metrics [For Dairy Plant (DP), Milk Cooperative (MC) and Milk Retailer (MR) Questionnaire]

For the dairy plant, four performance parameters were found dependent supplier relationship practices (SRP). Firstly, level of supplier's defect-free deliveries is dependent on SRP practices. SRP entails creating closer and more collaborative relationship with key suppliers in order to uncover and realize the new value and reduce risk. Relationship quality can represent a competitive advantage for dairy supply chains and should, therefore, be improved using tools of supplier relationship management. Milk buyers can build a loyal base with their suppliers as a mean to secure uninterrupted and defect free milk-supplies. One of the major efforts which should be made is that milk buyers are encouraged to use collaborative communication with their suppliers by having frequent communication, proper feedback and adequate information sharing with their supplier which encourages problem-solving and avoids misunderstandings in their relationships. Secondly, on-time delivery is dependent on supplier relationship practices. Supplier selection processes comprise of criteria of selection, supply base optimization and commitment of buyer-supplier dyads in continuous improvement etc. Dairy companies should develop the criteria of selection and make the supplier selection process objective and transparent. The interaction between dairy companies and their suppliers will become systematized leading to a system based quick response to suppliers queries. Supplier relationship processes need to be developed and strengthened. Long-term relationships between buyer and supplier will result in greater mutual understanding and enhance people to people contact. A mutual relationship leads to courteous behavior between the persons and organizations. Relationship maintenance mechanisms such as supplier meet, handling of suppliers complaints, continuous improvement program involvement of key suppliers in product development process, risk and reward sharing, supplier involvement in planning & goal setting build the strong supplier relationship which further ensures the movement of material en time from supplier end to

customer end. Thirdly, backorder and cash to cash cycle time are dependent on supplier relationship practices. Dairy companies should rely on few dependable key suppliers. They should consider quality as a preferred criterion in selecting suppliers. Dairy companies need to regularly solve the problems jointly with suppliers and follow continuous improvement programs with key suppliers. Dairy companies should actively involve key suppliers and key customers in new product development processes and also develop an efficient procurement system for finding long-term supply chain partners which will finally help in minimizing the backorder rate. Dairy companies should use electronic mode of transaction and e-procurement for minimizing cash to cash cycle time. An online payment facility reduces the cash to cash cycle time.

Similarly, for the milk cooperative, two performance parameters were found dependent supplier relationship practices (SRP). Firstly, Procurement cost is dependent on 'supplier relationship management' (SRM) of the milk cooperative. Milk cooperative should ensure that the activities related to minimizing procurement cost get momentum from 'supplier relationship management' (SRM) practices. Procurement cost is the cost involved in obtaining all goods, services, a capacity which is necessary for running, maintaining, and managing the firm's primary and support activities at the most favorable condition. Milk cooperative should adopt good supplier relationship practices (SRP) which entails creating closer and more collaborative relationship with key suppliers in order to uncover and realize the new value and reduce risk. Relationship quality can represent a competitive advantage for dairy supply chains and should, therefore, be improved using tools of supplier relationship management. Milk buyers can build a loyal base with their suppliers as a mean to secure uninterrupted milk-supplies. One of the major efforts which should be made is that milk buyers are encouraged to use collaborative communication with their suppliers by having frequent communication, proper feedback and adequate information sharing with their supplier which encourages problem-solving and avoids misunderstandings in their relationships. Secondly, level of supplier's defect-free deliveries is dependent on SRP practices which are defined in a dairy plant.

Likewise, for the milk retailer, one performance parameters was found dependent supplier relationship practices (SRP). Cash to cash cycle time is dependent on supplier relationship practices. Milk retailers should use electronic mode of transaction and e-procurement for minimizing cash to cash cycle time. An online payment facility reduces the cash to cash cycle time. Milk retailers need to develop a communication system for smoothening the continuous information exchange with their supply chain partners which is also required for demand & supply forecasting, production planning, inventory management and sharing knowledge of core business processes with supply chain partners.

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Online Brand Communities and Brand Loyalty : An Empirical Analysis

Mamta Brahmbhatt[1]

This paper attempts to investigate whether the use of online brand communities helps sporting goods brands in building brand loyalty or not. A survey has been used to collect primary data and questionnaire approach was used in the final analysis. The single cross-sectional descriptive research design was used to determine customers' perception. SPSS and Microsoft Excel have been used to analyze and interpret the data. The data collected has been analyzed through a series of tools and procedures. Cross-tabulation, Graphical Representation, T-test, and Anova have been used. Replications among other samples are needed to validate the current finding. The study is confined to the customers located in Ahmadabad and Gandhinagar cities of Gujarat State So, the conclusion derived from the research cannot be made applicable as it is for the other parts of the states or other states. This paper makes a valuable contribution given the fact that there are only a limited number of comprehensive studies dealing with the Online Brand Communities and Brand Loyalty in Gujarat.

Keywords: Online Brand Communities, Brand Loyalty.

Introduction

The sportswear industry is highly competitive and is an interesting area to study based on a number of various reasons. The size of the industry, increasing trend towards more healthier lifestyles, old age people and females becoming more conscious about fitness, increasing trend on spending behaviour on sportswear and health clubs/ gym, These all factors in totality has changed competitive scenario of sportswear industry. In this cut-throat competition, branding remains the largest source of competitive advantage. The sports industry manufacturers have come to a phase where they offer the consumers with a basic need and an added value in terms of materially added value, which have become increasingly similar among the various products that are offered by the manufacturers. Products today are becoming increasingly similar. Moreover, it is generally recognized that the plenty of products are always available for purchase. Consequently, possessing a strong brand is crucial within the sports industry. The key to success is to create a differentiating, a unique, favourable, and strong brand image to provide customers with a reason to buy the brand and then work to maintain their loyalty and gain repeat purchase and recommend the same brands to their friends and family members. So, the current study is aimed to study the use of online brand communities helps sporting goods brands in building brand loyalty.

Theoretical Framework : Conceptual Roots

An online community is a dedicated, geographically scattered community based on an organized and dynamic network of relationships among participants sharing a common interest area. It is a cluster of people with common interests in a brand and who communicate with each other online in a brand platform provided by the company. Since the Internet overcomes geographical limitations the restrictions that have hindered the development of communities offline does not apply to the online communities.
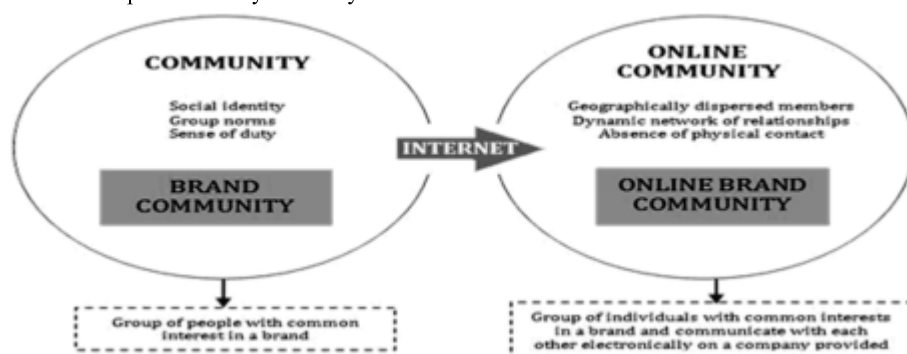

Figure 1. From offline community to online community, Source : Adapted from Sicilia and Palazón (2008)

Literature Review

Vladimir Gritsenko (2015) stated that online discussion threads dwelling on non- mainstream issues have all five features of face-to-face group work – size, interdependence, task, identity, and norms. The study concludes that though online forums introduce limitations to interactions, discussion threads can indeed be viewed as group communication.

Dr. Klaus Nicholas Schmidta, Ms. Kamakshi S. Iyera(2014) analyzed that marketing strategies are no longer limited to any specific region; similar strategies may be duplicated across various cultures often only minor cultural adjustments may be needed.

Sonja Gensler et al (2013) stated that the rise of social media dramatically challenges the way firms to manage their brands. Key features of this social media environment with significant effects on branding are a shift from the firm to consumers as pivotal authors of brand stories in the branding process; a high level of interactivity manifested in social networks of consumers and brands; and a multitude of channels and brand stories that cannot be easily coordinated.

Irem Eren Erdogmus & Mesut Cicek (2012) suggested advantageous campaigns on social media are the most significant drivers of brand loyalty followed by the relevancy of the content, popularity of the content among friends and appearing on different social media platforms and providing applications. They also analyzed what type of contents are shared and preferred by social media users and the results imply that people share music, funny and extraordinary things online along with technological and instructive information. Melanie E. Zaglia(2010) analyzed that individuals interact with many social network members characterized by different interests, purposes, and social identities. At the same time, they perceive shared the consciousness of kind and a distinct social identity with certain peers; sub-group members share their enthusiasm for the same brand and interact regarding their object of interest.

Wiegandt (2009) analyzed that companies realise the potential of brand communities for enhancing their long-term relationship with customers and hence their brand loyalty. Therefore, the importance of brand communities has increased significantly over the last years.

Heding, Knudtzen & Bjerre (2009) analysed that the personality and the relational approach both consider brand value as being created by the relationship between consumers and marketers, whereas the community approach focuses on the social interaction between community members and how it creates value. He even mentioned that a brand community needs interaction between at least two consumers in order to exist.

Algesheimer, Dholakia, & Herrmann (2005) found that nowadays brands try to get consumers to be more and more involved in their marketing practices and marketers are becoming more interested in learning and using brand communities. The reason for such great interest is the ability of brand communities to provide and spread information, interact

with highly loyal customers and influence members" perceptions, intentions, and behavior.

Muniz AndO,,Guinn(2001) introduced three core community commonalities, which enable to distinguish the main features of the brand community: consciousness of kind, rituals and traditions, and moral responsibility. They have defined Consciousness of kind it as the intrinsic connection that members feel toward one another, and the collective sense of difference from others not in the community and rituals and traditions represent vital social processes by which the meaning of the community is reproduced and transmitted within and beyond the community. They have suggested that sense of moral responsibility plays a role in retaining old members of a community and helps others to fix problems where specialized knowledge is required or information needs to be shared.

Research Objective

To investigate whether the use of online brand communities helps sporting goods brands in building brand loyalty.

Research Methodology

The population base for current research is the population of Ahmedabad and Gandhinagar cities of Gujarat State. The sample was approached through electronic mail and direct contact method. The sample size is 143 respondents. The researcher collected 150 responses out of which 7 are an invalid response. The instrument used for data collection is Questionnaire consisting 18 questions. These questions include seventeen Multiple choice questions and one Likert scale questions which include seven statements which help to know consumers" perceptions towards the brand. The question was developed to get demographic data of consumers such as age, gender, and other questions include questions to study their perceptions and loyalty towards the brand community. It also includes questions related to their preferences about brand community. The researcher focused on only three online brand communities Nike+, PUMA Social, and Adidas. SPSS and Microsoft Excel have been used to analyze and interpret the data. Statistical techniques such as independent sample t-test, ANOVA, correlation, rank analysis and cross tabulation techniques have been used to test the various hypotheses.

Data analysis and interpretation : Inferential Statistics

Hypothesis1: There is no difference between consumer perceptions towards their community brand when classified by temporary unavailability of product.

Table-1 : Anova test table

Particulars	F	Sig.	Result	Analysis
Sense of belonging	0.849	0.469	0.469>0.05	Do not Reject
Trust	1.406	0.244	0.243>0.05	Do not Reject
Positive word of mouth	1.539	0.207	0.207>0.05	Do not Reject
Encourage other	1.841	0.143	0.143>0.05	Do not Reject
long time user	1.126	0.341	0.34>0.05	Do not Reject
lower price does not affect	1.145	0.333	0.333>0.05	Do not Reject
high level Trust	1.019	0.386	0.386>0.05	Do not Reject
degrading talk about others	0.809	0.491	0.49>0.05	Do not Reject

From the above table, it can be interpreted that all the variables of customer's perception towards community brand do not reject null hypothesis which means that there is no significance difference between consumer perceptions towards their community Brand when classified by temporary unavailability of product.

Hypothesis 2 : There is no correlation between various variables of consumer perception towards their community brand

Table-2 : Correlation Analysis

Correlations								
	Sense of belonging	Trust	Positive word of mouth	Encourage other	Long time user	Lower price does not affect	High level Trust	Degrading talk about others
Sense of belonging	1	.808**	.823**	.856**	.816**	.867**	.807**	.586**
Trust	.808**	1	.822**	.813**	.863**	.856**	.838**	.616**
Positive word of mouth	.823**	.822**	1	.852**	.777**	.828**	.791**	.606**
Encourage other	.856**	.813**	.852**	1	.826**	.852**	.861**	.641**
long time user	.816**	.863**	.777**	.826**	1	.813**	.835**	.575**
lower price does not affect	.867**	.856**	.828**	.852**	.813**	1	.861**	.639**
high level Trust	.807**	.838**	.791**	.861**	.835**	.861**	1	.655**
degrading talk about others	.586**	.616**	.606**	.641**	.575**	.639**	.655**	1
** Correlation is significant at the 0.01 level (2-tailed).								

From the above table it can be concluded that there is a strong correlation among variables Hypothesis3: There is no significant difference between consumer perception towards their community Brand and gender with respect to online brand community.

Table-3 : Independent t-test

Particulars	Result	Analysis
Sense of belonging	0.014<0.05	Reject
Trust	0.032<0.05	Reject
Positive word of mouth	0.006<0.05	Reject
Encourage other	0.009<0.5	Reject
Long time user	0.069>0.05	Don't Reject
Lower price does not affect	0.029<0.05	Reject
High Level Trust	0.020<0.05	Reject
Degrading talk about others	0.072>0.05	Don't Reject

From the above table, it can be interpreted that all variables except long time user and degrading talk about others brand reject null hypothesis which means that there is a significant difference between consumer perception towards their community Brand and gender with respect to the online brand community. While it can be interpreted that long time user and degrading talk about other brand do not reject null hypothesis which means that there is no significant difference between consumer perception towards their community Brand and gender with respect to the online brand community.

Rank Analysis

Customer perception towards community brand influencing in building brand loyalty.

Table-4 : Rank Anlaysis

	SD	D	N	A	SA	Weighed Score	WAM	Rank
Sense of belonging	22	3	45	57	16	471	3.29	6
Trust	16	12	31	56	28	495	3.46	2
Positive word of mouth	17	10	36	49	31	496	3.46	2
Encourage Other	19	7	33	39	45	513	3.58	1
Long time user	17	7	36	61	22	493	3.44	3
Lower Price Does not Affect	18	12	34	60	19	474	3.31	5
High Level Trust	18	11	31	65	18	481	3.36	4
Degrading talk about Others	24	10	42	54	13	451	3.15	7

From the above table, it is observed that most significant important variables influencing in building brand loyalty are Encouraging other and followed by Trust and positive Word of mouth.

Major Findings for survey

Prior to entering the community the majority of members did not trust the community but became members anyway. Since becoming members of the online brand community, 39% agreed and 20% strongly agreed with the statement I trust my

community brand, indicating that a strong majority of members now trust their community brand. The members of online brand communities seem to be committed buyers since 87 % of the respondents' state that they have recommended their community brand to their acquaintances. Since a majority of respondents, 40 %, are members of NIKE+ it would be natural that the most bought brand would be NIKE. That is also the case as 50 % of the respondents usually buy the NIKE brand. 26 % are members of adidasmiCoach, yet when examining what brand is usually bought among the respondents only 19 % state that they usually, buy the Adidas brand. It seems as if there is a considerable amount of respondents who are members of the adidasmi Coach community but prefer to buy Nike products.

There is no significant difference between consumer perceptions towards their community Brand when classified by temporary unavailability of product.All variables of consumer perception towards their community brand are highly correlated with each other.It is observed from the data that 1-4 pieces are highly purchased and the number of male purchasing sporting good is considerably high in the age group of 21-30 years. Also, most of the female purchasing sporting good also fall in the same 21-30" age group.It is observed from the data that Nike is highly usually purchased the brand and the number of males purchasing Nike is considerably high in the age group of 21-30 years. Also, most of the female purchasing Nike also fall in the same 21-30" age group.

Limitations of research and future research directions

This research is limited to study only sporting goods brands. Since an attempt was made to examine if sporting goods brands´ online brand communities help in building brand loyalty so researcher studied only those brands which offer an online brand community for its consumers. The present study is based on a moderate sample size and area covered is Ahmedabad and Gandhinagar cities of Gujarat state only, therefore, the results of this study cannot be generalized. Future researchers are advised to investigate the subject from a financial point of view to see what financial benefits an online brand community can have for the company with larger and diversified samples to arrive at generalizations.

Conclusion

Responses on brand loyalty point that customers are willing to buy the same brand of sporting goods which they are using currently, but if these brands are not available in store they don't mind switching to some other brand. Hence, manufacturers should make their brands available in the market as switching cost from one brand to another is not very high in such competitive scenario. Brand managers may enhance consumer satisfaction, commitment, and word-of-mouth advertising by developing online brand communities and promoting consumers' participation in them to increase brand loyalty. Online behavior is constantly changing and removing old paradigms, not only the brand managers but also the R&D managers must understand online behavior if they wish to develop online communities around their brands beneficial and sustainable for long period.

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Big Five Personality Trait, Psychological Capital and Job Performance : A Closer Look

Ranjan Dasgupta[1]

This article provides an analytical view of the relationship between Big Five personality traits (Neuroticism, Extraversion, Conscientiousness, Agreeableness and Openness to Experience*) and Job work performance. This article also discusses about the combination of the Big Five traits and Psychological Capital (hope, optimism and resilience) as an important factor of job performance. This also explores the importance of Big Five Factors and Psycap in personnel selection, performance appraisal, motivation, training management on the basis of contemporary research.*

Keywords: *Job work performance, Psycap, training management, performance appraisal.*

Introduction

A number of researches and surveys have already indicated that there is a very significant relationship between personality (especially traits) and work performance and also success in professional and personal Life. Paul Harris rightly said - "Personality has the power to uplift, the power to depress, the power to curse, and the power to bless".

Though it has been considered as crucial attribute there is no universally accepted definition of the personality. We commonly say that a person has a very strong personality or simply his personality is weak. According to Trait Theory Personality is observable patterns of behavior that last over time. According to Freud's psychoanalytic or psychodynamic theory Personality is the unconscious determinants of behavior. (Fred Lathan's Organizational Behavior). Indian literature also speaks about Triguna of mind mainly Satta, Raja, and Tomo and there are Indian versions of definition of personality

Sri Aurobindo in his "Essays on the Gita says "We have before us three powers, the Purushottama as the Supreme truth into which we have to grow, the Self and the Jiva. The supreme spiritual nature of being, the Para Prakriti, free from any limitation by the conditioning ignorance, is the nature of Purushottama. In the impersonal self, there is the same divine nature, but there it is in its state of eternal rest, equilibrium, inactivity, Nivriti. Finally, for activity, for Pravriti, the Para Prakriti becomes a spiritual personality, the Jiva."

There was a long standing debate, whether human personality is driven more by nature or nurture. No doubt environment (nature) has a great impact in a person's personality development, but also most of the behavioral scientist now agreed that gene (nature) has a significant contribution in a person's personality. As American Psychological Association says "Studies over the past 20 years of twins and adopted children have firmly established that there is a genetic component to just about every human trait and behavior, including personality, general intelligence and behavior disorders." (Fred Lathan's Organizational Behavior).

In fact environment, gene or heredity, education, grooming, learning and brain all plays a significant role in a personality development.

Different research on this topic says personality traits are most relevant factors to deduce the relationship between employee's personality with productivity and work performance. With the lights of existing research and literatures, this article tries to explore this relationship. In particular between job performance and Big Five personality traits (Neuroticism, Extraversion, Conscientiousness, Agreeableness and Openness to experience).

This article also tries to find connections between the employee personality traits and latest concept of Psychological capital (Positive psychology of hope, optimism and resilience).

Theoretical Foundation to the Big Five

In simple language this is basic or fundamental five self-determining dimensions of the personality discovered by Norman, Tupes and Christal (1963). This consensus was created as a result of comprehensive study and a lot of effort invested in this over last 50 years in research. Big Five are Extraversion, Agreeableness, Neuroticism, Conscientiousness and Openness to Experience.

These five traits have been identified from using almost every major personality inventory and analyzing 1500 adjectives in adjective English (Goldberg, 1990) and also in many other languages and generalized across the culture, source of ratings, measures, heritability of traits.

(Relationship of Personality to Performance Motivation: A Meta-Analytic Review by Timothy A. Judge and Remus Ilies University of Florida)

There has been a number of research is done in this area of behavior science Study of "Heckman and Rubinstein 2001",the Five Factor Model of Personality (Costa and McCrae, 1992)DelVecchio, Goldsmith; Jones et al., 2006,Study by Luthans, Barrick and Mount, Tupes and Chrystal and many are very good contributor for the gradual maturation of this concept.

Here are the characteristics of Big Five personality traits on the basis of different research literatures and scientist like Barrick & Mount, Goldberg and others.

Extraversion : Extraverts are Sociable, Expressive, and spontaneous, outgoing, talkative, assertive, gregarious, confident, determined persons.

Agreeableness : Cooperative, kind, merciful warm, polite sympathetic, caring, courteous, trusting, sympathetic, and affectionate.

Conscientiousness : Trustworthy, systematized, self-disciplined, persistent, responsible, thorough or comprehensive, hardworking, observant, vigilant responsible, systematized and determined

Neuroticism : stressed, moody, nervous, annoyed, petulant, unsociable, nervous, embarrassed, unclear, disbelieving, unconfident, fearful, and unhappy. Neurotic person find it hard to believe other.

Openness to Experience : Inquisitive, academic, innovative, creative, cultured, flexible, imaginative, out of box thinker, cultivated, curious, open-minded, keen to diversity, artistic

Importance of Big Five

If we see the above Big Five personality traits and their characteristics we can easily think that these characteristics of a human being or an employee in an organization must have some impact in his or her performance and productivity for his or her specific job role without the help of any supportive research data. We can guess that all of these traits are not suitable for all types of job and surly some of these qualities support to perform well in some specific type of job. As an example, high neuroticism seems to be a problem for job performance and conscientiousness seems to be supportive to job productivity and performance. Importantly personality traits not only supports for measures in predicting job performance but also it can be used for

- Personality based motivational strategy.
- Personality Trait based selection system.
- Personality Trait based job assignment.

- Conflict management.
- Managing team dynamics and team building.
- Developing psychological capital and implement Positive psychology
- Managing organizational BULLIES.

It is a personality which makes the person different from another and it determines how a person reacts to a situation or stimulus in environments, hence it is crucial for an organization when they deal with its most important asset 'human asset'. These days personality assessment is very commonly used method for employee selection process. Big Five inventories (Goldberg, 1993) are inventory of 44 items to assess an individual on the Big Five dimension of personality. Myers-Briggs Type Indicator (MBTI) is a very popular personality test during recruitment in the USA. A person's personality is not constituted only with a single (100%) type of trait. In reality a personality contains all types of traits with a certain degree. We consider a person of a particular trait based on that degree. So a healthy neurotic can be a person with significant conscientiousness it can be good for his performance if he can channelize his worry to practicing a positive behavior. As a neurotic person's health anxiety may help or motivate him to do daily healthy eating and physical exercise more than other trait.

Research Findings : Personality Treats vs Job Performance

The following information is summarized after doing an extensive literature survey of contemporary research articles, reviews and relevant books on the subject. List for the same is being given in Reference and bibliography section. Discussion of detail result with meta-analysis is not in the scope of this article hence only key fact and findings have been highlighted below.

Key facts and findings :

Extra version (Sociable, Expressive, and spontaneous, outgoing, talkative, assertive, gregarious) :

- High extraversion tend to be associated with successful management and sales but not be a good predictor in skilled, semi/skilled production worker, engineer, accountant type of job
- High extraversion shown a positive correlation with job performance in man, but opposite in women
- It shows positive correlation with job performance when working as a team member and not as an individual contributor.
- Extraversion has positive correlation with Training Proficiency.

Agreeableness : (Cooperative, kind, merciful warm, polite sympathetic, caring, courteous, trusting, sympathetic)

- It has less impact on job performance compare to extraversion and the correlation is very weak

- A recent study shows a positive correlation with job performance when working as a team member not an individual contributor.

Neuroticism (Reversed is emotional stability):

- It has a strong negative correlation with performance and productivity. It is true about high neurotic.

- With some exception in some job like a high neurotic employee in the accounts section with high neurotic attitude may have a high value for the company

Conscientiousness:

- It has strongest positive correlation between conscientiousness personality trait and productivity compared to any other trait. This is universal agreement that conscientious employee who are trustworthy, tenacious, goal mouth, and systematized most likely to be to be higher performers on any job. The employee who exhibit this trait is always performing better than who are not.

Openness to Experience:

- The relationship between this trait and employee performance is controversial. Significant disparity found it considered with the interaction of the other personality trait consciousness.

- It has positive correlation with training proficiency. An individual who is the highest scorer in this trait are "Training ready".

- The job where it demands non-conventional thinking it has positive correlation with performance.

- Another research found that this trait has weak negative correlation with job performance, especially in those job types is mechanical and repetitive with a low requirement of creativity, innovation and learning opportunity.

All these researches say Big Five personality traits have very significant correlation with job performance. It is found in the latest trend of organizational behavior which is called positive organizational behavior and PsyCap also has a very significant correlation with job performance in combination with Big Five personality traits. It is important to know all big five which are natural traits,works in coordination with employee's subjective well being and state of physical and mental health. Here is comment from C. Peterson, 2006 "what is good about life is as genuine as what is bad and therefore deserves equal attention".

Positive Organizational Behavior (POB): is defined as "the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace (Luthans p. 59).

PsyCap: Hope, Optimism and resilience combination of these three creates a higher level of factor which called Psy Cap. (By Luthans) or Psychological capital.

Hope –It is a positive psychological state consist of two elements where two basic goals oriented fortitude and planning to achieve these goals.

"A positive motivational state that is based on an interactively derived sense of success (1) agency (goal-directed energy) and (2) pathways (planning to meet goals)" (Snyder, Irving, & Anderson,1991: 287)

Optimism – It is a style of thinking positive naturally in all positive events as permanent and global and thinking negative event as situational or temporary.

Resilience – "the developable capacity to rebound or bounce back from adversity, conflict, and failure or even positive events, progress, and increased responsibility" (Luthans 2002a p. 702)

Combination of Big Five and PsyCapworks

Some recent study reveals in some cases employee's psychological capital overpowers (which is related to work satisfaction and employee's subjective well-being) the impact of big five personality traits. Other research shows that with regards to coping mechanism in the work environment, both Big five and Psycap are significantly related and an important construct to measure this.

Conclusion

By analyzing the outcome of the multiple research, we find for an employee's 5 basic dimension of personality known as the Big 5 are very crucial for job performance. All traits are not fit for all types of job. So if these traits can be used properly, then management can optimally select appropriate workforce for a job. Also an appropriate job can be assigned based on the personality trait and it can enhance productivity and performance and can be very helpful to achieve organizational goals. It can provide a framework for selection, performance appraisal, training and development. This study also finds that other than the Big Five the latest concept of Positive Psychological Capital (HOPE, OPTIMISM, and RESILIENCE) is also very impactful in employee job satisfaction and in turn job performance. Psycap is related to a person's subjective wellbeing (Health, Relationship and work satisfaction) and it can overpower Big Five traits. Some research reveals that combination of Big Five and Psycap is a good construct can be very significant to measure some aspect of behavior like coping mechanism. Combination of Big Five and Psycap and their relationship contain the future scope of research.

In today's business world the teams or groups are more significant than an individual contributor. A manger should be equipped with this knowledge of behavioral science to effectively manage his team, which consist of different individuals with different personality trait and having different level of Psychological capital. So this is not only a subject for the people in the HR department, but also very crucial, even for a technical manager in his journey from *"GOOD TO GREAT"*

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Indian Ethos for Management : An Analytical Study

Prabhat Kumar Pani[1]   **Rajesh Kumar**[2]

Indian ethos for management means the applications of principles of management as revealed in our ancient wisdom brought forth in our sacred books like 'Gita', 'Upanishads', 'Bible' and 'Quran'. Formally, the body of knowledge which derives its solutions from the rich and huge Indian system of ethics is known as Indian Ethos for Management. Management is behavioral science and it has to be culture specific. Indian Ethos for Management has as its basis, the cultural base of India and as a country whose culture has its roots in religion - it does draw its lessons from the religions of the land - be it Hinduism, Buddhism, or any other.

Keywords : *Ethos, Ethics, Philosophy, Miniaturization, Self-introspection, Meditation.*

Introduction

The history of India has been a saga of the periodic confluence of differing cultures leading to a constant adaptation, synthesis, eventual regeneration and retention of what is and has been uniquely "Indian". While successful countries have developed management styles in consonance with their own cultural ethos, we in India have started waking up to this reality belatedly. Right from the post-independence phase of development, no adequate and serious grass root efforts were ever made to evolve management processes that could be in tune with the Indian Ethos. "Know thyself" is not only an Upanishad exhortation, but it also makes sense from a psycho-social perspective. An understanding of our cultural milieu, norms, values, and beliefs should help us to evolve styles and management systems suited to our requirements. Further, as people cannot be divorced from the environment, the organisational context needs to be related to situations and more of Indian socio-cultural life. What we require, therefore, is a serious attempt at development, standardisation, and institutionalisation of management policies, processes and practices which in turn are based on an understanding of our present-day socio-cultural milieu as well as an appreciation of our cultural ethos which provide a basic frame of reference (through predisposition to hold certain values) for subsequent interactions with society and the environment. In other words, a social system being a living and organic system, simply rejects that which is too discordant and incongruent with its ethos and thus a need for management policies and practices compatible with the cultural values and work level expectation.

It is a commonly agreed view that the success of Japan in managing the economy and enterprise lies in "Japanising" the management processes within the framework of Japanese ethos. In fact, there are many cultural values, shared by both Japan and India. But whereas in India, no serious attempt was undertaken to build institutional structures and management concepts rooted in our cultural ethos; Japan, on the contrary, has emerged business leader because it has been able to bridge a nexus between the cultural values and the needs of the people vis-à-vis the organizational response to these demands. In 1980's we have come across enough literature telling us how Japanese evolved and institutionalized their management practices based on Japanese cultural ethos. Of further importance is the fact that the search for blending and a synthesis of Eastern and Western perspectives is taking a new momentum in Japan. The philosophy, cultural values, and traditions of Japan are again playing a key role in their drive to pursue new frontiers of research and creativity. For example, the Mukta Institute or "JizaiKenkyujo" is an alternative-style think tank that merges scientific rationality with the Buddhist philosophy to arrive at creative new solutions. Founded in 1970 by Masahiro-Mori, the founder of Robotics Society of Japan, Mukta institute has some of the leading industrialists of Japan as its members. It is supposed to be an answer to Japan's historical search for a satisfying union of Western science and eastern philosophy. It is also of interest to note that an increasing number of Japanese are joining Buddhist Study Groups which have been multiplying at the rate of one every week in Japan. Further, as an alternative to time and space to pursue leisure activities in Japan as well as to overcome frustration and stress from long commuting and working hours; many companies in Japan are offering stress-reducing 'meditation rooms;' and sponsor back to nature retreats

[1] *Controller of Examinations, Kolhan University, Chaibasa, drpkpanijwcku@gmail.com*
[1] *Finance Officer, JAC Ranchi, Ranchi, rajeshjacfo@gmail.com*

as a respite from the daily grind. The concept of miniaturization which is Japan's best-known form of aesthetic creativity and permeated Japanese culture throughout history has led to Japan's knack for creative miniaturization in the electronics world.

Similarly, the Japanese art of paper folding and folding fans have instilled the notion of collapsible space which resulted in designing products like laptop computers, modular furniture etc. Even the complex characters of Japanese language has forced computer makers to develop complex word processing software, facsimile machines, optical scanning devices, computer translation system and other advanced data processing technologies. These skills and technologies are now being used for artificial intelligence adopt computing systems.

Ethics and Indian Ethos

The word "ethics" has its origin in the Greek word "ethics" meaning character, norms, ideas or morals prevailing in a group or society. Ethics is concerned with what is right and what is wrong in human behaviour judged on the basis of a standard form conduct/ behaviour of individuals, as approved by society in a particular field of activity.

Ethics may be viewed as the entire body of moral values that society attaches to the actions of human beings. Ethics can also refer to codes or another system for controlling means so that they serve human ends. Ethical standards are often enacted into laws. But ethical behaviour is just and fair conduct which goes beyond observing laws and government regulations. It means adhering to moral principles, being guided by particular values, and behaving in a way people ought to act. The set of principles called ethics may be written or unwritten codes or principles governing a professional or human activity.

Therefore, "ethics" is a set of standards, or a code or value system, worked out from human reason and experience, by which free human actions are determined as ultimately right or wrong, good or evil. If an action agrees with these standards it is ethical; if not it is unethical. Ethics are derived from Ethos. Cambridge Advanced Learner's Dictionary defines ethos as "the set of beliefs, ideas, etc. about social behaviour and relationship of a person or group" while Oxford Advanced Learner's Dictionary defines it as "the moral ideas and attitudes that belong to a particular group or society". Indian Ethos is all about what can be termed as "national ethos". Indian Ethos is the set of values and ethics derived from the Indian Cultures as is depicted in the epics like Ramayana & Mahabharata and Holy Books like Bhagavad Gita & Vedas. It may be difficult to internalize the approach of Indian Ethos with the amaterialistic bent of mind, where the end result is the only concern, to be achieved by hook or crook rather than the processes and paths chosen to arrive at that result. Indian Ethos gives impetus to the means adopted to achieve a goal, rather than the goal itself. If the processes and means are defined and refined, excellence will automatically be manifested even in the end result.

"Ethos" is derived from "shastra" culture. It determines the culture of "Paap-Punya","Swarg-narak", conduct or cultured behavior like truth, non-violence, devotion, welcome, pranam, kindness, respect for elders, love to youngsters etc. "Ethos" is a discipline that examines one's morality or the moral standard of the society whereas "ethics" means expected standards in terms of your personal and social welfare. It includes honesty, morality; responsibility, etc. "Indian ethos" demands a subjective management system which leads to an understanding of the following :

(a) Management Attitude – Top management having firm belief in value-oriented holistic management. Profit is earned through service and satisfaction of all stakeholders – employees, customers, shareholders, and citizens. Fulfillment of social responsibility must be ensured.

(b) Humanising the Organisation – Looking at the three aspects of humane organisations, i.e., interpersonal relations, man-machine equation where the man is the prime concern and inner management through the mental and spiritual growth of individuals.

(c) Interiorising Management – Self management or management of consciousness. When the soul manages the other four members of the human being, namely, the body, mind, intellect and the heart, the conflict these four have amongst them can be resolved. This is management of consciousness. The objective of self-management is to first know and manage oneself and then manage others.

(d) Self-introspection – Embark upon self-study, self-analysis, and self-criticism to locate areas of friction and disharmony, a self-examination of one's own thoughts, feelings, emotions, sensations and passions and a desire to reduce and subdue the ego.

(e) Brain-stilling – For rational and enduring decisions, a silent mind is a necessity. A perfect Mounum (calm mind enjoying tranquility) is necessary. Brain-stilling or meditative silence is the most reliable method to discover solutions to problems and difficulties which seem to be difficult to be tackled by reason and intellect because through this one can come into contact with the inner mind or higher consciousness called "Chetana".

(f) Stepping Back (for a while) – Never decide anything, never speak a word, never throw yourself into the action without stepping back. The stepping back from a situation for a while enables one to control and master a situation.

(g) Self-dynamising Meditation – A dynamic meditation is a meditation of transformation of lower consciousness into higher consciousness and hence is called transforming meditation. Through meditation, in a silent and calm mind, one reaches the highest level of consciousness which offers guidance in the form of intuitions to tackle a multitude of problems. This is called consciousness approach to management.

(h) Role of Intuition – Intuition is the act of coming to direct knowledge or certainty without reasoning or inferring. It is immediate cognition of the inner mind and when fully

developed, is efficient and effective for taking prompt and sound decisions. Intuition skills enable one to cope with confidence the fluctuating environment and rapid changes. Faith is a prerequisite to develop and realize the power of intuition.

Indian Management

The socio-cultural interpretations of managerial phenomenon represent a fairly recent conceptual advance. The dominant tradition in theorising about managerial processes has emphasised the universality of managerial principles and methods. It has been suggested that cultural variables and sociological elements have a negligible role in the analysis and explanation of managerial behaviour. It is assumed that transferring management concepts and methods from one socio-cultural environment to another is relatively easy and non-problematic. Furthermore, such a process of borrowing does not in any significant manner diminish the relevance and effectiveness of such concepts and techniques in terms of their practical application in the new situation.

In contrast to the school of thought who views the managerial process as being independent of sociological and cultural influence, the Indian management argues that managerial styles and processes are deeply influenced by socio-cultural factors. In other words, it is proposed that the socio-cultural environment plays a very important and significant role in the evolution and development of management ideas and styles. It is this basic proposition that is being put forward in this paper. In doing so, the particular case of Indian Management will be discussed. It will be argued that management in India-quite contrary to the popular impression is very much a product of our history, social structure, cultural characteristic and other significant macro-environment elements. A more critical and deep understanding of the nature and scope of the relationship between culture and management will facilitate the design of management systems appropriate to and congruent with the Indian conditions. Thus, the utilisation of a socio-cultural perspective for the analysis of management phenomenon is not merely a theoretical fascination but is replete with positive practical advantage.

It is an accepted fact that the bulk of management practices has been borrowed from the west. The transfer of these concepts has posed complex difficulties not the least of which is that many of these practices come into conflict with the traditional values of Indian society. The same experience has been reflected with reference to the transfer and adoption of Japanese patterns and styles of management. Efforts have been made to overcome some of these serious and complex problems by deputing manpower for training in Japan, but as can be imagined, this has led only to marginal outcomes in terms of job performance, quality of gradation and product excellence. There is no doubt that cross-cultural linkages and relationships are a rich source of learning but the role of the local cultural environment remains crucial in so far as cross-cultural insights have to be tested and interpreted in one's own cultural context. A systematic perusal of Indian Management through the ages brings out clearly the close nexus between cultural values and management and administrative practices. A historical analysis also establishes the fact that varying cultural influences have impacted on the social structure of Indian society making it imperative for administrative and management processes to constantly adapt themselves to these dynamic changes in the socio-cultural environment. The information about the nature of social organisation prevalent before the influx of Aryans is scarce and vague. There is very little understanding of the administrative, organisational structures which characterized the lifestyles of the people of that period. However, in the period characterised as the Vedic, sufficient evidence is available to indicate the broad feature of the social organization of the society as also its administrative processes. It is during this period that direct and strong linkage between administrative styles and sociological variables is seen - The entire administrative system was closely intertwined with the practices of "Varna" or the caste system. This system prescribed in a definitive manner the duties and responsibilities every member of the social organisation from the king at the top to the lowest functionary.

This indigenous pattern of social administration was subjected to a series of contacts with alien cultures beginning with the Greeks creating conditions for rapid assimilation and absorption of new cultural ideas. This period also witnessed the birth and rise of empires in India as also the creation of a more organized and coherent framework of administration.

Kautilya in his "Arthashastra" enunciated in a very systematic manner the strategy of administering empires. Building on the earlier contributions by Manu Brihaspati and Usunas, Kautilya confined the leadership pattern for kings, the duties of officials of the state structure of wages and the systems of punishment. The major thrust of Kautilya's work was mistrust of subjects and the need for the king to protect himself at all times. Nevertheless, it was during this period that elements of decentralised administration were created and the birth of guilds provided some viable basis for grass-roots organisational functioning. This pattern of management and administration revolving around the fulcrum provided by the caste system continued with marginal modifications almost well into tenth century A.D. The coming of the Persians and Afghan invasion in the eleventh and twelfth centuries brought in its wake significant developments in the management and administrative systems.

Patronage was the central feature of the new administrative culture and this was buttressed by the creation of large and strong armies and an elaborate system of taxation. The rise of the system of patronage evolved during this period still persists as a key characteristic of Indian Management.

The British came in India during the role of the Mughal King Jehangir primarily in the role of traders. However, the nearly 250 years of their rule left a deep and enduring cultural and economic impact on the traditional structure of the Indian society. One of the major systematic changes introduced by the British was the rigorous selection procedures particularly for offices for the top and middle levels. In the very nature of circumstances, the top

positions were filled by the British and the middle level by Indians who had acquired formal educational qualifications. This system of formal education, a major change introduced by the British served to socialise the Indians into western cultural values in general and the British version in particular. During this period the system of management in India was family owned and there was very little evidence of the development of 'professional'management. Indian industry was very much influenced by caste, region, birth and other socio-economic variables in selecting personnel. This period also witnessed the setting up of the managing agency system. The management of companies was performed by managing agents who acted on behalf of absentee proprietors and owners.

Indian Ethos for Management

In the words of Albert Einstein, "Certainly we should take care not to make intellect our God. Intellect has, of course, powerful muscles, but no personality. It cannot lead. It can only serve. It is not fastidious about its choice of leaders (Mind or Soul). The intellect has a sharp eye for tools and methods, but is blind to Ends and Values". Arnold Toynbee, Nobel Laureate expressed, "It is already becoming clear that a chapter which had a western beginning in business management will have to have an Indian ending when the world adopts rich thoughts of Indian ethos and wisdom if it is not to end in the self-destruction of the human race."

Indian ethos for management means the applications of principles of management as revealed in our ancient wisdom brought forth in our sacred books like"Gita", "Upanishads", "Bible" and "Quran". Formally, the body of knowledge which derives its solutions from the rich and huge Indian system of ethics is known as Indian Ethos for Management. Management is behavioral science and it has to be culture specific. Indian ethos for Management has as its basis, the cultural base of India and as a country whose culture has its roots in religion - it does draw its lessons from the religions of the land - be it Hinduism, Buddhism, or any other. There are some basic ideas and thoughts revealed by our ancient scriptures which are applicable in today's management world. They are:

1. *"Atmano Mokshartham, Jagathitaya cha":* All work is an opportunity for doing well to the world and thus gaining materially and spiritually in our lives.

2. *"Archetdanamanabhyam":* Worship people not only with material things, but also by showing respect to their enterprising divinity within.

3. *"AtmanaVindyateViryam":* Strength and inspiration for excelling in work comes from the Divine, God within, through prayer, spiritual readings and unselfish work.

4. *"Yogahkarmashu Kaushalam, Samatvam yoga uchyate":* He who works with calm and even mind achieves the most.

5. *"Yadishibhavanayasya siddhi bhavatitadrishi":* As we think, so we succeed, so we come. Attention to means ensures the end.

6. *"Parasparambhavayantahshreyahparambhava psyathah" :* By mutual cooperation, respect and fellow feeling, all of us enjoy the highest good both material and spiritual.

7. *"Teshamsukhmtesham shanti shaswati":* Infinite happiness and infinite peace come to them who see the Divine in all beings.

8. *"Paraspar DevoBhav" :* Regard the other person as a divine being. All of us have the same consciousness, though our packages and containers are different.

Basic principles of Indian Ethos of Management

There are six basic principles, which come to light in the holy books applicable into day's management world. They are:

1. *Each soul is a potential God :* Immense potential, energy, and talents for perfection as a human being have the spirit within his heart. A human being has a soul, a spark of the divine. The Divine resides in the heart of a person. The Divine means perfection of knowledge, wisdom, and power. Therefore a human being has the immense potential power or energy for self-development. Thus, human efforts can achieve even an apparently an impossible goal and convert into a reality. The association of God and human being can show an extraordinary result; only if human being decides willingly to collaborate with God and actively participates in the society by right action under the guidance and grace of God. A human being can develop not only personal development, harmony, and happiness, but also the prosperity of the organization and the society without injustice to others.

2. *Holistic approach :* It indicates the unity between the Divine (The Divine means perfection in knowledge, wisdom, and power), individual self and the universe. The holistic approach of management is based on the spiritual principle of unity, oneness, and non-dual concept. Under these principles of unity, the Universe is an undivided whole where each and every particle is connected with every other particle. Hence, entire humanity is one.

3. *Equal importance to subjectivity/objectivity :* Subtle, intangible subject and gross tangible objects are equally important. One must develop one's Third Eye, "JnanaChaksu", the Eye of Wisdom, Vision, Insight and Foresight. Inner resources are much more powerful than outer resources. Divine virtues are inner resources. Capital, materials and plant &machinery are outer resources.

4. *"Karma Yoga":* "Karma Yoga" (selfless work) offers double benefits, private benefit in the form of self purification and public benefit. "Karma Yoga" is a good pathway for– self purification and self-development, individual as well as collective growth and welfare, minimum play of passion, jealousy, hatred, greed, anger and arrogance, team spirit, teamwork, autonomous management, minimum control and supervision, etc. The

result is all-round happiness and prosperity. "Karma Yoga" is an end-state or an alias of "NishkamaKarma" (NK). Yoga means union between "individual consciousness" and "supreme consciousnesses". Work is one of the several methods of achieving this union. Juxtaposed against the NK is the other attitude to work called "Sakam Karma" (SK).

5. **"YogahKarmasuKaushalam":** It indicates excellence at work through self-motivation and self-development with devotion and without attachment. This theory is mainly based on the concept of "Karma Yoga" as indicated by Lord Krishna in "Bhagavad-Gita" Chapter 2, Shloka 50-

"Buddhiyuktojahaatihaubhesukrtaduskrte

tasmaadyogaayayujyasvayogahkarmasukaushalam"

Endowed with the wisdom of evenness of mind, one casts off in this life, both good deeds and evil deeds: therefore, devote yourself to yoga. Skill in Action is Yoga.

If we look at the first line of the above verses – we will find the most important principle of Indian Ethos – Yoga of Equanimity of Mind in the phrase - "BuddhiYukto". The phrase in second line "YogahKarmasuKausalam" indicates- the practice of such Yoga develops dexterity in action, which means our future Managers should learn the art of detaching themselves from the fears of failures and should maintain evenness of mind in all conditions to take the right decision without getting overpowered by emotions. At the same time, managers should also be able to maintain calmness and give all the credit to the Supreme Divine if they are blessed with success in their respective projects. This will again help them to analyze and introspect on their work and the processes adopted while arriving at successor even failures. The reason to always stress on actions and not result is that the actions, being in our hand can always be replicated or avoided, but the results are many times depending on external and uncontrollable factors. Thus harnessing of skills and processes in such a way always leads to perfection and helps in manifesting all-round excellence.

6. **Co-operation :** Co-operation is a powerful instrument for teamwork and success in any enterprise involving collective work. The idea of cut-throat competition is founded on the concept of "struggle for existence" and survival of the fittest. Indian ethos denotes that the royal road for human beings is co-operation which is a powerful motive for the teamwork. We are human beings having the mind and the power of discrimination.

Conclusion

Right from the post-independence phase of development, no adequate and serious grass root efforts were ever made to evolve management processes that could be in tune with the Indian Ethos. An understanding of our cultural milieu, norms, values, and beliefs should help us to evolve styles and management systems suited to our requirements. A social system is a living and organic system simply rejects that which is too discordant and incongruent with its ethos and thus a need for management policies and practices compatible with the cultural values and work level expectation.

Principles of Indian Ethos of Management are universally applicable. Indian Ethos for Management can help to develop an effective and holistic management pattern which will assure all-round growth in productivity, marketing, and profitability. This will help in synchronizing private and public benefits and encourage individuals to lead an enriched quality of life together with worldly achievements. The best form of management has to be holistic and value-driven, which is the objective of Indian Management Ethos.

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The ICFAI University, Jharkhand (IUJ) was established under the provisions of the Institute of Chartered Financial Analysts of India University Act, 2006 (Jharkhand Act No. 08 of 2007), vide Notification dated June 17, 2008 of the Government of Jharkhand. The University is sponsored by the Institute of Chartered Financial Analysts of India (ICFAI), a not-for-profit educational society established in 1984 under the Andhra Pradesh (Telangana Area) Public Societies Registration Act, 1350 F (Act No.1 of 1350F) with the objective of imparting training in finance and management to students, working executives and professionals in India

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