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# From the Desk of Editor-In-Chief

The study of entrepreneurship has a history in itself embedded within organization. It suggests a series of casually connected events which forced processes and organizational members create, innovate, co-create and/or reinvent products or services as solution for survival in its environment. The genesis of the concept entrepreneurship is an unfortunate mixture to balance between business challenges and market opportunities. Establishing an intellectual chain between Aristotle, Max Webber to Joseph Schumpeter is much more a difficult job. However, with great optimism one can connect entrepreneurship is all about substantive idea generation and economic opportunity.

In developing countries, the benefit of innovation by entrepreneurs depend on the characteristics on the system of innovation within which they are embedded, access to resources, availability of new technologies, entrepreneurial ecosystem and commercializing new knowledge. Third world nations have realized that entrepreneurship and entrepreneurs can significantly contribute to economic development by facilitating resources from less to more productive uses by performing efficient cost-discovery, generating employment opportunities and supporting structural change in nation building.

This journal tries to capture some pattern of salience among major components- Public policy/Government policy decisions to boost SME's/MSME's, Fund raising/Crowd funding, Mentoring through Incubators/Accelerators, Role of Angel investors/Venture capitalists, educational institutions and frameworks to promote entrepreneurship. In addition the entrepreneurial outcomes are purely dependent at the individual level and organizational levels resulting from using entrepreneurial behavior as the foundation for implementing any business strategy.

To conclude, focus of the researchers must be reconnoitre more avenues to fill the gaps in the existing literature in entrepreneurship and create a platform for exploring better business opportunities.

Let us promote grand ideas!!!

**Prof. (Dr.) Balvinder Shukla**  
**Professor of Entrepreneurship and Leadership**  
**Vice-Chancellor, Amity University**  
**Uttar Pradesh**

## From the Desk of Editor

India is today ranked the 3rd in the world when it comes to the number of start-ups, just behind United Kingdom and United States.

Startup India is a Flagship initiative of the Govt of India. The intention of the plan is to be applauded, and there is much in it that is praiseworthy. The thinking behind this push is eminently admirable – especially in as much as it hopefully reflects a vision of state action that relies on removing regulatory obstacles, reducing its own role and on providing instead an enabling environment.

Given the eight of the world's 140 unicorn start-ups valued at \$1 billion or more are located in India, it is not surprising the start-up ecosystem is maturing as fast as it is. From a handful just a few years ago, India had over 1,200 start-ups in 2018 alone, taking the total up to 7,200 according to Nasscom.

Start-ups will have to show that their innovation has “significantly improved” existing processes. Start-ups and business education are complementary to each other. Since 1881, when Mr. Joseph Wharton founded first business school of US, entrepreneurship has taken a paradigm shift. From seeking employment to become employer is a mention worthy change in trend.

Amity Journal of Entrepreneurship and Leadership (AJEL) is a step forward to spread awareness among masses. Dr. Anjani K Singh (Associate Editor) has put his vast experience to initiate this journal.

I hope this inaugural issue will come up to your expectations.

Happy reading!

**Prof. (Dr.) Sanjeev Bansal**  
**Dean Faculty of Management Studies &**  
**Director Amity Business School**

# Crafting Innovation: The EcoFab Way

Pushyamitra Joshi<sup>1</sup>, Dr. Anurupa B. Singh<sup>2</sup> and Dr. Ritesh Dwivedi<sup>3</sup>

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## *Abstract:*

This case discusses the early success of a start-up “EcoFab” founded by a research scholar turned first generation entrepreneur. EcoFab is the result of love in between a researcher and hand block printing art basically produced by craftsmen living in rural India. EcoFab is a social enterprise promoting vegetable hand printed and herbal/natural and eco-friendly color dyed fabrics. Traditionally craft of hand block printing involves an organic process to print and dye on variety of natural fiber based fabrics. Now a day many artisans are shifting towards chemical printing and dyeing due to cost-effectiveness and easy process. Even introduction of low cost screen printed fabrics in the market many sellers marketing it in the name of hand block print fabrics creating delusion among the customers and problems for genuine craftsmen.

EcoFab started marketing its products online through social media platform like facebook through awareness campaigns and storytelling. When Ecofab started marketing through social media, it was already penetrated by various resellers dealing in low cost screen printed fabrics and also involved in hand block print fabrics. The biggest challenge in front of EcoFab was to create a space for its offerings, aware customers and to differentiate with its competitors in the market place. Case further discusses the problems faced by Ecofab and overcome strategies through new product development and innovation.

**Keywords:** Hand block printing, Rural craft, New product development, ecofriendly, Facebook, Etc.

## **Introduction**

It was a freezing cold in the month of January 2015; Pushyamitra a marketing research scholar was enjoying coffee outside the canteen of Amity University Campus. He was feeling bit relaxed because just completed the data collection as a part of his thesis. His ground work gave him insight about the current trends in marketing of traditional rural hand block print fabrics. While going through few case studies about the successful ventures done in handicraft sector especially in the hand block printing gave him an idea to start his business. But he was in dilemma to start with which product line with a limited capital?

Market was flooded with cotton fabrics created a tuff price competition for a start-up and to start with a silk fabric segment was out of the pocket idea. Also searching for appropriate market channel to place company's products was the biggest challenge. With a lot of inputs and research finally company has formed at Indore in the month of July, 2015 with the aim to market genuine hand block print fabrics at a fair price. But a question still unanswered was how and by which channel he should start selling?

Primarily hand block print sector is unorganized but there were many big brands selling hand block printed fabrics at a premium price through their retails stores. In local market few unbranded shops selling low priced screen printed fabrics in the name of hand block print fabrics. Screen printers imitated the designs used by hand block printers and selling them in the market at lower price and customers unable to differentiate in between screen and hand block print work. Both the customers end were catered by branded and unbranded shops really provided any space for the start-up company offering hand block print work. It was necessary for Pushyamitra to work upon completely a new and innovative product not only to sustain but to survive in the market.

In this case we focus on the innovation, new product development and marketed it through social media marketing done by Ecofab a start-up working with the rural craftsman of Madhya Pradesh involved in hand block printing [Appendix -1].

## **Review of Literature**

In today's complex business scenario of intense competition it is utmost important for any organization to do innovation and new product development not only to sustain its position but to "survive in the market. Freeman (1982) "not to innovate is to die" gave this quote aptly support the importance of innovation in today's business world. Schumpeter (1939) suggested that for growth of the economy new product development is necessary. Geenhuizen & Indarti (2005) discussed the importance of new knowledge which can be gather from various sources including customers is required for managing innovation in the business. Kristiansen et al (2005) discussed the importance of information as a form of inputs from social networks, customers and business partners for innovation. Kasturi et al (2006) discussed the importance of innovation in the field of handloom revival by showcasing the case of handloom brand 'DESI'. It further discussed the innovation done by DESI in designing and retailing to sustain the handloom business.

Brata (2009) in its study on bamboo craft discussed the importance of product design and innovative organizations in terms of adopting new quality control process. Trott (2010) emphasized on the importance of the innovation not only for the company but equally important for the country's economy. Brata (2011) discussed the importance of producer driven innovation and managerial innovation to increase the business performance and very important for handicraft industry. Joshi et al (2014)

discussed the importance of new market development with the introduction of new designs done by few craftsmen in the field of hand block printing. This innovation helped craftsmen not only to survive in the changing market demand but also helped them to increase their market reach and business.

Studying the literature thoroughly we have found that there were few empirical studies done in the field of managing product innovation in the craft sector but not much work done specifically about a very unique craft of hand block printing in terms of qualitative study. This case is unique because it involves the qualitative technique to study the multi-dimensional problems including managing product innovation, customer engagement, new product development and marketing through social media successfully as a start-up.

### **Research Objectives**

1. To study the importance of innovation for a start-up to survive and grow in the competition.
2. To study the importance of social media marketing for a start-up as a low cost marketing channel.

### **Methodology**

This study is based on the case study method, which is a kind of a qualitative method to conduct a research. Mainly primary data is collected through observation method and interview of craftsmen of Bagh village involved in hand block printing. To get the inside of the problem we tend to collect the sample size of 150 over a period of 8 months but received 153 responses from the customer database available with the company. Open ended unstructured questionnaire method is used to get the in-depth opinion of the customers. 14 responses recorded from face to face interviews of the customers and 139 we got online interview using Facebook as a social media tool.

### **Production**

Journey of EcoFab a name stands for providing authentic ecofriendly hand block print fabrics started in the month of July 2015 with the identification of right craftsmen to get the desired quality products mainly Salwar suit material and fabrics at reasonable price. There were few craftsmen whose work is of export quality and few have very low grade quality products and very few dependent only on jobwork [Appendix -2]. Pushyamitra has done already a ground research with the help of local resource person named Ankit Daiyya in Bagh village so he identified a master craftsman Salman Khatri whose work was of standard quality but were dependent only on jobwork. There were 8 craftsmen including his younger brother Ayyub working in his production unit. Salman was even unable to attend the exhibitions due to lack of capital. This was an opportunity for both Pushyamitra and underprivileged craftsmen. At a certain market rate of jobwork craftsmen were agreed to produce a quality work with unique design

combination for the Ecofab a first generation entrepreneurial venture.

When EcoFab ventured into the hand block printing market, products like salwar suit material, running fabric and dupattas were in demand. Hand block printing done on the below mentioned quality of fabrics.

**Table -1 Use of fabric for hand block printing**

S. No.	Product	Fabric Quality/Description
1.	Sarees	Mulberry Silk (Local Powerloom)
2.	Salwar suit material	Silk-cotton (Local Powerloom)
3.	Salwar suit material, Running fabric material	Cambric cotton (60' 60' count)
4.	Sarees, Dupatta	Mal cotton (80' 80' count)
5.	Bed sheets	Century cotton

Source: Based on the primary research

**Table -2: Product Demand**

S. No.	Product	Demand in %
1.	Salwar Suit Dupatta Set	70%
2.	Running fabric material	15%
3.	Sarees	7.5%
4.	Dupattas	5%
5.	Bed sheets	2.5%
	Total	100%

Source: Based on the interview of master craftsmen of Bagh village

After reviewing the existing quality it was decided to work upon the high and fine quality cotton fabric products. As a start only running fabric and salwar suit dupatta set material decided to produce. Sourcing of fine quality cotton fabric and marketing of finished products was the responsibility of Ecofab and producing the best quality product was the responsibility of Salman and quality check was the responsibility of Ankit who once had his own production unit but later closed due to intense price competition. The first lot of product including cotton salwar suit material and fabric got prepared in 12 days which is a minimum required time to prepare a lot [Appendix -3].

### Social Media Marketing

Preparation of the first lot Ecofab followed the traditional way of promotion i.e. participation in the various exhibitions and fairs. After attending 8-10 exhibitions at different places Ecofab didn't get expected response. Mainly pricing was the issue as customers were unable to differentiate in the quality of cotton so huge bargain power was with the customers. Due to lack of awareness screen printed fabrics were also penetrated the market well that customers were not able to differentiate the uniqueness

among the screen and hand block print fabrics.

But Pushyamitra didn't lost his hope he started exploring the new market places, started interacting with the local boutiques but still it was a long way to go. Once he was searching facebook saw add of some sport company clicked an idea to start marketing using facebook.

A new facebook account and page with the name "EcoFab" started to market the products of the company. Already existing handicraft groups and pages explored to add handloom and handicraft lovers as friends to the company's account. In a month time more than 500 prospects added into the account with more than 200 likes of the page.

Company adopted a unique way to promote its product by practicing know your product policy by writing a complete description about the production of a product to aware the customers along with product images to attract customers to purchase the product. Videos containing production process also posted on the page time to time. It created strong sense of trust among the customers about the company's motive of promoting original and authentic hand block print products. Company's product started selling using facebook. Initially salwar suit and fabric material were sold. New designs apart from traditional designs also introduced by the company got customer attraction. Existing craft retailers and social enterprises felt the heat of competition with their existing customer segment started discounting the price of their products. It was not an easy for a start-up like EcoFab to survive in the intense competition with relatively established enterprises.

### **Product Innovation**

In search of providing different product only scope left with the company to provide either unique designs or a fabric other than cotton. Exploring the existing market demand he found that silk and silk cotton handloom sarees and hand block printed silk sarees are in trend. He enquired the silk fabric prices with his cloth agent cum merchant but the minimum order he need to place of Rs. 1 lakh which was out of his pocket. As a first generation entrepreneur he already invested his savings of Rs. 75000 by withdrawing his FD.

While purchasing cotton fabric he saw a shining fabric like silk at his agent's shop. He just enquired about the fabric and came to know that this is the new arrival in the stock and fabric is known as "modal". Price of the fabric was little bit higher than cotton but there was no minimum order quantity restriction was there with purchasing modal. He decided to purchase 10 meter for testing purpose and immediately send it to his craftsman in Bagh. After hand block printing done on the fabric it came out as a fabulous surprise for both Pushyamitra and Salman. Fabric was very soft, shining like silk and giving a better feeling than cotton. A new product developed by them using completely a different fabric which was not done by any craftsman in the Bagh.

In the meantime Pushyamitra researched about the modal fabric and came to know the following:

1. It remains soft after multiple washes.
2. Easy to care
3. It is more comfortable than cotton because it allows skin to breathe
4. It absorb fifty percent more wetness (sweat) than cotton
5. It is a color fast fabric
6. Made from bark of beech tree categorized it as bio-textile and helps in reducing carbon footprint.
7. Shine like silk

He started marketing this fabric to his existing customers with return policy if they didn't like but soon it is in demand and every new customer also started demanding this fabric created a new space for the company, where not a single competitor was providing this fabric in hand block printing segment. Also there was a trend of "100 Saree Pact" started on the social media, customers who already experienced the fabric started demanding Saree in modal fabric pushed again for new product development for EcoFab, which is today a specialty of the company. Company is also working on developing a new products using modal fabric as a base fabric.

## **Conclusion**

This case study gives a very important conclusion for start-ups to always work upon the product innovation. Constant research about the market trend, interaction with the customers is very important to co-create a new product not only to survive in the market but for the growth of the company too. In amidst of increasing operating retail stores and other fixed expenses social media marketing can play a very important role for start-ups. Product innovation is not just a one-time activity but must be a continuous process in the company to grow its market. Customers are also seeking something new and listening to the customer's inputs always helps a pro-active company to innovate further.

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## **Appendix -1**

### **About Hand Block Printing**

Hand block printing is a very age old technique to beautify and design the fabrics. It is traditionally done using wooden or metal block to print natural colors on the fabric. Use of vegetable or natural colors in Hand Block Printing is done from ancient times. Known history of using natural colors in printing is 4000 years ago when it was practicing in the Sindh province of today’s Pakistan. Sindh province is the motherland of Khatri community residing in Rajasthan, Gujarat and Madhya Pradesh involved in hand printing and dyeing of fabrics.

In Madhya Pradesh there are two villages known are Bagh village & Tarapur Village where mainly two types of hand block printing techniques used in printing using natural colors on fabrics are practiced:

1. Direct printing (Alizarin printing)
2. Resist printing (Dabu Printing)

### **Bagh Village**

Bagh print is one of the famous hand blocks printing art of India, practiced in rural and tribal village “Bagh” situated at the banks of Baghini River. Bagh is a village of Dhar district in Madhya Pradesh. Minerals found in the Baghini river water gave

natural/vegetable color more vibrancy and increase its fastness. Due to its local specialty it got geographical indication brand status in the year 2009. Bagh hand block print is a kind of direct block printing using alizarin as an essential content to get vibrant red color in the printing process.

### Tarapur Village

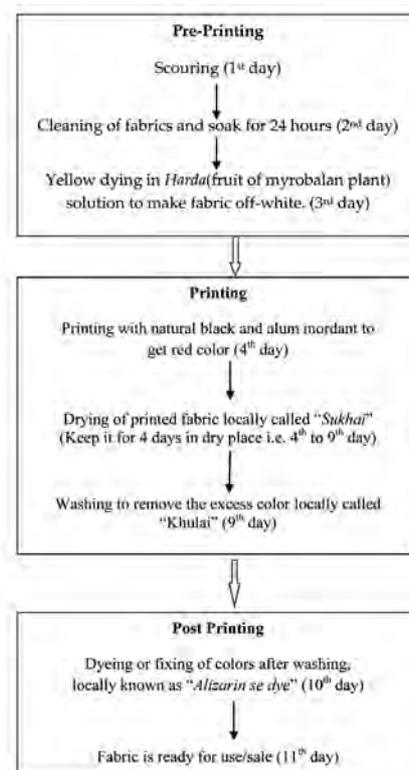
Tarapur village is the hub of Dabu hand block printing in Madhya Pradesh. Dabu Print is one of the resist printing styles of hand block printing practiced in various parts of India. A paste comprises of flour, black soil and lime used to print on clothes by wooden blocks then keep it in Indigo dye pot to get blue color.

### Appendix -2

Jobwork is done on order basis where customer provides fabric or other raw material for different crafts with desired design combinations to the craftsmen at a certain wages to do it. It is common practice in India among underprivileged craftsmen who do not have enough capital to produce their own products.

### Appendix -3

Figure1.7: Bagh Printing Process



Sources: Based on interview of Salman Khatri

# Studying Sustainable Development Opportunities Due To Carbon Finance Initiatives in Rural India: A Conceptual Framework

Mr. Prateek Mangal<sup>1</sup> and Prof (Dr.) Anupama R.<sup>2</sup>

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<sup>2</sup>Amity Business School Amity University Noida

## *Abstract:*

Change in climate is found to hinder the sustainable development, as influences of global warming seem more serious than ever and people are mostly helpless in most of the developing countries. A carbon project supports to alleviate climate change and so as to defend the planet. Inopportunately, it's not a direct process and there will be a lot of efforts involved but carbon finance can be a support in order to enhance one's business. In developing countries one of the main reasons for limited energy development is handling finance; it is one of the foremost limitations to expansion. In recent times, the accessibility of carbon finance is generating prospects for capitalists who are emerging sustainable energy schemes.

Lack of awareness has proven major hindrance in tackling climate change; we all have to acknowledge and take preventive and corrective measures. Rural India to this day is lacking far behind in terms of knowledge, awareness and ground-level actions to tackle the damage done to the environment. The need for more and more agricultural land, and fire-wood which is still a major source of fuel for rural settlements; are contributing factors in continuing large scale deforestation. Burning of fire-wood, fossil fuels etc. is adding to emission of green-house gases, all steps contributing directly or indirectly to climate change

*Keywords:* Carbon Finance, Ecology, Capitalist, Global warming, etc.

## **Introduction**

Climate change is worldwide and shortages that have occurred in developing countries are the most severe threats that today's world is facing. Along with this, the effective moderation of climate change and the elevation of shortage drop through improvement or progression are identical challenges which cannot be experienced separately from each other (Susanne, 2011). Change in climate is found to hinder the sustainable development, as influences of global warming seem more serious than

ever and people are mostly helpless in most of the developing countries due to the lack of awareness, education, technology and social/governmental initiative. Also, traditional explanation ways are being extensively examined by environmentalists and ecological economists. It is important for developing countries to implement sustainable, diffusion evolution paths to tackle climate change. Least Developed and Developing Countries together agonize from the climate change and they also use to subsidize to global warming.

Accomplishing good and proper results in environment improvement plans is a creditable aim, but it is difficult to implement (Johannes and Mai, 2008). There are possibilities to have good environment and development results in plans; one such plan is the distribution of enhanced Cook Stoves in accordance with the practice of Carbon Finance. Enhanced cook stove tools create an essential, if uneven, atmosphere growth boundary, and explain the equally maintained limited and universal welfares of sustained enhanced stoves usage where achievement in program area is openly secured. While carbon finance delivers a prospect to fund ascendable and enforceable courses, it also acquaints with equally maintained obstructions where evolution towards program purposes, directly concessions improvement towards other existing purposes. Gregory et al (2012) has mentioned that in order to obtain carbon finance one will require to go through a severe observing procedure along with a sequence of orders, identify impending customers and mediate values and positions with them.

Carbon Finance developments need a clear plan edge, clear occupancy rights in general law it may be either reserved or public, and that range land proprietors can efficiently eliminate users from practice (Timm and Andreas 2008). In areas where land holders need official land use rights, or where authorised land power occur but are not imposed in practice; creating Carbon Finance flows may possibly support land holders promoting for their usage of land power. Capability and willingness for carbon finance in region, many governments intend to work with land holders who have strong capabilities for endorsing implementation of carbon repossession controlling practices, but some restraint is being recognised and that is making the land owners/land holders avoid carbon finance initiatives. At both national and international levels, there is an inadequate responsiveness and acceptance of the moderation impending of grass lands used for grazing livestock. Among possible project originators, there is only inadequate consideration of market prospects. Comparatively, evolving early development schemes and practises seem to be high.

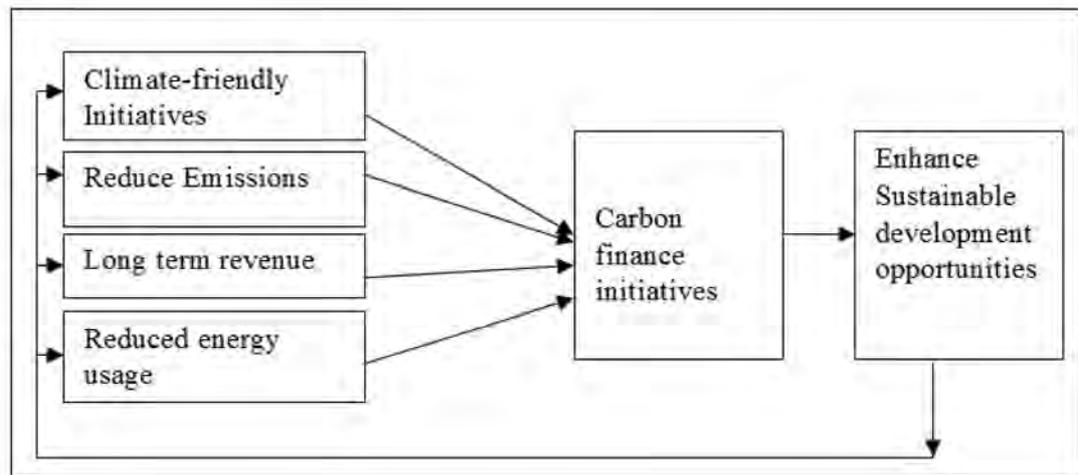
### **Problem identified**

A carbon project supports to alleviate climate change and so as to defend the planet. Inopportunately, it's not a direct process and there will be a lot of efforts involved but carbon finance can be a support in order to enhance one's business. The Global Village Energy Partnership (GVEP) International have organised a simple guide intended to assist energy industrialists to comprehend whether they have to deliberate carbon

finance more carefully in their business strategies, and to deliver references on the initial steps in order to evaluate their prospective.

In developing countries one of the main reasons for limited energy development is handling finance; it is one of the foremost limitations to expansion. In recent times, the accessibility of carbon finance is generating prospects for capitalists who are emerging sustainable energy schemes. Though, not all capitalists know the fundamental principles which will let their schemes to be entitled for carbon finance, the time it will consume, and who they have to reach for support. GVEP International is frequently demanded to offer maintenance or support regarding carbon finance (David, et al 2010).

### Conceptual Framework



Source: Author

Figure 1 picturises the conceptual framework about sustainable development opportunities due to carbon finance initiatives. Variables selected for testing the carbon finance initiatives for this particular research are climate-friendly initiatives, reduce emissions, long term revenue and reduced energy usage

According to Hourcade, Fabert and Rozenberg (2011), Green Climate Fund and the Climate Finance act as the necessary tools to bridge the expectation gap. A climate – friendly architecture of finance has the ability to transform the challenge of the climate from the pure constraint to a lever for the sustainable development backed by the green content. Carbon finance initiatives are climate-friendly in nature and it has created an impact on sustainable development. Low-carbon society has offered the substantial opportunities, and it also ensures continued high growth and high sustainable development.

Baeumler, Ljjasz and Vasquez (2012) studied about the sustainable low-carbon city development in China. Many advisory services have helped to implement the climate-

friendly operations. Generally, the implementation of the climate-friendly urban air quality improvement plan has required the carbon emission reduction programs to develop the sustainable growth. Household based Clean Development Mechanism (CDM), bio-gas digester program has reduced the emissions of carbon by installing the bio digesters to recover methane from the manure of livestock for the needs of thermal energy. Authors have pointed that the improvements of energy efficiency and the increased use of natural gas are offered significant improvements in intensity of carbon and the air pollution.

Yuan (2016) studied the development status, problems and counter measures of China's carbon financial market. Carbon finance acts as the important breakthrough in the development of low carbon economy and it also has the tendency to promote the carbon emission reduction. It acts as the climate-friendly factor to promote the innovation of carbon financial market development. Carbon financial market has built the resource-conserving society and environment-friendly society effectively to attain the sustainable development. It has the tendency to offer the new space of development for the financial system innovation.

Meizlish, Spethmann and Barbara (2007) studied carbon finance for reduced emissions from deforestation and degradation at the forest frontier. Authors have analysed the assumption in which the credits are generated by reducing the emissions from forest degradation (A part of REDD). These are also eligible in an operational market of global carbon. A scenario of baseline has explained the land use in the absence of emission reduction activities. In ex-ante accounting, the credits are sold before the emission reduction and the applied product with the ex-ante accounting tends to attract the market in lower price. Certified Emission Reduction (CER) in the clean development mechanism (CDM) acts as the reasonable indicator of project-based offset values.

According to Dhital (2009), reduction of emission acts as the key to achieve the goal of sustainable development. Emissions Reduction from Deforestation and Forest Degradation (REDD) in many developing countries is considered as the mechanisms which has allowed the industrialized countries to offset their emissions by buying the credits of carbon from developing countries. Further it has reduced the emissions from the resources by avoiding such activities. REDD acts as the key mechanism for the emission reduction. Mechanisms of monitoring have played an important role in the emission reduction process and it acts as the key to independent verification of emission reduction from the degradation and deforestation.

Disch, Rai and Mahehsuari (2010) studied about carbon finance with the guide for sustainable energy enterprise and NGOs. Climate change is acknowledged as one of the biggest challenge and it has negative effects which have influenced the poor countries. Emissions of various gases need to be reduced in order to break the negative impacts of the climate change. Carbon finance has helped to meet the cost of many

projects related to the emission reduction. The process of carbon finance has regulated through the special markets where these reduction of emission are traded.

According to World Bank (2008), incentives have been increased for the participation of public sector in carbon. The incentives identification and usage has improved the carbon finance usage in the public sector. It includes the internal targets which have increased the revenues from the emission reduction sale, champions with public recognition, incentives for units and individuals etc. Potential investment projects related to Carbon Finance have the tendency to maximize the revenue of the carbon finance in long term. It is clearly documented that the long term commitment by the industrialized countries has ensured the viability in long term of the carbon markets.

Douglass et al (2011) studied the effect of Carbon Credits on Savanna land management and priorities for bio-diversity conservation. Carbon finance has offered the potential to change the management of land and the priorities of conservation planning. Many potential long term revenues sources have also played an important role to reduce the improved land management cost and it meets the target of carbon storage for the same cost. Reducing the release of greenhouse gases has offered the important opportunities for the cost effective investments of land management. Authors have pointed that the carbon revenue through the management of improved land use and the reduced intensity of stock has diminished the conservation cost.

Zeng and Zhang (2011) studied about Carbon Finance and Low Carbon Economy for constructing the low carbon society in China. Low carbon economy has linked the change of global climate and the conservation of energy together. Carbon finance initiatives have the tendency to reduce the use of energy. Additionally, the low carbon economy is based on the efficiency of energy and the structure of clean energy. Energy technology and system innovation have the tendency to promote the sustainable development of human beings.

Ganda and Ngwakwe (2014) studied about the energy and carbon reduction practices in South African Banks. Reduced energy use and carbon reduction have played an efficient role in sustainable growth of an economy. Carbon financing acts as an instrument to promote zero carbon schemes with the energy efficiency and hence it has reduced the unsustainable mineral exploitive practices effectively. Global consumption of energy and the carbon emissions persist to enhance and sustaining the energy efficiency. Therefore the significant savings in the consumption of energy has required banks to measure the consumed rate of actual energy along with monitoring the electric machines.

## **Conclusion**

Establishing a predictive model to control factors contributing to climate change requires a lot data gathering and analysis. The best way to go about this would be

government sector and private sector partnership; however government, corporates and society in general, all have to do their part. Everyone has to understand and accept that the problem is real and it is here and now. Lack of awareness has proven major hindrance in tackling climate change; we all have to acknowledge and take preventive and corrective measures.

Rural India to this day is lacking far behind in terms of knowledge, awareness and ground-level actions to tackle the damage done to the environment. The need for more and more agricultural land, and fire-wood which is still a major source of fuel for rural settlements; are contributing factors in continuing large scale deforestation. Burning of fire-wood, fossil fuels etc. is adding to emission of green-house gases, all steps contributing directly or indirectly to climate change. A study based on the discussed conceptual framework collecting and analysing primary data from a sizeable geographical area will establish the effectiveness of Carbon Finance Initiatives in enhancing sustainable development opportunities.

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# Integration of Management and Technology for Harnessing Solar Energy in Rural Areas

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## *Abstract:*

In this civilized world, even today 1.3 billion people do not have access to electricity and 2.7 billion are deprived of education, good health and standard living. Most of them living in remote rural village areas, and until they have access to energy services, little progress can be made to develop and improve their lives. As United Nations Secretary-General Ban Ki-moon has stated, "energy is the golden thread that connects economic growth, increased social equity, and an environment that allows the planet to thrive". The world energy consumption is 16TW. The sun gives 23,000 TW every year. Thus the solar energy is capable of meeting the world's energy requirement for anytime to come. On a hot, sunny day at room the sun sends down roughly 1KW (the power of a toaster) for every square meter of the ground. The biggest challenge is to make it cost effective so that it can be easily marketed to individual households and organizations. The need is to efficiently manage this initiative so that the awareness and importance is transferred to the remotest locations. To make it cost-effective, the technology needs to be enhanced in order to produce higher benefits with lower cost. The maintenance and installation needs to be educated to more and more population, so that the one-time cost and recurring cost can be controlled. In this paper, the author has re-engineered the current setup circuitry, identified load and capacity, prepared circuit diagram and produced a proposal integrating the management and technology aspects of harnessing solar energy in a rural Indian school of Ayodhya.

*Keywords:* Solar, Smart Village, Cost -effective

## **Introduction**

In this paper, the author tries to draw the focus on integration of management with technology for harnessing solar energy in a cost-competitive manner. As we are aware the fossil fuel are reducing at a very high rate and if we do not switch to other form of energy at this stage, we will leave nothing for our coming generations. Fossil fuel on the earth is finite. People won't be able to burn and derive energy any more beyond the lasting periods which is as close as the following for some of the fuels:

- (i) Coal .... 120 years
- (ii) Oil .... 250 years
- (iii) Nuclear fuel .... 200 years

Moreover how far is it justifiable for the energy packs, which have taken millions of years to form to consume in the next few generations. Just because the future generation is not present to bid today we are claiming our stake on the entire coal blocks and the oilfields.

Solar energy being abundant in nature is a suitable alternative at this stage, since we now have the technology to channelize this solar energy for power generation. Half of the earth is always receiving incessant energy in the form of solar radiation. On a hot, sunny day at room the sun sends down roughly 1KW (the power of a toaster) for every square meter of the ground. This amounts to almost 23000 tera-watts every year against our total requirement of 16 tera-watts. Thus solar energy is not only free but abundant almost 1000 times more as compared to our requirement. Solar energy also manifests itself in many of the known renewable forms like –

Hydropower	3-4 TW per year
Biomass	2-6 TW per year
Wind	25-70 TW per year
Tidal (harnessible)	2-3 TW per year

With the much of the abundantly available energy from the sun, why is it that our villages and remote cities are suffering for lack of energy for their night life and education? Why do we depend on fossil sources which do not belong to us? Moreover it won't last for more than 100 years.

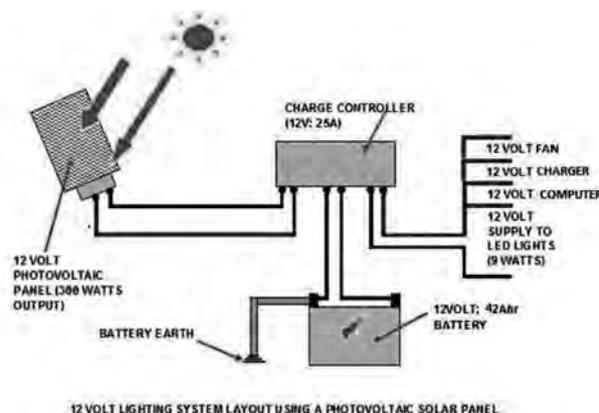
Solar energy has a special place among potential future energy sources, being extraordinarily abundant wherever the population exists. As we see, the targets are being set from decades to go solar, the technology is available since 130 years and is being implemented successfully for 20 years, and still the coverage is not progressing as per the expected targets. Solar implementation is still perceived to be too expensive.

Therefore, author recommends the integration of the two aspects which consists of firstly the technological changes in the current setup to make it cost-effective and secondly, a strong management to plan, implement and maintain solar setup within the stipulated time, cost and quality.

The first aspect which is technological changes in the current setup is based on knowledge, re-engineering and re-designing the current setup circuitry eliminating the redundant component. Author proposes DC circuitry for all the electronic setup like IT organizations, computer laboratories, and electronic shops with the solar panel on their rooftops. The reason we are using AC power today is that the power

generated in power houses needs to be transmitted to individual buildings, which cannot be transmitted as DC because it leads to power wastage (termed as copper-loss). Thus it is converted to AC during transmission from the power houses and hence all our current electrical and electronic equipment are having the input source as AC. But the fact is that all the electronic equipment run on DC, so today although they have input source as AC, they have in-built adapter

Circuit diagram



to convert it to DC before transmitting it to the electronic equipment. Now, if we re-design the current setup, generating DC solar power at the rooftop which doesn't need that long distance transmission, can power the devices as DC, without the need to converting it to AC and without the need for any inverter or adapter. Also, the need for grid is totally eliminated particularly in remote and difficult terrains. Hence it would provide appropriate solution to the problem of excessive cost by eliminating the cost of inverters, adapters and grid in the entire solar implementation.

Giving an example of a computer laboratory of a rural Indian school running 10 laptops with basic amenities like light, fan, charger etc., the consumption comes to less than 300W which can be fulfilled by a 300W photo-voltaic solar panel on their rooftop. The proposed circuitry is as depicted below:

The cost and ROI is calculated below assuming sunny days in a year as 300 and full sunshine hours as 5.

**Analysis and Discussion**

Solar Panel	300	W	Sunny Days	300	/yr.	Sunny Hr.	5	Hr./day
Units Produced Yearly	450	KW /unit						
Electricity Cost	7							
Return	3,150							
Investment	17,985							
ROI	18%							
Payback Period	5.7	Yrs.						

The second aspect, which is the management of solar energy, the author tries to define what solar management is and what the success criteria of a solar project are. Besides managing the project successfully, the project manager needs to have the skill of making the project a success. Even if the project is managed well, the project may fail, which is happening in case of solar projects due to misalignment of nations objectives from top until the ground and poor representation of its benefits across board. The key skills needed to make solar a success are:

1. Strategic planning and management
2. Technical know-how of solar implementation
3. Innovate cost-effective solution
4. Approach and knowledge of government grants and incentives on solar
5. Networking skills
6. Awareness of ground realities
7. Strong monitoring and control
8. Risk & issue identification and handling

The term solar management refers here the management of solar energy production and consumption (which includes harnessing solar energy and implementing solar projects to meet the national target of renewable energy within the stipulated time, cost and quality). This notably means improving the efficiency of solar power devices i.e. photo-voltaic cells, solar panels, solar inverters, etc. and bringing the technological changes to make solar implementation cost effective i.e. design DC setup for the solar powered electronic equipment's.

Solar management is the way of channelizing solar energy by integrating the concentration of behavior, awareness, implementation and engineering solution with pollution control. Solar management includes actions and methods that can model the optimal energy generation and consumption and increase the profit or decrease the costs by controlling the products or service qualities.

Solar management analyses solar consumption and implements cost-cutting measures in the entire current setup to minimize energy utilization. The key role of a manager here would be to grasp the opportunities offered by solar management which focuses on both consumption and cost including environmental aspect.

Solar management is the sum of measures planned and carried out to achieve the objective of using the minimum possible energy while the comfort levels (in offices or dwellings) and the production rates (in grids or rooftops) are maintained. The maintenance and installation needs to be educated to more and more less-educated population too, so that the one-time cost and recurring cost can be controlled.

Solar management also includes on-grid, off-grid and hybrid setups. The appropriateness is determined in each case. This shows that how much solar energy

should be used, what is the ideal consumption and how much solar energy can be saved for the grid. Besides this, the author proposes that the maintenance and installation education be imparted to 'less-qualified (general)' population, making them self-sufficient for solar setup, so that the one-time cost and recurring cost can be controlled. The implementation needs to be pro-actively planned, executed, monitored and controlled with assessment of all the risks and issues. The above method as a whole is referred here as solar management. Solar management is performed to obtain the following objectives:

1. Power Generation on house rooftop through Solar for charging the batteries, which is available for backup for the rural poor population who lives in darkness due to erratic power supply.
3. Build a DC household with all necessary equipment including DC fans, lights, mobile- charging and other desired electronic / electrical equipment, operated by Solar energy which reduce the cost of power to minimum.
4. Operate Computer Lab on Solar DC setup, which would enhance computer literacy in rural areas which has not been a success so far despite high focus, due to frequent power cuts in rural areas.
5. Develop monitoring techniques to minimize the recurring cost. This will provide true image of solar energy benefits to authorities, consumers and all the stake holders.
6. Provide employment to youth in their local areas by educating them in basics of solar energy harnessing, assembling and installation of solar panels. Also, these rural populations ('less-educated' people) would be trained for long term service providing and capacity expansion, and would serve as local resources.
7. Protect environment by saving fossil fuel, lowering carbon footprint and decreasing pollution created by the conventional power houses as stipulated in Kyoto protocol.

## **Conclusion**

The research paper concluded and addresses the Indian situation around the following:-

1. Common Man's Energy needs;
2. The Education Environment;
3. Industrial and Employment Needs;

And it will be known as the real Infrastructure Settings, in rural areas, which will shape the village as a Smart Village like a Smart City of any State in the country.

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## **Appendix-1**

### **List of abbreviations**

TW	Terawatt
AC	Alternating Current
DC	Direct Current
KWH	Kilo-Watt Hour
AHr	Ampere Hour
UPS	Un-interrupted Power Supply
PV	Photo Voltaic
ROI	Return on Investment

# Predictive Analytics adoption in Business Decisions – A Literature Review

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## *Abstract:*

Predictive Analytics is running at the forefront of the hottest technological trends in the recent years that are impacting the businesses worldwide. It is primarily used in predicting purchases, fraudulent loan applicants, medical diagnosis, customer attrition etc. However, when it comes to utilizing Predictive Analytics (PA) to support strategic business decisions, it seems to be taking the last priority so far. Business Decisions had always been one of the most critical functions of management for an organization that spans from operations to the growth strategy of the organization and in the case of Predictive Analytics, operational decisions are making the most use of it.

The paper will present various aspects of Predictive Analytics in Business Decisions and discuss the level of adoption [of Predictive Analytics]. The paper will help set the base for further research on the drivers that are impacting the adoption of Predictive Analytics in business decisions.

**Key Words:** Predictive Analytics adoption, adoption drivers, Business Decisions, analytics based decisions, etc

## **Introduction**

Any organization, no matter how big or small it is, would need to take certain decisions in order to survive or to grow. The decisions which are considered at strategic, tactical and operational levels are the basic function of management. There are various decision tools and approaches that have been used in the past and have become de-facto standards of the management. Few of these are the SWOT analysis, Cost-Benefit analysis, decision tree etc. Business decisions had always been supported by decision support systems in addition to the support by facts and figures. The Decision Support Systems (DSS) use the data made available to it through various sources, mostly internal, to create reports and insights that might not be possible to generate without these tools. The DSS were the only tools available to most businesses until the last decade (i.e. till 2006). However, with changing times, companies that aspire to grow faster than the competition look for answers to the business problems in the latest technologies or research. Predictive Analytics is one such area that has created the stir in the management arena. It is very promising and organizations that

have been experimenting with Predictive Analytics are supporting the claims. Cost saving of \$50 million in one year by 1-800-FLOWERS.COM through usage of analytics is a good example. (Evans, 2013)

In order to get the benefits of the Predictive Analytics in business decisions (not knowing truly if that would succeed or not), a large amount of IT investment would be required. Such IT investments only matter if IT capabilities are part of the organizational practice (Doherty & Terry, 2009) (Galliers, 2011) (Markus & Robey, 2004) (Peppard & Ward, 2004) (Sambamurthy & Grover, 2003) as mentioned by (Arvidsson, Holmström, & Lyytinen, 2014). Moreover, the IT investment strategies should also align with the investment goals of the organization and identify the changes required in order to realize the benefits of such investment goals (Reich & Benbasat, 1994). That means that not only strategic intent to invest into such systems but also defining the organizational goals to utilize and seek benefits out of such high-end systems is required (Arvidsson, Holmström, & Lyytinen, 2014).

IT investments and strategic intent are the starting points for the journey towards implementation of analytics capabilities. There are other challenges along the path which are management support, availability of skilled resources, and implementation experts which are major restraining factors in reaping the benefits of analytics. There are few additional roadblocks such as not knowing how to make the best use of analytics, business priorities competing for resources, not able to get good quality data and unable to do a cost-benefit analysis for analytics. (Evans, 2013, p. 29)

In order to achieve the end objective of the research i.e. to study the drivers for Predictive Analytics adoption in Business Decisions, it is worthwhile to understand its current level of usage and adoption in businesses. Predictive Analytics is still in nascent stage when it comes to its relation with the Operations Management (Mortenson, Doherty, & Robinson, 2014). However, the use of the term Business Analytics, a generic term related to Predictive Analytics, the concept and practice have grown in the previous decade as reported by (Chen, Chiang, & Storey, 2012) in terms of usage of the term in the publication of academic journals in the year 2011. Which was equal to total usage of this term in the previous such journals published from 2000 till 2011. Other similar research also shows that importance of new data sources is increasing and that there is increase in the demand for skilled staff in the area of analytics (Manyika, et al., 2011)



## **Evolution of Predictive Analytics**

Predictive Analytics comprises of different components working in unison to provide the outcomes as needed by the businesses. Experts in the field give a different number of components and describe these components in different manners (Editor, 2014) (Kalakota, 2012) (immanuel, 2014). Predictive Analytics, as we know today, comprises of the 3 components primarily viz. Data (Big Data), Machine Learning (Statistics), and Predictive Modelling. While it seems like a simple system, each of these components have different tools, technologies, processes or research that these are based on. For example, data in today's Predictive Analytics use Big Data technology with different underlying implementations such as Hadoop, Apache Spark, Cluster Map Reduce (Rijmenam, 2015) etc. Similarly, Machine Learning has its base in advanced statistics models and it either creates the predictive model on its own or gives the inputs required to create one [predictive model]. Pictorially the following should be a simple representation of the Predictive Analytics.

Once a Predictive Model is in place, it is used on a different data set to check its validity as well as to fine tune it, if needed. This process is called Predictive Modeling. The fine-tuned finalized Predictive Model is then used in real-time to predict according to the business problem/objectives in hand. The outcomes are the predictions which are used for business decisions.

Each of the above mentioned components of Predictive Analytics as a standalone entity and collectively as a whole had always influenced the business decisions since their inceptions.

The data, for example, has evolved from simple data entry into a computer file to present day Big Data. It's not that companies started storing the data only after the introduction of Big Data, they had been doing it since the inception of computers. The Volume, Variety and Velocity (Three Vs of the Big Data were introduced by Gartner analyst Doug Laney in 2001 in a MetaGroup research publication, 3D data management: Controlling data volume, variety and velocity), might not have been to the level that the data is now a days but was not something that was ignored. The data had been growing in all aspects exponentially from libraries, to scientific journals and research papers, information available on the internet (Press, A Very Short History Of Big Data, 2013), and of course the data stored by businesses for various purposes.

In the same fashion computing power (the very basic requirement for [machine] learning from the data supplied to it and help create a predictive model) had increased tremendously, allowing data scientists to turn data into useful insights through Predictive Analytics. The advancement had been through the years - 1945, the first documented discussion on the computer architecture blueprint (Press, A Very Short History of Information Technology (IT), 2013) to 2015 when Apple launched Apple Watch (Timeline of Computer History, n.d.), whereas people can wear more computing power in their hands than what was available in the first generation supercomputer

in the 1950's. Machine learning, pattern matching, running regression analysis and other statistical tools on Terabytes of data would not have been possible without this advancement of the computing power.

The journey of Predictive Analytics could also be traced back to the period of data collection and taking appropriate decisions based on this data, also known as Data Science. As researched by Gil Press on this topic of Data Science (Press, *A Very Short History of Data Science*, 2013) the 1962 article "The Future of Data Analysis" by John W. Tukey would have set the first step towards the modern Data Science and Analytics. The work was followed by other experts in the 1970's, 80's and 90's which sped up during the 2000's when a lot of books such as "Data Science: An Action Plan for Expanding the Technical Areas of the Field of Statistics." (2001), "Competing on Analytics," (May 2005); research papers such as "Statistical Modeling: The Two Cultures" (2001), "the management of data and databases in Science and Technology. The scope of the Journal includes descriptions of data systems, their publication on the internet, applications and legal issues." (April 2002) was published and new journals launched on the topic such as Data Science Journal (April 2002), Journal of Data Science (January 2003) (Press, *A Very Short History of Data Science*, 2013)

### **Predictive Analytics in Business Decisions**

Aristotle seems to have used the term Analytics while working on deductive reasoning (Malnik, 2012). In the corporate world, Analytics seems to have been first used around year 2000 (Whiting, 2000). In year 2002, an academic article has been found to have discussed the subject (Kohavi, Rothleder, & Simoudis, 2002) and have highlighted five particular drivers of Analytics: "verticalization" (which is development of customized software for different industries); availability of different models for various business users; better integration of analytics into information systems; connecting different business 'isolations' through cross-functional use; and in the area of performance management (Kohavi, Rothleder, & Simoudis, 2002). However the growth of large volumes of data has also been acknowledged as another significant factor. Other key factors as suggested by (Davenport & Harris, 2007) is the fact that now a days a lot more business data is available than ever before and the decisions making executives are technology and computer savvy who understand that data could be of a good use in decision making and business growth.

Due to new ways of data collections and sensors including IoT (Internet of Things), a large amount of data is available at the realm of analysts to be used and predict new business insights.

This large amount of data would restrain the BI (Business Intelligence) architecture from being applied same as Relational Databases (Stonebraker, et al., 2007), which would mean new technologies and new architectures would be needed. A new Distributed File System (DFS) implementation called Hadoop is one of the most important and is intended to store, process and analyze large data. In addition, there

are other tools such as NoSQL/NewSQL databases (Cattell, 2010); the easy availability of cloud computing systems; and data-rich social platforms viz. Facebook, Twitter etc. providing API-streams. In Summary, there is a growth of new set of businesses that provide the technologies and ecosystem to easily manage the challenges arising for using the big data (see (Feinleib, 2012) for representation of such ecosystem).

Having such systems set up might help in getting the insight into the business as well as help in planning the strategies but this is too early to say anything with confidence. Strategic Decision making is as important in this age of business as it was earlier, if not more. In addition, efforts are being geared up to make decision support a reality in real time (e.g. (Davenport & Harris, 2007); (Niedermann, Radeschütz, & Mitschang, 2011). But 'real-time' decision support requires high level of processing power backed by technology.

Similar to how effective search engines have been in providing the search results, there are agent programs to recommend products to the sales staff for upselling or cross-selling in almost 'real-time'. Such initiatives help in providing fast and accurate information that is highly useful as well and help management in decision making with speed and precision (Panian, 2008).

Senior management of the organization that employs Predictive Analytics does not want the fancy data coming out of the analytics but want information that would help in taking strategic decisions (Christensen, Cook, & Hall, 2005). An infamous observation by Theodore Levitt seems apt "people don't want to buy a quarter-inch drill; they want a quarter-inch hole".

### **Usage of Predictive Analytics**

Within each of the industry verticals, Predictive Analytics is used in the areas of Operational and tactical decision making. There are a very limited evidence of its usage in strategic decisions. Within the distributed systems, there are many examples of machine learning algorithms and data mining (Zaki & Ho, 2000), literature, which shows application of Predictive Analytics in the area of Strategic decisions was not found so far.

However, Predictive Analytics finds its way in customer management, marketing, and operations optimization among others. Customer retention is one such area in which Predictive Analytics has helped businesses like Orange UK and 1-800-FLOWERS retain their customers by up to 10 percent and got additional revenues in the tune of \$40million. (Felipe-Barkin, 2011). The basis of such ROI (Return on Investments) lies in the research as mentioned by Frederick F. Reichheld and Phil Schefter. The bottom line: increasing customer retention rates by 5% increases profits by 25% to 95%. (Reichheld & Schefter, 2000). This example, while utilizing a day-to-day operational decision on which customers are likely to call it quits and try to retain the most likely 10% customers that will stay with the business for a longer term, is actually a strategic

decision taken by the senior management of the business to implement Predictive Analytics to achieve the business objective of retaining 10% more customers. However, the decision to implement Predictive Analytics is not based on insights provided by Predictive Analytics for the same business but may have been influenced by similar business cases.

Out of the various usages of Predictive Analytics, the most common is that anyone seeking any type of credit from banks or financial institutions is checked through what is called the Credit Scoring. Credit Scoring, as defined by (Hand & Henley, 1997) are statistical methods that are used to categorize the credit seeking customers into "good" or "bad" risk groups. The inputs are taken from the application form for the credit and from various external sources that the financial institution will have access to, which are then fed into a Predictive model to evaluate and predict probability of repayment of the loan.

Human Resource data in an organization could be great of great help in gaining competitive advantage over others by better managing their human resources as well as identifying and closing any knowledge gaps. As mentioned by (Alsultanny, 2013) HR data can help the organization in strategic planning and decision process through mining of their resources potential and behavior data. The same data could be used in Predictive models to categorize which resource will stay for a longer term with the business if required actions are taken by the HR department and which of them would leave. Organization can then direct the budget for the right set of resources for overall business benefits.

Online businesses and ecommerce companies use Predictive Analytics to predict if a certain price will lead to purchase by the online customers. In their paper (Gupta & Pathak, 2014) proposed to develop a framework around Dynamic Pricing as the core problem that will determine the customer segment and to predict the purchase range for that segment. They also mentioned that the dynamic price is applied to a customer segment rather than on individual customers. The prediction could be further extended to individual decisions, however the amount of data and processing required for per transaction real-time pricing could be a mammoth task for any organization.

Mutual Fund Asset Management Companies need to take decisions about investment into different stocks in the stock market. In addition to various analytics and DSS tools they can also make use of Predictive Analytics to Predict Stock markets. In their paper (Bhardwaj, Narayan, Vanraj, Pawan, & Dutta, 2015) suggest using sentiment analysis for Indian stock market and make predictions using the Index of two stock exchanges i.e. Sensex from Bombay Stock Exchange and Nifty from National Stock Exchange. The data suggested to be used for this is from the multiple social media platforms like Facebook and Twitter and to perform sentiment analysis on the data for making the predictions. Financial investment decisions are fundamental for fund management and Asset Management Companies and adoption of Predictive

Analytics for such decisions will slowly become common.

In the field of medicine (Forsberg, et al., 2015) tried to predict the chances of wound failure based on the data collected from 73 patients who had sustained 116 life-threatening wounds and succeeded in doing so up to an accuracy level of 0.79 using a random forest model. The outcomes could help in avoiding surgical procedures that are not necessary. They further mentioned that their Predictive Analytics model may further be extended to civilian settings. When the hospitals would have facilities for collecting the relevant data and using analytics to predict the time to close a wound and whether it will lead to healing or another surgical procedure will be needed; healthcare providers, medical insurance and hospitals would be able to save millions annually, reduce the hospitalization time, reduce cost of treatment and the patients will not have to go through the traumatic procedures that could be avoided.

## **Discussion**

This paper is to review the available literature in the area of Predictive Analytics adoption in various business decision areas. There is absolutely no doubt on the usage of Predictive Analytics in Business Decisions and that a large number of organizations are reaping benefits by its usage as well. As evident from the various examples cited in the paper that a lot of companies are adopting Predictive Analytics for business decisions at various levels for various functional areas. But Big Data combined with Predictive Analytics for effective business decision making is still a challenge for many more companies who are trying to speed up the process of information retrieval and processing through these and help their customers in various areas (Kaur, 2015). However we also see that the adoption has already started in the following areas i.e. credit scoring risk analysis, customer retention, operational decisions, investment decisions, operations optimization, ailment predictions, pricing policies, resource retention and development, to name a few. We can say that the management is slowly and steadily progressing towards adoption of Predictive Analytics in different areas and the success stories in one area are going to influence other areas as well as give confidence to the management to begin adoption of Predictive Analytics in Business Decisions going forward.

## **Conclusion**

As we see that Predictive Analytics has slowly made its way into the business decisions, however, we need to understand why the adoption of Predictive Analytics is at this pace and what could be the possible constraints and the factor that will increase the adoption knowing the potential of Predictive Analytics in various areas discussed in this paper. We need to understand that the adoption of Predictive Analytics is going to be a challenge and will need to be studied further to help businesses know the areas that they need to focus to utilize its full potential.

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# The Power of Social Networking Sites as a Marketing Tool in Building Startups

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## *Abstract:*

The purpose of this paper is to develop a conceptual framework, based in entrepreneurship theory, which explains how social networking sites affects in the various stages of a startup. Following a literature review exploratory research design, from which elements of Social networking sites are derived, an earlier process model of startup building specification is adapted to marketing by young entrepreneurs. A five-stage cycle model of entrepreneurial startup building is analyzed with the identified elements of Social networking sites consisting of enabling brand equity, consumer insights, tracking competition, revenue generation and bonding through social media, new product introduction through incremental stealth, and replicating through variation, selection, and retention. Model development would be enhanced through empirical data. Marketers in startup entrepreneurial firms can follow a few simple rules to enhance market penetration. Resource limitation is something that cannot be avoided. A thoughtful social media strategy can accelerate new product introduction as well growth of existing products. Marketers avoid getting too big too quickly; use furtiveness to drive social media-based bonding. Previous theoretical models at the marketing/entrepreneurship interface have not focused on the unique characteristics of Social networking sites with respect to the different stages of startup building. This study develops the most comprehensive model of entrepreneurial marketing by entrepreneurs to date.

*Keywords:* Social networking sites, Startups, Entrepreneurship, Digital marketing, Web 2.0 Technologies

## **Introduction**

In this era of hyper-connectivity through social media, it has become indispensable for the startups to integrate social networking sites as a part of their digital marketing campaign irrespective of the scale of operation (Constantinides & Fountain, 2008). These networking sites have become a key in order to raise brand awareness, distribute interactive content, generate leads and boost customer conversion rate. Social networking sites as a marketing tool not only generates fantastic results by capturing larger customer base but also costs less per conversion in comparison to the traditional marketing methods. All this makes it imperative for the startups to

utilize this marketing tool to make their presence felt and executed in an overcrowded entrepreneurial market (Bai, 2011). The marketing landscape has dramatically changed since the advent of internet. Startups can now utilize a bevy of free, online marketing techniques that are creative as well as effective. Using social networking sites for marketing by the budding enterprises allow the entrepreneurs build a more strategic, relationship-building approach towards its customers (Hanna, Rohm, & Crittenden, 2011). One of the major reasons for social media emerging as an effective marketing tool is that it provides brands and businesses the power to interact and engage with more people, that too with just a few clicks of a mouse (Kim, Jeong, & Lee, 2010).

Having chosen the right social networking sites based upon the availability of the core audience, the startups can actually get the word spread at a faster pace than any other media. Also, with relationship marketing taking a front seat, traditional marketing is rapidly fading. Relationship marketing provided through the social networking sites is not just limited to reaching the customer base and keeping it engaged with the enterprise's products or services but through the online content and community. It not only acts as a means to gain the invaluable customer feedback but also makes the customer feels valued (Safko & Brake, 2012). Social networking sites are high on self-presentation and self-exposure and medium on social presence and media richness. This makes the role of social networking sites significant as start-ups need to create their identity by informing the potential customers as to what they are and they require a channel that fully allows them to present their entity with ample discretion (Abels, White, & Hahn, 1997). Some of the other pragmatic reasons to anchor to the social networking sites as a marketing tool are the presence of competitors on this media or the customers/ clients being majorly present online or resorting to these channels regularly for advice or communications. With the shift in consumerism and online visibility becoming a popular feature for any product, this marketing tool makes the communication spread wider (Kilgour, Sasse, & Larke, 2015). Hence, it helps spread the business message wider and that too, at a cheaper cost. Also, utilization of these networking sites for marketing portrays the startup as a progressive enterprise in the market. Nowadays, entrepreneurs are seen as rational decision makers giving due importance to social networks (Carson, 2010). Considering the strength of the social networking sites as a tool of marketing for startups globally, this paper aims at addressing the fact that social networking sites are still in their nascent stage of being used as a marketing tool by startups in India. Hence, an attempt has been made to develop a model to identify what elements of Social networking sites helps in which stage of startup building (Anderson, 2016).

### **Objectives of the study**

The main aim of this study is to specify the factors affecting the attitudes of consumers toward marketing with social media for a building startup. As well, it tries to present which factors are effective and which ones are not regarding the attitudes of consumers toward marketing with social media.

## **Review of Literature**

This section reviews the literature from the previous studies conducted in the identified area to gain insights supporting or criticizing the current research findings along with the research gaps which the current study attempts to fill. Researchers conducted a research to study the effect of social media in information collection and opportunity identification at the early stages of entrepreneurship (Akar & Topcu, 2011). It was a primary research in which data was collected from 201 respondents who were entrepreneurs or employees in entrepreneurial startups using a pre-tested survey questionnaire (Rugova & Prenaj, 2016). It was found that social media helped the entrepreneurs in understanding up to date information and market trends though at the same time, there was skepticism regarding the value of social media with respect to strategic decision making for startups (Bowden, 2009). The major research gap in this study was it didn't consider all the stages of entrepreneurship rather focused on just the early stages of opportunity identification. The impact of social media applications including the networking sites on small business entrepreneurs (Constantinides & Fountain, 2008) . This paper was based on meta analysis of secondary data. It was found that social media sites act as a cheap and widespread means of promotion and publicity (Goldsmith, Pagani, & Lu, 2013). These social media applications showed a positive impact on entrepreneurs and were motivated to use this platform. The research gap is that it is not an empirical study and is based on implications of the formulated theories (Anderson, 2016). A study to investigate the impact of social networking sites on small businesses that operate in the underserved areas. The research utilized a case study methodology based on two surveys and interviews with the owners / managers of five small companies in Maine, which is an underserved region and is usually economically depressed. It was found that the networking sites were quite useful in increasing customer awareness and enquiries, enhancing customer relationships, increasing the number of new customers, promotion and enhancing the ability to reach customers on global scale (Kaplan & Haenlein, 2010). This study just focused on small businesses, that too, outside India. Researchers tried to study the role of social media at the different stages of business formation by conducting an empirical study on a sample of 14,205 randomly selected Australians from Global Entrepreneurship Monitor project from 2000-2005 (Roy, Datta, & Basu, 2016). Chi-square tests were used to test the statistical significance of social networks for the networking and non-networking individuals in the entrepreneurial process (Baird & Parasnis, 2011). Logistic regressions were used to test the relationship between networking and participation in entrepreneurship. It was found that structural diversity of social media was of utmost importance to entrepreneurs at the discovery stage, least important at start up stage and of medium significance at the young business stage (Erdogmus & Cicek, 2012). The gaps identified were that this study was conducted outside India and didn't cater to all the stages of a startup (Ioană & Stoica, 2014). There exist very few studies that had used appropriate representative samples and control groups to investigate the impact of social networking sites or media on entrepreneurship. Also, very less

literature exists in Indian context as use of social networking sites by startups is still in its acceptance stage as a marketing tool (Kawaski & Fitzpatrick, 2014). Also, social media marketing through networking sites is a new phenomenon, especially in the developing countries and the lack of understanding its immense potential makes the current study imperative (Li, Wang, Li, & Che, 2016).

### Research Methodology

An exploratory research design developed for better understanding where, the researcher investigated the various factors that affect the implication of social networking sites as a marketing tool. The design had been persuaded to formulate a qualitative methodology for enhanced understanding for this complex and dynamic phenomenon. To examine this phenomenon, the first step was the analysis of the significant literature to build up an understanding about various parameters of social networking sites and structured stages of building startups. A structured questionnaire was prepared which had two sections, Section one enquires about the demographic profiles of the respondents and section two measures the respondents on the basis of parameters identified through literature review. A five point Likert scale was designed to measure the identified parameters ranging from strongly agree [=5] to strongly disagree [=1]. As the number of variables identified after literature review is large therefore exploratory factor analysis employed in order to understand the relationship between the identified variables and club them in factors, and then T test employed for hypothetical testing. Entire collected data coded in SAS University edition for the hypothetical testing.

### Data analysis and Hypothetical testing

Descriptive statistics conducted on the demographic and social media profile of the respondents, and the identified variables of the content affecting viewer's response, the result presented in the Table 1.

**Table 1 Demographic profile of the respondents [N=300]**

Age	Frequency	Gender	Frequency	Education	Frequency
15-20	74	Male	176	Undergraduate	83
20-25	108	Female	124	Graduate	126
25-30	47			Post graduate	85
30-35	42			Doctorate	6
35-40	29				

Table 2 explains the univariate analysis of the identified variables which were employed for exploratory factor analysis.

**Table 2 Descriptive statistics of identified variables**

Variables	Mean	Std Dev	Max.	Min.	Skewness	Kurtosis
Market share	2.7685460	1.5621515	5	1	0.5163976	-1.4059114
Product line	2.8902077	1.5725867	5	1	0.4319878	-1.5341848
Brand awareness	2.9080119	1.6239909	5	1	0.3004480	-1.6286583
Pricing	2.1008902	1.3212658	5	1	1.2773849	0.3740315
Sales lead	2.3086053	1.5137318	5	1	1.0041360	-0.5808235
Purchase persuasion	2.1513353	1.3510158	5	1	1.2668193	0.2915188
Brand loyalty	2.3560831	1.4197481	5	1	1.0098814	-0.4315693
Real time behaviour	2.8872404	1.0346887	5	1	1.0545506	-0.0544143
Consumer communication	3.2077151	0.5811010	5	1	2.5980581	5.0645592
Location	2.6023739	1.5340560	5	1	0.6638017	-1.1742650
People associated	2.1869436	1.3857508	5	1	1.2139107	0.0906895
Umbrella marketing	1.9080119	1.1854128	5	1	1.6455954	1.8276837
Keyword tracking	3.3857567	1.2414609	5	1	-0.0416839	-1.6707497
Brand authority	2.6617211	1.5014241	5	1	0.5641120	-1.2559521
Brand association	2.8189911	1.2978444	5	1	0.9974832	-0.9416926
Competitive SEO	2.1008902	1.3510158	5	1	2.5980581	-0.4315693
Rankings	2.3086053	1.4197481	5	1	0.6638017	-0.0544143
Monitoring Social activity	2.1513353	1.0346887	5	1	1.2139107	5.0645592
Brand quality	2.3560831	0.5811010	5	1	1.6455954	-1.1742650
Feedback mechanism	2.8872404	1.5340560	5	1	-0.0416839	-1.1742650
New content uploaded	2.6617211	1.5340560	5	1	-0.0416839	5.0645592
Brand Legitimacy	2.8189911	1.3857508	5	1	0.5641120	-1.1742650
Marketplace trends						

**Table 3 Kaiser’s Measure of Sampling Adequacy: Overall MSA = 0.82392075**

Final Communalities Estimates: Total = 15.247175

Market share	Product line	Brand awareness	Pricing	Sales lead	Purchase persuasion	Brand loyalty	Real time behaviour
0.7023*	0.7704*	0.6492*	0.7959*	0.7098*	0.6268*	0.6587*	0.7383*
Consumer communication	Location	People associated	Umbrella marketing	Keyword tracking	Brand authority	Brand association	SEO Ranking
0.7054*	0.5853*	0.6854*	0.8279*	0.8407*	0.6571*	0.7859*	0.6492*
Monitoring Social activity	Brand quality	Feedback mechanism	New content uploaded	Brand legitimacy	Marketplace trends		
0.5853*	0.6587*	0.7023*	0.6268*	0.6295*	0.6571*		

Initial value =1

\*= Extraction value Extraction method= Principal Component analysis

Table 3 describes Kaiser’s Measure of Sampling Adequacy: Overall MSA is 0.824 which is considered to be an acceptable value; this indicates that the data collected would be suitable for factor analysis. Principal component analysis was employed to measure the degree of variability in the variables. The degree of variability calculated from the initial value [=1], variables with extraction value more than 0.5 would be

considered acceptable for factor analysis.

No. of factors	Eigenvalue	Difference	Proportion	Cumulative
5	1.01580984	0.12242256	0.0781	0.6647

Table 4 illustrates Eigenvalue and cumulative proportion of the identified variables, these parameters assisted researcher to identify the number of factors. Eigenvalue more than 1 with Cumulative proportion more than 65% would be considered as an acceptable, all these parameters satisfied incase number of factors equal to 5. Therefore researcher accepted 5 factors.

Elements of Social networking sites	Factor loadings	Eigen value	% Variance	Cumulative %
<b>Brand equity (6 items)</b>		4.303	0.2193	0.2193
Brand awareness	0.82480			
Brand loyalty	0.79776			
Brand association	0.72463			
Brand legitimacy	0.68964			
Brand quality	0.67543			
Brand authority	0.62218			
<b>Consumer Insights (4 items)</b>		1.754	0.1350	0.3543
Real-time online consumer behaviour	0.87963			
Feedback mechanism	0.75260			
Marketplace trends	0.59532			
Consumer communication	0.55678			
<b>Tracking competition(4 items)</b>		4.174	0.1231	0.4774
Keyword tracking	0.85149			
SEO ranking	0.84384			
New content updation	0.75149			
Social activity	0.67325			
<b>Revenue generation (4 items)</b>		1.044	0.1092	0.5866
Market share	0.84352			
Sales lead	0.68710			
Umbrella marketing	0.64352			
Purchase persuasion	0.61983			
<b>Marketing mix(4 items)</b>		2.327	.0781	0.6647
Product line	0.81273			
Pricing	0.76262			
Location	0.71273			
People associated	0.67203			

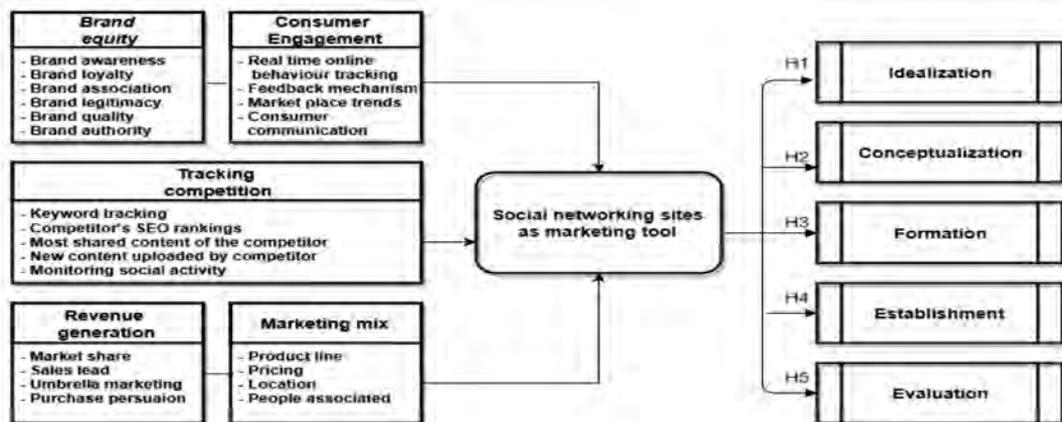


Table 5 illustrates the factor loadings of each identified variables, extraction method employed was principal component matrix. Rotation method employed for factor analysis is varimax with KMO normalization.

## Hypothesis

The motivation behind this exploration is to research the characteristics of effective Social networking sites on the various stages of building startup. In view of the past writings and results of factor analysis the characteristics of Social networking sites on viewer's response have been arranged into 5 fundamental measurements:

- H1: Idealization stage of startup building is positively affected by the identified elements of Social networking sites
- H2: Conceptualization stage of startup building is positively affected by the identified elements of Social networking sites
- H3: Formation stage of startup building is positively affected by the identified elements of Social networking sites
- H4: Establishment stage of startup building is positively affected by the identified elements of Social networking sites
- H5: Evaluation stage of startup building is positively affected by the identified elements of Social networking sites

Figure 1 Conceptual framework of the study

## Hypothetical Testing

The hypothesized relationships were tested using Z test analysis and the results are shown in Table 6.

**Table 6 Paired Sample Z test [N=300]**

Pair	Mean	Std. Deviation	Std. Error Mean	95% CL Mean		Z value	DF	pr>  t
				Lower	Upper			
SNS-Idealization	-0.00669	0.7494	0.0433	-0.0920	0.0786	7.15	299	<.0001
SNS-Conceptualization	-0.7573	1.2043	0.0698	-0.894	-0.6200	10.85	299	<.0001
SNS-Formation	-0.4080	1.6341	0.0945	-0.5940	0.2221	4.32	299	<.0001
SNS-Establishment	-0.0057	0.8497	0.0354	-0.0720	0.0982	4.54	299	<.0001
SNS-Evaluation	-0.0769	1.3301	0.0769	-0.2283	0.0745	-4.67	299	<.0001

## Findings

The data collected was normally distributed, as the data was checked for multicollinearity and heteroscedasticity. The 23 variables used in exploratory factor analysis were reduced by using the PCA and varimax method. The six emergent factors from this were:

**Factor 1:** Brand equity which was based on variables i.e. brand awareness, brand loyalty, brand association, brand legitimacy, brand quality and brand authority. **Factor 2:** Consumer insight which was based on variables i.e. real time online behaviour tracking, feedback mechanism, marketplace trends and consumer communication **Factor 3:** Tracking competition which was based on variables i.e. keyword tracking, SEO ranking new content uploaded and social activity. **Factor 4:** Revenue generation was based on variables i.e. Market share, sales lead, umbrella marketing and purchase persuasion **Factor 5:** Marketing mix which was based on variables i.e. product line, pricing, location and people associated.

The findings from this research have been classified into two sections as descriptive analysis and inferential statistical analysis; the results are presented in the respected tables. H1 i.e. Social networking sites-Idealization [z value= 7.15 and p= <.0001], H2 i.e. Social networking sites--Conceptualization [t value= 10.85 and p= <.0001] and H3 Social networking sites-- Formation [t value= 4.32 and p= <.0001] H4 i.e. Social networking sites-- Establishment [t value= 4.54 and p<.0001] and H5 i.e. Social networking sites - Evaluation [t value= -4.67 and p<.0001] as the p value for the above mentioned hypothesizes are above the standard acceptable value, which indicates that the identified elements of the social networking sites have positive impact at each stage of building a startup.

## Conclusion

Social networking sites have turned into a foundation of marketing culture and are utilized by all brands and organizations to some degree. Spending plans for promoting range from millions for vast brands. Without solid information to help the advantages of marketing, startups companies regularly consider publicizing to be a cost as opposed to venture to produce future income. Future research should be

directed to check whether this is the standard for startup organizations. In spite of the fact that, these were the most mainstream, under 25% of administration operations have any sort of digital marketing programs and have socialization in web-based social networking. The investigations inspected dispositions toward marketing in view of the startups business having an organization site, web based business, blog, online networking, and email promoting. It can be talked about which drives which or if there is really a co relationship. Therefore, the utilization of advanced and online networking showcasing procedures that drive an uplifting mentality towards publicizing, or that the inspirational demeanor towards promoting that drives the utilization of computerized and web-based social networking sites. Web-based networking media, for example, Facebook, Twitter, or Instagram enables the startup venture to achieve buyers and draw in them with the brand. Measurements accessible through Facebook and other online networking stages enable the private company to have a thought of how much activity, premium, and deals are being produced through the web-based social networking showcasing endeavors.

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# Innovating its Airspace: Indian Smaller Cities being readied for Big Birds

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## ***Abstract:***

India is an emerging flying destination in the world. Indian subcontinent is still facing trouble to manage the travelling hours and rush of the passengers across the country. The second largest population of the world and broadly scattered border, India need an effective air transport services for their commuters. In India people use to travel from North to South and East to West. Civil aviation has become an essential mode of transportation not even for the elite society but for the choice of the upper middle class too. It was always the choice under the compulsion but now it has become the matter of comfort. In India passengers are ready to spend money but options are not available. This research paper is an empirical study of the opportunities, available for the new entrant aviation industry and explored the huge untouched business so far.

**Key Words:** Aviation Industry, New business Opportunities, Air traffic, Innovating Airspace

## **Introduction:**

Managing traffic and enable people for more movement is always been a challenge for the globe. Since ancient time movement from one place to another place was not easy. Even Columbus was also on an unknown trip and not aware about their destination, but his mode of transport was very helpful and finally he landed and explores a new country. Mode of transport and well enabled technology overcomes from such issues. Now a day you can cover a huge distance in a short span of time. Tourism in India has a great scope in many direction like employability, sustainability and for the overall development of the economy. But before any discussion we must understand the meaning of Tourism.

China has been the world's second largest aviation market in terms of scheduled capacity. Despite such phenomenal growth, some legacy regulations remain untouched and the aviation market exhibits some distinctive characteristics in terms of network configuration, inter-modal competition, airline cost competitiveness and profitability (Zhang and Chen, 2003; Pan et al., 2007; Liu and Luk, 2009; Lei and O'Connell, 2011; Fu et al., 2012; Lau et al., 2012; Zhang et al., 2014; Wang et al., 2014a, 2014b).

The assessment of traveler expectations and perceptions of services performed at Aruba's General Aviation Terminal is different in many senses. . A survey instrument based on the SERVQUAL model is developed by Parasuraman, Zenithal, and Berry. The PZB instrument was administered to travelers at the Aruba's General Aviation Terminal. In particular, travelers were asked to rate their perception of services offered on the dimensions of tangible components, reliability of services, responsiveness of service, and assurance of services performed. The analysis indicated that service gaps existed between what travelers expected and what they experienced from terminal personnel. (Earney F. Lasten Catherine Curtisb Randall S. Upchurch, Christine Dammers)

De-regulation has been considerable innovation in the airline market but aviation infrastructure services have adapted more slowly. Commercial approaches to infrastructure service provision can work effectively and there is scope for further application. State provision remains significant but governments find it challenging to ensure efficient and effective on-going service delivery (Doug Andrew)

Flight frequency may have significant effects over an airline's yield because an increase in flight frequency improves a carrier's service quality through reducing passengers' schedule delay. However, carriers adjust their frequencies frequently in responding to demand shocks. As such, including flight frequencies in reduced-form regressions raises endogeneity concern, as demonstrated in Fu et al. (2011).

Civil aviation in India evolved as a commercial activity over the period of time. In 1911, India's first commercial plane started. In 1932 Tata sons Ltd. Started Tata Airlines and 1934 aircraft act came in enactment. In 1946 Tata Airlines renamed as Air India. In 1948 government of India and Air India come together for Joint Stock Co-Air International. In 1986, permission granted for the air taxi operation and 1994 government pass the act of Airport Authority of India and in 1995 government permitted private schedule for airlines operators. After liberalization, economy took a great turn and air transportation required more, in that scenario low cost carrier was required. In 2003 low cost carriers started operation in India.

The history of civil aviation has been marked with distinct phases. These phases are as follows

- Pre 1993: Aviation was traditionally viewed as superiority. The two national carriers, Air India and Indian Airlines were the only airlines in India.
- 1993 - 1995: The first deregulation was taken allowing private airline to enter the Indian aviation market. However, the government's main objective was to saving the national carriers and some undercapitalized and under prepared startups entered and then mostly exited the market. In this series Jet airways (2003), Air Deccan (2004) Spice jet and Kingfisher (2005), Indigo (2006) Jet connect (2012) and Vistara in 2015 are providing their services on major domestic routes in India.

### Ranking of domestic Airlines in India

RANK	AIRLINES
1	Jet Airways
2	Indigo Airlines
3	Go Air
4	JetLite
5	SpiceJet
6	Air India

### Paradigm Changes in customers for aviation:

While journey upper and middle class income groups' uses flight services to save their time and avoid physical exertion. In case of travelling micro interiors part of the countryside, where only road transport is available, travelling hours are more than 8-10 tiring hours. In that case passenger thinks for alternate arrangements like availability of flight services. The government has decided to rework the proposals outlined in the draft aviation policy to achieve the twin objective of reducing the airline operation costs and providing greater accessibility to the travelling public. The stated objective of the policy, a senior government official said, would be to ensure that every middle class family can travel by flight at least once every year.

Indian airlines reported a continuous growth trend and a strong domestic passenger growth rate of 22.3 per cent in July 2011. Passenger traffic has grown at 18 per cent year on year (y-o-y) basis and the year 2010 closed at 90 million passengers both domestic and international. India is the fastest growing aviation market and expected to be within 4-5 big aviation markets by 2020 and 3rd in terms of domestic market after US and China. In July 2011, airlines in India handled 5 million domestic passengers, according to data released by the Directorate General Civil Aviation (DGCA) on September 12, 2011, marking the 11th consecutive month of double-digit growth. India's domestic market has witnessed passenger growth for 26 consecutive months now. In July 2011, India's airlines handled 1.3 million international passengers, an increase of 8.5 per cent y-o-y, according to DGCA. Passengers carried by domestic airlines during Jan-Aug 2011 were 39.63 million as against 33.41 million during the corresponding period of previous year thereby registering a growth of 18.6 per cent, according to data released by DGCA. ( Nisarg A Joshi and Jay M Desai)

Movement of people from urban area to rural area is increased during the festive season. People have been migrated in bulk from eastern and southern part of India to major business cities like Delhi, Mumbai, Kolkata and Chennai for employment. Seasonal migration of the youth for employment is very high. After the effect of globalization people are flying outside the country for the jobs and especially lower

middle class. In last decades people flying to gulf countries, as they required skilled labor for their infrastructural development.

45 million passengers flew in domestic airlines between January and July, compared with 37.6 million in the corresponding period last year, growth of 21 per cent. While airline executives say low fares are driving demand in India, sector analysts see it as a sign of revival in the economy (Business Standard August 24,2015) .

### **Purpose of the study:**

The present study would extend the knowledge and information about the opportunities for the aviation industry in India. Recession affected aviation industry must explore the new horizon and focus on those areas where business can expanded. New frontiers and corridors should be open with slight liberty. In India there are several routs, full with passengers are still waiting for air services. Government of India must think for relaxation with in that areas where new entrant wishes to operate. Except passenger security and comfort ability, government should be liberal in policies.

### **Theoretical Framework**

India's dynamic aviation market aim is to cover major customer reachability.

According to the report of Business **Business Standard**: August 24, 2015 Domestic air traffic is on an upswing, with passenger growth rates and seat occupancy hitting a five-year high. Discretionary travel has spiked over the past six months, as fares declined 15-20 per cent. Inbound traffic tourist arrivals grew 4.8 per cent between January and July, is spurring passenger growth in the domestic market. In fact, according to the International Air Transport Association, air traffic in India has grown 19.4 per cent between January and June, which is the highest amongst top seven domestic airline markets in the world, outstripping China that grew 12.3 per cent in the same period.

“In many of the sectors, the differential between a flight ticket and an AC train ticket is only a few hundred rupees. This differential accounts for less than one per cent of the monthly income of most individuals and is seen as negligible vis-à-vis the convenience, comfort and time savings of an air journey,”

A country's transportation sector plays an integral role in the growth and development of an economy. According to the —*Indian Aerospace Industry Analysis' report1*, in terms of passenger traffic, India is currently the ninth largest aviation market in the world. With regards to air cargo tonnage, India leads the South Asian region -consisting of Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka. Currently, India has 128 airports - including 15 international airports.

Emergence of low cost airlines has raised concerns on how satisfied are the customers with the services provided (Saha and Theingi) (2009). Successful companies

have a differential advantage in overall company reputation and communicate it as quality to their customers Doyle and Wong (1998). Often, they are able to command premium prices (Solomon, 1985). It is found that the most important criterion for customers selecting a bank is reputation (Tepeci, 1999). Good reputation could increase an organization's sales, attract more customers, and reduce customer departures (Boyd et al., 1994; Darby, 1999).

Bhatt (1997) analyzed the new aviation policy of India in the context of emerging business paradigms in international civil aviation. The focus was on critical issues related to air transport policy in India seen in the global context. Rao (1997) had examined the route network of Indian Airlines, in terms of its utilisation of physical resources, its financial performance and reliability of operations. Sen (1998) studied the growth of civil aviation in India over a period extending from 1910 to 1997.

### **Objective of the Study**

This study is all about the development of new horizon in civil aviation in India, where several operators are operating and looking for the more businesses. On the busiest routes, in certain period of times, airline industry face the scarcity of passengers even most of the routes where passengers are not getting any option like that. The main objectives of the study are here.

- To study the possibility of operating on smaller sectors using a low capacity aircraft by introducing new players for the dedicated corridors.
- To explore barriers for new entrants and to understand the resistance of existing players to operate these sectors.

### **Research Methodology:**

The methodology used in this paper consisted of two stages. The first included interview and second stage was a structured questionnaire that employed in those areas where people are insisted to fly for their business work. Questioning and interview are the two basic methods of collecting primary data. Regardless of which of these methods is used, some procedure must be developed to standardize the process and, thereby, standardize the data accumulated. If researcher go out to ask people questions and ask each other person somewhat different questions, they will get answer that are not directly comparable (Boyd Jr, wesfall, Stach F.). In this connection for data collection we must know that there are many secluded and beautiful untouched and undeveloped spots where tourist uses to go. This study has been conducted in 10 small cities of 4 states in India where flight services are not operating. The target population is 1700 people who are frequent traveler to city like Delhi, Chennai, Hyderabad, and Bangalore, Mumbai, Kolkata and other destination of India from small industrial hubs. But don't have air services and they suffered a lot in terms of time and cost both. They are ready to pay premium charges to avail the services for their convenient.

Considerations of cost and accuracy led us to choose a stratified sampling design. Some factors were identified which are selected on the basis of available literature and expert advices.

Research design for this study is exploratory. Research method can be and are associated with different kind of the research design.

### Hypothesis Formulation and testing:

Research hypothesis, also known as a scientific hypothesis, consists of a statement about the expected relationship of the variables. A research hypothesis indicates what the outcomes of the study is expected to be. A research hypothesis is also either directional or non-directional. If the researcher obtains statistically significant findings for a research hypothesis, the hypothesis is supposed (Keefe et al, 2006).

In this study more hypothesis may be proposed, but researchers has considered only those points which are having strong association with the objectives. There's only two hypotheses has been proposed which are having strong concern with those areas which have a correlation with the problem statement.

**Hypothesis:** There are great possibilities of operating low capacity aircraft by introducing new players for the dedicated corridors.

**H0:** There are no significant possibilities of operating low capacity aircraft by introducing new players for the dedicated corridors.

**H1:** There are significant possibilities of operating low capacity aircraft by introducing new players for the dedicated corridors.

### Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Capacity	2.1067	150	.89102	.07275
	Services	1.5400	150	.50007	.04083

### Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Capacity- services	150	.081	.326

### Paired Samples Test

				95% Confidence Interval of the Difference	T	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean				
				Lower	Upper		
Pair 1	Capacity- services	150	.081	.326			

Pair 1	capacity - services	.56667	.98592	.08050	.40760	.72574	7.039	149	.003
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In above study after the data analysis with the help of SPSS software against the hypothesis, there are great possibilities of operating low capacity aircraft by introducing new players for the dedicated corridors, the calculated value of the p is .003 which is less than the standard value .05. Thus researcher failed to accept the null hypothesis.

**Hypothesis:** In India entry in aviation sector and operate by new entrant is faced by various barriers.

**H0:** There are no barriers for new entrants to operate in aviation sector.

**H1:** There are barriers for new entrants to operate in aviation sector.

### Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Entrants	2.3467	150	1.08056	.08823
	Barriers	3.2933	150	2.69363	.21993

### Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Entrants- Barriers	150	-.137	.095

### Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Entrants- barriers	.94667	3.03622	.24791	-1.43653	-.45680	-3.819	149	0.008

Data collected with the help of structured questionnaire and data analyzed with the help of SPSS against the hypothesis, In India entry in aviation sector and operate by new entrant is faced by various barriers. The calculated value of p is 0.008 which is less than the standard value (Alpha= 0.05).

Thus once again researcher is failed to accept the null hypothesis.

**Results:** Every research has a solution which based on the variables and many

other issues. Here in this research the aim of the researcher was to understand the role of aviation industry after the opening of operations in small towns. Since India is scattered with their boundaries in all directions, so an efficient transport system is necessary for the smooth commute of the common people. According to the report of Times of India (TOI, Oct, 2015), civil aviation ministry government of India is planning to open small air strips for the operation of light passenger plane in small towns.

After the testing of hypothesis first, researcher is failed to accept the Null hypothesis which show the acceptance of alternate hypothesis. Thus researcher reached on the conclusion that there are significant possibilities of operating low capacity aircraft by introducing new players for the dedicated corridors.

In second hypothesis which is "In India entry in aviation sector and operate by new entrant is faced by various barriers". Here researcher is failed to accept the null hypothesis which accept the alternate hypothesis. Thus researcher reached on the conclusion that there are barriers for new entrants to operate in aviation sector.

### **Conclusion:**

After the analysis of the entire data with a suitable methodology, researcher reached on the conclusion that dedicated corridor for the airlines will add the additional values in the aviation industry. As aviation is running under the stiff competition and striving to survival, it could be an additional opportunity for this sector. India's aviation industry is largely untapped with huge growth opportunities, considering that air transport is still expensive for majority of the country's population, of which nearly 40 per cent is the upwardly mobile middle class.

The industry stakeholders should engage and collaborate with policy makers to implement efficient and rational decisions that would boost India's civil aviation industry. With the right policies and relentless focus on quality, cost and passenger interest, India would be well placed to achieve its vision of becoming the third-largest aviation market by 2020 and the largest by 2030 (DGCA 2015). Even though entry barriers are very strong, that's why new entrants are not easily entering in this sector. Even though government of India after the NDA (National Democratic Alliances) government are ready to relax the regulations for new entries. Operations in small towns will provide them more revenues and they can overcome by such problems.

Moreover it shall ease the problem of transportation in India. The quality of traveling will increase and an effective service shall be provided to the commuters. Employment opportunities will also increase because the growth of airlines traffic in aviation industry in India almost four times above international average. The Reserve Bank of India (RBI) announces that foreign institutional investor might have shareholding more than the limited 49% in domestic sector. Resulting aviation industry in India holds around 69% of the total share of the airlines.

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# Changing paradigm in Indian textile industry

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## *Abstract:*

The Indian textiles industry is now at the most potential market in the economy that contributes to 14 percent of the Export in the economy. Increase in foreign direct investment has led to better growth and development of the industry. Moreover, the central government is planning to launch provisions and changes which are expected to accomplish US\$ 300 billion worth of textile exports by 2024-25 and make an additional 35 million jobs in different segment associated with the industry. This research paper stresses upon favourable trade policies and superior quality products to drive textile exports. The domestic textile and apparel industry in India is estimated to reach USD141 billion by 2021 and USD100 billion by 2017 from USD67 billion in 2014. Further, this research paper examines changes in the Indian Textiles with prospect of Trade (Export and Import) of manufactured goods produced in the Industry.

*Keywords:* Textile Industry, Textile Trade, Apparel Industry, Textile Market

## **Introduction**

Indian Textile Industry is amongst the oldest Industries in India. The Textile Industry tremendous potential and with the correct blend of prices from the government and huge industry players in the market, it can acquire a better positing in the Indian Economy. The division has made critical commitments as far as forex earnings and business has forms a concrete pillars in the economy. This industry is one of the biggest in this world with an enormous raw material and materials fabricating base.

Sustainability in Textile and Apparel industry has three aspects Social, Economic and Environmental. Globalization has positively affected Textiles exports of India. Countries producing and exporting textiles have increased investment in spinning and weaving equipment. Even though developing countries have comparative cost advantage in domestic and international market, still they are implementing structural changes to meet the needs of the global stringent buyers.

The Indian Textile industry is to a great degree wide variety, "with the hand-spun and handwoven materials divisions toward one side of the range, while the capital

serious refined plants part is at the flip side of the range". "The decentralized power looms/hosiery and weaving division shapes the biggest part of the materials area. The nearby linkage of the material business to agribusiness and the old culture and conventions of the nation" as far as materials, make, the, Indian materials division special in contrast with the enterprises of different nations. The, Indian, material industry, has the ability "to produce variety of products suitable for different segments, within India and Overseas".

In Recent events, to promoting Indian Textiles and clothing an Exhibition was held in Gujarat by the Association of Textile Export Promotion council with Ministry of Textile and Ministry of Commerce Government of India. The step was taken in accommodation of Prime Minister Mr. Narendra Modi, Make in India Campaign. The main purpose of the event was to solicit B2B and G2G relationship between various countries that import the produce from Indian Market.

It has offered a large platform for all the Exporters and Manufacturers of Indian Textile to showcase their produce to the International Importers from various countries who were invited to participate in the event. The basic aim of the event was to identify the areas Textile Industry can work upon. Moreover, The Government wants to reach out to industry players by meeting associations and camps to create awareness of the scheme. Hence, Government is planning to increase the Investment in Indian Textile Sector.

## **Background**

Indian, Textile, Industry, has, been developing in, the, Indian, economy, since British. The traditional textile industry of India was virtually decayed during the colonial regime. The cutting edge Textile industry took birth in India in the mid nineteenth century when the principal Textile plant (mill) in the nation was set up close to Calcutta in 1818. The cotton Textile industry, made its genuine start in Bombay, in 1850s. The main cotton textile mill of Bombay was set up in 1854 by a Parsi Cotton merchant at that point occupied with abroad and inner exchange. In fact, by far most of, the, early, factories were, the, handicraft of, Parsi, merchant occupied with yarn, and, cloth, exchange at, home, and, Chinese, and, African, markets,.

The, first, cotton, mill, in, Ahmedabad, which, was, developed as, a, rival, center to, Bombay, and was set up in, 1861,. "The spread of the Textile Industry to Ahmedabad was generally because of the Gujarati trading class".

The Cotton Textile industry made progress rapidly the second half of the nineteenth century and before the century's over there were 178 cotton textile mills; yet amid the year 1900 the cotton textile industry was in bad state because of the great famine and various factories of Bombay and Ahmedabad were to be shut down for long" time.

The Swadeshi movement gave extraordinary boost to the Indian cotton textile

industry. Be that as it may, amid the period 1922 to 1937 the industry was in depression and during this period some of the Bombay mills changed hands. During the Second World War, textile import from Japan was stopped, however, it achieved a remarkable development of this, industry,. "The quantity of mills increased from 178 with 4.05 lakh looms in 1901 to 249 factories with 13.35 lakh looms in 1921 and further to 396 mills with more than 20 lakh looms in 1941. By 1945 there were 417 mills utilizing 5.10 lakh workers".

"The partition of the country at the time of independence" influenced "the cotton textile industry too. The Indian union got 409 out of the 423 textiles mills of the India". 14, plants "and 22 percent of the land under cotton development went to Pakistan. A few mills were shut down for quite a while. For various years since independence, Indian mills needed to import cotton from Pakistan and other" nations.

After independence, cotton textile industry made quick walks under the Plans. Between 1951 and 1982 the aggregate number of shafts multiplied from 11 million to 22 million. It expanded further to well more than 26 million by 1989-90.

### **Current Scenario of The Textile Industry**

India's textile "sector is one of the oldest industry in Indian economy. Even today, Textile is one of the biggest supporters of India's exports with roughly" 15 percent of aggregate exports. "The Textile Industry has two broad sections. The unorganized sector comprises of handloom, handicraft work and sericulture", which are worked on, small, scale, and, through, traditional, tools, and strategies. "The second is the organized sector comprising of spinning, apparel and garment segment which apply modern machinery and methods, for example, economies of scale".

The, textile, industry, employees around 51, million, individuals directly, and, 68, million, individuals indirectly,. India,'s overall, textile, exports, during, FY 2015-16 remained at, US\$, 40 billion,.

Thus "Textile plays a vital role in Indian Economy":-

- (i) "It contributes 14 percent to industrial production and 4 percent to GDP".
- (ii) "With more than 45 million individuals, the industry is one of the biggest source of employment in the nation".
- (iii) "The industry represents about 15 percent of aggregate exports".
- (iv) "The size of India's textile market in 2016 was around US\$ 137 billion, which is expected to cross US\$ 226 billion market by 2023, it is growing at a CAGR of 8.7 for percent between 2009-23 (expected)"

"As of June 2017, the central government is planning to finalize and launch the new textile agreement in the coming months. The arrangement is expected to accomplish US\$ 300 billion worth of textile exports by 2024-25" and make "an additional 35 million job in different segment associated with the industry.

## Literature Review

Vijaya Katti (2016) has studied about the potential of Indian Textile Industry using appropriate strategies by the government for maintaining a stable position in the Foreign Market. Kartikey Danda (2014) found that Textile Industry has contributed majorly to national economy in terms of Foreign Exchange earnings and urged for consistent policy support by the government to strengthen the industry in long run and exploit the opportunities existing in the current market scenario. Sanja S. Pattnayak and Thangavelu, S. M. (1996) studied the effect of liberalization on Manufacturing Industries and found increasing trend in productivity and growth in the industry.

Samar Verma (2002) studied the global competition in textile industry and found that policies of the government has helped in maintaining the market share as well as the economic reforms have supported in maintaining the stability in the domestic and the foreign markets.

Anup Kumar Bhandari and Subhash C. Ray (2007) explained about issues related to technical efficiency of various firms in Indian Textile Industry over the Years and discussed different management and technical aspects which can be improved upon in Indian Textile Industry. Alakh N Sharma (2006) has opined that a comprehensive view on labour market reforms is required, one that addresses the needs of both employers and workers. Marc DiebaEcker (2000) has worked on different social and environmental requirement in the international market and analyzed the efforts taken up by textile producers in India, Indonesia and Zimbabwe to address them as well. Exporting countries should meet the social and environmental requirements to sustain the competitive edge in the foreign market.

Kijima (2006) stressed upon the increase in inequality of wage rate in current economic landscape and the aftereffects of it on productivity. Pulapre Balakrishnan and M Suresh Babu (2003) observed that the annual growth and distribution has risen annually which has a great impact on the economy and the industry is one of the major source of income generation in the Country. Albrecht et al (2003) worked on understanding the rationale for differential wage distribution and found that most of the skilled labourers are men hence they are given some priority over the opposite gender that has led to the wage distribution gap.

## Research Methodology

The Research Study is based on Secondary data. The analyses was done through data collected from various Websites (World Trade Organization, UNCTAD, FICCI) previously published Research Papers, Trade Profiles Report for Textile Industry for identifying the important area for the research paper. Objectives of the research are given below:

- To Study the effect of changes on the Indian Textile industry
- To study the Government initiative for the benefit of the segment(Indian Textile Industry)

The Following approach has been used for the Independent Research Study for the development of the paper.



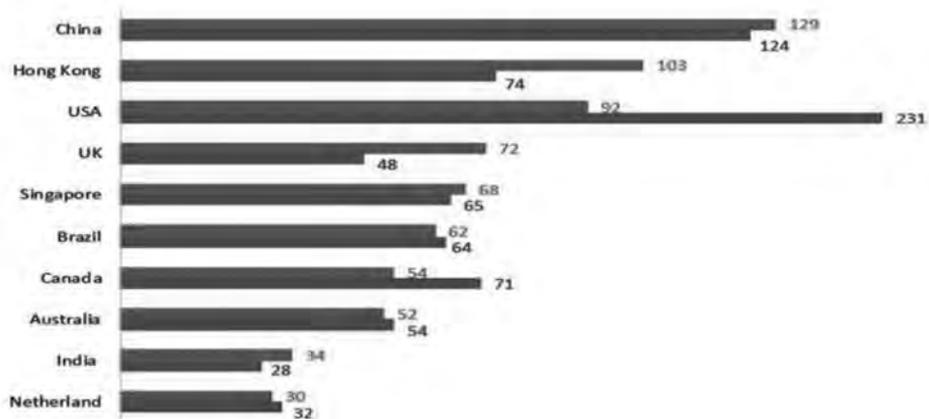
## Interpretation And Results

### Understanding Indian Textile and Clothing sector

#### FDI Attractiveness

China became the world's largest recipient of FDI while the United States dropped to the third largest host country, Of the top 10 FDI recipients in the world, five are developing economies. It is noteworthy to mention that FDI inflows in India rose from \$28 billion in 2013 to \$34 billion in 2014 registering growth of 22% which has increased significantly in 2017 that is 46% growth. With this growth India jumped from fifteenth to ninth position in global ranking.

The World Mechandise Export by major product group has decreased by 3 per cent in the year ending 201, there was a strong decline in the prices of fuels and energy whereas there was a slight increase in the agricultural produces export overseas this was observed due to the change in weather condition. The Mechandise Export of major product group has shown 5% fluctuation in the prices of Textiles and clothing.



Source: FDI Attractiveness (World Trade Organization-Statistical Review Report 2017)

## Government Support

The “Government of India has begun advancement of its ‘India Handloom’ activity via web-based networking media like Facebook, Twitter and Instagram with a view to associate with clients, particularly youth”, keeping in mind the end goal to advance fantastic handloom items as India Handloom Brand.

National Textiles Policy “goes for making 35 million new employments by method for increment divestments by outside organizations (anticipated that would be 180-200 billion US\$). The Ministry of Textiles propelled Technology Mission on Technical Textiles (TMTT). The target of TMTT is to advance specialized materials by creating world class testing offices at eight Centers of Excellence crosswise over India, elevating indigenous improvement to models, offering help for household and fare advertise improvement and empowering contract inquire about.

The “Ministry of Textiles has affirmed a ‘Plan for advancing utilization of geo specialized materials in North East Region (NER)’ so as to gain by the advantages of geo specialized materials”. “The plan has been affirmed with a monetary expense of Rs 427 crore (US\$64.1million)for five years from 2014-15”.

## Challenges

**Competition with neighbouring countries:** The Indian cotton textile products are confronting high rivalry in outside business sectors from Taiwan, South Korea and Japan whose items are more affordable and better in quality. In a nation where compensation are low and cotton is effectively accessible, creation costs should be so high.

While certain standard buyers of Indian material items like Myanmar, Indonesia, Sri Lanka, Ethiopia, Aden and so on are confronting extreme adjust to exchange issue

some European nations like France, Germany, U.K. furthermore, Austria and so forth have forced standard quota limitation over the Indian textile imports. Intense world subsidence has seriously influenced the fare prospects.

**Production scale:** Low productivity is another real issue of cotton textile industry. On a normal an Indian assembly line labourer just handles 380 spindles and 2 looms when contrasted with 1,500-2,000 spindles and 30 looms in Japan. On the off chance that the productivity of an American specialist is taken as 100, the comparing figure for U.K. is 51 and for India just 13. Additionally mechanical relations are bad in the nation. Strikes, layoffs, conservations are the basic highlights of many cotton processes in the nation.

**Promotional techniques:** Appropriate promotional techniques are not used by the government to promote the production of textile and apparel industry in India. Due to which in domestic market the industry is not able to flourish properly irrespective of the quality and the standard product manufactured by the industry for sales and distribution.

**Availability of Raw Material:** Raw material chooses 35 for percent of the total generation cost. The country is shy of cotton, particularly long-staple cotton which is remote from Pakistan, Kenya, Uganda, Sudan, Egypt, Tanzania,, U.S.A. also, Peru. Regardless of the biggest region under cotton (26 for every penny of the world real estate) the nation represents just 9 percent of the world yield of cotton. Fluctuating costs and vulnerabilities in the accessibility of raw material cause low production and non-functional factories.

**The government not being effective:** Government controls and overwhelming extract duties-the cotton textile industry has significantly endured because of wrong and flawed strategies of the Government. In the past the Government has looked for control of value, conveyance of yarn, example of creation, and so forth. At one time the cost of the fabric was settled by the Government below the cost of production. Essentially under the yarn dissemination plan of 1972, the Government made it mandatory on all plants to supply 50 percent of the production of yarn to the decentralized area at reduced rates.

## **Opportunities**

Proposed FDI in multi-brand retail: - For the Textile business, the proposed increment in FDI constrain in multi-mark retail will get more players, which will give more decisions to" the purchaser. In this manner it will help in expanding the Investment along the esteem bind from Agri-items to fabricated items. With Global retail marks ensured of a neighborhood a tried and true adjust, outsourcing will altogether ascend in the market.

**Immense growth potential:** - Textile Industry is set for solid advancement, glided by both solid "local utilization and export demands. The sector is expected to be come

to USD226 billion by FY2023 Population is relied upon to reach to 1.34 billion by FY2019. Urbanization is relied upon to support higher development due to change in form and patterns (Trends).

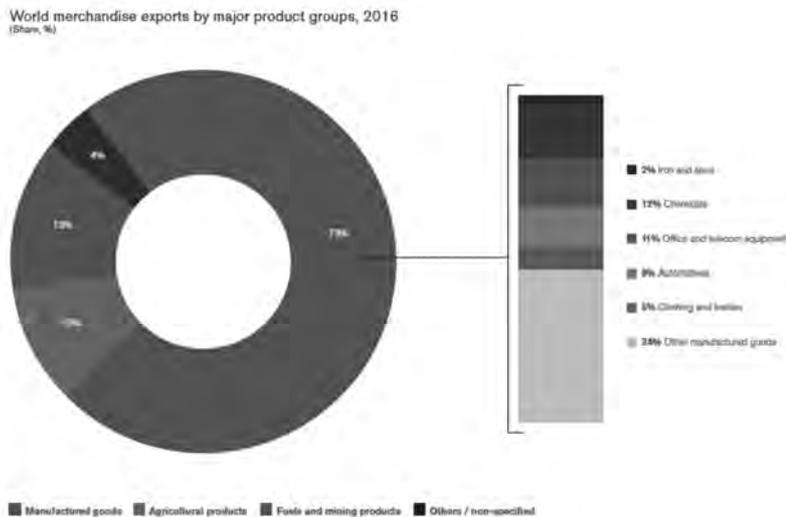
**Retail sector offers Growth Potential:** - With consumerism and increase in disposable income, the retail segment has encountered a fast development in previous decade with a few universal players” like Marks and Spencer, have come to market for selling the produce, The composed portion is depended upon to create at a CAGR of more than 13 percent over a 10-year time frame.

**Foreign Investments:-** The Government is taking exercises to pull in Foreign Investment in the Textile section through uncommon visits to nations, for instance, Japan, Germany and Italy. As indicated by the new Draft of the National Textile Policy, the administration needs to pull in Foreign Investment by producing business chances to 35 million people identified with the portion.

**Downfall in Chinese Market:-** The downfall in Chinese economy has rendered the cost of material creation in China high. Subsequently, Chinese materials maker has lost upper hands of lower cost of creation over the couple of months.

This has offered an open door for Indian Textile Sector to snatch the piece of the pie of China in the grew some portion of the world, particularly the European Union and the United States, which altogether contain around 60 percent of the overall fare advertise. This is an ideal opportunity to extend our piece of the overall industry

**Understanding Indian Market(domestic) and Foreign market scenario**



Source: World Merchandise exports by Major Products (World Trade Organization-Statistical Review Report 2017)

As per the Research report in 2016 India was ranked 3rd largest exporter of Textiles in the world but it is expected to move downwards to obtain 5th rank as there has been an Increase in the production of textile apparel export in Vietnam. The share in world export has increased in the expected volume of export and import annual share as well as the percentage change will decline by 2% of India which will tend to affect the export of manufacturing and production of Textile Products and clothing.

“With Fiscal development off the table and Monetary related the new normal has been sluggish growth. In fact, austerity seems to characterize the fiscal position in most developed countries arrangement insufficient, the new typical has been drowsy development”. As genuine government spending has missed the mark concerning “what it would have been if the pattern increment in government consumption preceding the emergency had been supported. By mid-2017”, positive thinking “about the possibilities of a break with the past appear to have made a protected Exchange return, in view of better work figures or potentially an uptrend in generally unstable quarterly development figures”. “The IMF (2017) raised its estimate for worldwide development to 3.5 for every percent for 20172 and the World Trade Association (WTO, 2017) foreseen an arrival to a more vigorous worldwide exchanging condition; the media immediately reverberated this positive thinking as a counteractant to the string of awful news stories over the past a year”. A get in development and a consistent drop in joblessness in “Western Europe, specifically, have been proclaimed as demonstrating a new beginning for the area and past. Indications of a recuperation in Japan in the final quarter of 2016 likewise proceeded into the first quarter of 2017, yet from a low level”.

	Value	Share in world exports/imports				Annual percentage change				
		2010	2000	2005	2010	2010	2010-11	2014	2015	2016
<b>Exporters</b>										
China <sup>a</sup>	106	10.4	20.2	30.5	37.2	5	5	-3	-3	
European Union (28)	65	36.7	34.8	27.0	23.0	-1	4	-14	1	
extra-EU (28) exports	20	9.9	9.9	8.1	7.1	0	3	-14	0	
India	16	3.6	4.1	5.1	5.7	4	5	-8	-6	
United States of America	13	7.1	6.1	4.6	4.6	1	3	-4	-5	
Turkey	11	2.4	3.5	3.6	3.8	3	3	-12	0	
Korea, Republic of	10	8.2	5.1	4.3	3.5	-1	-1	-11	-6	
Pakistan <sup>b</sup>	9	2.9	3.5	3.1	3.2	2	-3	-9	9	
Chinese Taipei	9	7.7	4.6	3.9	3.1	-1	0	-6	-8	
Hong Kong, China	8	-	-	-	-	-6	-9	-7	-13	
domestic exports <sup>b</sup>	0	0.8	0.3	0.1	0.0	-19	-32	-30	-9	
re-exports	8	-	-	-	-	-6	-6	-7	-13	
Viet Nam <sup>b</sup>	7	0.2	0.4	1.2	2.4	14	16	16	9	
Above 10	246	80.0	82.8	83.6	86.8	-	-	-	-	
<b>Importers</b>										
European Union (28)	69	35.2	33.6	27.9	22.9	-1	6	-12	-6	
extra-EU (28) imports	29	9.9	10.0	10.1	9.7	1	9	-9	1	
United States of America	29	9.8	10.5	8.8	8.5	4	4	5	-3	
China <sup>a</sup>	17	7.9	7.2	6.6	5.5	-1	-6	-6	-12	
Viet Nam <sup>b</sup>	13	0.8	1.6	2.6	4.3	11	14	10	-1	
Japan	9	3.0	2.7	2.7	2.8	2	2	-8	2	
Hong Kong, China	7	-	-	-	-	-7	-10	-9	-13	
retained imports	-	0.9	0.3	0.1	-	-	-	-	-	
Bangladesh <sup>b</sup>	7	0.8	1.1	1.7	2.4	8	14	4	2	
Mexico <sup>a,c</sup>	6	3.6	2.8	1.9	2.1	3	4	2	-4	
Turkey	6	1.3	2.1	2.5	2.0	-1	5	-12	-2	
Indonesia <sup>b</sup>	6	0.8	0.4	1.6	1.9	5	0	-2	1	
Above 10	181	64.0	62.3	58.3	53.5	-	-	-	-	

<sup>a</sup> Includes significant shipments through processing zones

<sup>b</sup> Structural estimates

<sup>c</sup> Imports were actual F.o.b.

Source: Top 10 Exporters and Importers of Textiles in the World (World Trade Organization-Statistical Review Report 2017)

	Value	Share in world exports/imports				Annual percentage change			
		2016	2009	2005	2010	2016	2015	2013	2011
<b>Exporters</b>									
China a	161	18.2	26.6	36.7	36.4	4	5	-7	-7
European Union (28)	117	28.5	30.9	28.4	26.4	3	7	-12	4
extra-EU (28) exports	28	6.4	6.7	6.2	6.3	4	4	-14	1
Bangladesh b	28	2.6	2.5	4.2	6.4	11	5	8	8
Viet Nam b	25	0.9	1.7	2.9	5.5	15	18	16	5
India	18	3.0	3.1	3.2	4.0	6	14	3	-2
Hong Kong, China	16	---	---	---	---	-7	-6	-10	-15
domestic exports b	0	5.0	2.6	0.1	0.0	-26	-16	-37	-38
re-exports	16	---	---	---	---	-7	-6	-10	-15
Turkey	15	3.3	4.2	3.6	3.4	3	8	-9	0
Indonesia b	7	2.4	1.8	1.9	1.7	1	0	-1	-2
Cambodia b	6	0.5	0.8	0.9	1.4	13	6	11	6
United States of America	6	4.4	1.8	1.3	1.3	3	4	0	-6
<b>Above 10</b>	<b>384</b>	<b>68.9</b>	<b>76.0</b>	<b>80.2</b>	<b>86.4</b>	-	-	-	-
<b>Importers</b>									
European Union (28)	175	41.1	47.3	45.2	37.4	1	9	-10	-3
extra-EU (28) imports	95	19.6	23.4	28.0	20.4	1	9	-8	0
United States of America	91	33.0	28.7	22.1	19.5	2	2	4	-6
Japan	28	9.7	8.1	7.3	6.1	1	-7	-8	-1
Hong Kong, China	13	---	---	---	---	-4	-2	-8	-11
re-billed imports b	---	0.9	---	---	---	---	---	---	---
Canada c	10	1.8	2.1	2.2	2.0	2	1	-2	-3
Korea, Republic of	9	0.6	1.0	1.2	1.8	12	12	0	2
China a	7	0.6	0.6	0.7	1.4	17	15	7	1
Australia c	6	0.9	1.1	1.3	1.4	5	4	1	-3
Switzerland	6	1.6	1.6	1.4	1.3	2	4	-8	5
Russian Federation c	6	0.1	0.3	2.0	1.2	-4	-6	-34	3
<b>Above 10</b>	<b>338</b>	<b>90.3</b>	<b>90.8</b>	<b>83.5</b>	<b>72.1</b>	-	-	-	-

a Includes significant shipments through processing zones  
 b Secretariat estimates  
 c Imports are valued f.o.b.

Source: Top 10 Exporter and Importers of Textiles in the World (World Trade Organization-Statistical Review Report 2017-expected)

As per the Global Shifts in Textile Industry & India’s Position research paper the Average wages in Textile Industry is more than 260 Billion Dollar, in which highest wages are provided in China and Vietnamese market which are amongst the top 10 exporters of Textiles. There has been an increase in the demand of Textile industry apparel in China and India (after promotion of Make in India campaign). The Average wage rate has been increased substantially in India as the government has introduced New Schemes for Textile industry and is planning to increase the investment rate in the industry as well for increasing the level of participation in the market (domestic as well as International).

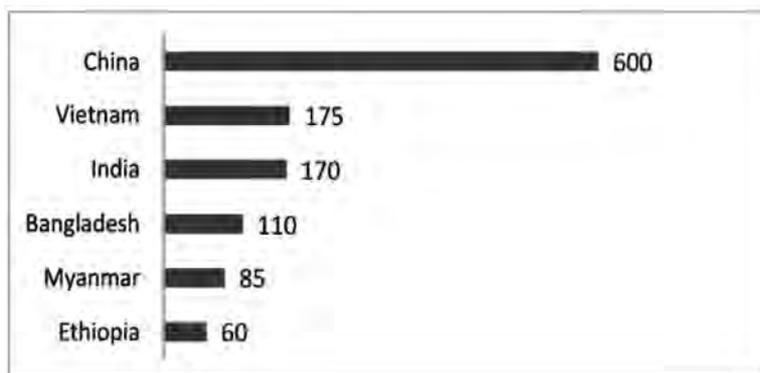


Figure1.2: Average Wages in Textile Industry per month

Source: FICCI Report on Global Trends (2016-17)

The aggregate textile and apparel export of India remained at US\$ 40 Bn. in 2015. Clothing is the largest exported category in India's exports with a dominant share of 43%. It is trailed by the exports of "others" category which includes home textiles items and crafted works. "Others" class contributed an offer of 25% in the aggregate textile and apparel export of India. Fiber/Filament class has been enlisted the most highest development in India's Exports of textile and apparel with a CAGR of 13% however their export have tumbled down since 2011-12. But after the downfall it has increased tremendously. India is amongst the top nations that produce and consume a fair share of textile produced goods in the economy.

EU and USA are the biggest markets for Indian textile and apparel export with offers of 19% and 18% respectively. The other real fare markets for India are UAE, China and Bangladesh which have an offer of 9%, 8% and 5% separately.

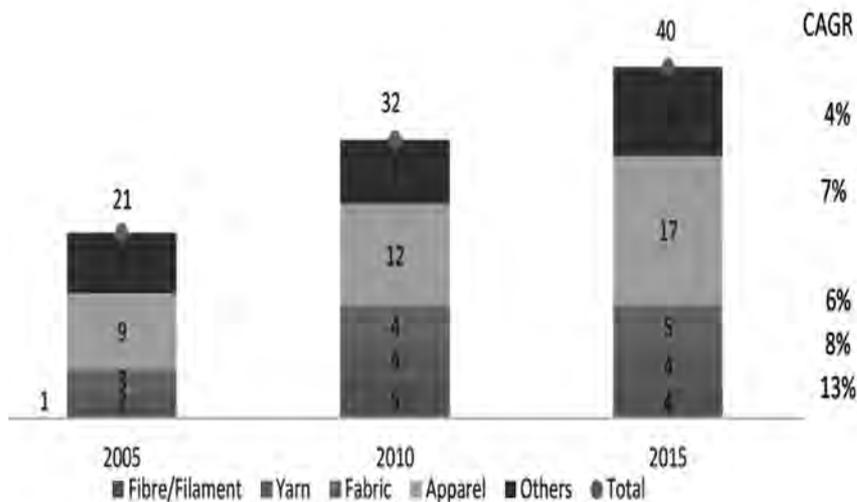


Table: India's Textile and Apparel Industry (Export)

Source: DGCIS, Ministry of Commerce, EPCH

### Strategies Implemented by the Indian Market

- "Achieving Scale across the Value Chain: In the Indian textile and clothing sector, the sub areas of weaving, handling and garment are divided and ailing in the essential scale for accomplishment in worldwide markets. A large portion of the assembling units have little limits and low assembling efficiency which are a drawback in the worldwide field. To bring them at standard with worldwide partners there is a need to encourage fast development and modernization of existing firms with potential for progress. Furthermore, it is important to pull in substantial scale venture for assembling world class offices for" understanding

“the Prime Ministers vision “Make in India” with “Zero Effect; Zero Defect” at each level of the esteem chain. The coming of huge assembling plants with economies” of scale will help India in accomplishing worldwide intensity. Extensive scale limit augmentations will empower “India to accomplish the vision of higher offer of worldwide exchange and make 35 million employments to enable India to wipe out poverty”.

- “Reforming Labour Laws: “The regulatory system for labour with multiplicity of laws and revealing prerequisites with difficult exchange costs is one of the significant purposes behind the failure of the area to extend and get worldwide scale. This is particularly valid for the work concentrated sections of the esteem chain. “So as to draw in vast scale investments, acquire worldwide scale and bring the Indian area at standard with other contending nations, there is a quick need to audit the work laws to make them financial specialist and work agreeable. The administrative system for work ought to be in full consistence with India’s ILO commitments. This ought to be viewed as an essential for maintained development as a piece of worldwide supply chains. The 44 work laws, the majority of which were drafted in the before part of the most recent century, should be revoked and supplanted by one, or, best case scenario a” couple, easy to understand law suited to the states of the 21st century.
- Promoting Innovation and R&D: “The Indian material and clothing division is known for its customary items. India is yet to make its essence felt on the worldwide stage with brands, chains, items and procedures. Without development and R&D this would not occur. Government and industry need to work in association for this change. Business process advancement, building brands and making outlines ought to be the prompt need. Ecological concerns would continue ascending” in this “century and India should attempt and position itself in the worldwide outskirts as an eco-accommodating center point in the whole esteem chain of the material and attire area. This joined with being viewed as work amicable could turn into India’s USP as it tries to accomplish a 20% offer of the worldwide exchange throughout the following 10 years.

“It is important to support the expansion in yield of cotton per hectare through enhanced seed assortments and better homestead hones. The target ought to be to coordinate the worldwide yield per hectare yields. Silk, fleece and jute creation likewise need to support selection of better innovation and practices to expand generation and enhance quality”.

### **Porters Five Forces Model**

Porter’s Five Forces Framework is an instrument for analyzing competition of a business. It draws from Industrial Organization (IO) financial matters to infer five powers that decide the aggressive force and, in this way, the attractiveness (or absence of it) of an industry as far as its benefit. An “unattractive” industry is one in which

the impact of these five powers decreases general profitability. The most unattractive industry would be one drawing closer “pure rivalry”, in which accessible benefits for all organizations are headed to typical benefit levels.

Porter’s refers to “these powers as the micro-environment, to balance it with the more broad term macro-environment. They comprise of those powers near an organization that influence its capacity to serve its clients and make a benefit”. “An adjustment in any of the powers ordinarily requires a specialty unit to re-survey the commercial center given the general change in industry data”. “The general business engaging quality does not infer that each firm in the business will restore a similar productivity”. “Firms can apply their center abilities, plan of action or system to accomplish a benefit over the industry average”.

Five forces concentrates upon

- Threat of New Entrants
- Bargaining power of Suppliers
- Bargaining power of Customers
- Substitute Products
- Competitive Rivalry



## Conclusion

In this paper measures the levels of efficiency of industry or firm from the Indian textile industry in various years. The investigation enables one to independently recognize the commitment of technological differences across group gatherings of firms towards the generally speaking measure of efficiency. Difference in the market portion of the rising countries, for example, Vietnam support to the Small scale

industry in the Indian economy that measures the performance of the material textile mills in the market. Moreover, India has competitive advantage in the economy which are as follows:-

- “Abundant availability of raw materials such as cotton, wool, silk and jute”.
- “India enjoys a comparative advantage in terms of skilled manpower and in cost of production relative to major textile producers”.
- “Growth in building and construction will continue to drive demand for non-clothing textiles”
- 100 percent FDI (automatic route) is allowed in the Indian textile sector
- To improve technical skills in apparel industry government established 75 apparel training and design centres across India
- the “overall amount of raw cotton produced in the country, domestic consumption totalled 29.3 million bales, while in FY15, 30.4 million bales was the domestic consumption”
- “India is currently focusing on setting up a shop-in-shop strategy, where it will open shops in large retail stores, curtailing capex and risk, to focus on the domestic market”
- “The sector has also witnessed increasing outsourcing over the years as Indian players moved up the value chain from being mere converters to vendor partners of global retail giants”

Consequently, even without an expansion in send out advancement methodologies for the advantage of the business, the normal cost of creation has been lessened to some broaden. Additionally the government is intending to put resources (investment) into the business to advance work in the area and also there will be a positive effect on the BOP of the country. This would significantly help the focused position of Indian firms on the foreign market.

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# Barriers to Entry for New Entrants into Kandahar Industrial Park

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## *Abstract:*

Entry barriers are one of the dangerous powers that help with incumbent firms in terms of competitive advantage over new participants and helps to promote the oligopoly market structure. The objective of this study is to consider barriers to entry of new entrants into Kandahar industrial park and to recognize some remedial business strategies where it's application make the entry easy into Kandahar industrial park.

To conduct this study a mixed method research design is used. The qualitative technique is completed over semi-organized interviews where prepared questions are used (Saunders and Lewis, 2012). A 5-point Likert scale questionnaire, which was sent out to senior and middle workers, managers and owners, is utilized for obtaining quantitative data.

Results shows that there are entry barriers into Kandahar industrial park which impact new entrants negatively. And the importance level of the entry barriers to new entrants is significantly difference. Yet, there are economics strategies that helps entrepreneurs to enter Kandahar industrial park.

**Keywords:** Entry Barriers, SMEs, Entrepreneurship, Kandahar industrial park.

## **Introduction**

SME, and specifically new firms, fill in as agents of progress (Audretch 2006; Acs and Storey 2004). Entrance of new innovative companies encourages flow in economy. However, when companies enter the market, if the benefit is over the long run focused level, newcomers may have an equilibrating capacity. The outcome is that the entrance of a new company adds to allocative and additional powerful productivity in the market (Audretch and Thurik 2001). Yet, barriers to entry can keep companies from entering the industrial park and hinder the procedure which relates to dynamic & allocative effectiveness. In accordance to this viewpoint, it can be clearly realized that entry barriers are the main issue in competition policy and entrepreneurship. So, this research studies entry barriers into Kandahar industrial park.

Kandahar Industrial Park, located 10 kilometres east of Kandahar province of Afghanistan, which consists of 86 factories, and provided all construction-management

and quality-control services during its development. The park, which encompasses 15 hectares, is a professionally managed facility. Factories operating in Kandahar's industrial park produce soaps, salt, plastic sandals, plastic water pipes, non-alcoholic beverages, ice, plastic water storages and dishes, etc.

The research focuses on the following research questions. What are the entrance barriers for a small, or specifically new firm entering into Kandahar industrial park? How these new firms can handle those barriers to entry with the limited resources available to them?

A detailed literature review was done in order to identify the various barriers which have been studied till date. (Shepherd 1997; Karakaya and Stahl 1989). Based on the existing literature, 37 barriers to entry were identified. As a portion of these barriers appear to cover, two inquiries emerge. First, one may address whether each entry barrier is essential to be considered by new entrants. Secondly, "it is fascinating to check whether entry strategies exist to enter Kandahar industrial park which will handle the entry barriers. In this regard some research has been done (Karakaya 2002; Karakaya and Stahl 1989)".

A pilot survey was done on a sample size of 10 respondents who were employees /managers/owners of 3 SMEs in the Kandahar industrial park. It was found that out of the 37 barriers that had been identified through the literature review, only 19 could be identified by the respondents. So, we could safely assume that these barriers did not exist in the region. It seemed appropriate to find the most challenging barriers to entry from the left 19 barriers. Hence, a questionnaire was designed to test it.

The limitation of the study is that it has been conducted on the manufacturing firms only (MSE). Besides, structural barriers to entry are addressed by Karakaya (2002) and are centred on a moderately lesser sum of observation. Some authors stretch the requirement for empirical observation on existing entry barriers (Karakaya 2002; Bunch and Smiley 1992; Geroski 1995; Geroski et al. 1990; Scherer 1988). with respect to entry barriers, this article talks about companies' perceptions. Thinking about the troubles of completing experimental "research on strategic barriers to entry (Bunch and Smiley 1992), we chose to talk with firms and measure their perception" in regards to the significance of particular barriers to entry.

As this research is mostly intrigued by those barriers that keep potential participants from entering Kandahar industrial park, perceptions of the practitioners with respect to entry barriers are crucial. Subjective views of entrepreneurs' effect both development inspiration and direct performance (Davidsson 1991). The same line of thought was taken by numerous researchers (Aidis 2005; Karakaya 2002; Bunch and Smiley 1992). However, every one of these studies concentrated on a restricted subset of entry barriers or a particular set of organizations or firms. A few researchers emphasize the significance of strategic barriers (Bunch and Smiley 1992; Scherer 1988), while others underline the role of structural barriers (Bain 1956; Karakaya

2002). In accordance with this, a restricted group of prearranged structured and/or strategic barriers were studied. For this research, it was significant to meet a huge sum of industries in Kandahar industrial park, and to contain every single potential barrier recognized in the literature study (Blees et al. 2003). This research is based on manufacturing sector MSMEs.

For barriers to entry in literature, two traditions can be recognized: first the industrial organization point of view (e.g. McAfee et al. 2004; Von Weizsacker 1980; Stigler 1968; Bain 1956) second the strategic management point of view (e.g. Robinson and McDougall 2001; Singh et al. 1998; Porter 1980, 1985).

The primary tradition stresses on the firm like the element of investigation, tries for effectiveness and distinguishes hurtful barriers for the purpose of economic growth. Different models indicate how barriers to entry influence the conduct of industries and the execution of the business. Fundamentally, structural and strategic entry barriers are recognized. The first type of barriers originates from the features of market structure and are broadly talked in the custom of industrial organization. The idea of "barriers to new competition" is presented by Bain (1956). Competition is significance to the task and process of businesses and that any manufactured barrier to rivalry may decrease the effective allocation of resources in the business, are assumptions on which this idea is based on. Bain focused on the significance of structure features which hamper marker entry of potential competitors: absolute cost advantages, technological advantages, economies of scale and so on.

7 key sources of entry barriers were specified by Porter (1980, pp. 9–13: "economies of scale, product differentiation, capital requirements, switching costs, access to distribution channels, cost disadvantages independent of scale and government policy". Indirectly he utilizes an expansive definition of barriers to entry so as to include "structural and strategic barriers". "He gives a sort of typology of entry barriers that organizations "firms" should consider when they have well developed competitive policy. Porter's descriptions also indicate that structural and strategic barriers are connected. The barriers might be established in the market structure, yet this will urge firms to respond deliberately".

The purpose of this study isn't to distinguish the correct tradition. Both methodologies might be significant and the correct decision relies upon the issue under study. We review that the goal of this study is to distinguish significant barriers to entry as saw by firms (Smiley 1988; Singh et al. 1998; Yip 1982). It goes for perceiving the significant limitations that hamper "firms" in settling on their entrance choice.

So, a comprehensive definition for barriers to entry, covering every single pertinent affiliation made by firms, is received for this study. A helpful definition is stated in Besanko et al. (2007, p. 289): "Barriers to entry are those factors that allow incumbent firms to earn positive economic profits, while making it unprofitable for newcomers to enter the industry". "Two types of barriers are distinguished. Structural barriers

concern natural cost or marketing advantages resulting from market characteristics that are exogenous to the firm in the short and medium term. Strategic barriers result from a firm's behaviour and concern entry-detering strategies".

"In light of this definition existing literature is checked on. Table 1 gives an outline of the categories of barriers watched and gives some key references. A few barriers are gathered together as various names are utilized for alike issues to feature a particular concentration under study; for instance, "control over strategic resources", "location" and "vertical integration" all relate to general barriers of "securing inputs". Likewise, "strategic behaviour differentiation", and "packing the product space" are gathered together".

Table 1: Entry barriers got from the literature review and talked in the survey

Type of barrier	Barrier to entry	Source
Financial Requirement or cost of Market Entry	Capital requirements to enter the markets	Porter (1980), Yip (1982), Karakaya and Stahl (1989)"
	Capital intensity of the market	"Yip (1982), Karakaya and Stahl (1989), Shepherd (1997)"
	Access to funds	"Yip (1982), Karakaya and Stahl (1989)"
	Amount of sunk costs involved in entering the market	"Bain (1956), Porter (1980), Shepherd (1997)"
	R&D Expense involved in entering a market	Yip (1982)
Competitive advantage of incumbent firms	Incumbent firms with proprietary product technology	Yip (1982)
	Trade secrets by incumbent firms or competitors in the market	Porter (1980), Karakaya and Stahl (1989), Shepherd (1997)
	Incumbent firms cost advantages due to economies of scale	Bain (1956), Yip (1982), Geroski et al. (1990),
	Absolute cost advantages held by incumbents	Porter (1980), Karakaya and Stahl (1989), Shepherd (1997)
	Incumbent firms with cost advantages due to learning curves	Porter (1980), Karakaya and Stahl (1989), Shepherd (1997)

	Trade secrets held by incumbent firms or competitors in the market	Bain (1956), Yip (1982), Geroski et al. (1990),
	Incumbent firms with superior production processes	Porter (1980), Karakaya and Stahl (1989), Shepherd (1997)
	Relatively easy access to raw materials/products	Porter (1980), Yip (1982), Karakaya and Stahl (1989)"
	Incumbent firms possessing strategic raw materials/products	Yip (1982), Karakaya and Stahl (1989), Shepherd (1997)"
Unfavourable business environment barrier for market entrants	Competitive advantage of incumbent firms	Bain (1956), Geroski et al. (1990), Bunch and Smiley (1992), Singh et al. (1998)
	Brand name/ identification advantage held by incumbent firms	Geroski et al. (1990), Bunch and Smiley (1992)
	Access to distribution channels	Yip (1982), Karakaya and Stahl (1989), Bunch and Smiley (1992)
	Customer loyalty advantage held by incumbent firms	Bunch and Smiley (1992), Shepherd (1997), Singh et al. (1998)
Profit Expectations from entering the market	Expected post-entry reaction / retaliation from firms already in the market	Porter (1980), Yip (1982), Karakaya and Stahl (1989)"
	Magnitude of market share held by incumbent firms	Yip (1982), Karakaya and Stahl (1989), Shepherd (1997)
	Number of firms in the market	Yip (1982)
	High profit rates earned by incumbent firms	Bain (1956), Yip (1982), Geroski et al. (1990),
	Low prices charged by incumbent firms	Porter (1980), Karakaya and Stahl (1989), Shepherd (1997)
	Cost advantages and profitability uncertainty of the industry	Geroski et al. (1990), Bunch and Smiley (1992)

Institutions	Regulatory price framework of the industry	Bunch and Smiley (1992), Shepherd (1997), Singh et al. (1998)
	Incumbent firms with government subsidies	Porter (1980), Yip (1982), Karakaya and Stahl (1989)''
	Uncertainty on the implementation date of a particular plan	Yip (1982), Karakaya and Stahl (1989), Shepherd (1997)
	Broad Based Economic Empowerment requirements for the industrial park	Yip (1982)
	Environmental legislation requirements applicable to industrial park	Yip (1982), Karakaya and Stahl (1989), Bunch and Smiley (1992)
	Licensing requirements to enter and/or expand current operations	Bunch and Smiley (1992), Shepherd (1997), Singh et al. (1998)

## Methods

A mixed approach of descriptive and exploratory research was adopted for performing of the research. Quantitative data was collected for conducting the research to decide the degree of the entry barriers and qualitative data was studied to achieve knowledge and understandings into the entry barriers and how these barriers can be handled to permit entry into Kandahar Industrial park. The quantitative investigation was utilized to test target hypotheses and evaluating connections among factors.

The qualitative technique was completed over semi-organized interviews, where prepared questions were asked (Saunders and Lewis, 2012) and from a meeting had with manager of PVC pipe companies which was discussing barriers. Around 70 percent of "interviews" was done in person and 30 percent telephonically where directly meeting the respondent was impossible because of distance and time limitations.

Questionnaires were used for obtaining quantitative data. 67 organizations were contacted for the research, out of which 62 agreed to participate. As interviews had to be conducted along with the quantitative data collection, high efforts were made to gain as many viewpoints as possible from the owners, managers, and even senior workers. In total 188 responses were obtained. Senior executives were picked because of their comprehensive learning of the business from all zones of the business. They had the skill and information about how to enter into the Kandahar industrial park and how to prevail in the long and short run.

The study based on the economic theories of barriers and does not imply to propose its outcomes are suitable to different enterprises and nations. Indeed, not every person responded to the interview and questionnaire. The sum of respondents to the study survey is typically from the existing incumbents, which could skew the outcomes for these members. In addition, the sample size for the research was smaller too.

### **Research propositions and hypothesis**

A group of hypothesis was suggested by Karakaya & Parayitam (2013) in their research of “the relationship among barriers to market entry”. Their research concentrated on market entry into e-commerce. The commitment of this study is to test this hypothesis in the Kandahar industrial park and to think about the distinctions in the extent of significance of barriers.

#### **Research Hypothesis:**

To consider whether entry barriers are seen similarly important by existing firms or there is a significant difference in the importance amongst the barriers to entry.

H0: There is no significant difference in the importance level of barriers to entry for new entrants into Kandahar industrial park.

H1: There is significant difference in the importance level of barriers to entry for new entrants into Kandahar industrial park.

#### **Research proposition 1:**

Proposition one states that there are entry barriers into Kandahar industrial park and make entry conditions tough for new entrants.

#### **Research proposition 2:**

Entry strategies exist to enter Kandahar industrial park which will handle the entry barriers.

### **Analysis and Findings**

This chapter is all about to discuss the results of research in detail based on one hypothesis and two propositions of the research that are outlined in chapter 2. Research survey and semi-structured interviews were utilized to explore all two research proposition and research hypotheses respectively. Outcomes gotten were commonly in accordance with literature and this will be talked over in depth under each proposition and hypothesis.

Though entry barriers are studied broadly in literature review, there is very restricted or limited “study” and information which specifically concentrates on barriers to entry into Kandahar industrial park.

The respondents were requested to answer the questions of interview as recorded in Appendix 1. The interview consisted of a 5-point Likert scale which extended from "Not a Barrier" to "Extreme Barrier". Results appeared in Table 2 are from singular questions utilized in the study with the calculated mean and standard deviation.

Table 2: Descriptive statistics per statement

Descriptive statistics			
Barriers	Analysis N	Mean	Std. Deviation
Incumbent firms with cost advantages due to learning curves	188	3.72	.804
Access to funds	188	3.47	1.081
Capital intensity of the market	188	1.85	.732
R&D Expense involved in entering a market	188	2.83	.847
Licensing requirements to enter and/or expand current operations	188	1.37	.486
Trade secrets by incumbent firms or competitors in the market	188	3.87	.791
Infrastructure (Security, Electricity, road, environment, etc.)	188	3.92	.809
Incumbent firms with superior production processes	188	3.60	1.061
Relatively easy access to raw materials/products	188	3.05	.769
Incumbent firms possessing strategic raw materials/products	188	1.35	.481
Brand name/identification advantage held by incumbent firms	188	3.70	.788
Access to distribution channels	188	3.42	1.094
Number of firms in the market	188	2.72	.739
High profit rates earned by incumbent firms	188	3.47	.700
Low prices charged by incumbent firms	188	1.58	.696
Cost advantages and profitability uncertainty of the industry	188	3.80	.755
Capital requirements to enter the market	188	3.95	.872
Heavy advertising by firms already in the market	188	2.95	1.016

Results appeared above were acquired from a poll in view of the 5 point Likert. Mean values beneath 3 show disagreement with the explanations contained in the

construct/factor whereas mean values over 3 show agreement with the statement contained the construct. statements contained in the factor are appeared in Table 3 above.

The first factor/construct which is Financial Requirements has mean value over 3, which shows agreement with the statement. And last factor/construct which is institutions has mean value less than 3, which shows disagreement with the statement.

### Factor Analysis

In order to achieve the objective of common factors leading to a barrier of new entrants into Kandahar Industrial Park. Factor analysis was employed as a data reduction technique. To test the validity of the instrument, KMO test was conducted. The KMO value for the instrument is 0.517, which is acceptable.

Similarly, Bartlett's test of sphericity tests the hypothesis that the correlation matrix is an identity matrix, which would indicate that the variables are unrelated and therefore unsuitable for structure detection. Small values (less than 0.05) of the significance level indicate that a factor analysis may be useful with the data. The Bartlett's test showed a significant level and hence the instrument was accepted for further study.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.517
Bartlett's Test of Sphericity	Approx. Chi-Square	211.753
	df	153
	Sig.	.001

Since the entry barriers are large in number and are inter-related, factor analysis is done to extract the factors affecting the entry of new entrants into Kandahar Industrial park. Principal Component Analysis is the method of extraction. Varimax is the rotation method. As per the Kaiser criterion, only factors with eigenvalues greater than 1 is retained. Five factors in the initial solution have eigenvalues greater than 1.3 and together, they account for almost 52% of the variability in the original variables. The items falling under each of these factors are then dealt with quite prudently. Table 4. shows that the component and factors were identified

Component 1: Unfavourable Business Environment

Component 2: Fund flow and cost of the market

Component 3: Identification/Brand Image

Component 4: Competitive advantage

Component 5: Profit expectation

Table 4: Factor loading and name

Factors	Variable	Factor Loading	Factors derived name
1.	Access to distribution channel	0.821	Unfavourable business environment
2.	Heavy advertisement	0.701	
3.	Capital requirements to enter the market	0.80	Fund flow and cost of the market
4.	Capital intensity of the market	0.70	
5.	Incumbent firms possessing strategic raw materials/products	0.83	Identification/brand image
6.	Brand name/identification advantage held by incumbent firms	0.65	
7.	Expenses involved in entering in a market	0.716	Competitive advantage
8.	Incumbent firm with superior production process	0.664	
9.	Trade secrets by incumbent firms or completion in market	0.508	
10	Number of firms in the market	0.686	Profit Expectations from entering the market
11	High profit rates earned by incumbent	0.683	

### Research Hypothesis:

Is to consider whether entry barriers are seen similarly important by existing firms. "Is there a significant difference in the importance amongst the barriers to entry?"

### *null hypothesis:*

*H0: The null hypothesis states that there is no difference in the level of importance amongst barriers to entry for new entrants into Kandahar industrial park.*

### Alternative hypothesis:

**H1:** The Alternative hypothesis states that there is difference in the level of importance amongst barriers to entry for new entrants into Kandahar industrial park.

The research hypothesis aims to evaluate whether entry barriers are similarly important to firms. Understanding the order of significance of barriers profoundly affects manager as they get ready to enter new markets and to policymakers who are in charge of progressing small venture development.

According to Karakaya and Parayitam (2013) high capital requirements for “firms” make the market unreachable for new participants, letting existing companies “firms” to control market share and procure higher benefits. On the other hand, capital requirements are not a barrier if the firm is bestowed with a huge financial resources (Karakaya and Parayitam, 2013).

If we arrange the entry barriers in table 2 from highest barrier to lowest barriers, so the top 5 entry barriers which has higher mean value would be Capital requirements to enter the markets (mean = 3.95); Infrastructure (Security, Electricity, road, environment, etc. (mean = 3.92); Trade secrets by incumbent firms or competitors in the market (mean = 3.87); Cost advantages and profitability uncertainty of the industry (mean = 3.8) and Incumbent firms with cost advantages due to learning curves (mean = 3.72). And the last 5 entry barriers which have lower mean score would be [Number of firms in the market (2.72), Capital intensity of the market (1.85), Low prices charged by incumbent firms (1.58), Licensing requirements to enter and/or expand current operations (1.37), and Incumbent firms possessing strategic raw materials/products (1.35)].

Results indicated capital requirements influence firms very negatively. The differentiation is statistically important; yet, the interview respondents and means test affirmed this reality obviously. The outcomes also show that regulations/institutions are the smallest entry barriers in Kandahar industrial park. It is presumed that industrial park put fluctuating significance to the diverse entry barriers and this will assist chiefs with planning on the most proficient method to relieve against the barriers that are more basic to them.

### **Proposition 1:**

Proposition one states that there are entry barriers into Kandahar industrial park and make entry conditions tough for new entrants.

The first proposition of the research intended to reveal entry barriers into Kandahar industrial park and their effect to new participants. The study comes about uncovered outcomes that are mentioned in the literature and these are examined in detail under the accompanying sub-headings. The entry barriers that were revealed during the “interviews” were assembled into two sets; competitive advantage and capital requirements. Barriers to entry that fall under capital requirements are access to capital; capital intensive, access to infrastructure. And under competitive advantage, the entry barriers that were distinguished were access to product/molecules; access to market and pricing model. As per Shepherd (1979), entry barriers are “structural (exogenous) and strategic (endogenous)”. The recognized entry barriers during interviews were either structural or strategic which is in accordance with the literature.

### ***Capital Requirements or Financial Requirements***

The findings of the research for capital requirement show that the highest 5 matters that were featured by respondents as key concerns for their achievement in Kandahar

industrial park are Funding/access to capital, access to infrastructure, Trade secrets by incumbent firms, and Incumbent firms with cost advantages. Capital requirements construct/factor is indicated in Table 2 as the only entry barrier that got the top score of 3.95 from the results of the survey. This specifies entry cost which is required for participating in the industrial park and money-related necessities that are required for everyday activities or operations. The capital requirement barrier to enter the market statement which is a piece of the capital requirement construct/factor/class had a score of 3.02; which is the second most elevated score accomplished and the most minimal score of 1.85 in this class was Capital intensity of the market required to enter the market.

### **Competitive advantage**

The competitive advantage of incumbent firms over new entrants were recognized by respondents. Mostly respondents stated that access to distribution channels; long-term agreements/contracts; access to market; access to products/supply are the concerns which put new entrants into competitive disadvantage.

According to Table 5, competitive advantage is featured as an entry barrier with average score of 3.11. There were 2 important differences in the definite outcomes that need to be stated. The very first difference that incumbent firms believe on is that joint effort or facilitating agreements between existing firms is not an entry barrier. The average score of this statement is (2.9). As indicated by Johansson and Elg (2002), they expressed that connections between occupant firms can go about as a barrier whether it was planned or not, the result is the same.

The second statement that incumbent firm is not agreeing with is that existing firms have a cost advantage because of their experience as they gave an average score of 2.9. Here is a difference with the "resource-based view theory", according to Karakaya and Parayitam (2013) argued that "resources are fundamental in developing competence and sustaining competitive advantage to prevent market entry of new firms".

Established firms have competitive advantage due to entry barriers. The huge capital requirements and competitive advantages are also interlinked. The findings of the research recognized three key concerns that put new participants at a disadvantage like pricing model, access to market, and access to products/molecules. To sum up, there is difference in the importance level of barriers to entry for new entrants into Kandahar industrial park

### **Proposition 2:**

Entry strategies exist to enter Kandahar industrial park which will handle the entry barriers Proposition two of the study tried to know whether new participants regardless of the difficulties and barriers to entry can enter effectively and gain success. Findings of research indicates that there are open doors for entry into Kandahar industrial park.

### **Regulation:**

The regulation is identified as a key opportunity for providing an open door for entry respondents believe that government rules and regulation need to be change regarding Kandahar industrial park. Respondents from those firms which are new into industrial park believe that the given price model by government isn't inspiring or helping entry, instead it negatively effects small entrants who have already entered Kandahar industrial park. In a few examples, it was recognized that licensing requirements a hindrance for new entrants because of its time consume and complexity. So, amendments in regulation regarding above issues will provide an opportunity for entry into new entrants, as respondents have faith in that a key role in change or "transformation" can be played by government and it's seen in their answers.

### **Partnerships / Joint Ventures:**

Significance of having a decent strategy and executing that technique well will contribute towards the achievement of that firm. Respondents believe that to gain success and have efficiency, partnership has to be formed like how existing occupants did.

For instance, a respondent says that "We've been telling the new entrants that they should come together and you get 50 customers, he gets 50 and you get 20 and collectively you pull together the money. So, I think it all comes to cost because you must bring in a complete ship for economies of scale. So, I think economies of scale is another barrier. It's the cost, which is linked to economies of scale."

### **Funding Opportunities:**

Funding is almost key barrier for new entrants in Kandahar industrial park as its already discussed, respondents claim that government financial institutions are having a key role to facilitate new entrants with essential funding. Some respondents mentioned the lack of financing by private banks and if settled can display open doors for entry.

### **Conclusion**

Results regarding hypothesis indicated that there is significant difference in the importance level of barriers to entry. The differentiation is statistically important; yet, this fact is obviously being affirmed by interview respondents and mean analysis. The outcomes also show that regulations/institutions are the smallest entry barriers in Kandahar industrial park. It is presumed that industrial park put fluctuating significance to the diverse entry barriers and this will assist chiefs with planning on the most proficient method to relieve against the barriers that are more basic to them.

The purpose of proposition 1 was to recognize entry barriers for new entrants. According to the findings of the study "large capital requirements and competitive advantage of incumbent firms" are main entry barriers. The extensive capital

requirements support existing firms due to their already present infrastructure and their easy approach to funding to meet the capital-escalated nature of the business. New entrants can't approach capital from financial institutions because of their deficit balance sheet to help it. So, due to their failure to access capital, they can't form the required infrastructure to be competitive.

The outcomes of research proposition 2 indicated that there is the possibility of entry into Kandahar industrial park, however the pricing model needs to be revised to certify that new entrants could recover its expenses and make a reasonable return on investment. It was identified as well that if new entrants want to gain success, they need to make joint ventures between themselves to bring down operational costs, share skill and offer benefits as an entry model. In addition, funding opportunity needs to be provided by state banks.

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# Manuscript Guidelines

## Originality

- Paper submitted should be an original and unpublished work. Any paper submitted which is identical or substantially similar to research work already published or under review for another publication will not be considered.
- A covering letter clearly certifying that the manuscript is original and has neither been Published anywhere or is at present being considered for any other publication should accompany the manuscript.

## Structure of the Manuscript

The manuscript should be accompanied by the following:

- An abstract of 300 words with five key words and AJEL classification.
- The recommended length of the research article should be between 6000-9000 words.
- Use single quotes throughout. Spellings of words in quotations should not be changed.
- Use 'nineteenth century', '1980s'. Spell out numbers from one to nine, 10 and above to remain in figures, However, for exact measurements use only figures (3 km, 9 per cent not %). Use thousands and millions. (e.g., not lakhs and crores).

## Article Title Page

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Details should be given on the Article Title page including:

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Categorize your paper on the Title Page, under one of these classifications:

- Research paper
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### **Headings**

The heading should follow the APA style. There are 5 heading levels in APA. Regardless of the number of levels, always use the headings in order, beginning with level 1. The example of the format of each level is as follows:

<b>Level</b>	<b>Format</b>
1	Centered, boldface, Uppercase and Lowercase Heading The paragraph begins below indented like a regular paragraph
2	Left-aligned, boldface, Uppercase and Lowercase heading The paragraph begins below indented like a regular paragraph
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- Each Figure, Table or Exhibit should be given on a separate sheet. Figures, Table and Exhibits are to be separately numbered, titled and attached at the end of the text serially. The position of the Figure, Table, or Exhibit should be indicated in the text on a separate line with the words "Table 1 about here".

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- All tables should be sequentially numbered with Arabic numerals.
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- The title of the table should be clear, concise and self-explanatory. For e.g., an appropriate title would be 'Variables for Studying the Determinants of Employee Satisfaction' instead of "Variables of the Study"
- When appropriate, you may use the title to explain an abbreviation parenthetically. For e.g., Comparison of Median Income of Adopted Children (AC) v. foster Children (FC)

### **Headings**

- Keep the headings clear and brief.
- Every column in the table should have a column heading

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- All values should be indicated in million or billion.
- Numerals should be express to a consistent number of decimal places.
- All the abbreviations and special symbols should be explained.
- If the table or its data are from another source, the source should be property cited.

### **Format**

- Table should be given on a separate sheet.
- The entire table should be single spaced including title, headings and notes.
- The table should be referred in the text. The text should explain what the reader should look for when using the table or figure.

- The table can be either coloured or black and white.
- Abbreviations, terminology, probability level values must be consistent across tables and figures in the same article.
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## **Figures and Graphs**

- Tables and graphs should be submitted in their original Word/Excel format. Power point slides and screen grabs should be avoided where possible.
- Number all the figures consecutively with Arabic numerals.
- Mention all figures in the text.
- Avoid overuse of special effects like 3D effects, shading and layered text.
- One-column figures must be between 2 and 3.25 inches wide (5 to 8.45 cm).
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- The height of figures should not exceed the top and bottom margins.
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- The font size must be between eight and twelve point.
- Use circles and squares to distinguish curves on a line graph (at the same font size as the other labels).
- For figures, include the figure number and a title with a legend and caption. These elements appear below the visual display. For the figure number, type figure X. then type the title of the figure in sentence case. Follow the title with a legend that explains the symbols in the figure and a caption the explains the figure. For e.g., figure 1. Corporate social responsibility index. This figure illustrates the corporate social responsibility scores of IT firms in India.
- Captions serve as a brief, but complete, explanation and as a title. For example, "figure 4. Population" is insufficient, whereas "figure4. Population of tribal races, indian subcontinent (1980)" is better.
- Graphs should always include a legend that explains the symbols, abbreviations, and terminology used in the figure.
- These terms must be consistent with those used in the text and in other figures.
- The lettering in the legend should be of the same type and size as that used in the figure.

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- Use of footnotes and endnotes should be minimum.

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