



AN ANALYSIS ON THE PRODUCTION AND PROBLEMS OF CHAYOTE GROWERS IN MIZORAM: A CASE STUDY OF SIHPHIR CHAYOTE FARMERS

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It gives us immense pleasure to put the present issue of the Uttaranchal Business Review to our readers. It is believed that research is an unending process and it always requires upgradation and updation. The focus of our journal is research articles, thought provoking pieces, philosophical views about business issues and general concerns about the changing world scenario and needs of the day. The present issue offers many thought provoking avenues for researchers and practitioners. We encourage researchers and faculty members of management institutes to use this as a platform to publish their work and express their ideas for future research. We have a variety of articles in this issue.

Opening of Indian economy to the world has given many opportunities to the farmers and posed many challenges before them. Dr. Vanlalhumi & Dr. L. S. Sharma has analyzed the production and the problems of chayote growers in Mizoram: A case study of siphir chayote farmers. S.M. Tariq Zafar & Dr. Mubarak Ali have analyzed market fluctuations and various factors affecting it in their study on Determining the price of Gold and Silver in today's bullion market: A Herculean task. Performance of family business and non-family business has been affected by many factors in the present economic scenario. Chette Srinivas Yadav, Prof. A. Sudhakar & Pedamallu Sai Bangaru have done a comparative analysis of family and non-family businesses in India. In the recent years, government of India has taken many initiatives to develop entrepreneurial orientation of the masses. Chirag Malik & Ekta Rao Entrepreneurial orientation of MBA and Engineering students: A comparative analysis. K R Subramanian in his study on the title "The quintessence of leadership: A functional team" has drawn attention to the very critical aspect of building and sustaining such high power teams for continued delivery of high performance requirements of the current dynamic business environment. Dr. Hem Chandra Kothari & Dr. Sidheswar Patra in their research on the post liberalization progression of IPRs in India attempt to throw some light on the pattern of intellectual property in terms of applications received, registrations done, revenue generated from applications by the government and expenditures on the handling of IPR by the concerned body of government of India

Alternate fuel has become a challenge before researchers and scientists. Dr. Soumik Gangopadhyay & Prof. Anirban Sarkar in their study on Biodiesel, a fuel of the future: a perceptual study of selective industries in Kolkata have analyzed the perception of Kolkata based industries regarding Biodiesel. Shivangi Sharma & Dr. S. R. Sharma analyzed the Insight into the Consequences of Brand Extension: An Exploration Through Literatures. MSMEs are suffering from many problems in the present day scenario. Dr. Shikha Gupta has analyzed Credit-starved MSME sector of India.

Dr. Ruchi Srivastava has reviewed a book The Maruti Story – How A Public Sector Company Put India On Wheels written by RC Bhargava & Seetha. ,

We are looking forward to reader's reactions, suggestions and feedback. I must thank our advisory board members and editorial board members for their help and guidance.

I remain,

Prof. (Dr.) D.S. Chaubey
Chief Editor

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AN ANALYSIS ON THE PRODUCTION AND PROBLEMS OF CHAYOTE GROWERS IN MIZORAM: A CASE STUDY OF SIHPHIR CHAYOTE FARMERS

Abstract

Horticulture has established its credibility in improving income through increased productivity, generating employment, enhancing exports and providing nutritional security to the people. It has played a significant role in improving the economic status of our farmers and women empowerment. It has established its credibility in improving income through increased productivity, generating employment, enhancing exports and providing nutritional security to its growers. The North-Eastern Region of India with its agro-climatic conditions is suitable for a variety of horticultural crops. Among the vegetable crops, chayote being a short gestation crop, is an ideal crop for the poor farmers and is doing extremely well in Mizoram. Mizos use chayote both for human consumption and animal feed as well. Among the vegetables grown in Mizoram, chayote is one of the highest exported vegetables. Chayote cultivation has provided a sustainable means of income for many households in Mizoram. The study is conducted through a sample of 90 chayote farmers in Sihphir area through a structured questionnaire. This paper tries to find the socio-economic profile of the farmers, reasons for producing as a sustainable income and problems faced by the farmers. It also looks into the management of harvesting and marketing of the produce. The study finds that in Mizoram chayote is being produced in large scale. Skill development is necessary for increasing the productivity and success of this product.

Keywords: Horticulture, chayote, scientific exploitation, Iskut, Sihphir.

Introduction

Horticulture is the science and art of cultivating fruits, vegetables, flowers, or ornamental plants. Etymologically, "horticulture" can be broken down into two Latin words: *hortus* (garden) and *cultus* (tilling). Horticulture has established its credibility in improving income through increased productivity, generating employment, enhancing exports and providing nutritional security to its growers. It has played a significant role in improving the economic status of our farmers. The North-Eastern Region of India has is suited with its agro-climatic conditions pre-eminently suited for a variety of horticultural crops. Among the producers of horticultural crops, chayote is one of the most important vegetable crops in Mizoram. Mizos use chayote both for human consumption and for animal feed as well. It is a very versatile vegetable as we eat almost all parts of the plant including the leaves, root and the fruit. Among the vegetables grown in Mizoram, chayote is one of the highest exported vegetables. It is mainly exported to our neighbouring state Assam and Bangladesh. The main areas of chayote cultivation in Mizoram are Sihphir, Lungdai, Serkhan and Nisapui. Chayote cultivation has provided a sustainable means of income for many households in Mizoram.

The chayote farmers formed a strong association named "Mizoram Iskut Growers Association" which had five

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branches during its foundation stage. With the area under chayote cultivation being expanded under the Technology Mission, the number of branches also increased. As the farmers are keen to take up chayote cultivation on a larger scale, the government has provided assistance in the form of G.I. wire for trailing support and organic manure. Chayote requires a moderate climate between 13°C and 21°C. It grows well in areas of heavy rainfall between 1500 – 2000 mm with relative humidity of 80 to 85 percent. Chayote is a short gestation crop and is ready for harvesting within 3 – 4 months of cultivating. In Mizoram, it can be harvested between April to December, though the prime period of harvesting the crop is during August – September. There are several varieties of chayote viz. green type painted green, brown green, oval green, florida green etc.

Chayote production in North East India

In India, chayote is widely grown in Tamil Nadu, Karnataka, West Bengal, Himachal Pradesh and in the entire north east hill region. Mizoram is the leading state with an estimated area of 845 ha and 10,985 metric tonnes of production. There are various varieties of chayote grown in the North East region, particularly in Meghalaya, Mizoram and Sikkim (Rai et. Al., 2005, Yadav et. Al., 2005). Among the several cultivated types of chayote grown in the region are named locally and found locally. Common names used in Mizoram is *ishkut*, in Meghalaya known as *piskot*, *sikot*, in other places as *chow-chow* etc. In Mizoram and Meghalaya the main variety of crop grown is Monticello White and Florida Green.

When grown under ordinary garden conditions the cultural requirements of the chayote may be said to be two in number: A somewhat sheltered situation and something to climb upon. In Mizoram it is grown in an environment where a GI wire mesh is set for the creeper to climb. The plant chayote is very susceptible to injury from the wind, and storms. In the different parts of the world the chayote has been found to grow upon a great variety of soils, though it is generally considered to thrive best in a loose sandy or loamy substratum, providing sufficient humus or other fertilizing material be at hand. Although it has been found possible to secure plants from the seed when planted alone, or even from the embryo Avhen carefully extracted from its seed coats, it is the universal practice to plant the entire fruit.

The sowing of the seeds takes place about the beginning of February. The first harvesting occurs in August; and continues till November and December. The plating of the seeds is carried out in holes of 18 inches deep to 3 feet if the soil is loose. In clayey soil, it may go down to 5 to 8 feet. Drainages provided and compost consisting of one-third ordinary garden soil, one third half-rotted cattle or stable manure (cattle manure preferred for hot sandy soils and stable manure for cold clayey soils), and the remaining third may be formed of leaf mold, sand, wood ashes, lime, and the sweepings of the poultry yard in about equal portions. The whole fruit, which is set out in a germinated state are planted about 3 inches deep in the center of the hole. It begins to grow at once, and in a week or ten days it will have made a good start. It is a creeper, and each plant will require a space of about 20 feet square.

The vine is sensitive to cold and dies away at the approach of winter, but the reserve material stored in the large fleshy root enables rapid growth to be made as soon as conditions are again favorable. By germinating the seed in a greenhouse or cold frame in March and transplanting when danger of frost is past it is said that good growth

can be secured the first season, and thirty fruits or more are sometimes obtained from each vine with five months of favorable weather. Unless such measures are taken to gain time fruiting may be deferred until the second season.

Literature Review

According to Chadha (2006), India has favorable climates and soils for growing a larger number of horticultural crops. Soon after Independence, India faced the challenge of providing food security to millions of its people. It was only in the mid-80's that the government identified horticulture sector as a means of diversification for making agriculture more profitable through efficient land use, optimum utilization of natural resources and creating skilled employment for rural masses especially the womenfolk. Horticulture has emerged as an integral part of food and nutritional security and an essential ingredient of economic security. Adoption of horticulture by farmers has brought prosperity in many regions of India.

According to Prasad and Kumar (2008), there is a great demand for horticulture produce in India as the majority of Indian population is vegetarian. However, India's share in global exports of horticulture produce is negligible being only one percent. But given the volume of world trade in fresh and processed horticulture products and the country's resources, India has the potential of more than doubling the present level of exports within the next five years.

Chadha, Singh and Patel (2010), have observed that past investment has been rewarding in terms of increased production, productivity and export of horticultural produce. But there is a growing competition in open economy, which demand competitive price of standard quality produce. This opens up opportunity and challenges. Critical gap needing attention are low productivity and poor quality of product, inadequacy of infra-structural facilities for post-harvest management and marketing, inadequate efforts for product diversification and consumption, inadequacy of quality seed and planting material, inadequacy of human resource in horticulture, lack of appropriate database for effective planning, inadequacy of trained manpower and infrastructure in the states, poor delivery system, credit support and price support and slow pace in adoption of improved technology.

Sarswathy, Preethi, Balasubramanyan, Suresh, Revathy and Natarajan (2008) observe that the three main objectives of applying post-harvest technology to harvested fruits and vegetables are required to maintain quality in terms of appearance, texture, flavor and nutritive value, to protect food safety and to reduce losses between harvest and consumption. The reasons for postharvest losses could be due to poor packaging, grading, transportation and marketing of the perishable produce.

As Indian growers typically have a comparatively small quantity of produce with an average holding of less than a hectare of land, Chauhan (2004), suggested a system of "Pooling" of the produce or co-operative marketing under a common brand name. This would require guaranteed quality, uniformity in size and volume, good packaging and quality standards. To deal with unmarketable surplus of horticultural produce which is an integral part of the industry, he proposed semi-processing the produce in the growing areas itself to improve quality and provide employment in the countryside. Semi-finished produce can be then taken to a centralized facility for final conversion into a finished product. Peter (2009) has noted that with the economic developments taking place, agriculture is becoming more and more market oriented. Prices of horticultural products fluctuate widely from year to year, season to season, and even day to day. This variance makes horticultural production both profitable and very risky. Often, success depends on marketing skills and obtaining good prices rather than production expertise.

Goswami (2000) examines the problems and prospects of marketing horticultural crops in the northeastern hill region of India. The following aspects are examined: area and productivity of horticultural crops, market regulation, enactment of market legislation, market infrastructure, market intelligence and market performance. The discussion reveals that the northeastern region of India has ample scope for increasing the horticultural sector. However, the main problems in the region are lack of adequate market infrastructure (such as transportation network, storage, and processing facilities), inadequate market intelligence and extension,

and the lack of efficient market legislation and regulation.

Objectives of the Study

The objectives of the study are:

- (i) To assess the socio-economic profile of the chayote farmers.
- (ii) To review the generation of income of the chayote farmers.
- (iii) To analyse the reasons for adoption of chayote farming.
- (iv) To find out the problems faced by chayote farmers.

Research Methodology

The study is conducted through a sample of 90 chayote farmers in Sihphir area through a structured questionnaire. It is estimated that there are approximately 300 chayote farming families in Sihphir area. Therefore, the sample size covers 30 percent of the total chayote farmers in the area under study. Face to face interview was conducted among the Mizoram Iskut Growers Association members. This paper tries to find the socio-economic profile of the farmers, reasons for producing chayote as a sustainable income and problems faced by the farmers. It also divulges into the role of harvesting and marketing of the produce.

Results and Discussion

Socio-economic profile of the farmers:

The following Table 1 shows the general profile of the chayote farmers in Sihphir area. Owing to the high literacy rate of Mizoram, it was found that all the farmers were literate and 43 percent of the farmers were matriculate. The study showed that 65 percent of the farmers are in the category of 50 years and above. Out of the farmers surveyed, 17 percent solely depend on farming as a means of livelihood, whereas 14 percent were in government service, 13 percent manage their own business such as grocery store, 9 percent take up daily wage work from time to time, and 11 percent undertake "other" occupations such as carpentry and masonry. It can be seen that majority of the respondents are farmers in full occupation (58 percent) in the age group of 50 and above.

Table 1: Demographic Factors of the Respondents

Characteristics	Respondents	Percentage
1. Age		
Less than 40 years	2	(2%)
40 to 50 years	30	(33%)
50 and above	58	(65%)
2. Education		
Post graduate	0	(0%)
Graduate	9	(10%)
Matriculate	42	(47%)
Below Matriculate	39	(43%)
Illiterate	0	(0%)
3. Other occupations of the farmers		
Only farming	15	(17%)
Govt. service	13	(14%)
Business	12	(13%)
Daily labourer	8	(9%)
Privately employed	32	(36%)
Others	10	(11%)

Source: Primary Data

Table 2 shows the activities carried out by the farmers during the production and marketing of chayote in Sihphir area. The survey shows that all the respondent farmers are involved in production and harvesting. The survey also indicates that 42 percent of the respondents are involved in processing of the chayote while majority 97 percent are involved in packing of the products. Minimum about 1percent of the farmers are involve in the selling in the form wholesale or retail of their products as indicated by the survey as the Mizoram Iskut Growers Association is involved in marketing the product, it is thus reflected in the survey. It is also revealed that most of the produce are sent to other states as reflected by the 91 percent of the respondents.

Table 2: Activities of Farming taken up by farmers

Characteristics	Respondents	Percentage
Production	90	(100%)
Harvesting	90	(100%)
Processing	38	(42%)
Packing	87	(97%)
Retailing/Wholesaling	1	(1%)
Selling outside the state	82	(91%)

Source: Primary Data

Land holding pattern of the farmers

Mizoram is a hilly region which is very difficult to be prepared for farming and irrigation. Hills of Mizoram are steep in nature and slopes are highly difficult. Sihphir Area is situated in the northern part of Aizawl and is blessed with slope gradient hills with rainfall during monsoon during May to September. This condition is highly suitable for growing chayote in the region. The study also tries to find the landholding pattern of the farmers as well as the ownership pattern. In terms of land holding, it was found that all the farmers of Sihphir area are cultivating chayote in their own land. The survey indicated that most of the farmers have small land holdings. As shown in Table 3, majority of the farmers cultivate chayote in 1-2 hectare of land area while a small group viz., 9 percent of the respondents are growing in the area of less than 1 hectare.

Table 3: Type of Land Holding and Ownership Pattern

Characteristics	Respondents	Percentage
1. Area under chayote cultivation	Chayote	Total
Less than 1 hectare	8	(9%)
1 - 2 hectares	82	(91%)
2 - 5 hectares	0	(0%)
More than 5 hectares	0	(0%)
2. Ownership of cultivated land		
Owned by self	90	(100%)
Leased	0	(0%)
Owned by relative	0	(0%)
Total	90	(100%)

Source: Primary data

Production and Income Generation for the Chayote Farmers of Sihphir Area

The survey also enquired about the production of chayote and income generated from the chayote growers of Sihphir Area in Mizoram. Table 4 shows the number of years involved in chayote production, annual production of chayote and income generated from the sale of chayote products. The table shows that maximum 4 percent of the respondent farmers have been practicing chayote farming for more than 5 years. Maximum 36 percent respondents has been producing chayote more than 20 years. The second part of the table shows the annual production of chayote in quintals. It has been found that 46 percent of the farmers produce more than 200 quintals of chayote while 43 percent produces about 100 – 200 quintals per annum. It also has been found that 50 – 100 quintals are produced by 11 percent of the respondents. The income generated from chayote is shown in part 3 of the Table 4. The survey shows that 32 percent of the respondent farmers earns about Rs. 40000 to Rs. 60000 per annum while 22 percent earns about Rs. 60,000 – 80,000 per annum. About 18 percent of the farmers earns about Rs. 80,000 to 1,00,000 per annum. Around 19 percent of the farmers earn about Rs. 20000 to Rs. 40,000/- per annum. Those farmers who are earning more than Rs. 1,00,000/- is due to the large holding of land for cultivation.

Table 4: Production and Income Generation in Sihphir Area Village

Characteristics	Respondents	Percentage
1. No. of years of Chayote farming		
Less than 5 years	4	(4%)
5 - 10 years	13	(14%)
10 - 15 years	18	(20%)
15 - 20 years	23	(26%)
More than 20 years	32	(36%)
2. Annual production in quintals*		
Less than 10 qtls.	0	(0%)
10 - 50 qtls.	0	(0%)
50 - 100 qtls.	10	(11%)
100 - 200 qtls.	39	(43%)
More than 200 qtls.	41	(46%)
3. Annual income*		
Less than Rs. 20,000	3	3%
Rs. 20,000 - 40,000	17	19%
Rs. 40,000 - 60,000	29	32%
Rs. 60,000 - 80,000	20	22%
Rs. 80,000 - 1,00,000	16	18%
More than Rs.1,00,000	5	6%

* Average of 2011, 2012 and 2013 Source: Primary Data

Reasons for adopting chayote farming

Cultivation of chayote in Mizoram is believed to have been started since the coming of western missionaries. It is not a very popular crop in India. Large scale cultivation is taken up only in Mizoram. In 1982, farmers of Sihphir village, in order to start a permanent farming, initiated the cultivation of chayote for their livelihood. They were able to export a small quantity to neighbouring states in 1986. Over the years, with the help of the government and Technology Mission, farmers were able to receive support in the form of price subsidy, G.I. wire for trailing support and organic manure. This enhanced the production of chayote to a tremendous extent. Presently, the area under chayote cultivation is more than 2000 acres, and productivity ranges from 100-500 quintals per acre. Regarding export sales, only the chayote farmers are engaged in export of their produce. It was gathered from the study that all the chayote farmers are relying on distributors as channel partners for their export sales. The foremost reason that led to the adoption of horticulture farming by the respondents is the opportunity for attaining higher income, followed by the shorter gestation period of the crop selected by the farmers as compared to cultivation of rice. The other important reason cited is the prospect of higher yield per hectare of land area, followed by the encouragement from success stories of other farmers who have adopted the trade. The fifth reason is the availability of ready market for the sale of the horticulture produce. The other reason is the opportunity of exporting the produce, followed by the requirement of low financial investment with regard to the crop. The other reasons cited are the fact that horticulture farming can be less labour intensive and there are avenues for receiving support from the government.

Major Problems Faced by Chayote Farmers

Chayote farming was introduced at Sihphir area only a decade ago. The research threw light on the major problems faced by the farmers presently.

Some of the problems faced by the chayote growers are as follows:

- a. **Lack of training of proper farming techniques** – The farmers acquired the skills through trial and error methods rather than the correct farming techniques for chayote cultivation. Out of the farmers surveyed, only 17 percent have attended the training programs organized by the Department of Horticulture. Using correct techniques, 500-700 quintals can be produced from one hectare of land area.
- b. **Difficulty of expanding cultivable land** – Most of the land holdings used for chayote farming are already small land areas. As the majority of the farmers have very small land holdings viz., 1-2 acres, increasing the land area is difficult. There is a dearth of land for expansion so that the cultivation can increase leading to increase of production.
- c. **Financial constraint** – It has been found that most of the chayote farmers require investment in terms making wire mesh so that the chayote plant can spread over in the G. I. wire. To expand good investment is required for GI wire mesh. The farmers require resources for purchase of tools and technology, manpower, fertilizer, irrigation, etc.
- d. **Marketing network in the hands of few** – Most of the chayote farmers do not possess the business savvy experience to explore the market potential for their produce. There is heavy reliance on middlemen and agents to sell their produce.
- e. **Lack of government support** – Many of the chayote farmers feel that there is a lack of government support towards expanding their trade. For instance, government assistance is required for obtaining the appropriate post production activities so that it can be marketed on a wider scale.

Conclusion

Owing to the limited area of land available for cultivation of food grains such as rice in Mizoram, cultivation of

horticultural crops play a vital role in the prosperity of the state and is directly linked with health and happiness of the people. According to the Department of Horticulture, 55 percent of the total land area of Mizoram can be utilised for horticulture cultivation. Of this, only 10 percent of the total potential is utilised. There is tremendous potential of growing a variety of horticultural crops in Mizoram. However, there is still a long way to go towards developing horticulture sector in the state. Many of the farmers are still applying the shifting/jhuming method of cultivation. Chayote is a very versatile vegetable which is consumed almost all parts of the plant including the leaves, root and the fruit. Chayote is one of the highest exported vegetables from Mizoram. The total area under chayote cultivation in Mizoram was 4,500 hectares 2012-2013, and the total production was 75,020 million tonnes in the same year. Regarding sales to other states, only the chayote farmers are engaged in export of their produce. It was gathered from the study that all the chayote farmers are relying on distributors as channel partners for their sales.

There is a lack of awareness of the benefits and importance of settling on a permanent location in cluster areas. Non-adoption of scientific cultivation practices, lack of organized marketing structure, and absence of proper post-harvest management of the produce are serious hindrances in developing horticulture sector.

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DETERMINING PRICE OF GOLD AND SILVER IN TODAY'S BULLION MARKET: A HERCULEAN TASK

Abstract

In a volatile and unpredictable investment opportunity "Bullion market" has become competitive and contemporary investment opportunity for investors. In a short period of time, it has established itself as a leading alternative to the investors to invest in gold and silver especially when financial crises, inflation or recession takes place. This study is carried out to find the hidden reasons of bullion market decline and to analyze the impact of influences on bullion market and on investors return, and also to reveal how and who control the future market. For the purpose of study minutely examined the volatility in bullion market and found that classical gold standard has long been associated with long run price stability on one side and on other side the study found that bullion market is highly influenced by financial feudalism and capitalism greed and very much controlled by the large bankers, bullion traders and powerful speculators lobby who manipulate and create panic in the world gold market and in result prices of gold and silver came down to its lowest. The study found speculators create trade within a trade and dictate spot prices, use leverage for technical stop to gain extra margin and it is also found that future trades will be carried out only on papers and traded naked and have nil deliverable bullion. The outcome of study may differ from other studies due to time period and prevailing economical, political and social conditions and will unearth the obscure reasons for bullion market volatility and unpredictability and will set new dimensions for others to follow.

Key Words: Gold Standard, Inflation, Bullion, OTC, Future Trade.

Introduction

Economic growth implies a long term rise in per capita national output and requires financial strength to bring constructive, futuristic, judicious and radical changes in organization, in the institutional set up, in attitude of the people, in the socio cultural and psychological environment and in the techniques of production. Which is possible through three distinctly integrated activities, viz; savings, finance and investment? It was found that low per capital formation is the most potent reason for nation and economic backwardness. Capital formation implies the diversion of the productive capacity of the economy to the making of capital goods which increase the future productive capacity. Its formation is collective efforts of saving, finance and investment. All these three activities are significant for the growth and development which ultimately generate prosperity and future capital flows. Savings represent the excess of income over current consumption. These excess incomes become future source of expected return through financial activities. Financial activities develop link between savings and investments through which savings of individuals, small, moderate and large are pooled together and are put in the hands of those able and willing to invest. There are numerous ways through which savings of different types of savers may be mobilized and transferred to real investors to invest in safe assets. These assets may be

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from stock market, bullion market or in other investment opportunities depending upon their risk taking appetite and market conditions.

In present global financial industry, "Bullion market" has become competitive and a contemporary investment opportunity for investors. It is well established and a leading alternative to invest in gold and silver especially when financial crises, inflation or recession takes place. Under such circumstances, people shift their investment to commodity or bullion markets for better and safe investment alternative in comparison to flexible stock market exchange traded funds, futures, options, and mutual funds. Bullion refers to precious metals in bulk form such as gold, silver, platinum or palladium traded on commodity market regularly. The word bullion is a French word which means boiling and was traditionally used for melting house or for a mint. The value of bullion is effectively determined by precious metal quantity, quality, and purity and by the value of its content and are measured by weight and typically cast as bars. The specifications of bullion are often regulated by market bodies or by mutually accepted legislation. The minimum accepted purity of gold is 99.5% in gold bullion bar and 90% for bullion coins, and gold is also traded in the form of small grains. Bullion market act as a forum through which interested buyers and sellers buy and sell pure gold and silver with freedom. It traditionally represents gold bars; silver bars, gold plated bars and coins along with this other precious metals bars base metals like aluminum, copper, nickel, or ingots are also been traded by traders. Bullion coins are cast from precious metals and are for investment purpose; its value is effectively based on its bullion content, which usually fluctuates according to market sentiments. In comparison to numismatic coins, bullion bars and coins can be purchased and traded at lower margins and their trading price largely approximate to the values of contained precious metals.

This market is based in London and it functions 24 hours a day and is primarily an over the counter market (OTC). Trading of precious metals in OTC market globally starts at 18:00 EST on Sunday, when Japan markets open, until 16:30 EST on Friday, when United Nations market close. In OTC, trading is closed from Monday to Friday for the period of 45 minutes from 17:15 EST to 18:00 EST. In bullion market most of the trades are carried out electronically or through phone and there is no official closing price for precious metal. Firms to analyze and interpret market movement for their business futuristic control collect daily closing price. They have two options for the purpose, first fixing price for the metal and secondly they use closing price which are collected and calculated by their data vendors.

Gold and silver are having industrial and commercial uses and have three categories of consumers "Industrial consumers, Jewelry producers and investors", thus have a high turnover rate. It is less flexible in comparison to other available alternatives of gold and silver investments. Gold and silver are tangible objects and come in bars and coins of respective sizes and thus become difficult to buy and sell. These are expensive material and need a high degree of security with is additional expense and risk. It has also been used as an effective tool to hedge against the inflation.

Bullion market moves on two types of prices, spot price and future price which are subject to demand and supply. In spot price an asset is bought and sold for immediate payment and delivery. It is a price at which precious

metals are transacted and delivered on now basis and it is very much contrast to futures or forward contracts. The spot price of gold refers to the price of one ounce gold and the spot price of silver refers to the price of one ounce of silver of a specific fineness. The spot price is determined by the front month futures contract with most volume. Sometimes this contract may be the current month and some times it may be two months or more out in time.

In a spot market price mechanism OTC, financial institutions, large banks and bullion traders play an important role and are real trades makers. OTC is a decentralised market of securities and is not listed on exchange, most of the trade are done through telephone, facsimile or electronic network listed on physical trading floor. Financial institutions act as a market developer and offer a bid / ask which act as a spot price. Large banks and bullion traders are regarded as a reliable source of precious metals spot price traders, on behalf of their client they buy and sell precious metals in large volumes. In future pricing two participants agree to transact in future at on the settle date. The trades of precious metals gold and silver future contracts are exclusively carried on major exchanges across the globe; they are TOCOM in Japan, Shanghai Gold Exchange in china, MCX in Mumbai, DCGX in Dubai, Istanbul Gold Exchange in Istanbul and COMEX in New York. These exchanges are key source for precious metals future prices.

Fixing is continuous process and is carried out daily. It is an agreement between participant to buy and sell precious metal only at a fixed price in open market. Orders largely influenced by price movement and depend on its stability. From 20th March 2015 LBMA gold price replaced historic London Gold Fix and it is getting administrated by ICE benchmark Administration (IBA), and now it is officially hosting LBMA gold prices through electronic auction process. The auction process is independent, transparent and it is administered independently, it is easy to trade on LBMA gold price, it is electronic and physically settled, transaction are carried on in dollars, all bids and offers on LBMA gold price are usually published on screen in real time. The LBMA gold price is set in US dollars twice a day. In each business day it is set in morning hours at 10.30 am and in evening at 3:00 pm. The current global participants in the fixing are Barclays, Bank of China, Goldman Sachs, HSBC banks USA, JPMorgan Chase, Morgan Stanley, Societe Generale, Standard Chartered, Scotia- Moccata, Toronto Dominion Bank and UBS.

Historically the first London gold fixing was carried out in the year 1919 on 12 September at 11:00 am. The founder members of London gold fixing were five principle gold bullion traders and refiners viz. Sharp Wilkins, Pixly & Abell, Samuel Montago & Co, N.M Rothschild & Sons and Mocatta & Goldsmid. In beginning few fixing were conducted by telephone and later they started meeting at the Rothschild offices in New Court, St Swithin's Lane in London. For the betterment of buyers in the year 1933 executive order 6012 was signed by U.S President. Due to 'Second World War' London gold fixing was suspended from the year 1934 to 1956. With passing time gold fixing price kept on increasing from four pounds 18 shillings and nine pence in 1919 to \$2,305.18 in 2011 and later it started declining and touched \$1106.90 in July 2015 in the month of August it rose to \$1295 per ounce. Till 1968 price of gold were used to get fixed once a day but due to collapse of the London Gold Pool, Bank of England lost the control of gold price and consequently second fixing was got introduced at 3. P.M and during the period US market advances and took the control over gold price fixing.

These founding members of gold bullion are real market makers. They get gold orders on their own behalf, on client behalf or in combination of both. Client orders are limited and are considered limit orders. The process of buy and sell is executed considering present value. If price is above a present value then buy limit order is executed and sell limit is executed unless the price is below a present value. The major participants of gold market start their fixing process by proposing price near the current gold spot price. Then they simulate the impact of trading at that price. The simulation does not mean tangible gold but gold trading contracts (Paper Gold) which are marginally backed and ultimately inflate the market volumes and correct the supply and demand valuation.

First, each bank examines its own limits orders and analyzes that how many of them are eligible to trade at the determined price and along with this they also examine their strength that how much gold their proprietary trading desk would trade at the same determined price. Then the banks consider single value, the net amount of gold in ounces they are willing to buy and sell. After this each bank provides this value, they determine if the overall net amount is 0. If so, all the transactions succeeded and the fix is complete. The chair then states, "There are no flags, and we are fixed. If not then the chair considering the situation will change the price. If it found that amount of gold banks proposed to buy is higher than the amount proposed for sale then chair will raise the price. This will ultimately reduce the number of proposed purchases. Further buy limit order will fail due to proprietary traders. At the same time number of proposed sale will increase and thus more sale limit order will succeed because of proprietary trading. But if the amount proposed for sale is higher, then court will lower the price. This implication will cast adverse impact which might be arising due to increasing number of proposed purchase and decreasing the number of proposed sales. This process continues until and unless fix is found. Buyers are charged 20 cents per troy ounce as a premium to fund the fix process and these results in an implicit bid-offered spread.

This process enables buyers and other participants to assess the market movement like other form of market and they attempt to predict the direction of the market and increase the profit margin through timing. All the participant have a right to move up or withdraw and can pause the proceeding at will by raising a small union flag on their desk. If the participant is trading through telephone then they can register pause by saying flag. Participants engaged in buying and selling bullion have sole aim that to increase profit margin and thus they buy when price is low and sell when prices are high. But it is equally tough to say that it is easy to predict market movement. Bullion market moves differently on different track to equities and to other commodities. It is acceptable truth that investors prefer physical gold bullion as it is attractive, worthwhile tangible and everlasting assets. It is considered as an insurance against economic turmoil and may not entail direct party risk. It is also very balancing and useful investment to hedge against inflation, currency risk, geopolitical risk and losses in other investment classes. It also adds diversification to an investment portfolio which ultimately reduces the overall risk and also facilitates favourable tax treatment in many jurisdictions. It is also a hard truth that degree of success largely depend upon the strategy adopted by the participant which collectively require sound knowledge about the bullion and other competitive mode of investment and risk taking appetite.

Objective and Research Methodology

The core objective of the study is to find out the reason of bullion decline, how the bullion market movements are controlled and who control, how it impact the investors, who avail the advantage and what is the future of this market. The study carried out by the researchers is based on secondary data which are easily available on net. For the purpose data are collected from the bullion trading companies which are historical in nature.

Literature Review

With passing time and grown electronic communication facilities researcher started exploring the potential in bullion market. Since 2008, a major research shift has taken place and this trend is sign of greater market and academic intervention in structural manner. It has been found that gold market has become strategically important area for investors professional, and academican for research. The study found that the carried out research are small in comparison to equity and bond and are concentrated on gold as diversifier, tool to hedge against inflation or other assets and the efficiency of the operation of the gold market. The most studied and researched area is perhaps the role and weighting that gold might have in portfolio. After making a depth investigation in the field of bullion market we found that most of the researches in gold are in three discrete areas. These are the economic and financial aspects of gold, gold as a currency in which gold standard is evaluated and examined considering bimetallism and historical uses of the metal as a core aspect of study and the nature and impact of gold mining on the environment and on society. The study also witnessed that

comparatively few academicians have tried to explore the potential of gold market and thus there is a need for more studies by the academicians and professionals to explore the potential and possibilities of safe alternative investment. The researches which are carried out on gold are 'in house' and are known as 'grey literature' and these literatures have grown and are easily accessible but are remained concentrated, further numbers of common trends are found in literature especially in terms of the locus of investigation. Maybe the academicians and research community on gold have proven ineffective to persuade the wider community that its work is worthy of attention. This study carried out by the respective authors is in order to examine the hidden aspects of bullion market which are largely ignored till date. The outcome of the effort will explore some more dimensions for future studies and will set parameters to be followed by the others in future.

The period of 1980 to 2007 has become turning point in academic and professional research in the field of bullion market and some good investigative research work has been carried out to examine gold as an inflation and dollar hedge. Major contributions from Fortune (1987), Johnson and Soenen (1997) More (1990) Taylor (1998) Ghosh, E.J. Levin et al. (2004) Capie, Mills et al. (2005) Tully and Lucey (2007) Worthington and Pahlavani (2007) Sjaastad (2008) Hammoudeh, Sari et al. (2009) Sari, Haamoudeh et al. (2010) Wang, Lee et al. (2010). The outcome of respective researches revealed the fact that gold can act as a useful diversifier though it is a long run phenomena and is possible at the cost of increased volatility of short run nature. Canjels, Prakash- Canjels, and Taylor (2004) in their study found that international gold flows were large and quite responsive to small deviations of the gold price from parity. Although this is only suggestive about the size of the shock to the gold sector, it suggests that the shock to the gold sector is larger than the shock to the non gold sector, Bud Conrad the Chief economist in his study reviled that future market structure allows few big banks to supply gold in order to keep its price contained. Further he said that gold future market is a "paper market" because very little gold actually changes hands that are 1000- to 1 ratio. Baffes (2007), Sari, Hammoudeh et al. (2007), Cheng, Su et al. (2009) and Zhang and Wei (2010) in their respective studies found mixed evidence in relation to influence of oil on gold and vice versa. During the period of their studies they found developing new kind or relationship between gold and oil which gradually became matter of academic and investor attention. Baur and Lucey (2010) through their study provided the first statistical test of when gold act as a safe haven and when as a hedge. Later Baur and McDermott (2010) extended this experimental work to more countries. They found that while gold acts on average as a hedge against equities, it does not do so against bonds, but that it can and does act as a safe haven for bonds as well as stocks, extending its usefulness to investors beyond equity investors. Warren Buffet, (2012) expressed his opinion that "gold" has two significant short comings, being neither of much use nor procreative. True gold has some industrial and decorative utility, but the demand for the purposes is both limited and incapable of soaking up new production. Meanwhile, if you own one ounce of gold for an eternity, you will still own one ounce at its end, Brian M Lucey (2012-13) in his study tried to find out that what academicians have view about gold market. The author found that there is very limited work has been done by the academicians and are largely on the investment and economic aspect of gold as a diversifier, as a hedge against inflation or other assets, and the efficiency of the operation of the gold market. Dr. Paul Craig Roberts (2013) in his study reviled that gold sale are largely a paper claims and are not in real metal. He found that physical bullion market of gold is dominated by the Asians in comparison to other nations including America. Further he found that due to failure of policies to arrest corruption, bullion market is having maximum of paper gold than physical gold, Nat Rudarakanchana, (2013) in his study found that there is no stable link between gold prices and inflation rates. He found that gold prices and inflation rates have maintained stronger links in the years since 2000. His finding got support by Dr. Cetin Ciner, according to him there was a time especially in the 1980s and 1990s that gold market did not care about inflation. Further he said that gold sometimes is not sensitive to inflation at all, especially in times where markets believe that central banks have inflation under control. Robert Dittmar, and William T. Gavin (2014) in their study tried to examine price dynamics under alternative policy regimes by using dynamic stochastic general equilibrium model. In this they found that a pure inflation target provides more short run price stability than does the gold standard and, although it introduces a unit root into the price level, it leads

to much long term price stability as does the gold standard for horizons shorter than 20 years. Mark O 'Byrne, (2015) in his interview reviled the astonishing fact that if all above ground gold in existence were refined to 99.9% purity it would fit in a cube with 21 meter sides. This would be comparable to the centre court of Wimbledon or two Olympic pools. That is why it is an extremely rare metal; Dublin's Brian Lucey and Dr. Constantin Gurdgiev in their study tried to explain that gold is a "hedging instrument" and is a "safe Haven Asset."

Speculators Crushed Gold as Dollars Squeeze Tightens

Powerful speculators lobby and big bullion traders manipulated and created panic in the world gold market and in result prices of gold and silver came down to a five year low. Spot prices slumped by more than 4 pc to \$1,086 an ounce in overnight trading. It happens due to high degree of sale took place in Shanghai and New York where 57 tonnes of gold was sold by anonymous funds in minimum market liquidity which shattered the market confidence. This panic in the gold market came when China's central bank dismayed gold bugs by exposing the country's bullion reserves which according to them stand just around 1,658 tonnes. Within two minute time span on Sunday night Sellers dumped 76,00 contracts covering 24 tonnes of gold in New York Globex exchange, and at the same time in Shanghai 33 tonnes were sold. Combined sale of 57 tonnes in two markets in short period of time is an extraordinary event in the world. They choose the timing when Japan market was closed for holiday to get the biggest bang for the buck. This is a clear sign of using leverage for technical stop by short traders to gain extra margin. Allegedly profiteers cashed in jackpot gains on options that they also had. They created trade within a trade. Due to speculators unprecedented attack the dawn fall came and the Bloomberg commodity index hit a 13 year low and impacted other commodity market. Gold managed better status than other commodity market over recent months. It traded safely during the Greek crisis and China's equity crash but now risks being sucked into the vortex as well. According to commodities chief at Deutsche Bank's Michael Lewis, that fair value for gold is around \$750. This is based on an index of eight indicators, such as oil, copper, income per capita and equity prices that dates back to early 1970. Gold tends to "mean revert" over time. In addition to this gold debacle US Fed tightening and rising real interest rates also became cause of concern for gold. The markets ultimately started bracing the Fed rate increase in eight years. This in result pushed the dollars up and capital floods into the United States in search for better yield. This situation is exact opposite of gold's glory years when the Fed to control the deflation deliberately pushed down the dollars through quantitative easing which results excess liquidity in the market, and thus it influenced the price of gold and pushed it to an all time high of \$1921 in 2011. Now all the ducks are aligned for a gold slide. Dollar is getting stronger, real interest rate are rising and risk premium on equities are declining. It is expected that dollars will continue upward trend till 2017. Due to unexpected speculators attack on gold market the gold mining shares are anticipating trouble. It is found that Australia's Newcrest Mining came down by 8.8 percent, United States Newmont Mining fallen by 12 percent and Barrick Gold fell by 14 percent.

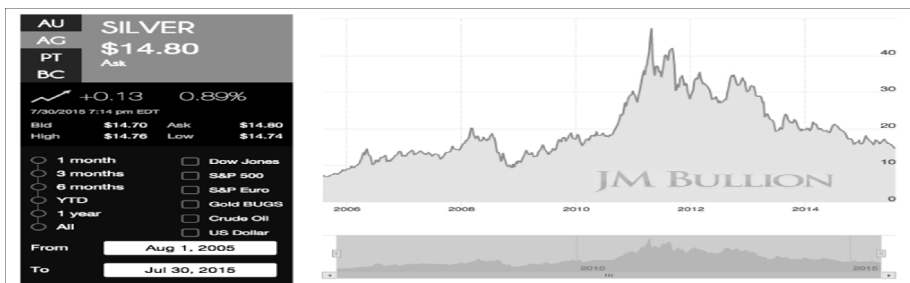
It is suspected that China is preparing to join the big league as a part of international Monetary Fund's currency basket (SDR) and for the purpose it has strategically announced its bullion reserves are not as it was expected or were in past, they are around 2000 to 3000 tonnes. This revelation shocks the world gold market. This attempt has been interpreted as an aggressive move against the dollar at a delicate time. It is also been witness that a kind of seismic change in bullion market is under way and economic power is getting changed and is shifting towards east and consequently boosting gold price over time. In the late 1990s and early 2000s central banks were the net seller of gold as developed countries whittled down their holdings and switch to interest- yielding bonds. Central banks from net seller became net buyer in aggregate. With economic expansion and technological revolution Asian nations and their economies have emerged as a competitors and have also becoming biggest accumulators of foreign reserves and they own too little gold. Among rising economies in order to control the dependency on dollars and to diversify away from paper currencies many nations limited their bullion ratio up to 10 percent in their overall holdings. The suspicious question has taken place in global economic system that how much these central banks are currently adding. During the period of commodity boom

in 2011 they were buying 300 to 400 tonnes yearly. But in present global economical scenario the purchasing of central banks have dropped down sharply and in this year it is around 100 tonnes. Some of the nation's central banks are forced sellers as they run down their reserves to defend their currencies. It is found that due to Ukraine crisis and oil price crash Russia's total reserves have come down to \$361 billion from \$524 billion. Under the collective circumstances risk for the gold market is that most of the states have to sell reserves at an accelerating pace once the Fed tightens in earnest. On other end emerging economies to cater the financial need of their respective economies have borrowed \$4.5 trillion U S dollars which ultimately developed pressure from both higher US rate and dollar spike. This condition threatens to become a "margin call" for dollar debtors and they could ricochet through gold markets as a secondary effect.

For Long Term Value Investors "Silver & Gold Bullion's Pricing" is an illogical opportunity

Bullion market is a paradise of un-expectations where unexpected miracles keep on taking places all the time. Minute percentage of investors get advantage of this market and most of the investors especially minority interest and small investors suffers. Collapsing spot prices, coinciding with dwindling deliverable physical bullion inventories and rising products premiums are active participant of financial debacles. It is paramount professional obligation for the market players to promote protective and positive information's related to stocks, gold and silver pricing. These information convert market sentiments and promote sales which based on information trust. In present market conditions it became important for investors to know how the silver and gold price discovery mechanisms have become illogical and do not last longer due to real supply, demand and mathematical constraints. People invest their hard savings in these investment lines with confused information about silver and gold "spot prices" and about their physical product inventory operating system. It is easy to understand but trust on fabricated promotions and negligence of fundamentals of current commodity real-world supply and demand while determining prices. According to the former Assistant U.S Treasury Secretary "Dr. Paul Craig Roberts" that in present bullion market spot prices are not based in fundamentals realities; they are highly influenced by financial feudalism and capitalism greed along with political and economic order. To find out the silver and gold prices if we add all the real world bullion buying and selling throughout the year and compare it to the volume of virtual silver and gold contracts bought and sold on future exchange we will find it on needle top (the real world's bullion volumes) and a hay stack (silver and gold paper derivative trading volumes).

Figure No-1.



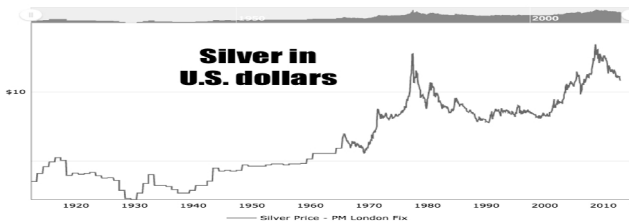
Source: JM Bullion

The above chart of bullion dealer websites is depicting the gold and silver prices. These round-0 -clock precious metal spot prices are determined by futures exchange prices which are determined and dictated by the world's biggest commercial banks and global leveraged speculators. It is Solomon truth that 99% of future trades of these financial sharks never physically exchange nor deliver real world gold or silver anywhere. It is also been found that many silver and gold speculators trade future naked and do not even own an ounce of deliverable

bullion. On contrary it is very much found that real world silver and gold suppliers like miners, refineries, mints and bullion dealers buy and sell real shiny stuff and do not dictate spot prices in general or in specific market but speculators do.

In past gold and silver price determination was not always like this. In fact, future contracts were originally used to mitigate the risk of price movement by permitting involved parties to fix prices in advance for future transactions. It is kind of hedging to ensure future profits against price volatility. When a gold miner or big bullion dealer expects to receive payment from inventory in the future and want to protect itself from unfavourable movement in the price of gold or a currency at a same time then they use future contracts to hedge price volatility in the intervals before payment is received. Similarly it is used for non monetary commodities also. But this feature of future contracts pave the way to speculators to avail advantage by predicting short term price movements through buying and selling future contracts at a predicted price. If the prediction is correct speculators will yield profit in future. The problem arises due to the reason that for every silver and gold contract on futures exchanges hedging real world inventories or product, there are hundred more contracts including naked contracts with no real inventory get traded among speculators perverting the prices of precious metals in the real world. In the year 2011 speculators and big bullion shark of silver future market trade generated astonishing profit around \$3,600,000,000. This became possible when they strategically knocked the future price of silver down overnight. The same strategy is adopted by the China in last month where overnight gold spot price dropped dramatically by \$50. It happen due to over sized trades took place during overnight, low volume hours triggering massive stop loss waterfall declines in future contracts price of gold and silver. Thus, it is universal truth that 24- hour spot prices are being controlled and dictatorially directed by the speculators with virtually unlimited future contracts. The collective result emphasise that today's spot price discovery mechanism is highly speculative and illogical. But it is also a futuristic opportunity for long term value investors through bullion buying and physical in-hand ownership.

Figure No-2.



Source: MacroTrends.com

If we further go in deep then historically we found that period of excessive financialization coincide with the periods of national economic setback. Financial debacle of Habsburg Spain in the 16th century, the 18th century Dutch trading empire and in 19th century British Empire are historical examples. In present time United State of America is moving very fast on the same track. It is found that the sole motive of elite is to generate high volume of profits from their financial high breed speculative adopted approaches rather than making real goods and services. These high breed speculative approaches benefits to very small group, in large they are disadvantages and ultimately results in national economic decline. It is proven facts that for real world demand and supply limitations over leverage ultimately backfire and push economy into unfavourable conditions. When gold and silver prices are derived artificially they develop artificial pressures which in result force to shut down the mines supplies which ultimately transformed into real world shortage. In comparison to buying and selling and future contracts of gold and silver on bullion market each year through mining and scrap refining only 1,000,000,000 oz of physical silver and 129,000,000 oz of physical gold are supplied to the world.

In order to add efficiency and more transparency in the benchmark used in London \$18 trillion gold industry, the “Bloomberg” in the month of June, 2014 proposes to replace the 117-year old system of fixing prices for the \$5 trillion silver market. The basic arithmetical figure of Bloomberg’s annual multi trillion dollars reveals the reality of gold and silver trade. In comparison to market real world physical ounces leverage of hundred plus times paper derivatives contracts exists. With future unexpected bank crises and increase in real world silver shortage and downward spot prices stand forced to revert violently. According to “Bloomberg” that around 95% gold mined remains with us in bullion or jewellery but it is not same in case of silver. Silver is essential mankind precious metal and holds the distinction of second most important metal after oil; it is critically included in life supporting items.

In present scenario real world physical silver is very much in short supply. Industries are facing acute shortage on one side and on other side long-term physical buy and hold investment are facing shortage.

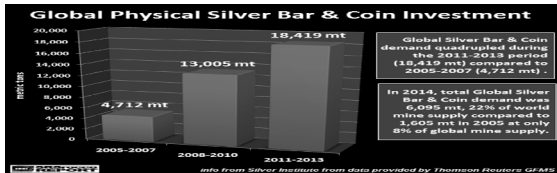
Figure No-3.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Supply										
Mine Production	639.9	643.3	666.6	682.7	796.3	752.2	755.3	893.3	835.3	875.5
Net Government Sales	45.9	29.3	42.5	29.5	9.8	44.2	52.9	7.4	7.9	—
Recycle	251.4	205.1	254.2	202.9	203.9	227.9	203.5	203.5	302.7	308.5
Net Recycling Supply	45.9	15.8	243	—	8.7	10.4	10.4	12.7	403	31.4
Total Supply	937.2	918.2	963.3	915.1	1006.8	1039.8	1071.2	1109.5	1141.3	1215.4
Demand										
Industry	327.6	352.7	362.9	378.7	371.5	363.7	368.9	386.3	393.1	395.2
Coin & Bars	11.6	48.2	73.2	92.3	87.5	101.3	205.9	158.6	219.6	362.0
Silverware	68.3	62.3	62.2	58.4	53.2	53.8	43.2	43.7	58.8	62.7
Industrial demand	639.1	582.7	659.7	656.1	542.2	648.1	628.1	592.7	631.9	584.8
—of which Electrical & Electronics	279.7	242.3	262.5	271.7	221.4	301.2	290.8	292.0	296.2	283.9
—of which Wiring, Pipes & Solders	52.6	54.7	58.3	65.6	53.8	60.9	62.7	60.8	63.1	66.1
—of which Photovoltaic	303.3	302.7	310.1	302.7	30.4	64.8	101	12.1	48.0	65.4
—of which Photocopy	7.3	8.8	12.5	25.0	30.1	50.7	69.1	60.5	55.8	59.9
—of which Other Industrial	389.2	388.4	289.0	307.7	154.7	302.5	346.6	310.0	164.7	189.4
Physical Demand	346.5	312.6	335.6	378.3	364.4	375.9	374.9	392.4	372.4	359.9
Physical Surplus/Deficit	59.5	-15.5	-14.4	-67.5	55.2	62.6	-33.9	49.9	-31.9	-41.1
ETS Inventory Build	10.9	11.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
Exchange Inventory Build	19.9	-10.0	27.5	-13	-16.3	1.4	12.2	62.2	8.8	4.9
Net Balance	-7.4	-13.4	-46.8	-285.7	-48.4	-29.4	-21.9	-25.4	-62.9	-2.6
Short/Prepaid Excess	7.8	15.0	13.99	14.29	14.57	20.39	26.32	31.01	23.79	16.08

Additionally, the silver market is expected to be in a deficit of 57.7 million ounces in 2015, as supply contracts and physical demand grows. This would mark the third consecutive year that the market is in a physical deficit. When the market experiences an annual shortfall from mine supply, users must drawdown on above ground stocks, thereby tightening available supply.

From the above table it is very much clear that we are facing silver shortage, and in continuity 'year after year' facing silver supply deficit. It is happening because spot prices for silver are deliberately set in artificial mode which consequently builds additional demand pressure. Bullion financial kangaroos and buyers know the fundamental case to own silver bullion long term and are taking action according to their pocketbook depth and strength.

Figure No-4.



Source: Silver Institute data provided by Thomson Reuters GFMS

From the above table we can assess that during the period of 2011–2013 global silver bars and silver coin demand have quadrupled. During the period it was 18,419 mt which was comparatively higher than 2005–2007 periods which was 4,712 mt. The above table clearly show that silver demand has grown drastically. Further in the year 2014 we found that total silver bar and coins demand worldwide was 6,095 mt, which stand to 22% of world mines supply but in 2015 global mine supply of silver came down to 1,605 mt which is found only 8%. The study found

that in current spot price plunge wholesalers are paying premiums to further melt and refine and make .999 percent pure deliverable silver bullion. For this they are melting and refining pre -1964 -90% silver coins in order to counter the ever growing silver demand.

Figure No-5.



Source: US 90% Silver Coins Weekly Premium/ Discount to Melt Value Wholesale Dealer Bid Prices, July 24, 2015

The study found that during the period of study and immediate past, spot prices of gold and silver came down drastically. It is very much evident that market is flowing under pressure of supply. The buying pressure especially on silver bullion and its erratic physical supplies to counter the demand transformed silver market future unpredictable and challenging. The figure above (Table No. 5) is clearly depicting that during the period of 1998 to 1999 demand and supply of silver physical bullion touched almost 40% and later declined and this declination continued up to 2007, it supply and demand again peaked to 40% plus during the period of 2008-09 and then again it fallen down drastically, further the demand and supply started improvising and at present in 2015 it is around 20% which is still below to expectations and growing demand. The drastic increase in silver demand, supply and consumption during the period of 1998-99 and during the period of 2008-09 was due to financial debacles and recessions. It is found that American market crash during 2008-09 forced investors to divert their investment in commodity due to which the demand of gold and silver took the shoot.

It is found that in the month of July 2015 over 5 million silver Eagle coins have been sold. It is very much evident that shortage of supply in silver has hit the sale of Eagle coin, and being one of the worlds largest private silver bullion product suppliers, Eagle coin halted its wholesale transactions of its premium business product and stooped its sales for coming month. It may be to catch up supplying the silver planchets required for the U.S Mint's American Silver Eagle coin program.

In comparison to stock market and gold bullion market, silver bullion industry is very small and does not have supply strength and depth to meet the growing demand of silver bullion in mass quantities and ultimately fail to serve the masses adequately. This shortage of supply is advantage for speculators who leave no stone turned to avail it according to their strength.

Figure No: 6



Source: World gold Chart, Silver American Eagle- Premium over Spot, cdn.jmbullion.com, content uploaded 2015/ 08

In silver bullion industry it is not a matter of surprise to judge rise in bullion products premiums which lead the U.S Mint's American Silver coin sale halts. We are also experiencing premium increases impact on other bullion products which include sovereign coins, bullion bars and private bullion mint rounds. The Eagle coins sales records of the month July produce its sales report of seven month from January to July. In this it is found that in the month of January 5,530,000 oz / coins, February 3, 022,000 oz / coins, March 3,519,000 oz / coins, April 2,851,500 oz / coins, May 2,023,500 oz / coins, June 4,840,000 oz / coins and in July 5,529,000 oz / coins have been sold. It is very much visible that Eagle coins sale has not moved in upward or constant direction. It started declining from February and continued up to May and started improvising from June and surpassed the January sale. Through this report of 3 week sales halt in American silver bullion industry, Eagle coins tried to generalise the impact of shortage of silver supply in bullion market.

The artificially generated silver shortage and downward pressure on silver and gold's dollar price will start improvising, its upward swing largely depends upon U.S dollar's value appreciation which has drastically declined and touched its lowest in the US history of 100 years. Presently United State Federal Government's is facing problem of growing debts and unfunded liabilities which is in form of nominal promises made by the government. It is impossible for the government to deliver goods on said promises without either currency debasement or the invention of a time machine.

Figure No: 7

Gold Price Performance: % Annual Change						Thursday, July 30, 2015			
	USD	AUD	CAD	CHF	CNY	EUR	GBP	INR	JPY
2000	-3.0%	14.8%	1.9%	3.0%	-	7.5%	6.6%	4.7%	-
2001	2.0%	12.3%	8.7%	6.5%	-	8.8%	5.0%	5.4%	-
2002	24.7%	13.3%	22.8%	5.7%	-	6.4%	13.1%	23.9%	-
2003	21.1%	-8.5%	0.6%	7.6%	-	1.7%	9.9%	14.8%	-
2004	5.4%	1.4%	-2.1%	-3.5%	13.6%	-3.1%	-2.4%	0.5%	3.7%
2005	20.0%	28.9%	15.4%	37.8%	21.3%	36.7%	33.0%	24.2%	37.6%
2006	23.0%	12.6%	23.0%	14.2%	18.7%	10.6%	8.3%	20.8%	24.4%
2007	30.9%	18.3%	12.1%	21.7%	23.3%	18.4%	29.2%	16.5%	22.9%
2008	5.6%	31.3%	30.1%	-0.1%	-2.4%	10.5%	43.2%	28.8%	-14.4%
2009	23.4%	-3.0%	5.9%	20.1%	23.6%	20.7%	12.7%	19.3%	26.8%
2010	27.1%	13.3%	21.3%	15.4%	22.8%	37.1%	31.4%	22.3%	11.4%
2011	10.1%	10.2%	13.5%	11.2%	5.9%	14.2%	10.5%	21.1%	4.5%
2012	7.0%	5.4%	4.3%	4.2%	6.2%	4.9%	2.2%	10.3%	20.7%
2013	-28.3%	-16.2%	-23.0%	-30.1%	-30.2%	-31.2%	-29.4%	-18.7%	-12.8%
2014	-1.5%	7.7%	7.9%	9.9%	1.2%	12.1%	5.0%	0.8%	12.3%
2015	-8.1%	3.2%	3.2%	-10.2%	-7.9%	2.1%	-8.0%	-6.4%	-4.5%
Average	10.0%	9.1%	9.1%	7.1%	8.0%	9.8%	10.6%	12.4%	11.0%
Total	159.4%	145.0%	145.6%	113.4%	157.4%	170.3%	198.3%	132.6%	

goldprice.org

From recent past it is found that United State is doing well to overcome recession in the short run and its dollars has surged in strength in comparison to other debasing fiat currencies. But rebound of this short run purchasing power is always found with negative impact, and thus will pave way to the fact that every fiat currency by design loses its value long term. To curb the economical declining the U.S government will further debase and devalue its currency. This is the only possible way for U.S government to pay off its swollen debts and fulfil the promises made. According to 'Kyle Bass' the smart money manager of this generation that in so many sophisticated words, my suggestion to you is to learn about what is going on behind the scenes within the world's banking system and perhaps take advantage of the silver and gold mis-pricing madness while it still exists today.

Conclusion and Recommendations

The study found that due to information technology revolution, awareness about the global market has gone up which has proven as a advantage to the stock and bullion market. In present it is very much acknowledged and recognized alternative of investment and has gradually become competitive and contemporary investment opportunity for investors in order to hedge them selves against unexpected financial crises, inflation or recession. It is found that gold and silver have industrial and commercial use and is highly expensive material and its market functions 24 hours a day and most of the trade is carried out electronically or through phone and do not have any official closing price. It move on two type of prices, spot price and future price which are influenced by demand and supply. The study found that powerful speculators lobby and big bullion traders have

a complete control on bullion market and they manipulate the market according to their desire and create market panic for their advantage which results in market crash and this artificial market crash translated into gain. The study found that bullion market is highly influenced by financial feudalism and capitalism greed and very much controlled by the large bankers, bullion trader's and powerful speculators lobby who do not follow basic bullion fundamentals but manipulate and create panic in the world gold market which ultimately pushed the prices of gold and silver below the minimum level. The study found speculators create trade within a trade and dictate spot prices and use leverage for technical stop to gain extra margin and it is also found that future trades are carried out only on papers and are traded naked and have nil deliverable bullion. The study found due to speculators manipulative unprecedented attack and China's central bank dismayed gold bug, spot price slumped by more than 4 pc to \$1,086 an ounce in overnight trading and came to five year low and the Bloomberg commodity index hit a 13 year low and impacted other commodity market. It is found that gold and silver traded safely during the Greek crisis and China's equity crash but now risks being sucked into the vortex as well. In addition to this gold debacle US Fed tightening and rising real interest rates also became cause of concern for gold. The study found that due to growing self sufficiency and economic stability, economic expansion and technological revolution Asian nations have becoming competitors and becoming biggest accumulators of foreign reserves but they own too little gold. The study found that stock market and gold bullion market, silver bullion industry is comparatively very small and does not have supply strength and depth to meet the growing demand of silver bullion in mass quantities and ultimately fail to serve the masses adequately. The study found that real virtual gold and silver contracts bought and sold on future exchange is just one percent of the total and ninety nine percent is just on paper in the form of silver and gold paper derivative trading volumes and are never physically exchange nor deliver real world gold or silver anywhere. It is also been found that due to spot prices market is facing shortage in silver and year after year facing supply deficit. The study found that though bullion market is controlled by the big banks and speculators and is small in size in comparison to stocks bond and equity market but it have bright future as a contemporary and alternative investment opportunity to the investors, not only to hedge there investment but also a major future investment competitive alternative. For the bullion market perpetual succession and to establish it as a perfect alternative for the investment it is paramount important to develop efficient, effective and protective environment and has to modify and rectify its historical approach. Central banks of the respective nations have to step in to control the bullion speculation by bringing new laws and norms as it is their fundamental duty to protect the investors fund which is back bone of economic activities. It has to reduce the financial feudalism and capitalism greed and have to control large bankers, bullion traders and powerful speculators and have to regulate supply and demand and have to reduce if not eliminate artificial shortage, supply and demand. Central banks have to transform paper investment into real and virtual and have to promote physically exchange and real delivery of gold or silver and have to reduce naked future trade of gold and silver on papers. In last bullion market players have to change their perception for investors, they should not be trapped but should be motivated with confidence to invest in gold and silver with trust.

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A COMPARATIVE ANALYSIS OF FAMILY AND NON-FAMILY BUSINESSES IN INDIA

ABSTRACT

Of Indian businesses 80% are owned by families. This motivated us to conduct research in this area. The study focuses on family owned businesses and performance in India. It further attempts to compare performance between family - owned businesses and non - family owned businesses using seven indicators viz. profitability, financial structure, dividends, liquidity, tangibility, Debt servicing and growth. The study takes 230 publicly listed companies from the manufacturing sector of India as a sample from six industries. The companies are studied for 12 years from 2002 to 2014. The study found the following results about the family firms: they perform significantly better than non - family businesses, they pay significantly higher dividends than non family businesses, the growth of the family businesses is significantly lower than non - family businesses, Tangibility of family businesses is significantly higher than non family businesses, and family businesses are significantly less liquid when compared to non - family businesses.

Key Words: Family Owned Business, Tobin's Q, indicators of performance.

INTRODUCTION

The family owned business is said to be the backbone of the world economy. It can be defined as that are owned and managed by one or more family members who have a lot of control with them. Family-owned firms are those companies where two or more extended family members or their relatives influence the direction and decisions of the company through exercising their control and their ownership rights. Any businesses whose major ownership and control lie with the family, can be called as family owned businesses.

Need and Significance of the Study

There has been lots of research done on family businesses in foreign countries like US, CHINA, EUROPE, UK etc. In USA 90% of the companies are family owned and there is a good amount of research done on them. But in India, where 80% of the companies are family owned, there is a little study on these family businesses.

Facts Related To Family Businesses in India: (KPMG, 2013)

- Family businesses account for two-third of India's GDP.
- Family businesses account for 90% of gross industry output
- 79% of organized private sector employment is generated through family businesses
- 27% of overall employment in India is generated by family firms

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The survival of family businesses in India is that 13% of family businesses survive till 3rd generation and only 4% survive beyond 4th generation. This study tries to fill this gap by studying the family businesses in India and contributing to the literature, the difference between family-owned business and non-family owned business in the manufacturing sector of India.

Literature review and Defining Variables

Tobin's q: "It is the ratio of the market value of a firm's assets to the replacement cost of the firm's assets" (Tobin 1969). If the Tobin's q is 1 and above it means that the firm is worth more than the cost of its assets. Higher the Tobin's q, higher will be the performance of the company. Claessens & et.al (2006), Silva & et.al (2006), Miller (2007), Isakov & Weisskopf (2013), have considered Tobin's q as Dependent Variable.

It is calculated as:

$$\text{Tobin's } Q = \left(\frac{\text{market value of equity} + \text{book value of debt}}{\text{book value of assets}} \right)$$

ROCE: Return on capital employed is a performance indicator which explains how much return is available for both shareholders and debtors. It is calculated by dividing Earnings before interest and tax by capital employed. Higher the return on capital employed higher the performance of the company. Chakraborty (July 2011) has studied ROCE as indicator of performance.

$$\text{ROCE} = \left(\frac{\text{Adjusted net profit} + \text{tax} + \text{interest}}{\text{Share capital} + \text{reserves} + \text{total debt} - \text{misc.exp. not written off}} \right) * 100$$

NPM – Net profit margin is a profitability measure which explains what percentage of sales is profit for the company after incurring all the expenses including tax. Higher the net profit margin, higher the profitability. It is calculated by dividing the adjusted net profit by net sales of the company.

$$\text{NPM} = \left(\frac{\text{Adjusted net profit}}{\text{Sales}} \right) * 100$$

DE – it is measure of company's financial leverage, which is calculated by dividing the total debt by stockholders' funds. It indicates what proportion of equity and debt the company is using to finance its assets... Higher the debt equity ratio higher the debt component in the financial structure which influences the Tobin's q of the firm. Silva & et.al (2006), Paligorova & Xu (2012), Gonzalez & et.al (2012) they have taken Debt Equity ratio as indicator of performance.

$$\text{DE} = \left(\frac{\text{Total debt}}{\text{Share capital} + \text{Reserves}} \right)$$

INTER.COVER – Interest coverage ratio is a ratio which is used to determine how much of the earnings are required to make the interest payments of the company on its outstanding debt. It is calculated by dividing a company's earnings before interest and taxes (EBIT) of one period by the company's interest expenses of the same period. Higher the interest coverage ratio higher will be the performance of the company. Claessens & et.al (2006) has taken indicator of performance.

$$INTER.COVER = \left(\frac{\text{Adjusted net profit} + \text{tax} + \text{interest}}{\text{Interest}} \right)$$

GROW – Ln of sales is taken as proxy for the Growth Higher market to book value ratio indicates that the company has large growth opportunities. Higher the growth opportunities higher will be the Tobin's q. Claessens & et.al(2006), Silva & et.al (2006), Singh (2006), Chakraborty (July 2011) have considered as indicator of measuring performance.

LIQUIDITY – Current ratio is taken as proxy for the liquidity. It is calculated by using the ratio current assets to current liabilities. Current assets of a company can be converted into cash quickly. Higher current ratio improves short term liquidity of the company. Higher the current ratio higher will be the liquidity. Singh (2006), Chakraborty (July 2011) have considered as indicator of measuring performance.

$$LIQUIDITY = \left(\frac{\text{Total Current Assets}}{\text{Total Current liabilities}} \right)$$

PAYOUT – It is the dividend payout ratio which is calculated by dividing equity dividend by adjusted after tax profit. Claessens & et.al(2006) has considered as indicator of measuring performance.

$$PAYOUT = \left(\frac{\text{Equity Dividend}}{\text{Adjusted profit after tax} - \text{Dividend tax}} \right) \times 100$$

TANGIBILITY - Tangibility is measured by the ratio of fixed assets to total assets. This ratio captures the proportion of fixed assets forming part of the total assets. Higher ratio indicates that a large part of the companies' asset is fixed assets. Claessens & et.al(2006), Singh (2006), Chakraborty (July 2011) have considered as indicator of measuring performance.

$$TANGIBILITY = \left(\frac{\text{Fixed Assets}}{\text{Total Assets}} \right)$$

Statement of the Problem

In today's world there is confusion among the researchers in the area of the family businesses; Primary confusion is that there is no standard definition of family business. Researcher defined as per their convenience. There are some unanswered questions related to family business research some of them are: Is there any difference between Family – owned business and Non-family owned business? Are family owned companies are superior performers when compared to other business? Is there any substantial difference in the operations of family businesses which make them superior? This study attempts to answer some of these questions.

Nature of the Study

An explorative study and an evident based study on the family and non-family businesses in India. It tries to compare the differences between family and non - family businesses using six indicators viz. performance, financial structure, growth, tangibility, dividends and liquidity. It takes different financial ratios under each indicator and compares them between the family and non-family businesses. It deals with the quantitative differences only.

Objectives of the Study

The objective of study is to evaluate the performance of family business, non-family business in India's manufacturing sector & comparing between them and test significant relationship between Tobin's q & indicators of performance measures.

Hypothesis

There is no significant relationship between Tobin's q and Indicators of financial Performance (ROCE, Net profit margin, Interest coverage ratio, Financial Structure, Growth, Liquidity, Dividends and Tangibility) selected manufacturing in India.

Sampling Procedure & Sample

In this study an attempt has been made to understand and compare the differences between the family and non-family businesses in manufacturing sector of India. In manufacturing sector the study deals with six industries. After selecting these industries, all the companies in the industries are classified in to family owned and non family owned companies based on the promoters shareholding and their participation in the top management. After collecting the names of the companies, they were ranked on the basis of Sales turnover. After ranking them, family owned and non family owned companies from each industry are selected for the study. The total sample for the study consists of 230 companies which is 35% of the total companies in the industries mentioned above.

Industry wise breakup of the sample

Industry	Total
Automobiles & Auto Ancillaries	44
Cement	22
Pharmaceuticals	44
Steel	32
Textiles	56
Engineering	32
Total	230

Data collection

The data used for the study is secondary in nature .Data for the study has been collected from the capitaline database .Companies from the six industries, which are listed on the Bombay stock exchange are considered for the study. These companies have been studied for the period of 12 years from 2002 to 2014. Data regarding the top management of the company and the share holding pattern of the promoters has been collected from the annual reports of the companies and money control.

Research Methodology

Operation Definition of family business

For research done on the family businesses, the definition of the family business is very important. There are many definitions of family business used by different researchers around the world which are explained in the study. In this study a firm or the business is said to be family owned if it satisfies any of the following two criteria:

1. The promoter or promoter's family members either individually or combined holds more than or equal to 26% of the voting rights. Ampenberger & et.all (2009)
2. Promoter or promoter's family members holding more than 5% of the voting rights is part of top management. Manos & et.all (2007) .

Statistical tools & variables

The study uses multiple regression technique to find out the relationship between the independent variables and the dependent variable Tobin's q. 'T' statistics has been used for checking the significance of relationship at 95% confidence level. The t-test is a tool used to analyse if there is a significant mean difference between the samples. Since the sample considered for this study satisfies these criteria, the t-test has been used for this study. The regression model for this study can be represented as:

Tobin's q = $\beta_0 + \beta_1 \text{ROCE} + \beta_2 \text{NPM} + \beta_3 \text{DE} + \beta_4 \text{INTER.COVER} + \beta_5 \text{GROW} + \beta_6 \text{LIQUIDITY} + \beta_7 \text{PAYOUT} + \beta_8 \text{TANGIBILITY}$.

Limitations of the study

1. The study considers only those companies that are listed in BSE.
2. The study deals only with manufacturing sector.
3. The study has been conducted for a period of twelve years from 2002 to 2014..
4. It considers only quantitative data.

Data Analysis:

Variables	Mean	Variance	P - value	T - Statistics	Observations
Tobin q			0.0691	1.4928	230
Family	1.6189	25.0059			115
Non Family	0.9236	0.3353			115
ROCE			0.0006***	3.9819	230
Family	16.3080	73.6370			115
Non Family	12.1442	80.8857			115
APATM			0.0031***	2.7903	230
Family	5.6212	33.5771			115
Non Family	-5.0731	1618.9365			115
DE			0.4777	-0.0559	230
Family	1.4064	1.7761			115
Non Family	1.4242	11.8676			115
INTER.COVER			0.3244	0.4565	230
Family	28.1251	14679.8774			115
Non Family	21.9211	6594.7064			115
GROWTH			0.0396***	-1.7715	230
Family	21.4591	112.5816			115
Non Family	37.3693	9346.6403			115
LIQUIDITY			0.0652	-1.5233	230
Family	1.5220	3.0596			115
Non Family	3.6454	223.3698			115
DIVIDEND			0.0087***	2.4120	230
Family	22.7920	1113.1339			115
Non Family	14.6186	420.7827			115
TANGIBILITY			0.0005***	3.3958	230
Family	0.4087	0.0223			115
Non Family	0.3362	0.0323			115

*** Significant at 5% level.

Comparison of Tobin's q

Tobin's q explains the value of the company as related to the value of the assets. Higher the Tobin's q, higher will be the performance of the company. Even though Tobin's q of the family business (1.618927) is greater than that of non family businesses (0.923641), it is not statistically different at 95% confidence level with a p-value of 0.069128. The study accepts the hypothesis that there is no significant difference in Tobin's q between Family owned businesses and Non family owned businesses.

Comparison of Performance

The performance of the company is explained by the ratio Return on capital employed. Higher the return on capital employed higher the performance of the company. we can make out that ROCE of family business is greater than that of non family businesses across the period of the study. When we take the average of ROCE over the period of the study, ROCE of the family businesses (16.30796) is significantly (p-value of 6.04E-05) greater than non family businesses (12.1442). The study rejects the hypothesis that there is no significant difference in ROCE of Family owned businesses and Non family owned businesses.

Another important measure of performance is net profit margin which is calculated by dividing adjusted profit after tax (APAT) by the sales of the company. it is clear that the adjusted profit after tax margin of family business is higher when compared to non family businesses across the period of the study. When we consider the average of APATM over the period of the study, APATM of the family businesses (5.621159) is significantly (p-value of 0.003087) higher than the non family business (-5.07314). The study rejects the hypothesis that there is no significant difference in Net profit margin of Family owned businesses and Non family owned businesses.

Comparison of Financial Structure

Financial structure of the company deals with how much debt the company carries in its balance sheet. The proxy for the financial structure used in the study is debt equity ratio. It is clear that the debt equity ratio of the family business is comparatively lesser than that of non family businesses. But the difference in the debt equity ratios is not significantly (0.477722) different at 95% confidence level. The study accepts the hypothesis that there is no significant difference in financial structure (debt equity ratio) of Family owned businesses and Non family owned businesses.

Comparison of Interest Coverage Ratio

Financial strength of any company can be measured by seeing its interest coverage ratio. The average Interest coverage ratio of family businesses (28.12512) is not significantly (p-value of 0.32446) higher than that of non family businesses (21.92105). The study accepts the hypothesis that there is no significant difference in Interest coverage ratio of Family owned businesses and Non family owned businesses.

Comparison of growth:

The proxy for the growth taken in this study is the growth of sales. The analysis of the study shows that the average growth of the sales of family business (21.4591) is significantly (p-value of 0.039579) lesser than non family business (37.36928). The study rejects the hypothesis that there is no significant difference in Growth (sales growth) of Family owned businesses and Non family owned businesses.

Comparison of liquidity

Current ratio is taken as proxy for liquidity in this study. Higher the current ratio, higher will be the liquidity of the company. The average current ratio of family businesses (1.522036) is lesser than non family businesses (3.645406) but it is not significant (p-value of 0.065222) at 95% confidence level. The study accepts the hypothesis that there is no significant difference in liquidity (current ratio) of Family owned businesses and Non family owned businesses.

Comparison of Dividends

The study takes dividend payout ratio and tries to compare between family business and non family business. The average payout ratio of family business (22.79199) is significantly (0.00873) higher than that of non family business (14.61858). The study rejects the hypothesis that there is no significant difference in Dividends between Family owned businesses and Non family owned businesses.

Comparison of tangibility

Tangibility is calculated as the ratio of fixed assets to total assets of the company. Higher the tangibility ratio for a company, higher are the proportion fixed assets in the company's assets. The average tangibility ratio of family businesses (0.408699) is significantly (p-value of 0.000471) higher than that of non family businesses (0.33622). The study rejects the hypothesis that there is no significant difference in Tangibility between Family owned businesses and Non family owned businesses.

Conclusions

The study measures the performance of Family owned Business, Non-Family business and comparisons between them. The sample of the study consists of 230 companies and Six industries in Indian manufacturing sector. The period of the study is 12 years from 2002 to 2014. The study uses sample t-tests for finding the differences for finding the relationship of selected variable with the Tobin's q which is considered as firm value and the performance measure. The results of the study states that family business perform better than non family businesses, the debt equity ratio is lower in family business but it is not statistically significant, the interest coverage ratio is higher in case of family businesses. The growth of family businesses is lesser when compared to non family businesses. The study found that family businesses pay more dividends than non family businesses and the liquidity of family business is lesser than non family businesses. Family business's total assets consists more proportion of fixed assets than that of non family businesses. The study rejects the hypothesis relating to ROCE, Net profit margin, Growth, Dividends, Tangibility stating that there is no difference between the family and non family businesses thus accepting the alternate hypothesis that there is a significant difference between family and non family businesses. The study accepts the hypothesis relating to Tobin's q, financial structure, interest coverage ratio, liquidity stating that there is no significant difference between family and non family businesses.

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ENTREPRENEURIAL ORIENTATION OF MBA AND ENGINEERING STUDENTS: A COMPARATIVE ANALYSIS

Abstract

The present research work has been taken to study the entrepreneurial orientation of MBA and Engineering students of Dehradun region through measuring their entrepreneurial intention. The descriptive research method was used and a survey of 100 students was administered in four different MBA and engineering colleges of Dehradun. Findings of the research indicates that there is difference between entrepreneurial intentions of MBA and engineering students wherein the MBA students are more oriented towards starting their own enterprise than engineering students. The outcome of this research may help the policy makers and educators who formulate, deliver and evaluate education policy.

Key words: *Entrepreneurial intention, MBA, Engineering, students.*

Introduction

A long tradition of research is devoted to the question of why some people choose to be self employed and start their own businesses and others are rather inclined to seek wage or salary employment. Researchers have tried to answer this question from their own perspectives. Earlier theories of entrepreneurship focused on personality traits and attitudes as determinants of entrepreneurial behavior. According to early researchers entrepreneurs are born and not made. They assumed that entrepreneurs are endowed with unique traits which make them distinguishable from others. (Muellar and Thomas, 2000) The personality approach to explaining entrepreneurial tendencies has a long tradition in entrepreneurship research, a tradition which can be traced back to Mc Clelland's work in the 1950's. Since then a number of personality traits such as need for achievement (McClelland, 1961), higher risk taking propensity (Hisrich and Peters, 1995), higher internal locus of control (Bonnet and Fuharman, 1991) tolerance for ambiguity (Teoh and Fro, 1997) have been discussed as factors affecting people's aspirations to start a company.

Another stream of research dealt with personal circumstances and the social environment of the entrepreneur. Hisrich and Peters (2002) and Kruger (1993) provide an understanding of the impact of personal factors, such as gender, general education, prior experience and family background, on the development of entrepreneurial perceptions. While this stream of research contributed to better understanding of successful entrepreneurs, it ignored the exploration of causal factors. When the focus of researchers shifted to causal factors they realized that starting a business is not an event, but a process which takes years to evolve and come to fruition (Mazzaro),

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Volery, Doss and Thein, 1999). Hence it is necessary to study individuals before the entrepreneurial event i.e individuals in the process of enterprise formation. (Reynolds, 2002; Gartner et al., 2004; Delmar and Davidsson, 2000). It is at this stage the importance of entrepreneurial intentions was realized.

There is a growing body of literature arguing that intentions play a very relevant role in the decision to start a new firm. The intention models use a cognitive focus to get additional insights in understanding the process of entrepreneurship. The importance of cognitive variables in understanding a personal decision has been highlighted by Baron (2004) and Shaver and Scott (1991). Van Gelderen et al (2008) state that entrepreneurial intentions are central to understanding the entrepreneurship process because they form the underpinnings of new organizations. Because entrepreneurship occurs over time, entrepreneurial intentions might be viewed as the first step in an evolving, long term process. Intentionality is defined by Bird (1989) as cited in Vasaleinen and Pihkala (2009) as a conscious state of mind that directs attention toward towards object. Individuals with the intention to start a business not only have a propensity to start but also adopt a rational approach to reach their goal. Intentionality is thus grounded on cognitive psychology that attempts to explain or predict human behaviour.

Hence according to this new stream of research which focuses on causal factors, Entrepreneurial Intention is a previous and determinant element towards performing entrepreneurial behavior (Fayolle & Gailly, 2004, Kolvereid 1996). Entrepreneurial Intention plays an important role in motivating an individual towards Entrepreneurial activity. It is a predecessor of a new venture creation. Entrepreneurial behavior is determined by the individual's intention to perform or not perform a given behaviour. The final decision to start a business reflects a process in which attitudes and intentions evolve based on the development of individual competence, experiences and relations to business context (Davidsson and Honing, (2003), Katz 1992). Career intentions are clearly planned (Kruger et al, 2000). The opportunity identification process is intentional and accordingly entrepreneurial intention merits attention in Entrepreneurship research (Indarti & Kristiansen, 2004).

Literature Review

Entrepreneurial intention has emerged as a foremost construct within the entrepreneurship literature over the last few decades. (Drennan, Kennedy and Renfrow, 2005). There is an emerging body of entrepreneurship literature arguing that intentions are very pertinent and important for stimulating one's decision to start a new venture. Number of researchers has devoted their efforts to find out factors effecting entrepreneurial intentions.

Entrepreneurial Education and Entrepreneurial Intention

Entrepreneurial education is considered to be an important determinant of entrepreneurial intentions. According to Wilson, Kickul and Marlino (2007) purposeful education enhances entrepreneurial efficacy through providing attitudes, knowledge and skills to cope with the complexities embedded in entrepreneurial such as opportunity seeking, resource assembling and leading the business to success. Education enhances

entrepreneurial efficacy of students through providing experience of mastery, role models, social persuasion and support by involving them in hands on learning activities, business plan development and running simulated or real small business (Fiet, 2000; Segal, Borgia and Schoenfeld, 2005). Borgia and Schoenfeld further stated that education plays a crucial role in developing entrepreneurial efficacy through involving individuals in entrepreneurial activities. This involvement increases their perceived desirability to step into venture creation.

According to Fatoki, Olawale Olufunso (2010), one of the ways to reduce the obstacles to entrepreneurial intention is through entrepreneurship education. Entrepreneurial education is needed to enhance skills and knowledge. Entrepreneurial skills include creativity, innovation, risk taking and ability to interpret successful entrepreneurial role models. Entrepreneurship education thus provides basics of such business practices. Hessel Oosterbeek, Mirjam van Pragg, Auke Ijsselstein (2010) emphasize that entrepreneurial education will influence students career choices towards entrepreneurship by positively swaying their perceptions of its desirability and feasibility and hence influencing their self efficacy to perform as entrepreneurs. Brijlal (2011) investigated entrepreneurial intentions of final year university students. The findings indicate that intention is a function of perceived self efficacy, personal attitudes and perceived subjective and social norms. Entrepreneurial knowledge affects entrepreneurial intentions by influencing self efficacy.

Zaidatol (2009) conducted a study on entrepreneurial intentions of Malaysian University students and found that entrepreneurial intentions score is higher if students perceived that there is a need to learn entrepreneurship at the university. If students understand the necessity and need of having entrepreneurship education their intention to become an entrepreneur increases. This finding is similar to the finding of Lussiers and Pfeifer, S (2001) findings where entrepreneurs with higher educational level have greater chance of succeeding in their business. Zahariah Mohd., Zain, Amalina, Erlane (2010) conducted a study on entrepreneurial intentions among Malaysian business students and the findings implicate that the students decision to become entrepreneurs are influenced by their family members, academics and adding courses on entrepreneurship. The results indicate that academics need to play a significant role in encouraging more students to become entrepreneurs and in turn contributing to the growth of the countries' economies and global competitiveness.

Soetanto, Pribadi and Widayadana (2010) conducted a study on Indonesian students' entrepreneurial intentions. They concluded that there is growing need to create entrepreneurial education especially for universities in the developing countries. The current process of education is too mechanistic and does not promote and encourage entrepreneurial behavior. Universities should include entrepreneurship programs as part of their curriculum and endorse entrepreneurship.

Previous work experience and Entrepreneurial Intention

Another strong positive predictor of entrepreneurial intention is whether a person has some earlier exposure to entrepreneurship (Hamidi et al., 2008). Mazzarol et al (1999) found that individuals with previous government employment experience were less likely to be business starters as compared to employees from private businesses. According to Greve and Saleff (2003), family business background may lower perceptual barriers to entrepreneurial behaviors since the individual can capitalize on their networks and larger social capital. It is easier for an alumnus entrepreneur to assess the possibilities of starting a new firm (Delmar and Davidsson, 2000).

Exposure to Family Business and Entrepreneurial Intention

More so, it has been found that persons who have a close relationship with someone with entrepreneurial experience are more likely to be self employed. For instance, large proportion of entrepreneurs have parents who themselves were entrepreneurs. The two explanations for this pattern are that parents can act as role models (Delmar and Davidsson, 2000) and that there is a transfer of entrepreneurial skills from parents who expect their

children to eventually take over the firm (Westhead, 2003). Being raised in a family that is entrepreneurial significantly impacts individuals' intentions to start their own businesses (Crant, 1996; Matthews and Moser, 1995). Having role models is a significant factor in wanting to start a business (Birley and Westhead, 1994), and self-employed parents tend to be especially relevant as mentors and guides for children starting their own businesses (Matthews and Moser, 1995). It has been posited by Drennan et al., (2005) that people who have a parent or close family member who is an entrepreneur are more likely to follow an entrepreneurial career path. Such individuals have the option to found their own company, take up organizational employment or become a successor in family business.

Drawing from the literature review, the main focus of this study is to find out the difference in entrepreneurial intentions of MBA and Engineering students and to find out the impact of entrepreneurship education on entrepreneurial intention of students. While attention will also be paid to the experience of private business and occupation of parents as determinants of Entrepreneurial Intention.

Objectives and Hypothesis of the study

To study the entrepreneurial orientation of MBA and Engineering students of Dehradun region through measuring their entrepreneurial intention (EI).

Based upon the referred theory and literature, we set forth the following hypotheses;

H₀₁: There is no significant difference in entrepreneurial intention (EI) of students across categories of education i.e. Engineering and MBA.

H₀₂: There is no significant difference in entrepreneurial intention (EI) of students with respect to their work experience.

H₀₃: There is no significant difference in entrepreneurial intention (EI) of students with respect to the occupation of their parents (self-employed or service class).

H₀₄: There is no significant difference in entrepreneurial intention (EI) of students with respect to their experience with family business.

Research Design/Methodology

An empirical research is conducted to identify the orientation of students of higher education towards entrepreneurship. To identify the association between the entrepreneurial intention and other aspects like category of education pursuing, gender, previous entrepreneurial experience and parents' occupation, a descriptive research design is applied. The sample of respondents is drawn from four institutes of Dehradun city imparting education business administration and engineering courses. We used convenient and judgmental sampling method to ensure the appropriate mix of engineering and MBA students. The questionnaire in English language was distributed among students at various locations like, canteen, library and computer laboratories. A total sample of 165 students was taken wherein we found 100 students having filled up complete questionnaire with no anomalies. The questionnaire has three components, Administrative; statements designed on seven points likert scale ('7' being 'strongly agreed' and '1' being 'strongly disagreed') and demographic profile.

The profile of the respondents can be seen in table-1. Students are equally (approx.) divided among two courses. However, the representation of female students in the sample is very less.

Table-1: Gender of the respondents * Education (Pursuing) Cross tabulation

		Education (Pursuing)		Total
		BE	MBA	
Gender of the respondents	Male	43	44	87
	Female	8	5	13
Total		51	49	100

Data Analysis and Interpretation

To check the reliability of the instrument i.e. the questionnaire which we used to measure the EI of the students, we relied on a parameter, Cronbach's Alpha. Value of Cronbach's Alpha was .860 which, as a general practice, is a very good statistical value for ensuring reliability of the instrument. To test the hypotheses, we first calculated the EI score of all the respondents. For calculating the EI score, we used IBM-AMOS and calculated the EI score loading for each of the variables (Figure-1). To check the normality of the distribution of EI score obtained, we applied P-P plot and one sample K-S test. Value of p at 95% level of confidence comes out to be .089 (>.05) which endorses the normality of the data obtained (Table-3), (fig-2).

Table-2: One-Sample Kolmogorov-Smirnov Test (N=100)

		F1
Normal Parameters ^a ,b	Mean	
	Std. Deviation	2.8796
		.71184
Most Extreme Differences	Absolute	
	Positive	
	Negative	.125
		.098
		-.125
Kolmogorov-Smirnov Z		
Asymp. Sig. (2-tailed)		1.247
		.089
a. Test distribution is Normal.		

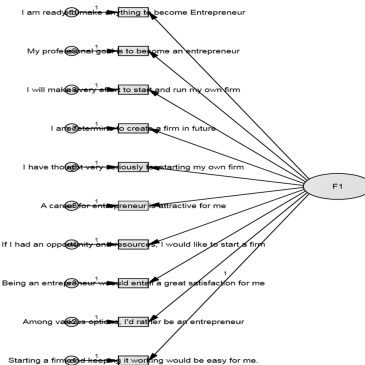
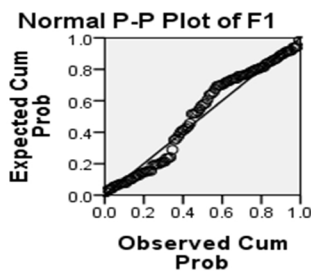
Figure 1: EI Score loadings for each of the variables.

Figure-2: (P-P plot of EI Score)



To test the first hypothesis (H01), we applied t-test for two independent samples. From the Levene's test of equality of variance, the assumption of equal variance was violated as the value of p is .000, so we selected that value of 't' where equal variance is not assumed. t-Statistics of -7.649 (Sig. value 0.000) indicate that null hypothesis could be accepted (Table-4). Therefore, we can say that there is a significant difference of entrepreneurial intention between MBA and engineering students. As per the mean value of response (3.31 for MBA students and 2.45 for Engineering students), MBA students gave more agreement with the statements and hence have more score of EI than Engineering students (Table-5). Alternatively, we can say that MBA students have more entrepreneurial intention than Engineering students. The reason for more entrepreneurial inclination may be attributed to the course curriculum of MBA program or knowledge of business administration or inclusion of one subject of Entrepreneurship in their courses. Education enhances entrepreneurial efficacy of students through providing experience of mastery, role models, social persuasion and support by involving them in hands on learning activities, business plan development and running simulated or real small business (Fiet,2000;Segal,Borgiaand Schoenfed, 2005).

Table-3

Group Statistics

	Have your parents started their own business	N	Mean	Std. Deviation	Std. Error Mean
F1	Yes	21	3.0834	.74182	.16188
	No	79	2.8255	.69849	.07859

		Table 5 Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
F1	Equal variances assumed	6.599	.012	-7.606	98	.000	-.86321	.11349	-1.08843	-.63799
	Equal variances not assumed			-7.649	92.489	.000	-.86321	.11285	-1.08731	-.63910

To test the second hypothesis (H_{02}), we again applied t-test for two independent samples, and the Levene's test of equality of variance is accepted for 'equal variance assumed, so we take t-value of equal variance assumed and t-statistics of 2.732 (sig. value 0.007) indicate that the null hypothesis could not accepted (table-6). Taking the mean value of response of two categories of students (with and without work experience), students with prior work experience gave more agreement to the statements and hence have are more inclined towards entrepreneurship (table-7).

Table – 6: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower		Upper
F1	Equal variances assumed	1.127	.291	2.732	98	.007	.38309	.14023	.10482	.66137
	Equal variances not assumed			2.770	90.216	.007	.38309	.13829	.10836	.65783

Table- 7: Group Statistics

Have you ever held a job where you were paid?		N	Mean	Std. Deviation	Std. Error Mean
F1	Yes	41	3.1057	.65822	.10280
	No	59	2.7226	.71058	.09251

To test the third hypothesis (H_{03}), we applied t-test for two independent samples. Leven's test for homogeneity of variance is violated hence we would see table value of 'equal variance not assumed. t-statistics of 1.434 (sig value 0.162) indicate that null hypothesis is accepted i.e. there is no significant difference of EI among students with respect to occupation of their parents. (Table- 8)

Table-8: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df (2-tailed)	Sig. Difference	Mean Difference	Std. Error	95% Confidence Interval of the Difference	
								Lower		Upper
F1	Equal variances assumed	.002	.962	1.485	98	.141	.25798	.17371	-.08675	.60270
	Equal variances not assumed			1.434	30.109	.162	.25798	.17995	-.10947	.62542

To test the fourth hypothesis (H_{03}), we applied t-test for two independent samples. Leven's test for homogeneity of variance is violated hence we would see table value of 'equal variance not assumed. t-statistics of 0.709 (sig value 0.490) indicate that null hypothesis is accepted i.e. there is no significant difference of EI among students with respect to their experience with family business.

Table 9: Independent Samples Test

Levene's Test for Equality of Variances		t-test for Equality of Means									
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Lower	Upper
F1	Equal variances assumed	3.738	.068	.420	19	.680	.15367	.36631	-.61302	.92036	
	Equal variances not assumed			.709	14.164	.490	.15367	.21685	-.31093	.61827	

Conclusion and Discussion

The conclusions of the study are that entrepreneurship education has a significant impact on the entrepreneurial intentions of students and prior work experience of private business also influences their entrepreneurial intentions. MBA students ranked high on entrepreneurial intentions as they are being exposed to entrepreneurship education. This education plays a crucial role in developing entrepreneurial efficacy through involving individuals in entrepreneurial activities. This involvement increases their perceived desirability to step into venture creation. There is no doubt about the fact that one of the ways to reduce the obstacle to entrepreneurial intention is through entrepreneurial education. Entrepreneurial education is needed to enhance skills and knowledge. Entrepreneurial skills include creativity, innovation, risk taking and ability to interpret successful entrepreneurial role models. Entrepreneurship education thus provides basics of such business practices (Fatoki et. al., 2010). This study reinforces this fact that since MBA students have entrepreneurship as one of the compulsory papers, their entrepreneurial orientation is more than the engineering students who do not have entrepreneurship as one of their compulsory papers. Further, we cannot ignore the fact that their self efficacy and entrepreneurial feasibility is also enhanced through business administration education which in turn cast a positive influence on their entrepreneurial intention.

Entrepreneurship, in the current scenario, is considered to play a key role in the development of the economy. According to Gree and Thurnik (2003) entrepreneurship has been recognized as one of the tools that drives the economy of the country. Turker and Selcuk (2009) point out that entrepreneurial activities are not only the incubator of technological innovation ,but they also provide employment opportunities and increase competitiveness. It is thus the responsibility of education policy makers to incorporate entrepreneurship education in the curriculum of schools, colleges and universities. The conceptual foundation of entrepreneurship has to be supported by practical exposure through interaction with successful entrepreneurs. The use of local case studies in the teaching of entrepreneurship can also make entrepreneurship a more feasible option for students. Media should also highlight stories of entrepreneurial success which will motivate the students.

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THE QUINTESSENCE OF LEADERSHIP – A FUNCTIONAL TEAM

Abstract

Organizations recruit people to man several positions in the structural framework to meet the desired objectives and create futuristic and robust teams which will deliver the desired results. The Qualities of such people who are enrolled as members of the organizations have been described in many management text books and research articles. To build such teams and sustain their efforts towards organizational goals in a dynamic business environment is a challenge for Leaders of the present and futuristic organizations. This article aims to draw attention to the very critical aspect of building and sustaining such high power teams for continued delivery of high performance requirements of the current dynamic business environment. This, in the opinion of the author, will form one of the most important and effective concerns of management in the increasingly competitive and global structure of organizations. Attention is drawn to the several factors, which will be important in this task.

Keywords: *Structural framework, robust organizations, futuristic, leadership, quintessence, dynamic business environment, building and sustaining high power teams, global structure.*

Introduction

Teamwork is used across many different industries to enhance performance, employee unity and company culture. Companies who frequently need to develop new ideas or products using a project-based approach assemble teams in order to diffuse responsibility. Team members use teamwork to bounce ideas off of one another before deciding on a development course for a project. Teamwork is important due to the problem-solving synergy gained from multiple minds working for a solution. When one person works on a specific company problem, that person only has his personal experience and knowledge from which to look for solutions. Using teamwork, team members pool their collective ideas and wisdom together to generate unique solutions to problems. The problem could be developing a product for a consumer to address a new need that the consumer does not know but one for which company has a solution.

Teamwork is the backbone of effective communication within a company. When employees work as individuals or independently on projects, they may not readily share knowledge or new information. This lack of communication increases the time it takes to complete projects, tasks or the development of solutions. Teamwork promotes discussion among employees regarding the task at hand, possibly preventing employees from working in opposite directions. For example, if one employee does not communicate that one method of addressing a problem has lost its utility, and another employee is still trying to use that method, productivity is lowered

Cohesion is an important byproduct of teamwork within a company. This cohesion could be the result of

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increased chemistry, trust or both from working on projects as a team. Cohesive employees are less likely to be confrontational toward one another and more accepting of others' decisions. Cohesion from teamwork can greatly increase the work-flow speed of a company.

When employees work together as a team within a company, every employee learns from one another. This knowledge is not limited to the personal experiences of coworkers; employees from different departments may learn information from each other regarding the limitations and possibilities of those departments. For example, if a marketing department consistently makes demands with unrealistic deadlines to another department, the marketing department may see through teamwork why its requests are unreasonable.

Review of Literature

There are often many internal and external factors that separate effective and ineffective teams. Moreover, what makes some teams strong, be its competitiveness, toughness or high energy levels, can make other teams weak; some of these traits may benefit sports and sales teams, but they are not what you look for in a doctor or nurse. Having said that, there are a few factors of effective teamwork that are common to teams of all types.

Diversity

Effective teams embrace and are constituted by a diversity of cultures, talents and personalities. Diversity can promote creativity and innovation, and raise awareness of and respect for differences, which will support effective teamwork. By contrast, teams that lack diversity can find it difficult to solve particular problems; it is much harder to find innovative solutions when all of the team members think about problems in the same way, draw on similar experiences for support and come to the same conclusions. The merits of diversity noted, difference also raises the potential for conflict within teams, which can be harmful if not managed properly.

Communication

Effective teamwork is facilitated by clear and open communication. All team members should be on the same page with respect to targets, responsibilities and timelines. This cohesion is facilitated by effective communication. Academic commentators such as Sarah Holland, Kevin Gaston and Jorge Gomez have suggested that consistently effective communication is supported by the prevalence of organizational protocols which determine particular methods and mediums of communication in specific circumstances (emails, one-to-one meetings, group talks, etc.). All team members should feel comfortable asking questions regarding the clarification of jobs and responsibilities, and they should feel free to make suggestions when they feel they can advance the team's objectives. When a challenge or conflict arises, effective teams will engage and overcome it with effective communication, rather than avoiding the issues or participating in gossip.

Leadership

Teamwork is supported by effective leadership. All teams benefit from one or several sources of inspiration and

direction; leaders can support collaboration by coordinating the efforts of team members and encouraging team members to speak their minds during team meetings. They can ensure the team's projects stay on track by checking in with different contributors and measuring daily/weekly progress against overall timetables and objectives. Additionally, they can work to motivate and discipline team members to ensure that everyone is performing to their highest potential. According to Gary Yukl, Professor of management and leadership at the State University of New York, questions of the desirable traits of leaders in business have been a popular source of research since the 1950s, and the common characteristics of effective leaders highlighted by contemporary studies are conscientiousness, agreeableness, adjustment and intelligence. Prof. Yukl also notes the importance of energy levels, stress tolerance, self-confidence, internal control orientation, emotional maturity and integrity.

Team-Building Exercises

Effective teamwork is developed through shared experiences and practice. The use or avoidance of team-building activities can be an important factor in determining the development of effective teams; in the age of advanced technology and fast-paced business environments, some team members would never see one another face to face if they did not make a point to do so. Team-building exercises can be targeted to improve particular aspects of team performance such as communication, problem-solving or creativity. Games and drills are an effective way to bring people together to build relationships, boost morale and promote mutual understanding of interests, personalities, strengths and weaknesses.

OBJECTIVES AND METHODOLOGY

There is an enormous amount of published literature from research studies internationally from all parts of the world and the author has derived the benefit from exhaustive reference to such published work. It was not considered very relevant to do more field work and primary data collection exercise due to the nature of this paper and the availability of plenty of information which needed only collection, compilation and proper referencing. The bibliography gives an exhaustive list of references made on the current published literature in print media, web pages and other electronic media.

The broad objectives are however enumerated below:

1. To identify underlying reasons, why team work and team building are essential prerequisites for modern organizations.
2. To find out the main characteristics and qualities needed of team player of futuristic organizations.
3. To reason out how team work and team building exercises are sustained in modern organizations working in a global and dynamic setting.
4. To analyze and find out critical underlining factors which would help teams to be more functional and effective in the current business setting

ANALYSIS OF RESULTS AND CONCLUSION

Modern organizations are formed by groups of people from different nationalities and cultures. By the very nature of international and global organizations today, people from different countries and cultures speaking different languages, different customs, traditions and beliefs have to work together for a common business objective of organizations, they belong to. For these reasons, they have to work in teams and team work and cohesion become critical to their success. The benefits of team work have been explained in the introduction. So, in such a set up the benefits and essential need to work as a team are clear!

Work Efficiency

Teamwork enables you to accomplish tasks faster and more efficiently than tackling projects individually.

Cooperating together on various tasks reduces workloads for all employees by enabling them to share responsibilities or ideas. Teamwork also reduces the work pressure on every worker, which allows him to be thorough in the completion of the assigned roles. In sharing ideas or responsibilities, every employee should have a role that suits his specialization. You should also consider employees' levels of interest in the project at hand, which positively influences the efficiency or speed of their output in accomplishing the task.

Improved Employee Relations

Teamwork is important in an organization because it provides employees with an opportunity to bond with one another, which improves relations among them. Workers who constitute a team working on a project often feel valued upon the successful completion of such tasks. A situation in which all of them find a chance to contribute towards the tasks improves relations within the team and enhances their respect for each other. Improved employee relations also result from the fact that teamwork enhances cohesion among members, thanks to increased trust among them.

Increased Accountability

Teamwork increases the accountability of every member of the team, especially when working under people who command a lot of respect within the business. Team members do not want to let each other down and hence do their best to contribute to the successes of their teams. In contrast to working solo on a project, peer pressure is usually high within teams such that cases of low morale are less likely to impact individuals. As a business owner, you would benefit from increased productivity through efficient team projects, which may be completed well ahead of the deadline.

Learning Opportunities

Cooperating on a project is an opportunity for new workers to learn from more experienced employees. Teams often consist of members who differ from one another in terms of skills or talents. Working together is a great opportunity to acquire skills that an employee never had beforehand. Unlike working alone on a project, teamwork affords people the opportunity to challenge the ideas of each other and come up with a compromise solution that contributes to the successful completion of the task.

Qualities of an Effective Team Player

A reliable team member is one who gets work done and does his fair share to work hard and meet commitments. He or she follows through on assignments. Consistency is key. You can count on him or her to deliver good performance all the time, not just some of the time.

Teams need people who speak up and express their thoughts and ideas clearly, directly, honestly, and with respect for others and for the work of the team. That's what it means to communicate constructively. Such a team member does not shy away from making a point but makes it in the best way possible – in a positive, confident, and respectful manner.

Good listeners are essential for teams to function effectively. Teams need team players who can absorb, understand, and consider ideas and points of view from other people without debating and arguing every point. Such a team member also can receive criticism without reacting defensively. Most important, for effective communication and problem solving, team members need the discipline to listen first and speak second so that meaningful dialogue results.

Good team players are active participants. They come prepared for team meetings and listen and speak up in discussions. They're fully engaged in the work of the team and do not sit passively on the sidelines. Team members who function as active participants take the initiative to help make things happen, and they volunteer for assignments. Their whole approach is can-do: "What contribution can I make to help the team achieve success?"

Good team players share. They're willing to share information, knowledge, and experience. They take the initiative to keep other team members informed. Much of the communication within teams takes place informally. Beyond discussion at organized meetings, team members need to feel comfortable talking with one another and passing along important news and information day-to-day. Good team players are active in this informal sharing. They keep other team members in the loop with information and expertise that helps get the job done and prevents surprises.

Cooperation is the act of working *with* others and acting together to accomplish a job. Effective team players work this way by second nature. Good team players, despite differences they may have with other team members concerning style and perspective, figure out ways to work together to solve problems and get work done. They respond to requests for assistance and take the initiative to offer help.

Teams often deal with changing conditions – and often create changes themselves. Good team players roll with the punches; they adapt to ever-changing situations. They don't complain or get stressed out because something new is being tried or some new direction is being set. In addition, a flexible team member can consider different points of views and compromise when needed. He or she doesn't hold rigidly to a point of view and argue it to death, especially when the team needs to move forward to make a decision or get something done. Strong team players are firm in their thoughts yet open to what others have to offer – flexibility at its best.

Strong team players care about their work, the team, and the team's work. They show up every day with this care and commitment up front. They want to give a good effort, and they want other team members to do the same.

Teams, of course, deal with problems. Sometimes, it appears, that's the whole reason why a team is created – to address problems. Good team players are willing to deal with all kinds of problems in a solutions-oriented manner. They're problem-solvers, not problem-dwellers, problem-blamers, or problem-avoiders. They don't simply rehash a problem the way problem-dwellers do. They don't look for others to fault, as the blamers do. And they don't put off dealing with issues, the way avoiders do. Team players get problems out in the open for discussion and then collaborate with others to find solutions and form action plans.

Team players treat fellow team members with courtesy and consideration – not just some of the time but consistently. In addition, they show understanding and the appropriate support of other team members to help get the job done. They don't place conditions on when they'll provide assistance, when they'll choose to listen, and when they'll share information. Good team players also have a sense of humor and know how to have fun (and all teams can use a bit of both), but they don't have fun at someone else's expense. Quite simply, effective team players deal with other people in a professional manner.

Team players who show commitment don't come in any particular style or personality. They don't need to be rah-rah, cheerleader types. In fact, they may even be soft-spoken, but they aren't passive. They care about what the team is doing and they contribute to its success – without needing a push. Team players with commitment look beyond their own piece of the work and care about the team's overall work. In the end, their commitment is about winning – not in the sports sense of beating your opponent but about seeing the team succeed and knowing they have contributed to this success. Winning as a team is one of the great motivators of employee performance. Good team players have and show this motivation.

Employers expect employees to be a team player. Regardless of your job, you need to be able to work well with others. Team work is characterized by the demonstration of the following essential skills instilled by the leader.

Listening: The members in this team listen to each other's ideas. they will observe the members "piggy-backing" (or building) on each other's ideas.

Questioning: The members in this team question each other. You will observe the members interacting, discussing, and posing questions to all members of the team.

Persuading: The members in this team use persuasion. You will observe the members exchanging, defending, and rethinking ideas.

Respecting: The members in this team respect the opinions of others. You will observe the members encouraging and supporting the ideas and efforts of others.

Helping: The members in this team help each other. You will observe the members offering assistance to each other.

Sharing: The members in this team share. You will observe the members offering ideas and reporting their findings to each other.

Participating: The members in this team participate. You will observe each member contributing to the project

Team building activities in vary from organization to organization. But in general the modern organizations build teams through "games" - a planned and monitored way for building effective teams. Currently there are specialized trainers, and corporate training programs for this purpose. To mention some of these games will be like: Scavenger Hunt, Get to know me, Spider web, Big Foot, Kid Stuff etc. The Bibliography ad reference section has many sites offering information on such training modules and web sites.

Whenever I mention functional team it really means a team that delivers and functions as a team, whether it is from the same function or is a cross functional team. Since the publication of Peter Drucker's views on Management by objectives, business decision making has become more goal-oriented. Managers have come to view decision-making generally, and strategic thinking in particular, as a multi-stage process that starts with an assessment of the current situation, defining objectives, then determining how to reach these objectives. Management by objectives took this basic scheme and applied it to virtually all significant decisions.

Today many firms have started to opt for a less structured, more interactive approach. One way of implementing this involves using self-directed cross-functional teams. Proponents hope that these teams will develop strategies that will re-define industries and create new "best practice". They think that incremental improvements do not suffice. Cross-functional teams, using unstructured techniques and searching for revolutionary competitive advantages, allegedly require information systems featuring increased interactivity, more flexibility, and the capability of dealing with fuzzy logic. Artificial intelligence may one day be useful in this aspect

"Building an innovative organization is possible, but very difficult since human behavior tendencies corrupt and breed dysfunctional politics within them." If you scan your environment you may find one or all of five following characteristics of a functional team at work:



Figure 1: Leadership is managing functional teams.

Focus on the achievement of collective results. In a functional team the team results are the most important goals. Successful leaders will focus on the results and make them clear for all to see, rewarding only the behaviors that contribute to the team and correcting those that don't.

Hold one another accountable for delivering those plans of action. Team members that are close to one another will also hesitate to make them accountable since they do not want to risk personal relationships. The failure to call their peers out on actions and behaviors that seem counterproductive to the good of the team leads to a lack of accountability. The enemy of accountability is ambiguity. Leaders need to make it clear what the standards are, what needs to get done, by who and by when.

Commitment to decisions and plans of actions. Teams that do not have accountability spend much time “off-line” making decisions that the group does not commit to. Many times team members will feign agreement in meetings or creating ambiguity about their particular direction and priorities. Leaders can facilitate building commitment by reviewing all key decisions and making responsibilities and deadlines clear.

Engage in unfiltered conflict around ideas. One can tell how healthy an organization is simply by attending a meeting and observing how open the debate is (or isn't). Healthy and productive teams accept that conflict is a normal part of being in a team to learn to deal with it productively. All meaningful relationships require productive conflict for them to grow. Teams become dysfunctional when they are unable to productively deal with conflict or replace conflict with an artificial harmony. Leaders need to understand the importance of conflict and help team members learn about and develop positive conflict resolution skills.

Trust one another. The key to overcoming a lack of trust is through shared experiences. Yet, too often team members are simply not genuinely open with one another and so not open up since doing so may result in the loss of some political advantage or being as seen as vulnerable. The primary role of the leader in building trust is to lead by example and create an environment where it's safe to be vulnerable.

Conclusion

So, in summary, when team members make decisions based on their own interests there grows a lack of accountability. When there is a lack of accountability for decisions it is difficult for team members to become committed to those decisions. Without commitment team members may be unwilling to engage in honest debate and compromise. Without open debate it is almost impossible to build trust; the foundation on which all functional groups are built.

Recommendation

The hallmark of modern organizations is their capacity to build teams and work as one team to deliver results consistently with global standards. A lot of money and effort is spent on recruiting team players and build teams through training and development programs. Today, the successful organizations are characterized by their capacity to work as a team. Leaders and Managers are rated by their interpersonal skills to work as a team and build futuristic teams for the company. It is recommended for Indian business organizations, that they follow this global trend and do not lag behind in building teams for success!

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A STUDY ON THE POST LIBERALIZATION PROGRESSION OF IPRS IN INDIA

Abstract

Intellectual property may be regarded as a power tool for economic development through new innovation and creation. In a sense the level and trend of intellectual property give an idea of economic status of the country. Many of the developing countries have not yet used their intellectual property for their development. India has registered a significant growth in intellectual property in the last few decades and in the past four decades; there is a huge transformation in Indian IPR system. In order to cope up with the challenges of globalization, intellectual property offices in India have modernized by augmenting their infrastructure in terms of human resources and technology upgrading. The present infrastructure and procedures of registering IPR has paved the way for the enhancement in new innovations and creations. Keeping in view, the present study is an attempt to throw some light on the pattern of intellectual property in terms of applications received, registrations done, revenue generated from applications by the government and expenditures on handling of IPR by the concern body of government of India. The study finds that there is a tremendous growth registered in all forms of intellectual properties and the total number of Patents, Trademarks, and Designs registered in India has increased by 55 times, 187.25 times and 107.56 times respectively, since 2001-02.

Keywords: Intellectual Property Rights, Patent, Copyright, Trademark, Design, Geographical Indications, IPR, etc.

Introduction

Development of a country depends on various factors. Intellectual property is one of the most important among them. It is an essential component for the development of a country. Intellectual Property Rights (here after, IPR) grants an exclusive rights to its creators and inventors who contribute to the betterment of the society through their creation in different fields of knowledge. The intellectual property system not only boosts the collective knowledge of the society but also escalate their dissemination. It is a key factor in promoting economic development. At the micro economic level; Patent, Copyright, Trademarks and similar forms of intellectual property protection provide a means by which innovators and investors can recover the investment of time, money and effort needed to bring a new product to the market. At the macroeconomic level, intellectual property promotes economic development by encouraging domestic innovation and foreign direct investment. The intellectual property system also creates a framework in which developing countries can participate in the economic activities of the developed world.

For many years, economists have tried to provide an explanation as to why some economies grow fast while others do not; in other words, why some countries are rich and others are not. It is generally agreed that knowledge and innovation have played an important role in recent economic growth. The renowned economist

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Paul Romer (1990) suggests that the accumulation of knowledge is the driving force behind economic growth. His theory reveals that, to promote growth of any countries their economic policies should encourage investment in new research and development (R&D) and subsidize programs that develop human capital.

The importance of R&D and innovation has been emphasized by new growth theory, for example, Romer, (1990); Grossman and Helpman, (1991); and Rivera-Batiz and Romer, (1991). In these models entrepreneurs invest in R&D in the expectation of profiting from their inventions. In addition to new products, innovation adds to a public stock of knowledge which lowers the cost of future innovation. Besides rewarding innovation, IPR protection stimulates the acquisition and dissemination of knowledge, since the information in Patent claims is then available to other potential inventors (Maskus, 2000).

What Is Intellectual Property?

Intellectual property is a field of law that deals with property rights in intangible things, such as new creations or business goodwill. There are many forms of protection: Patents for inventions, Copyright for writings and other "works of authorship", Trademarks to identify the source of goods or services, and other examples mentioned in Table 1.

Which Rights Apply for What?

The various forms of intellectual property protect different interests in intangible property. The following table reveals some insight about the intellectual properties:

Table 1: Property Rights and their Description

S. No.	Description	Instrument/Rights
1.	A new mechanical or electrical device, chemical composition, or process, or living matter	Patent
2.	A variety of plant that has not been commercially exploited	Plant Variety
3.	A Design that gives a new or original appearance to a useful item	Industrial Design
4.	An original book, pamphlet or other written material, drawing or painting, sculpture, song, movie, photograph, or software	Copyright
5.	Packaging for a product	Trade dress
6.	A word or logo used on packaging for product, or in connection with services, to identify producer or seller of goods or services	Mark, Trademark, or service mark
7.	A geographical term associated with particular product characteristics, quality, or reputation	Geographical Indication

Progression pattern of different Intellectual Properties registered in India

This section of the study reveals the trend captured in the intellectual properties during the post liberalization period of 22 years, 1992-93 through 2013-14.

Trend in Patents Registered in India

Table 2 shows that during 1992-93, 1676 Patents were registered which has reached to 18,051 by 2002-2003. The Patent office has registered an increase of 977% (10.77 Times) during the period of first twelve years of the study period.

Similarly by 2013-14 number of Patent registered, reached to 92,023. It shows an increase of 409.79 % (5.1 Times) since 2002-03 and 5,390 % (55 Times) since 1992-1993.

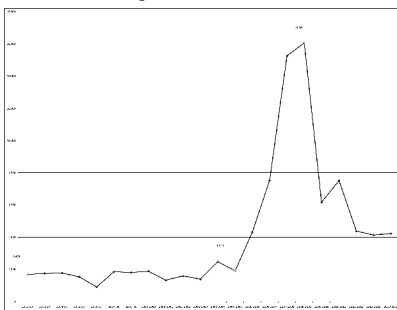
Though, the above finding shows that in second 12 years of the study period (2002-2003 to 2013-14) number of Patent registered increased by 73,972 (409.79% or 5.1 Times) as compared to 16,375 (977 % or 10.77 Times) in the first 12 years of the study period for this study. Trend in Patents registered in India during 1992-93 through 2013-14 has shown in figure 2. Figure shows that there is a sharp uptrend in Patent registration for the period of 2004-05 to 2008-09. Considering these patterns with respect to the different phases of economic cycle and different incentive provision of the Indian govt., further research can be conducted to find relations between these variables as well.

Table 2: Trend in Patents Registered in India

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
	-93	-94	-95	-96	-97	-98	-99	-00	-01	-02	-03
Patents	1676	1746	1769	1533	907	1844	1844	1881	1881	1591	1379
Year	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Patents	2469	1911	4320	7539	15261	16061	6168	7509	4381	4126	4227

Source: Compiled and prepared by the researcher taking data from <http://www.ipindia.nic.in/>

Figure 2: Trend in Patents Registered in India during 1992-93 to 2013-14



Trend in Trademarks Registered in India

Table 3 during 1992-93, 5364 Trademarks were registered which has reached to 75,885 by 2002-2003. The concerned office has registered an increase of 1,314.71% (14 Times) during the period of first twelve years of the study period. Similarly by 2013-14 number of Trademarks registered, reached to 10,04,396. It shows an increase of 1,223 % (13 Times) since 2002-03 and 18,724.74 % (187.25 Times) since 1992-1993.

Though, the above finding shows that, in second eleven years of the study period (2002-2003 To 2013-14)

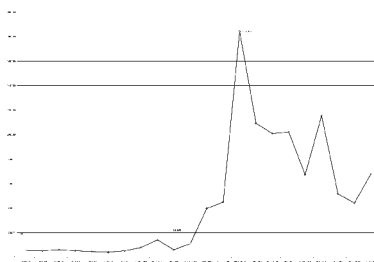
number of Trademarks registered increased by 9, 36,520 as compared to 70,521 for the period of first eleven years of the study period. But statistically it shows 1,223% (13 Times) increment as compared to 1,314.71 % (14 Times) increment in the first 12 years of data period for this study. Trend in Trademarks registered in India during 1992-93 through 2013-14 has shown in figure 3. Figure shows that there is a sharp uptrend in Trademarks registration for the period of 2002-03 to 2005-06. Thereafter, a sharp decline has appeared in the figure.

Table 3: Trend in Trademarks Registered in India during 1992-93 to 2013-14

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
	-93	-94	-95	-96	-97	-98	-99	-00	-01	-02	-03
Trademarks	5364	5290	6209	5310	4686	4120	5300	8010	14202	6204	11190
Year	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Trademarks	39762	45015	184325	109361	100857	102257	67490	115472	51735	44361	67876

Source: Compiled and prepared by the researcher taking data from <http://www.ipindia.nic.in/>

Figure 3: Trend in Trademarks Registered in India during 1992-93 to 2013-14



Trend in Designs Registered in India

Data for Designs registered for the period of 1992-93 to 2013-14 is presented in table 4. Table shows that, during 1992-93, 747 Designs were registered which has reached to 19,696 by 2002-2003. The finding shows that, the concerned office has registered an increase of 2,536% (26 Times) during the period of first eleven years of this study period. Similarly by 2013-14 number of Designs registered, reached to 80,347. It shows an increase of 307 % (4 Times) since 2002-03 and 10,656 % (107.56 Times) since 1992-1993.

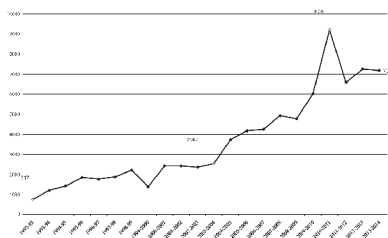
Also, in second twelve years of data period (2002-2003 To 2013-14) number of Designs registered increased by 60,651 as compared to 18,949 for the period of first eleven years of this study period. Trend in Designs registered in India during 1992-93 through 2013-14 has shown in figure 4. Figure shows that though, there is a gradual rise in Designs registration for the study period but a sharp rise for the period of 2003-04 to 2010-11. A sharp decline has appeared in the figure for the year 2011-12 though, it is recuperated in the following years.

Table 4: Trend in Designs Registered in India during 1992-93 to 2013-14

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
	-93	-94	-95	-96	-97	-98	-99	-00	-01	-02	-03
Trademarks	747	1203	1430	1851	1765	1879	2219	1382	2430	2426	2364
Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
	-04	-05	-06	-07	-08	-09	-10	-11	-12	-13	-14
Trademarks	2547	3728	4175	4250	4928	4772	6025	9206	6590	7252	7178

Source: Compiled and prepared by the researcher taking data from <http://www.ipindia.nic.in/>

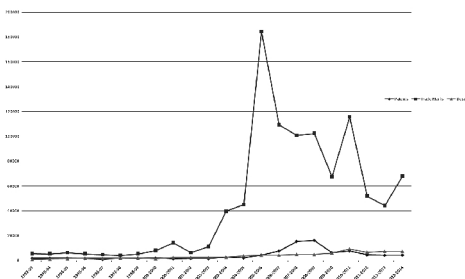
Figure 4: Trend in Designs Registered in India during 1992-93 to 2013-14



All IPR registrations at a glance

An overall trend in all the three IPRs is depicted in figure 5. Figure shows that number of Patents and Designs registered are almost same but, numbers of Trademarks registered are tremendously larger than the Patents and Designs. Though, it is not supported by the revenue generated through the registration of the Trademarks. In other words, more revenue is generated through the registration of Patents followed by Trademarks.

Figure 5: Trend in Patent, Trademarks, and Designs Registered in India during 1992-93 to 2013-14



It may be worthwhile to note that in comparison with the other two types of IPR, the registration of Designs is relatively insignificant.

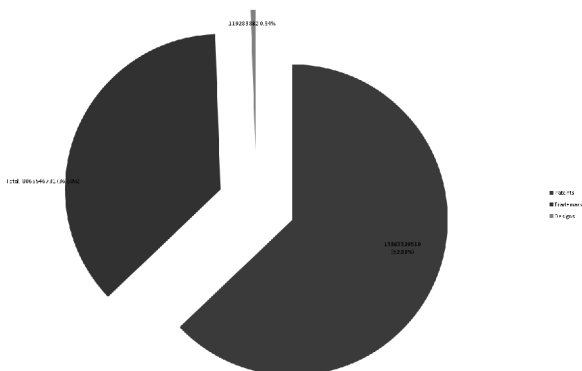
Revenue Generation from Patent, Trademarks and Designs

Table 5 reveals a gradual rise in revenue generated from Patents, Trademarks, and Designs registered in India since 2001-02. Increment in revenue generation has recorded in times, for 13 years (2001-02 to 2013-14), is 863 times, 166 times, and 26 times from Patent, Trademarks and Designs respectively. Total revenue generated from these three intellectual properties for the period of 13 years, 2001-02 to 2013-14, is presented in figure 6.

Table 5: Comparison of Revenue Generation from Patent, Trademarks and Designs

Year	Patents	Trademarks	Designs
2001-2002	16065934	48462920	4545015
2002-2003	165366982	47520745	5258610
2003-2004	165366982	270675959	5301165
2004-2005	407254457	379485262	5459282
2005-2006	936428079	497509410	7560563
2006-2007	1063417330	557928069	10080300
2007-2008	1302408136	630036633	10023450
2008-2009	1561463824	691502297	12366048
2009-2010	1426173541	716125436	9145030
2010-2011	1587810509	861500000	10626985
2011-2012	1644023224	1035300000	12611650
2012-2013	1704784657	1104500000	12932740
2013-2014	1882765864	1225000000	13373044
Total	13,86,33,29,519	8,06,55,46,731	11,92,83,882

Source: Compiled and prepared by the researcher taking data from <http://www.ipindia.nic.in/>

Figure 6: Comparison of Revenue Generation from Patent, Trademarks and Designs

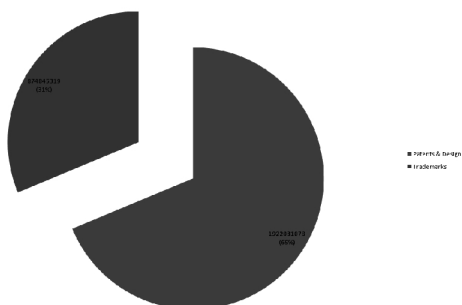
Expenditure on Patent, Designs and Trademarks

Table 6 reveals the expenditure occurred on the processing of Patent, Trademarks, and Designs registered during the period of 2001-02 through 2013-14. Figure 7 shows the distribution of total expenditure occurred in these three intellectual properties during the period taken for this study.

Table 6: Comparison of Expenditure on Patent, Designs and Trademarks

Year	Patents & Designs	Trademarks	Total Expenditure
2001-2002	48774255	67428000	116202255
2002-2003	45684321	40945000	86629321
2003-2004	47300000	44946640	92246640
2004-2005	52500000	45800000	98300000
2005-2006	57788309	48277958	106066267
2006-2007	98739224	49970593	148709817
2007-2008	158374584	55757004	214131588
2008-2009	185384291	89146467	274530758
2009-2010	218703451	89435413	308138864
2010-2011	240206038	69932637	310138675
2011-2012	246987683	81048895	328036578
2012-2013	253312134	89233145	342545279
2013-2014	268276788	102923567	371200355
Total	1922031078	874845319	2796876397

Source: Compiled and prepared by the researcher taking data from <http://www.ipindia.nic.in/>

Figure 7: Comparison of Expenditure on Patent, Designs and Trademarks

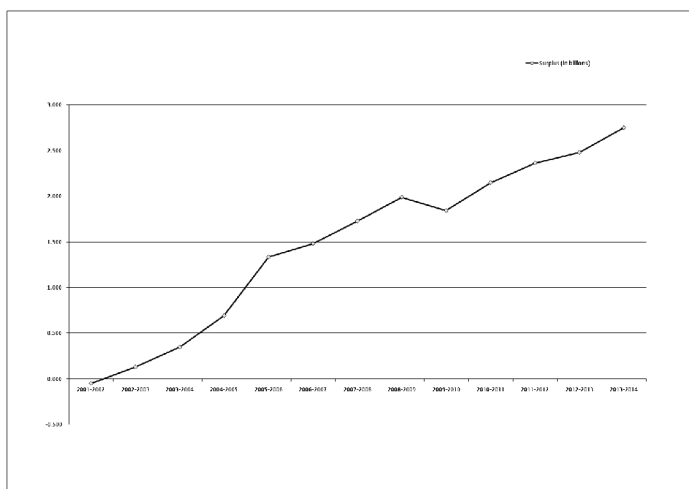
Surplus Generated from Patents, Trademarks and Designs

Surplus generated from the three intellectual properties taken for this study is presented in table 7. Table shows deficit in 2001-02 but thereafter a gradual rise is recorded in the revenue generated through the registration of the IPRs. It is observed that a surplus of Rs. 19.25 billions is generated through these three IPRs taken in this study during the period of 2001-02 to 2013-14. Trend is depicted in figure 8.

Table 7: Surplus Generated From IPR

Year	Total Revenue	Total Expenditure	Surplus
2001-02	69073869	116202255	-47128386
2002-03	218146337	86629321	131517016
2003-04	441344106	92246640	349097466
2004-05	792199001	98300000	693899001
2005-06	1441498052	106066267	1335431785
2006-07	1631425699	148709817	1482715882
2007-08	1942468219	214131588	1728336631
2008-09	2265332169	274530758	1990801411
2009-10	2151444007	308138864	1843305143
2010-11	2459937494	310138675	2149798819
2011-12	2691934874	328036578	2363898296
2012-13	2822217397	342545279	2479672118
2013-14	3121138908	371200355	2749938553
Total	22,04,81,60,132	2,79,68,76,397	19,25,12,83,735

Source: Compiled and prepared by the researcher taking data from <http://www.ipindia.nic.in/>

Figure 8: Trend in Surplus Generated through IPRs

The above finding shows that IPRs, on the one hand increase the revenue of the Government, accelerate growth of an economy through new creations and innovations on the other.

Conclusion

On the basis of above finding, this study concludes that there is a tremendous growth registered in all three intellectual properties i.e. Patents, Trademarks and Designs. Study shows that total number of Patents, Trademarks, and Designs registered in India has increased by 55 times, 187.25 times and 107.56 times respectively, since 2001-02. Study also reveals that total revenue generated since 2001-02 to 2013-14 from Patent, Trademarks, and Designs registrations were Rs. 13,86,33,29,519 (14.86 billion), 8,06,55,46,731 (8 billion), and 11,92,83,882 (12 million), respectively, which shows an increase of 117.19 times, 25.28 times, and 2.94 respectively in these three IPRs. Total surplus (Total Revenue – Total Expenditure) generated by these three IPR for the government was recorded Rs. 19,25,12,83,735 (19.25 billion) since 2001-02.

One of the logics for patents and other IPRs is that they stimulate economic and technological development and promote competition. These create financial motivation for invention in return for the disclosure of the invention to the public. Those who have the resources (usually venture capitalists) provide inventors with cash in return for a share in the intellectual property rights. The people with the ideas but no money could approach investors and their investment will provide the inventors with the necessary cash for development. The present study shows the inefficiency of our economy to generate sufficient Patents and Designs in comparison with the Trademarks. Since, the Trademarks don't generate sizeable financial benefit to the IPR holder these are less valuable from the point of view of economic development. On the other hand the Patents and Designs are the IPRs any economy should focus to produce more. It is the necessary to reason out why India is unable to produce substantial number of valuable IPRs and to take corrective measures in this direction. Further, development of research aptitude, research attitude, promotion of academic research and proper financial support can enable the economy to cash the investment on R & D in the long run.

Limitations and Scope for Further Research: This study is confined to only three IPRs due to the non availability of data on other IPRs. Though, there is a scope for further research including all the IPRs in the study. Furthermore, a study can be conducted to examine the role of FDI and FII in the formation of IPRs in India.

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BIODIESEL, A FUEL OF FUTURE: A PERCEPTUAL STUDY OF SELECTIVE INDUSTRIES IN KOLKATA

Abstract

With the increasing trend of global warming, human survival is under threat which may lead to the complete abolish of human species provided enough care is not been taken. The time has come to act now to save the community. Biodiesel is such an option that can divert the possibility of danger. Industry, being a large contributor of global warming through pollution, needs to change their practice. This study is based on the perception of Kolkata based industries regarding Biodiesel. The result reveals that the industrial mindset is aware regarding global warming, but perceives Biodiesel as a risk affair of life.

Keywords: Biodiesel, Global warming, Perceived Risk.

Introduction

Accelerating intensity of global warming induced a new potential threat of sustenance and survival of human community, compelling an urge to look for solutions. Biodiesel has been identified as one such alternative which refers to a vegetable oil - or animal fat-based diesel fuel consisting of long-chain alkyl (methyl, ethyl, or propyl) esters. Biofuels from agricultural residues are a critical existing alternative to liquid fuel which is not only environmentally sustainable but offers huge potential and thus needs to be pursued aggressively. It is typically made by chemically reacting lipids e.g., vegetable oil, animal fat with an alcohol producing fatty acid esters. It is meant to be used in standard diesel engines and is thus distinct from the vegetable and waste oils used to fuel converted diesel engines. Biodiesel can be used alone, or blended with petro-diesel in any proportions. In search of pollution free green environment rational blends of biodiesel and conventional hydrocarbon-based diesel are products most commonly distributed for use in the retail diesel fuel marketplace.

A 1998 biodiesel lifecycle study jointly sponsored by the U.S. Department of Energy and the U.S. Department of Agriculture concluded that biodiesel reduces net CO₂ emission by 78% compared to petroleum or diesel due to its closed carbon cycle. Further, it has one of the highest energy balances of any liquid fuel. Even scientific research confirms that pure biodiesel emission has decreased levels of Polycyclic Aromatic Hydrocarbon (PAH) and nitrated PAH compounds which are potential cancer causing compound. Also particulate matter, an emission linked to asthma and other diseases, is reduced by about 47% carbon monoxide, a poisonous gas, is reduced by about 48%. Much of the world uses a system known as the "B" factor to state the amount of biodiesel in any fuel mix. According to the percentage of Biodiesel concentration i.e. 2%, 5%, 20%, 100% they are termed as B2, B5, B20 and B100.

Current Trend in Biodiesel Global Market

Most gasoline and diesel fuels in North America and Europe are blended with biofuels. Various companies in the

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private corporate sector have embarked on a coordinated plan to expand production capacities. They are already spreading their arm to Brazil, the highest producer of ethanol in the world. Overall, the biofuels industry is expected to grow at a strong rate in the medium-term with the help of proactive government initiatives and mechanisms to expand production capacity and minimize price fluctuations of key raw materials. Biodiesel accounts for about 3% of the German market and 0.15% of the U.S. market. About 1 billion gallons of biodiesel are produced annually. But, Bioethanol is more popular in the USA while biodiesel is more popular in Europe. Ethanol is added to gasoline to improve octane and reduce emissions. The U.S. and Brazil produce 87% of the world's fuel ethanol. Biodiesel is added to petroleum-based diesel to reduce emissions and improve engine life.

India and Biodiesel

India spends approximately Rs 92000 crore on diesel subsidy every year. With the country being a signatory of the green fuel treaty, by next few years around 20% of the diesel usage will be replaced by biodiesel. Fast population growth, rising income levels, increasing demand for agricultural products and flawed government policies have been putting the country's land and water resources under enormous strain. Concerns about the global price of food have resulted in many nations revising (downward) plans for biofuels production and use.

Several initiatives have already been taken both at the central and state administration levels of our country. The Indian Government has already announced an ambitious target of 20% of biofuels in transport by 2017 as part of its Indian Biofuels Policy. Moreover, transforming agricultural waste into biofuels could create up to one million jobs in India over the next decade, while radically improving India's energy efficiency by meeting up to 59 per cent of the demand for transport gasoline through greener fuels by 2020. They have already made 10 per cent ethanol blending with petrol effective from October 2014. The Union Cabinet has approved a national policy on biofuels that aims to implement 20% blending of biodiesel with diesel and ethanol with petrol (the current rule is 5%) by 2017. Moreover, in India, the output of ethanol, the chief biofuels, logged an impressive growth rate of 200% in 2010 (F.O. Licht, May 2011). The government has also sought to frame enabling legislation to ramp up biofuels production. Blending of 10% ethanol with petrol - as against optional 5% for individual states - is slated to be made mandatory from October 2010 to curb vehicular emissions. The National Bioenergy mission that will be launched during the next five year plan aims to provide policy and regulatory support to help large-scale capital investments in biomass fired power stations and also promotes increased use of biofuels.

The Biotechnology Board in West Bengal has taken an initiative to produce bio-diesel from seeds of *Jatropha* plants. Emami Biotech Ltd, a subsidiary of consumer goods company Emami Ltd, has started trial supplies to one telecom operator in West Bengal and is in talks with two more. There are at least 26,000 telecom towers in the state, each consuming about 20 litres of diesel a day. The policy has proposed an indicative target of 20% blending of biofuels both biodiesel and bioethanol by 2017. Indian Oil Corporation (IOC), India's biggest oil marketing company, is looking to acquire 50,000 hectares of wasteland in Uttar Pradesh for plantation of non-edible oilseeds, such as *Jatropha* and *Karanja* that are used for biodiesel production. Major Players of Indian Biodiesel industry are Universal Biofuels Pvt Ltd, D1 Oils India Pvt Ltd, Mission Biofuels India Pvt (MBIPL), Bulk

Agro (India) Pvt Ltd, Emami Biotech etc. Mahindra and Mahindra launched the Bio-diesel tractor of the price at par with regular tractor. However, the Indian biofuels industry continues to face several challenges.

Objective of the Study

In Business to Business sector customer satisfaction directly depends on customer oriented and motivated, quick service, service quality, good value, timeliness, clarity & accuracy of billing, competitive pricing. Customer collects information from personal sources, market controlled sources, public sources and personal experiences. These risks involve functional risk of non-performance, financial risk, time or temporal loss, physical risk, psychological risk of anxiety. The prospective user of the product will analyse Relative advantage, compatibility, complexity, cost, trial ability and communicability of Biodiesel based on functional, social, conditional and epistemic value. This is a consumer's perceptual analysis which is targeted,

1. To find the potentiality of Biodiesel to become an exact alternative for industrial practice.
2. To identify the effectiveness of Biodiesel to produce similar energy producer similar to existing one.
3. To retrieve the consumer's perception regarding the status of preference of Biodiesel to use in their type industry.
4. To derive the strategy of promoting the concept of Biodiesel.

Background of the Study

There are two types of risk associated to choose Biodiesel namely, perceived risk of misinformation and perceived risk of using eco-friendly products.

Perceived Risk of misinformation - The process of information delivery may cause signal amplification, which influences consumer's risk perception. Hence, media reporting, risk perception, and public reaction can affect consumers' attitudes toward risk events (Ohanian, 1990). To lower risks, endorsement, brand loyalty, major brand image, private testing, store image, free sample, money-back guarantee, government testing, shopping, expensive model, and word of mouth are being identified as risk reduction strategies (Roselius, 1971) in addition with product quality, product information, post-purchase control, place of purchase, and price (Yeung et al., 2001). Risks experienced by the customer – customer collects information from personal source, market controlled sources, public sources, personal experiences. According to Robert et. al, (1989) this risks involves the following, Functional risk of non-performance, Financial risk, Time or temporal loss, Physical risk, Psychological risk of anxiety.

Perception related to eco-friendly products - Sarigollu and Bodur, (2005) have revealed three types of consumer behaviors toward the environment namely Active concerned, Passive concerned and Unconcerned. Times of India, Nielsen Company and Oxford University Institute of Climate Change conducted a study in October 2009 indicated consumer's concern about the climate change. Gilg, Barr and Ford, (2010) have examined the green consumption as a fundamental base of sustainable lifestyle. Meinhold and Malkus, (2005) confirmed that pro environmental attitudes significantly predicted pro environmental behaviors. According to Balderjahn, (1988); demographic, socioeconomic, cultural, personality, and attitudinal variables were specified to predict five different patterns of ecologically responsible consumption. Kilbourne and Pickett, (2007) identified that materialism has a negative effect on environmental beliefs, and these beliefs positively affect environmental concern and environmentally responsible behaviors. According to Young, Hwang, McDonald and Oates, (2008) those behaviours are as "attitude/ behavior gap" or 'values/action gap'. Some Indian corporate leaders have begun to take matter seriously said like Bharti Airtel, ONGC, ITC, Nestle, Essar Oil, Tata Steel, Wipro, JSW Steel, IDBI, ICICI, and Rabo Bank (Kumar, 2008).

Traditional environmental management objectives of cost and risk reduction still dominate. Lubna, (2007) in Economic Times has written that Eco-friendly measures seem attractive on paper, but they do entail a higher

cost, at least initially. No wonder then that 46% of companies surveyed have declared they will only invest in low-carbon equipment if the running cost is the same or lower than those of conventional equipments. A mere 40% have invested in low-carbon equipments and only 38% have a company policy to do so. It is because of the same reason that in approx two decades of its existence, only 12 companies have secured Eco-Mark license from the Bureau of Indian Standards (BIS), the scheme's implementing agency. It can be called as catastrophe that till date only seventeen licenses have been issued under product categories of paper, wood substitutes and finished leather products. Greening firms/products often creates societal benefits (especially, over products' life cycles) but imposes private costs on firms. If firms do not/cannot pass on such costs to consumers, they hurt their shareholders. However, most consumers are perhaps not ready to bear increased direct costs (as opposed to indirect costs imposed by environmental regulations or more stringent product standards) either for societal well being or due to their skepticism about firms' environmental claims (Davis, 2001). A correlation between consumer confidence in the performance of green products and their pro-environmental beliefs is a general influencer. The findings suggest that most consumers cannot easily identify greener products (apart from cleaning products) although they would favour products manufactured by greener companies, and they do not find the current product marketing particularly relevant or engaging (Josephine Pickett-Baker, Ritsuko Ozaki, 2008).

Methodology of the Study

In the research of sales promotion strategies related to any product it is necessary to undergo a preplanned assessment of consumer perception towards a product. This includes the study of values of the consumer towards a product. The study is based on both primary and secondary data. To study the relationship between the different constructs in reference to preference of Biodiesel usage, the constructs must be defined and measured. As stated in the objectives of the study first a model of hypothesized relationships has been proposed and then these relationships of the proposed hypotheses need to be tested. So the study was designed in two stages. First, Stage-I, is to develop the multi-item measurement scales and then test these scales for reliability and validity. Stage-II, includes construction of a questionnaire for collection of data, preparing a sampling plan and then collection of responses. Responses for all the items in the multi-item scales to measure several constructs like Relative advantage, compatibility, complexity, cost, trial ability and communicability of Biodiesel were to be taken on rating scale (1-5), with anchors ranging from "strongly disagree" to "strongly agree". Opinion of 120 industrialists (Biodiesel non user) having Investment in plant and machinery excluding land and building for enterprises engaged in manufacturing or production, processing or preservation of goods of 5-10cr. INR are collected through an organized questionnaire during Jun'14 to Sep'14. Industrialists having head offices of Kolkata based at Dum Dum, Shyambazar, Chiriamore, Nagerbazar, Sithirmore and Behala, Ranikuthi, Jadavpur, Garia, College Street, Sealdah, Ballygunge, Hazra were personally interviewed with the help of a structured Questionnaire. Samples were chosen based on convenience sampling.

Reliability of the scale was evaluated by assessing internal consistency of the items representing each construct using Cronbach's alpha. The alpha values of perceived value of perception regarding preference of Biodiesel are 0.8442. This indicates that coefficient alphas of all the three constructs were above the common threshold value recommended by Nunnally's guidelines i.e. 0.70. Data so collected were coded, tabulated, interpreted and further analysed by using the software like STATA, SPSS etc. For analyzing the data collected from both primary and secondary sources, techniques like the multiple regression technique, ANOVA, Factor analysis models and certain non-parametric tests will be applied at appropriate places.

Data Analysis and Interpretation

To retrieve the variables influencing the purchase intention of BIODIESEL, Factor Analysis is been applied. KMO test is showing the value of 0.71. Hence, the data set is valid for Factor Analysis. The factors with Eigen value more than 1 are Factor 1,2,3,4,5,6,7 representing 93.55% data. The variables that have a value equal to or more

than 0.5 have been considered and included in the Factor for precision of result. The Factor analysis has derived four factors. Factor I is explaining some variables either have negative or positive impact on the decision of choosing Biodiesel for industrial usage. This factor is related to Perception associated with functional risk. Factor II is explaining perception related to Time or temporal loss. Factor III can be explained as perception related to Psychological risk and Factor IV is a perception related to physical risk.

Table 1: Factor analysis/correlation

Factor	Eigen value	Difference	Proportion	Cumulative
Factor I	5.85468	3.20584	0.3827	0.3827
Factor II	2.64884	0.76382	0.1732	0.5559
Factor III	1.88502	0.55846	0.1232	0.6791
Factor IV	1.32656	0.17987	0.0867	0.7659
Factor V	1.14669	0.28953	0.0750	0.8408
Factor VI	0.85716	0.26620	0.0560	0.8969
Factor VII	0.59096	0.05897	0.0386	0.9355

LR test: independent vs. saturated: chi2 (231) = 622.59 Prob>chi2 = 0.0000

Table 2: Factor loadings (pattern matrix) and unique variances

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
q1	-0.6998	0.1934	0.0385	-0.5360	0.1168	0.1426
q2	-0.7561	0.1826	0.1772	-0.2715	0.1895	0.2480
q3	-0.1623	0.2884	0.5786	0.2444	0.0738	0.0355
q4	-0.6113	-0.2859	-0.0395	0.3553	0.1142	0.1091
q5	0.0835	-0.4748	-0.2200	0.2849	0.1854	-0.1293
q6	0.4149	0.2242	0.3795	-0.0102	-0.3061	0.0552
q7	0.0751	0.1484	0.3006	0.4978	-0.0499	0.3440
q8	-0.3846	-0.5322	0.1423	0.1627	0.0261	-0.2127
q9	0.3954	-0.3714	0.4953	-0.1961	-0.1480	0.0504
q10	0.5945	-0.2573	0.0727	-0.1104	0.4276	0.0624
q11	0.5029	-0.4312	0.3927	-0.2835	-0.1316	0.0368
q12	0.2732	0.2557	0.0682	-0.0273	0.5190	0.1262
q13	0.3209	-0.0113	0.6191	0.2822	0.1574	0.1406
q14	0.6168	0.3000	-0.0511	-0.2747	0.1059	0.1901
q15	-0.7772	0.0617	0.1123	0.0128	0.0652	0.1679
q16	0.1517	-0.4216	-0.3181	-0.0933	0.1128	0.4886
q17	0.4864	0.3737	-0.2100	0.1814	0.4485	-0.1648
q18	0.5627	-0.3547	-0.3155	0.0866	-0.1528	0.2948
q19	0.6389	0.3380	-0.3440	0.1398	-0.3521	0.2252
q20	0.7885	-0.1004	0.0133	0.0123	0.2179	-0.0218
q21	-0.5927	0.3284	-0.2030	0.2611	-0.0483	0.2140
q22	0.4224	0.7794	0.0132	-0.0067	-0.0688	-0.1459

Factor I = - (less pollution, safer, right alternative, easy available, combined with other),

(Hazard to work/machine, risky investment, nonavailability of information & introductory pack, costly) = **Perception related to Functional risk.**

Factor II = (- innovative practice) (complex association with other product) = **Perception related to Time or temporal loss.**

Factor III = (easily available, not a user friendly product) = **Perception related to Psychological risk.**

Factor IV = (-less pollution) = **Perception related to Physical risk.**

Factor V = (may not match with our working system) = **Perception related to Trial ability**

There must be another factor that may have a strong influence on purchase decision of Biodiesel. Hence the study opted for a different relationship between cost sensitivity, improper access of information and introductory pack related to Biodiesel. To reveal the opinion, respondents were asked to opine on the statements (**Introductory pack** of Biodiesel are not available in the market-VAR7, **Information** regarding Biodiesel is very less available- VAR8, Biodiesel is costly than conventional diesel/petrol – VAR9 etc.) on a five point scale. The data so available were coded and applied for two way ANOVA which resulted as follows.

H_0 = There is no association among the three variables.

H_1 = There is a strong association among the three variables.

Table 3 : Tests of Between-Subjects Effects

Dependent Variable:VAR9

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	13.083a	4	3.271	6.484	.000
Intercept	37.433	1	37.433	74.214	.000
VAR7	4.564	1	4.564	9.048	.004
VAR8	4.101	3	1.367	2.710	.056
Error	22.697	45	.504		
Total	607.000	50			
Corrected Total	35.780	49			

The ANOVA table has shown the significance level is 0.000 which is less than 0.05. The result denotes that there is strong association among the three variables. However, the alternative hypothesis is accepted.

Conclusion

The study reveals that accessibility of Biodiesel is a concern to the prospective user. A detailed response clearly indicates that the respondents have strongly agreed that they have lack of information regarding biodiesel which signifies a poor state of promotion of biodiesel usage in industry. Maximum respondents have equally agreed and became undecided as they believe biodiesel is a risky investment for some unknown reason. Poor availability of information and less option of availability of introductory pack Biodiesel is been poorly accepted.

Biodiesel is also been perceived as a costly affair due to lack of information regarding them or industries are less exposed to them. Industrialists view the replacement of conventional fuel with Biodiesel as a risky option because of its functional and financial worst outcome.

Since the study has derived that information regarding Biodiesel is poor, so it can be suggested that the benefit (both industrial and social) should be highlighted before the industry people through innovative promotions like free sample, advertisement, expert comments. Even, they must be made aware regarding the hazard free usage which can able to infuse confidence among them. Biodiesel promotion companies should provide free supply to one unit of each and every industry for a mentioned time period for short term encouragement and the result can be highlighted as an example among others of similar type of industry. They must highlight the indigenous example which will ensure the successful application in similar environmental conditions. Several personal selling techniques can provide effective results to enhance their sales. Those firms must approach the local governments to provide necessary support to promote the benefits of Biodiesel to the prospective users as this is a social need.

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INSIGHT INTO THE CONSEQUENCES OF BRAND EXTENSION: AN EXPLORATION THROUGH LITERATURES

Abstract

Business entities frequently follow brand extensions as strategies of marketing directed towards the objectives of the firm. Although launching new products seems as an attractive means or strategy for survival and growth, it is never free from risks. This paper is an attempt in the direction of investigating what happens to different brands as it is extended in either similar or dissimilar categories. Here the study explores the previous studies to get an outline, how brands respond to brand extension strategies adopted by the marketers and tries to identify the variables that influence the behavior of extended brands. It is evident from the study that extensions into categories similar to that of the original brand tend to be relatively accepted by the market. Also, the status of the original brand is an important factor and influences the success of the extension. Across FMCGs, durable goods and services brands these findings are more consistent. Nonetheless, the perceived risk about the extension category for durable goods and services brands was only found to enhance acceptability of extensions.

Keywords: Parent Brand, Brand Extension, Brand Management.

Introduction

Brand Management is a process of planning, implementing and monitoring brand strategies that enhances the successful marketing of products or services. Brand research is an important function of brand management. Brand research refers to gathering, recording and analyzing the data pertinent to brand management that facilitates the decision making by the brand manager. Brand extension is an exclusive brand strategy adopted by marketing firms and the need for research arises in the area of new extension of brand. Over the last two decades, brand extension has been one of the important subjects in brand management. International surveys say that 60 to 80 percent of marketing directors favor brand extensions over new brands while about 10 to 15 percent give equal consideration to extensions and new brands and less than 5 percent prefer launching new products. It increases awareness of the brand name and increases profitability from offerings in more than one product category.

Review of Previous Literatures

Conceptual framework: Brand extensions and its evaluation

Different perspectives exist about the brand extension evaluation process. On the one hand, researcher like Aaker and Keller (1990), Boush and Loken (1991) and Park, Milberg and Lawson (1991) propose affect transfer from parent brand to extension as the dominant process, which occurs in the presence of adequate fit. On the other hand, researcher like Broniarczyk and Alba (1994) do not acknowledge affect transfer as the dominant

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process. They believe that brand affect is only a cue and if another cue is found to be more diagnostic, the latter will be used instead. They propose brand-specific associations as the cues that can dominate the effects of brand affect, as well as category similarity (brand-specific associations are attributes/ benefits that differentiate a brand from its competitors). Even within the affect transfer approaches, different bases of fit are used- complement, substitute, and transfer by Aaker and Keller (1990), similarity/typicality by Boush and Loken (1991) and product feature similarity plus brand concept consistency by Park et al (1991).

Brands are strategic assets and sources of competitive advantage, which are usually exploited in new product categories. Keller (1993), for example, in his classic article on brand equity, establishes that one of the major ways to use or exploit that intangible asset is to extend the brand to other categories. This, is particularly so, given the increasing costs of building brand new brands. Then, a natural question is, to answer which variables are the ones that influence consumer evaluations of brand extensions, and which are the consequences that brand extensions may carry to parent brands.

Variables Influencing Brand Extension Evaluations

Brand extension provides opportunity for sustainable growth by catching consumer value through famous brand names. The main advantages of the brand extension are it reduces the cost of communication, reduce the cost of brand name introduction and enhance the probability of success; and disadvantages of the extensions are it may change the beliefs and the parent brand and reduce the sales of the other produce for same and brand which ultimately cause the loss of equity Realizing the importance of this strategy both academic and professional experts have diverted their interest to this phenomenon and studied brand extension in great detail. Wide range of factors, such as: parent brand quality, parent-brand experience, retailer's acceptance, perceived extension similarity, consumer innovativeness, brand equity, perceived risk, and subjective knowledge had been evaluated for extension success (Hem and Iversen 2009).. Starting with the initial Aaker and Keller study (1990), the marketing literature has accumulated some knowledge and evidence regarding variables affecting the evaluation of brand extensions and its success in the new product category. In previous work, (Holden and Bottomley 2001; Olavarrieta 1998), the literature has been synthesized, including four variable types affecting the evaluation of brand extensions:

1. **Extension Characteristics**, including the fit or similarity between the extension and the original parent brand category, the perceived difficulties to produce the extensions by the firm, and the age of the extension (or time since the introduction) among others.
2. **Parent Brand Characteristics**, including its strength (i.e.: perceived quality, notoriety, age, general attitude, market share) and its existing specific associations.
3. **Brand Portfolio Characteristics**, including the quality variance of the portfolio of products linked to the brand, and the number and success of previous extensions.
4. **Market and Extension Category Consumers' Characteristics**, including the number of established

competitors, the stage in the life-cycle of the category, the knowledge of consumers about the pro- duct category, and its proclivity to innovate or to adopt consumption trends. This last variable, may favour the evaluation of extensions of low perceived fit.

Reciprocal Effects of Extensions on the Parent Brand

Likewise, the use of brand extensions may also affect the parent brand (Aaker 1991, Keller and Aaker 1992, Loken and Roedder John 1993; Park, Jun and Shocker 1996). These consequences may be positive, in terms of a more favourable attitude toward the brand, or a stronger and richer set of associations. Also, it may be negative (Dacin & Smith 1994). For example, brand extensions, may generate new associations with the original brand name, which may change the cognitive structure of the brand and its meaning. This might be negative because it can add "wrong" or "bad" associations, and may dilute the brand equity (Loken & Roedder-John 1993), for example, when "low quality" associations are linked to the brand (Dacin & Smith 1994).

Another effect, in extreme cases, is that consumers may even change the reference category for a brand (Keller & Aaker 1992), such as when consumers perceived IBM more like a computers brand than a writing machine brand. In general, it has been considered that the effects of brand extensions on the parent brand tend to be symmetric (Keller & Aaker 1992), i.e. if the extension is positively affected by the parent brand, the same will happen with the feedback effect on the parent brand, and vice versa.

Consumer Evaluation of Brand Extension

Cutthroat competition in the market has made the new product launch very difficult and complex. For achieving the growth, New Product launch has always been a popular strategy of the organisations. The marketer uses different combination of strategies to seek growth. There are three broad strategies to launch a new product: (I) Line Extension; (ii) Brand Extension; and (iii) New Brand. Managers used Brand extensions because it can substantially reduce introductory marketing expenses, reduce the risk of complicated buying decisions, enhance the prospects of gaining access by helping retailer and consumer acceptance and provide emotional benefits to customers (Smith and Park, 1992;). The evaluation of brand extension strategy can be done under two broad heads

Evaluation of Existing Brand Extensions

Evaluation of Prospective Brand Extensions

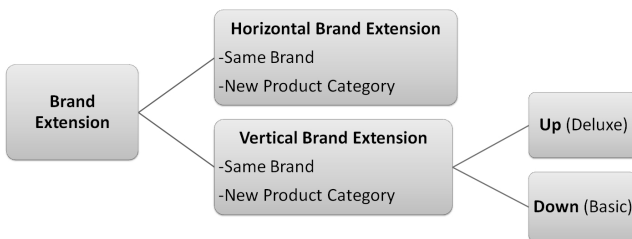
Evaluation of Existing brand extension is carried out to know the success or failure of the brand extension strategy. The impact of newly extended product on the parent brand is brought out to check whether any brand dilution has occurred. The prospective brand extensions also need to be evaluated for the purpose of avoiding failure of the new extended brand as well brand dilutions. Thus a pre study and a post study are preferred for brand extension strategies.

The process of carrying out such a research begins with identification of dependent, independent and moderating variables. These variables differ with products or the relevant environment of the study. But a rough design of such variables would be very useful to the researchers. The dependent, independent and moderating variables are Corporate Brand Identity, parent brand awareness, , parent brand loyalty, parent brand equity and parent brand personality. Brand extension is carried out after care full analysis of this variable and analysing the consequences on these factors. Consequences A brand's "extendibility" depends on how strong consumer's associations are to the brand's values and goals. Ralph Lauren's Polo brand successfully extended from clothing to home furnishings such as bedding and towels. Both clothing and bedding are made of linen and fulfill a similar consumer function of comfort and hominess. Arm & Hammer leveraged its brand equity from basic baking soda into the oral care and laundry care categories. By emphasizing its key attributes, the cleaning and deodorizing properties of its core product, Arm & Hammer was able to leverage those attributes into new categories with

success. Another example is Virgin Group, which was initially a record label that has extended its brand successfully many times; from transportation (aero planes, trains) to games stores and video stores such as Virgin Megastores.

A brand extension takes mostly to new and unknown areas of competitions unlike traditional line extensions. Even many companies have learned that stretching brands with extensions can easily go wrong. There are many such examples. Pond's, the popular brand for cosmetics, applied its brand name to toothpaste releasing Pond's toothpaste. Conducting a blind test and extending itself into the toothpaste category was a complete failure and was not picked from the shelves at all. McDonald's wanted to get a slice of the pizza business but failed to convince consumers to follow in this new category. Xerox tried unsuccessfully to transfer its brand equity from copiers to computers. One of the most bizarre brand extensions ever is Colgate decided to use its name on a range of food products called Colgate's Kitchen Entrees. Needless to say, the products did not take off and never left U.S. soil. And the list goes on and the risks of brand stretching into a new category are such that several brand experts suggest that brand extensions should be avoided as much as possible. Conversely, there are many counter examples telling the story of success. Philips tells its brand success story for very different business categories such as coffee machines, digital TVs; semiconductors and medical system. Similarly GE's name is on the aircraft engines, gas turbines, plastics and financial services as well exemplifying one of the exceptional successful diverse brand extensions. Yamaha has also stretched its brand from musical instruments, synthesizers, pianos to marine engines, motorbikes, semiconductors and sports equipments like skis. It is certainly worthwhile to know under what conditions a brand extension succeeds and what those variables are that decide the fate of the brand as it is extended.

A greater position for the brand and an increasing influence on the perceived value from the brand has made extensions a popular strategy for expansion, especially in fast-moving lines of business (Ambler and Styles 1997). Massive costs and risks are associated with creating a new brand and product lines whereby many attempts fail, extending an existing brand is then seen as a cost efficient method with lower risks (ibid.). Extensions can be described as a strategy to launch new products within a current product-class or outside a product-



Eva Martinez, Yolanda Polo & Leslie de Chernatony in their study on topic "Effect of brand extension strategies on brand image: A comparative study of the UK and Spanish markets" studied how extending a brand affects the overall brand image and analyzed the relations between the relevant variables in brand extension strategies in the UK and Spanish markets to determine if the brand extension strategies have the same effect on brand image. Results show that the brand extension strategy dilutes the brand image in both markets. It is found that brand

image before extension and fit has positive effects on brand image after extension. The concurrence between the models studied in the two markets suggests that UK and Spanish consumers respond similarly to brand extensions.

Some estimate that 30–35% of all new products fail (Montoya-Weiss and Calantone 1994; Booz, Allen, and Hamilton 1982) while others (e.g. Crawford 1977) are even more pessimistic, citing that only two out of ten new launches succeed. Due to factors such as high advertising costs and the increasing competition for shelf space, it has become more difficult to succeed with new products (Aaker 1991; 1996). An increasingly popular approach to reduced risk when launching new products is to follow a brand extension strategy. This is followed in as many as eight out of ten new product launches (Ourusoff, Ozanian, Brown, and Starr 1992). Up to ninety percent of new products get launched in one year as an extension of a brand (Keller 2003).

Companies are thinking of new strategies day by day of how to reduce costs involved and adopt new successful methods. Therefore companies launch new products or have product line extensions in order to avoid the risks involved in introducing the new brand. Vanitha Swaminathan, Richard J. Fox and Srinivas K. Reddy (2001) in their work on "The Impact of Brand Extension Introduction on Choice" focuses on the impact of a new brand extension introduction on choice in a behavioral context using national household scanner data involving multiple brand extensions. Particularly, the authors investigated the reciprocal impact of trial of successful and unsuccessful brand extensions on parent brand choice. In addition, the authors examined the effects of experience with the parent brand on consumers' trial and repeat of a brand extension using household scanner data on six brand extensions from a national panel. In the case of successful brand extensions, the results show positive reciprocal effects of extension trial on parent brand choice, particularly among prior non-users of the parent brand, and consequently on market share. The authors find evidence for potential negative reciprocal effects of unsuccessful extensions. In addition, the study shows that experience with the parent brand has a significant impact on extension trial, but not on extension repeat.

Despite their benefits, extensions can be risky (Ries and Trout, 1986). An extension either successful or unsuccessful may potentially dilute the equity built up by the brand (Aaker, 1990). Specifically, the new product may create confusion or negative associations in the minds of consumers and thus weaken the core values of the brand (Tauber, 1981, 1988; Roedder John et al., 1998). Furthermore, if the extended product is closely connected with the original product, consumers may purchase the extended product at the expense of the company's other products, inducing a jeopardising effect (Copulsky, 1976; Buday, 1989). Taylor et al (2004) show that brand equity and faith, time and again appear as most significant in nurturing both behavioural and attitudinal loyalty. Affect, refusing to change one's thoughts and perceptions and worth of the brand also contribute to behavioural loyalty, although to a lesser extent. They encourage marketing practitioners and strategists to consider concentrating beyond customer satisfaction and toward integrated marketing strategies that promote brand equity and trust in the customer minds in support of customer loyalty programs.

There are a number of benefits and drawbacks of using an extension strategy. Extensions capitalize on the equity built up from the core brand (Aaker and Keller, 1990); in this context, brand equity is the "added value" that a brand endows to a product (Farquhar et al., 1990). Thus, a company moves into a new product category and /or market segment from a position of strength (Tauber, 1981). Extensions promote immediate consumer awareness, providing a relatively quick and cheap way to enter a new market (The Economist, 1990). Moreover, the introduction of an extension can increase sales for the parent brand, due to the enhancement of consumers' perceptions of brand values and image through increased communication (Tauber, 1981, 1988). Finally, brand extensions tend to have a higher endurance rate than new name products (Sullivan, 1992). Despite their benefits, extensions can be risky (Ries and Trout, 1986). An extension either successful or unsuccessful may potentially dilute the equity built up by the brand (Aaker, 1990). Specifically, the new product may create confusion or negative associations in the minds of consumers and thus weaken the core values of the brand (Tauber, 1981, 1988; Roedder John et al., 1998). Furthermore, if the extended product is closely connected with

the original product, consumers may purchase the extended product at the expense of the company's other products, inducing a jeopardising effect (Copulsky, 1976; Buday, 1989). Despite the magnitude, benefits and risks associated with extensions, the research conducted in this area tends to be disjointed and characterized by an absence of conceptual frameworks in literature to guide empirical work. This research tackles this gap by combining important concepts from the extension literature into an integrative framework so as to provide a steering chart for future empirical and experimental studies. The framework is consistent with the prevailing view in the extant literature that extensions, by their very nature, may enhance or dilute the equity built up by the core brand (e.g. Aaker and Keller 1990; Loken and Roedder John, 1993; Sunde and Brodie, 1993; Park et al., 1993, 1996; Bottomley and Doyle, 1996). Brand Extension Definitions and Literature There is a need to distinguish between the different concepts of extensions, since the literature has used extension definitions and terminology inconsistently (Ambler and Styles, 1997). For example, Tauber (1981, p.36) uses the term "brand franchise extensions" and describes this as taking a brand name well-known to the consumer and employing it to a product in a new class. Farquhar (1989) describes two types of brand extension. A line extension involves using an existing brand name to a product in one of the firm's existing categories (e.g. the Manza version of the Tata Indigo Car). A category extension, on the other hand, applies an existing brand name to a product category that is entirely new to the firm (e.g. Dettol and soap). Aaker and Keller (1990, p.27) also distinguish between two types of extensions, namely: a line extension, whereby an existing brand name is used to enter a new market segment in its product class (e.g. Diet Coke) and a brand extension, whereby the present brand name is used to enter an absolutely different product class (e.g. Santoor soap and talcum powder). Here, a line extension varies from Farquhar's (1989) definition in such a way that market segmentation becomes more of a concern, but the brand extension definition is similar. Aaker and Keller (1990) also refers to "extension" as the generic term describing both brand and line extensions

Conclusion and Recommendation

Brand extension is a growth strategy in which the company uses its existing brand name to launch new products in a new category. It is a strategic decision since it has risks as well as opportunities. The risks are costly and the results of the wrong decision are irreversible. As a result it was found that the parent brand image, category fit and perceived risk affected the brand extension's success while innovativeness and involvement did not have any effect on. Parent brand image was the factor that had the biggest impact on the success evaluation. The factor that had the greatest impact is parent brand image. As the parent brand image is similar to the extension, consumers evaluate the brand extension as successful. In brand extension, the parent brand associations are transferred to the extension; the consumers will perceive the extension as fitting with the brand category and will accept it, which, in turn, should also have a positive effect on the parent. Therefore, the marketers should have an integrated approach to the brand extension.

The second important factor in brand extension's success is the category fit. Throughout the category fit, the fit of the brand extension's image with the other products in the extended category is important as well as the existing brand image fit with the category. These results confirm the categorization theory. In that point the marketers should develop marketing strategies to clarify the brand image and focus on emphasizing the fit. The last factor influencing the brand extension's success is the perceived risk. The risk perception for an unknown brand in the category positively affects the extension's success. If the extended category is a category that the consumers perceive risk, in entering into that category, the firm should choose brand extension as a growth strategy. Because a new brand name is an unknown brand name for the consumers and so it will take time and it will be costly for the new brand to be successful.

Since new brand creation is a pain taking process and requires a lot of resource involvement brand extension is considered as a very convenient way to quickly get into a new product category. Nevertheless, transferring the original values of great brands to a new product carrying the same brand name is often a difficult exercise. There

always exist a fine line not which enumerate the risk of not standing up to the brand values. Although it is a device to quickly enter into the new market yet, brand stretching should not be seen as a means to growth. It is evident from the study that extensions into categories similar to that of the original brand tend to be relatively accepted by the market. Also, the status of the original brand is an important factor and influences the success of the extension. Across FMCGs, durable goods and services brands these findings are more consistent. Nonetheless, the perceived risk about the extension category for durable goods and services brands was only found to enhance acceptability of extensions. Using these variables or the causes of a product or brand failure may help to avoid committing those same errors. Controlling these can be beneficial to avoid some of the pitfalls and increase the chance for success when a product or brand is launched. As such, there seems to be right to say that all efforts should be made in such a way that the brand stretch brings real value to the customer.

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'CREDIT-STARVED' MSME SECTOR OF INDIA

Abstract

The MSME sector occupies a position of strategic importance in the Indian economic structure. Despite the sector's high enthusiasm and inherent capabilities to grow, it faces a number of challenges in its growth story. Apart from challenges on technology, raw material, power and competition fronts, the biggest problem for the Indian MSME sector is the non availability of credit, especially institutional credit. In this light the present paper examines the finance related problems of this sector. The paper also discusses various policy measures undertaken by Government to reinforce credit facility to this sector. The paper concludes that Indian MSMEs should seek alternative finance options that suits their needs and allow them to grow better. For high-growth units, factoring, supply chain finance, angel funds or venture capital funds could be alternative sources of funding.

Keywords: *Credit-Starved, Institutional Credit, Credit Facility, Supply Chain Finance, Venture Capital Funds.*

Introduction

The MSME sector occupies a position of strategic importance in the Indian economic structure. This sector contributes nearly 8 per cent to country's GDP, employing over 80 million people in nearly 36 million widely dispersed enterprises across the country, accounting for 45 percent of manufactured output, 40 per cent of the country's total exports and produces more than 8000 value-added products ranging from traditional to high-tech (Table 1). According to Fourth All India Census, this sector has registered annual compounded growth rate of 30.72 per cent at current prices (with base reference year 2006-2007) as compared to the Third Census (with base reference year 2001-2002). Further, these enterprises are the nurseries for innovation and entrepreneurship, which will be the key to future growth of India. It is also an acknowledged fact that this sector can help realise the target of proposed National Manufacturing Policy of enhancing the share of manufacturing in GDP to 25 per cent and creating 100 million jobs by the end of 2022.

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Table 1: Employment Generation by Indian MSMEs

Year	Employment(in Lakh)
2006-2007	805.23
2007-2008	842.23
2008-2009	881.14
2009-2010	922.19
2010-2011	965.69
2011-2012	1,012.59

Source: MSME Annual Report 2012-2013

Despite the sector's high enthusiasm and inherent capabilities to grow, it also faces a number of challenges in its growth story. The major hindrance in the survival and the growth of MSMEs is the unavailability of sufficient and timely funds to finance their operational as well as growth plan. Various estimates on the credit availability to the MSME sector indicate a considerable credit gap, which is a matter of serious apprehension.

In India, MSME credit gap is approximated at around 56 per cent. While there is an estimated demand of Rs. 2,803,628 crore, the supply of finance through banks stands at Rs. 1,038,948 crore, as revealed by a study conducted by US-based Entrepreneurial Finance Lab (EFL). Public sector banks account for over 70 per cent of debt financing to the MSMEs, while private and foreign banks account for over 20 per cent of credit flow. RBI has directed banks to provide 60 per cent of the total loans to be extended to MSME units. But the figure still stands at 47 per cent. It is argued that financial institutions are hesitant to lend to MSMEs as this segment has high NPAs. Though only about 15 per cent of the total NPAs in the country is on the account of MSME sector.

While large industries have access to various sources of finance, MSME sector depends primarily on finance from banks and other financial institutions. But due to lack of transparency in their financial conditions and reliability of data, lack of financial discipline, high administrative costs of small-scale lending, high risk perception and lack of collateral, banks feel reluctant to provide loans to MSMEs. Despite their intrinsic strengths, MSMEs have low market credibility. Due to their small size and inherent vulnerability to market fluctuations, the mortality rates of MSMEs are relatively high. According to the new definition of sickness by Reserve Bank of India, of the 3.62 crore MSMEs in the country, over 12.2 lakhs are sick units. Alarming statistics show that around 29,000 units are being added to the sick list every year. These sick MSMEs amount to an astounding outstanding bank credit of over ₹7,000 crore. Consequently, due to doubt about the possibility of survival and growth in these enterprises, financial institutions are inclined to be more stringent for approving a loan and may seek a lot of information while making their investment. Innovative and knowledge driven firms are generally more information opaque and as a result they fall into credit rationing trap, facing a greater degree of difficulty in obtaining finance. Combined with the small amount of loans, the market becomes unappealing and sector remains under-banked.

So, banks generally lend only the prescribed amount to this sector as mentioned under priority sector lending obligations.

Constraints in accessing bank credit force them to tap alternative sources of finance. According to a survey by Assocham and Resurgent India, only about 33 per cent of MSMEs have access to banks and institutional financing channels, while the rest raise money through personal and family savings and even borrow money from friends and relatives at higher rates of interest to ensure their survival. Added to this, trade credit is also a popular form of alternative source of finance for the Indian MSMEs. Alternative financing typically involves higher transaction costs as well as interest costs as compared to bank finance. Poor access to finance limits the ability of Indian MSMEs to survive and grow. A study on the MSME sector also suggests that multiple growth constraints (like poor infrastructure, obsolete technology, inadequate market linkage etc.) can be largely linked to inadequate access to finance.

In order to improve the flow of credit to this sector, certain measures have been taken by the Government in the recent past. An outlay of Rs. 24,124 crore has been allocated for MSME sector for 12th Five Year Plan period (2012-17). This 12th Plan allocation represents an increase of 133.53 per cent over the 11th Five Year Plan (2007-12) allocation of Rs 10,330 crore. The government has also implemented various schemes like Credit Guarantee Scheme, Credit Linked Capital Subsidy Scheme (CLCSS; Table 2), Rajiv Gandhi Udyami Mitra Yojana (RGUMY) Performance and Credit Rating Scheme, Prime Minister Employment Generation Programme (PMEGP), Micro Finance Programme, Bills Discounting Scheme, among others to facilitate flow of credit to this sector. For implementing various schemes for the growth of this sector, the government has allocated Rs 3,327 crore in 2014-2015.

Table 2: Progress of Capital Linked Subsidy Scheme (CLCSS)

Year	No. of Units Assisted	Amount of Subsidy Sanctioned (in lakh Rs)
2001-2002	9	21.36
2002-2003	47	93.97
2003-2004	150	363.06
2004-2005	526	1,312.08
2005-2006	699	1,767.82
2006-2007	1,880	6,579.74
2007-2008	1,407	6,374.30
2008-2009	1,790	9,734.60
2009-2010	2,551	13,971.72
2010-2011	2,055	12,127.00
Total	11,114	52,345.65

Source: MSME Annual Report 2011-12

Allocation of Rs 10,000 crore to this sector in Budget 2014-15 will act as a catalyst to private capital by quasi-equity, soft loan, and other risky capital for the start-up enterprises. In the recent move of RBI, banks are advised to achieve a 20 per cent year-on-year growth in credit to MSME and 10 per cent annual growth in number

of micro enterprises. Banks are also instructed not to accept collateral security for loan up to ₹ 10 Lakh extended to MSMEs.

Despite various policy initiatives of Government and guidelines by RBI, there still exists huge demand-supply gap in the credit flow to the MSME sector. Credit conditions for Indian MSMEs are expected to continue to be depressed as Basel III capital adequacy requirements come into effect in this year. Banks will have to hold additional cash in reserve to meet the terms of Basel III, they will have less money to lend, which is expected to have a disproportionately negative effect on SME financing opportunities. Nonetheless, this grim situation calls for holistic fiscal support and enabling approach. In this regard, the MSMEs association, chamber and bodies have important role to play in promoting awareness among MSMEs about the policy measures and institutional measures aimed to facilitate credit flow to the sector. MSMEs should be encouraged to get themselves rated through specialised rating agencies like 'SME Rating Agency of India Limited' (SMERA). The rating will help MSMEs to obtain better credit facility from lender and also will help them to establish their credibility which could enable them to negotiate with their bankers for interest rate reduction, larger loan size or even obtain faster processing of their loan applications etc. At governance front, there is a strong need to promote structural and operational transparency in financial institutions to track the status of loan application, reason of rejection and most importantly monitoring the overall lending modus operandi of banks to discourage the enticement to earn higher margin by charging high credit risk premium to finance MSMEs. In banking sector, there is a need to devise standardised lending approach like Credit Scoring to assess, approve or decline the loan to MSMEs. Last but not the least, Indian MSMEs should seek alternative finance options that suits their needs and allow them to grow better. For high-growth units, factoring, supply chain finance, angel funds or venture capital funds could be alternative sources of funding.

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BOOK REVIEW

THE MARUTI STORY – HOW A PUBLIC SECTOR COMPANY PUT INDIA ON WHEELS – RC BHARGAVA & SEETHA

This book is an epitome of excellent work shown by the Author RC Bhargava & Settha. This book discusses about the emergence of Maruti 800 on the road- The first small car of India. This book is a first-person account by R.C. Bhargava of his stint at Maruti, where he was actively involved from the inception of the idea until his retirement as chairman of the board in 1997. It gives you this really interesting political economy case of setting this really successful car company in India. It was a case of a really successful Public-Private Partnership with the private player being a Japanese company. The success of this car company exceeded all expectations, even the most optimistic ones.

The book revealed that by the late 1950s, the government was into the idea of manufacturing a small car in India. It was meant to cater to those whose monthly salary was below Rs 1,000 and who could not afford to buy a car at the price prevailing in those days. The target price was Rs 6,000 against the Rs. 10,000 price tag of the cars in the market. In November 1970 the Cabinet decided on manufacturing a small car for the public. However, the government estimated that the project, which would necessarily involve foreign consultants and collaboration requiring an investment of Rs. 57 crore, due to which the government faced the paucity of resources. This paucity was broken by Sanjay Gandhi who had been obsessed with the idea of making a small car and he worked hard to fulfill his dream and Maruti Motors Limited was incorporated on 4th June 1971 but the commercial production of cars never started in Maruti Motors.

Thus we can say that the first part of the book was very interesting and revealed the role of Gandhi family in bringing this car on the road with the support of Suzuki Motor Corporation. For a long time, many people thought that it was the same company and did not realize that this was a public sector in which no member of the Gandhi family had a stake.

The initial part of the book provided very vital information and was able to hold the catch the attention of the reader.

The mid part of the book talks about the emergence of Maruti Udyog Limited and key role of Mrs. Gandhi. As Mrs. Gandhi didn't want her son's dream to die with him, soon after his death, so she took an effort to revive the project, but it could be a success only, if foreign technology was used and a joint venture was formed with the technology giver. This formed the basis for Mrs. Gandhi to act and Maruti Udyog Limited was incorporated on 24 Feb. 1981 as a 100 percent government-owned company. Krishnamurthy with his team had started the process of finding foreign collaborators by writing to several automobile manufacturers in Europe and Japan and inviting them to submit their offers. French firm Renault, German firms Volkswagen and Ford submitted detailed proposals but S. Nakanishi from Suzuki Motor Corporation (SMC), was the first to arrive and discussed the project. Within a few days SMC, gave a complete proposal for collaborating to manufacture an 800cc car.

Krishnamurthy was impressed with Suzuki's quick decision making, and also he felt that Suzuki Motor Corporation (SMC) was a manageable organization where Maruti could get access to the top leadership. After a series of Negotiation finally on 2nd Oct 1982, two agreements got signed, one was a license agreement between on technology transfer between Maruti Udyog and SMC. The other was a joint venture between the government of India and SMC.

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Thus we can say that the first half of mid part was very informative, but in a later stage it became too detailed and complex for the reader. It is factual, but the narrative which doesn't keep the readers hooked. This part discussed about various technical, administrative and other political obstacles which the organization has to face.

A few chapters of the books are very interesting. The workers of Maruti saw the strict management, punctuality and the discipline in the organization. Maruti could recruit only on merit basis. If engineers and managers were hired from Indian car companies, they would first need to unlearn their past experiences and that it would take time and cause problems. Thus Maruti opted largely for fresh engineering graduates. Meanwhile the recruitment and construction was proceeding, equipment had started arriving from Japan. As equipment started arriving, Maruti was faced with a serious problem of power supply. But their problem was solved signing a contract between GAIL and Maruti and also shifting the aluminum foundry for the engine blocks to Maneswar, where there was enough power for all of Maruti's needs as well as for the various joint ventures for components supply.

While work on installing all the products facilities and developing vendors was going on the marketing and sales system had also to be established. The important issue was the names for the various vehicles to be manufactured. In January 1983, Maruti's advertising agency - Rediffusion - suggested Legend or Aries for the car, Car-O-Vant as Mascot for the Van, but after a considerable debate, it was finally decided, with the approval of the government, that the company's flagship product the car, should be called "Maruti 800", a name Sanjay had adopted.

The Sacronet deadline was finally met and on 14 Dec.1983 Sanjay Gandhi's birth anniversary, Mrs. Gandhi formally inaugurated the factory and the first car for sale rolled out. She personally gave the keys to the first ten allottees of car all over India and the first being Harpal Singh of Indian Airlines. The Maruti 800, revolutionized the industry and put a country on wheels. Suddenly ordinary middle class men and women could aspire to own a reliable, economical and modern car and the steep sales targets were easily met Thirty two years later the company, now free of government controls and facing competition from the world's major manufacturer who have entered the Indian market still leads the way.

By any yardstick, it is an incredible story involving great management skill and entrepreneurship of a high order R.C. Bhargava, who was at the helm of the company, has tried to discuss this landmark achievement in his book. A lot of Maruti Secrets that we never knew were revealed. I highly recommend this book.

GUIDELINES FOR THE AUTHORS

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