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SAIBALAJI INTERNATIONAL JOURNAL OF MANAGEMENT SCIENCES calls for papers in areas relevant to Management, Administrative Sciences, Business Administration, Marketing, Finance, Human Resource Management and Public Administration. For the ease of selecting areas, we have mentioned few areas above but the papers beyond the scope of these topic and areas are also welcomed to be considered for publication in our journal. We have a double blind peer review policy of reviewing research work submitted to us.

तदेव लग्नं सुदिनं तदेव

ताराबलं चन्द्रबलं तदेव ।

विद्याबलं दैवबलं तदेव

लक्ष्मीपते तेङ्घ्रियुगं स्मरामि ॥ ॥

That alone is the best time, that only is the best day,
that time only has the strength bestowed by stars, moon,
knowledge and Gods, when we think of the feet of Lord
Vishnu who is the spouse of Goddess Lakshmi

SAIBALAJI INTERNATIONAL JOURNAL OF MANAGEMENT SCIENCES

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REDUCING COMPRESSED AIR CONSUMPTION OF VIBRATORY BOWL MACHINE

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ABSTRACT

This project is carried out for the saving compressed air consumption in a bearing manufacturing company. On the basis of secondary data we have located the area having highest consumption of air. Cause and effect analysis is used to find out the various causes responsible for this. The validation of the causes is carried out by experienced personnel. Why-why analysis is done to reach the root cause of the problem. Various opportunities available for the reducing consumption are identified. After procurement of necessary material and manpower resources corrective actions are implemented in a period of two months. We have observed data for the period of 8 month after implementation. Economic and statistical analysis is carried out to show the results.

Key Words: Compressed Air consumption, Vibro roller feeder, Solenoid valve

1. INTRODUCTION

This project is carried out in the Bearings manufacturing plant situated in Pune. The roller line -4 manufactures rollers required for roller type of bearing. On the basis of secondary data of one year we have located the machine (vibratory

bowl feeder) having highest air consumption for this project. To avoid the congestion in the track the rollers are moved forward forcibly using air pressure. This project intends to reduce the compressed air consumption used for the vibratory bowl machine. The rollers are fed for the rough grinding process.

2. PROBLEM IN HAND

The cycle time of the line is 0.25 seconds or in other words the line produces 240 rollers in a minute. At a time 4 rollers are processed. To feed rollers at such high speed the company uses compressed air. It passes through a pipe to the bottom of the hopper of the Vibro roller feeder. The rollers are then processed on the rough grinding machine. In this the air consumption is about 44% of the total consumption. The compressed air required for the Vibro-40 was amounting to Rs. 56000/- per month. The total cost of electrical energy for the compressed air of all six machines was Rs. 1.25 Lakh per month. We have reduced the same in this project.

3. AIM AND OBJECTIVES

On the basis of the above discussion aim of this project is 'to reduce the air consumption and save the cost associated with it by 30 – 40%. The objectives of this study are stated as below:

- 1) To study the existing situation and potential for the reduction in air consumption
- 2) To implement the most suitable alternatives in a period of one month
- 3) To save the air consumption and cost thereof by 30 to 40% of the existing.
- 4) To observe the functioning of the roller feeder for two months

The two months post implementation observations will be sufficient and build our confidence to communicate results. The expected saving from implementation of this project is Rs. 2.00 to 2.66 Lakh per year.

4. REVIEW OF RELEVANT LITERATURE

It is often present a misconception that the costs of compressed air are so low that they do not justify the expenditure of expensive managerial time for optimizing all the parameters included in the problem. However, the air is free of charge only before compression. But, after the compression, it has significant price so it is justified to invest efforts in increasing energy efficiency of CAS (Compressed Air System). According to the study “Compressed Air Systems in European Union” about 10% of the total electricity is consumed in the industry for the production of compressed air. By applying the procedures for pneumatic system optimization, rational consumption, compressed air preparation and appropriate equipment selection, with skilled management and software support, and proper maintenance, it is possible to significantly improve the energy efficiency of CAS [ⁱ].

The following technical measures can improve the functioning of the entire process of a compressed air system with the return of investment of less than 3 years [ⁱⁱ]:

1. Power drive improvement: usage of high efficiency drives and integration of variable speed drives,
2. Optimal choice of compressor type, as a function of specific needs of end users,
3. Regeneration of the dissipated heat and using it in other functions,
4. Improvement of compressed air preparation: reduction of pressure and energy lost in processes of cooling, drying and filtering,
5. Reduction of pressure losses due to friction in the pipeline, Air leakage elimination
6. Optimization of devices that consume compressed air: application of more efficient, better adjusted devices or, in some cases, replacement of compressed air with an electrical drive,

In our case we have reduced the air usage by reducing pressure, leakage and air usage. For this purpose a control system can be installed. The chute design also will be looked into for modification.

Rule of thumb: For systems in the 100 psi range, every 2 psi decrease in discharge pressure results in approximately 1 percent power decrease at full output flow. For systems with 30 to 50 percent unregulated usage, a 2 psi decrease in header pressure will decrease energy consumption by about 0.6 to 1.0 percent because of unregulated air. About 1.6% to 2% power decreases for every 2 psi drop [iii] The existence of a single compressed air supply system in the machine means that both the actuators and the blast air consumers are operated at the same pressure. Due to the high proportion of blast air and cleaning air required, pressure fluctuations occurred within the machine's supply network. The result: High pressure at blast air consumers tends to high air consumption. The Task Group decided to separate the compressed air supply into an actuator and the blast air supply network. The actuator supply network is operated at 6 bar, the operating pressure to the blast air network is reduced to 3 bar. This ensures that only those consumers which actually need it are operated at high pressure (consumers requiring only a low pressure level are analogously supplied only with low pressure) [iv].

The result: 1) Reduced operating pressure in the blast air supply network and

2) Approximately 25% reduction of overall compressed air consumption leads to Energy savings in the production of compressed air

The improvement of end-user performance, including reduction of inappropriate use and leaks, is a key step towards optimization of compressed air systems and any future work should be focused on this side. The next important element of the CAS is the pressure regulator stabilizing the pressure level before final application by reducing pressure of the incoming compressed air. It is stated

that possible low efficiency of the regulation does not mean a poor quality regulator, but workability destruction according to the need of the relevant application [^v]. Compressed air is a safe and reliable power source that is widely used throughout industry. In fact, approximately 70% of all companies use compressed air for some aspect of their operations. Compressed Air Equipment (CAE) has many advantages but at other hand it has also many drawbacks. [^{vi}]: 1) Noise – air compressors are very loud. 2) Size– the bigger the air compressor tank is, the more power it provides. 3) Maintenance– monitoring and repair work should be done for the piping and compressor system.

5. RATIONALE BEHIND PROBLEM SELECTION

The consumption of the air in previous year is given in the following table. The air consumption is measured in terms of Kilowatt-hours / year. Total air produced by the compressor and stored in the pressure tank is distributed to the equipments where it is required. There is centralized storage system of air storage and distribution.

Table 1: Yearly consumption of compressed air							
S/N	Machine	Air consumption	%	S/N	Machine	Air consumption	%
1	Vibro-40	85949	44.4%	5	Vibro-30	21507	11.1%
2	Vibro-20	18905	9.8%	6	Vibro-42	21507	11.1%
3	Vibro-22	24109	12.5%		Total	193484	100.0%
(Vibratory Bowl = Vibro)							

The highest consumption (44%) is in case of vibratory bowl 40 which is feeder line of rollers for grinding operation. Therefore we have concentrated on

this machine for reducing the usage of the compressed air. Other machines namely Vibro-42, Vibro-30, Vibro-22 and RCB outlet consume remaining 56% of the compressed air.

It is observed that production time varies from 976 to 1054 minutes per day depending upon breakdowns and setting. Thus the line actually runs for 1009 minutes per day in three shifts. In other words the net production time is 70% of the available time. The air consumption is observed from the meter placed for this purpose. The air pressure of 2 bar is required for running the feeder. It is supplied by a 6 mm diameter tube. The consumption of air is directly proportional to the production time. Finally the daily cost of compressed air required to run the feeder is Rs. 2000 to 2334 or on an average of Rs. 2140 per day.

6. PROBLEM ANALYSIS

We have carried out cause and effect analysis for knowing various causes responsible for the higher consumption of air as below:

The causes highly responsible for higher air consumption are: Continuous supply of air, Slope of the V-chute and Diameter of inlet pipe.

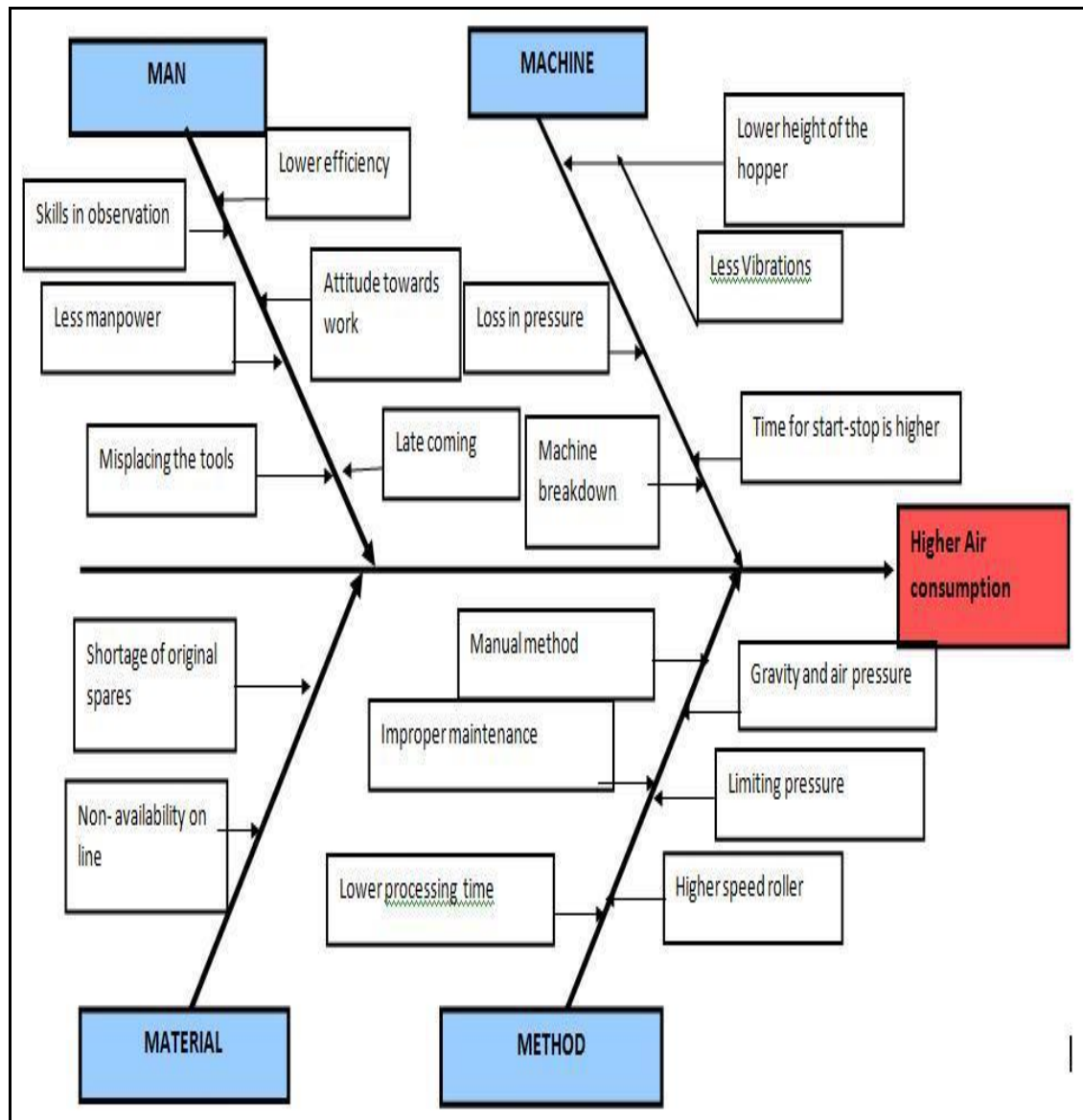


Fig1: Cause and effect analysis

The why-why analysis for the above key causes is carried out . At the end of this exercise we found that increasing the V-chute slope will require less air quantity. It is because of higher speed of the rollers by gravity. Similarly lower response time valve (on and off) should be installed to cut the air supply when it is not in use. It also should operate according to cycle time.

7. CORRECTIVE ACTIONS

After that we have taken following corrective action as a part of this project.

a) Reduction in the inlet pipe diameter

Pneumatic high pressure tube of PU-6 type was used before implementation of the project. The outer diameter of this tube was 6 mm whereas internal diameter was 4 mm. In our case the pressure is 2 Bars. We felt that its higher diameter is responsible for higher air consumption. In the tips to conserve compressed air it is suggested to use Nitra type of pipe having similar mechanical qualities. The outer diameter of this pipe is 4 mm whereas the inner diameter is 2.4 mm.

b) Change in the slope of V-chute

The scope of V- chute was 35° with horizontal base before implementation of the project. We have added barrel piece at the base of the hopper having 150 mm height. This has increased slope of the V-chute by 9° and become 44° . The trigonometric explanation of this is given below

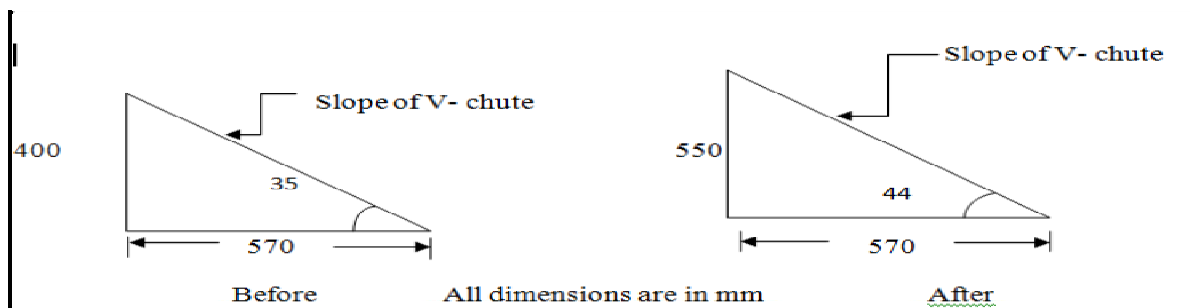


Fig 3: Slope of the V-Chute

c) Installation of automatic electromagnetic operated solenoid valve.

We have recommended installation solenoid valve after the main valve. The on-off is allowed by the movement of the core when the solenoid is energized or de-energized. We have chosen for this ASCO valve which is a compact designed and leak tight arrangement. Two-way valve is required in our case as inlet and outlet both are one. The response time of this valve is 10 to 20 milliseconds. This

valve is operated on electro-magnetic field. The time of operation is set for 1 second.

d) Fixing nozzle at the pipe end.

Previously the pipe was open ended in the V- chute. There was no nozzle. We have added nozzle of suitable diameter to reduce air consumption. It is studied in literature review that in 4mm internal diameter pipe (under air flow of 538 Normal liter/ minute) can waste 25% excess air than a nuzzled pipe end. Thus nozzle reduces air consumption than open ended pipe. This is because of the air spread with certain direction can be effectively used for the purpose.

8. OVERALL RESULTS OF THE STUDY

Overall results of the project are summarized as below.

1. Saving in the consumption of compressed air by all six machines is reduced by 18%.
2. The average cost of air consumption was Rs. 127/ hour of operation which has reduced to Rs. 71/ hour. In other words, Rs. 56 /hour of operation is saved.
3. Vibro-40 machine now requires 4046 Kwh energy instead of previous 7162 Kwh. Thus it saved 44% of energy from its previous consumption.
4. The cost saved due to lower consumption of energy is Rs.23000/- per month. This will accumulate Rs. 2.75 Lakh per year.
5. The cost of implementation of project is Rs. 1.40 Lakh. This is one time investment.
6. The payback period of the project is six months. The project will bring Rs. 1.15 Lakh net benefit (NPV) in one year after returning its investment with 15% discounting rate.
7. The operation is now become automatic.

9. CONCLUSION

In this project we have taken necessary corrective actions which have reduced consumption of compressed air in overall plant as well as in individual machine. Overall results of the project are very impressive and project became successful in saving electrical energy required for compressing air. Economic benefit from this project is assessed as Rs. 2.75 Lakh per year. Overall time required to undertake corrective actions is 2 months. The cost of project is Rs. 1.40 Lakh. We have maintained record for 8 months after implementation for comparing situation and making conclusion.

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SPEECH RECOGNITION FOR MARATHI LANGUAGE-A REVIEW

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ABSTRACT

The Speech is primary mode of communication among of human being .ASR is advance way to communication between computer and human. Speech Recognition system is implemented for so many other languages but there is less work done for Marathi Language which is official language of Maharashtra and Maharashtra Government. This paper presents an overview of speech recognition technology, software, development and applications used for Marathi Language .This paper also presents what research has been done till now for ASR for Marathi Language. This paper will help researcher for choosing the technique, its advantages and disadvantages of different techniques used by different authors for Marathi Language.

Key words: *Speech Recognition , Marathi Language, Tools*

INTRODUCTION-

India is country of cultural diversities and different languages. One of the State from India is

Maharashtra situated in the western region of the country. The state shares borders with Gujarat, Madhya Pradesh, Chhattisgarh, Andhra Pradesh, Karnataka, Goa and the Union Territory of Dadra and Nagar Haveli. Majority of a people speak in their own language that is MARATHI. Mainly in the rural part of India people can only read and write in Marathi Language for their day to day activity. In the past decades it is observed that very few people take initiative in robust speech recognition and other language processing techniques as these language changes every 50km. Lot of research need to be carried out in the field of digital recognition.

As the use of the technology in the day to day life increased the most common and widely used mode of communication changed from writing to speech. There are around 7000 spoken languages around the world. The researchers are trying to develop new interface for communicating with computer systems. The traditional interactions used for the communicating with system are using a pointer (i.e. mouse), textual input (using Keyboard).Speech is also having the capacity to be used to communicate with system. As speech is the most commonly and widely used mode of communication it obvious for human to expect speech for developing an interface between human and computer. The researchers are trying to develop systems which can record, interpret and understand speech or try to understand system by facial expression or by lip-reading. The work for development of such system started in early 1960's. In today's information era most of the information is in digital form and it is accessible to only those who can read or understand a particular language. The language technologies can provide

solution by developing natural interface making the information available as digital content available to people speaking different languages and facilitate the exchange of information excluding the barrier of language. The systems which can understand the spoken language can be very help in domains like agriculture, health care, government services, tourism, criminal investigation, deaf students etc..... The language technologies can play more vital role in developing country and specifically in India which is a multi-lingual nation.

Marathi is an Indian language spoken predominantly by the Marathi people of Maharashtra. It is the official language and co-official language in the Government of Maharashtra and Goa states of Western India, respectively, and is one of the 22 scheduled languages of India. There were 73 million speakers in 2007; Marathi ranks 19th in the list of most spoken languages in the world. Marathi has the fourth largest number of native speakers in India, after Hindi, Bengali and Telugu in that order. Marathi is the official language of Maharashtra state which covers a vast geographical area which consists of 35 different districts.

SPEECH RECOGNITION-

Voice is the future and speech recognition is the inter-disciplinary sub-field of computational linguistics that develops methodologies and technologies that enables the recognition and translation of spoken language into text by computers. It is also known as "automatic speech recognition" (ASR), "computer speech recognition", or just "speech to text" (STT). It incorporates knowledge and research in the linguistics, computer science, and electrical engineering fields.

TYPES OF SPEECH RECOGNITION SYSTEM-There are four types of Speech Recognition System are as follows:

Isolated Words - Isolated word recognizers usually require each utterance to have quiet (lack of an audio signal) on BOTH sides of the sample window.

Connected Words-

Connect word systems (or more correctly 'connected utterances') are similar to Isolated words, but allow separate utterances to be 'run-together' with a minimal pause between them.

Continuous Speech-

Continuous is with continuous speech capabilities are some of the most difficult to create because they must utilize special methods to determine utterance boundaries.

Spontaneous Speech-

It can be thought of as speech that is natural sounding and not rehearsed. An ASR system with spontaneous speech ability should be able to handle a variety of natural speech features such as words being run together, "ums" and "ahs", and even slight stutters.

TOOLS FOR SPEECH RECOGNITION

Following are some tools used for ASR

PRAAT: It is free software with latest version 5.3.04 which can run on wide range of OS platforms and meant for recording and analysis of human speech in mono or stereo

AUDACITY: It is free, open source software available with latest version of 1.3.14(Beta) which can run on wide range of OS platforms and meant for recording and editing sounds.

CSL: ComputerizedSpeech Lab is a highly advanced speech and signal processing workstation (software and hardware). It possesses robust hardware for data acquisition and a versatile suite of software for speech analysis.speech recognizer

tools, written completely in Java programming language. It provides a more flexible framework for research in speech recognition.

SCARF: It is a software toolkit designed for doing speech recognition with the help of segmental conditional random fields.

MICROPHONES: They are being used by researchers for recording speech database. Sony and I-ball has developed some microphones which are unidirectional and noiseless.[3]

Steps involved in Speech Recognition-

Input:

Initially input is taken from user it may be either in the form of audio,image or Marathi text. The input image is browsed from database and selected as input. And if input is text then it entered through keyboard.

Pre-processing:

Pre-processing is done during the inputting the text or image. It includes the loading the input to the system. The system takes this input and made it ready for the feature extraction.

Feature Extraction

During the feature extraction phase the parameters of input image or text are extracted for the recognition. This parameter includes the values stored for the corresponding image or text.

Pattern Matching/Recognition:

The parameters obtained in the feature extraction phase are compared with database. The database already contains the parameter set for corresponding image or text. So the input parameters are matched with predefines parameters and correct output is recognized.

Output:

The results that are obtained during matching and recognition of input are displayed on the output screen. If input is text then its output will be sign image and if input is sign image then its corresponding output will be text.

SOME FEATURE EXTRACTION TECHNIQUES [10]-

Method	Property	Comments
Principal Component Analysis(PCA)	Non linear feature extraction method, Linear map; fast; eigenvector based	Traditional eigenvector based Method also known as karhuneu-Loeve expansion; good for Gaussian data.
Linear Discriminant Analysis	Non linear feature extraction method, Supervised linear map; fast eigenvector based	Better than PCA for classification
Independent component analysis (ICA)	Non-linear feature extraction method, linear map, iterative non-Gaussian	Blind course separation, used for de-mixing non-Gaussian distributed sources (features).
Linear Predictive coding	Static feature extraction method, 10 to 16 lower order co-efficient	
Cepstral analysis	Static feature extraction method, Power spectrum	Used to represent spectral envelope
Mel-frequency scale analysis	Static feature extraction method, Spectral analysis	Spectral analysis is done with a fixed resolution along a Subjective frequency scale i.e Mel-frequency scale
Mel-frequency cepstrum (MFCC's)	Power spectrum is computed by performing Fourieranalysis	
Kernel based feature extraction method	Non-linear transformations	Dimensionality reduction leads to better classification and it is used to remove noisy and redundant features, and improvement in classification errors.

APPROACHES TO SPEECH RECOGNITION

It contains following approaches

- Acoustic Phonetic Approach
- Pattern Recognition Approach
- Knowledge Based Approach
- Connectionist Approach
- Support Vector Machine (SVM)

Acoustic phonetic approaches

It is basically depends upon theory of acoustic phonetics and postulate . The basis of acoustic phonetic approach is basically on finding the speech sound and providing appropriate labels to it (Hemdal and Hughes, 1967). It also postulates that there exist finite, distinctive phonetic units in spoken language. These units are broadly characterized by a set of acoustic properties.

Pattern Recognition Approach

It involves two essential steps namely pattern training and pattern comparison . It uses well formulated mathematical framework and established consistent speech pattern representation from set of labeled training samples via formal training algorithm. Speech pattern recognition can be in the form of speech template or statistical model (HMM) and can be applied to a sound, a word, a phrase etc.

Knowledge Based Approach

Artificial intelligence approach a hybrid of the acoustic phonetic approach and pattern recognition approach and it attempts to mechanize the recognition procedure according to way of person applies intelligence in visualizing and characterizing speech based on a set of measured acoustic features. Knowledge based approach uses the information regarding linguistic, phonetic and spectrogram

Connectionist Approach (Artificial Neural Networks)

The artificial intelligence approach (Lesser et al. 1975; Lippmann 1987) attempts to mechanize the recognition procedure according to the way a person applies intelligence in visualizing, analyzing, and characterizing speech based on a set of measured acoustic features.

Support Vector Machine (SVM) : Support Vector Machines were first introduced. It represents a new approach to pattern classification. It has great ability to generalized often resulting in better performance than traditional technique like Artificial NeuralNetwork (ANN). Support vector machine can be used as a regularized radial basis function classifier [12].

Observations:-

1. Title	ACOUSTIC SPEECH RECOGNITION FOR MARATHI LANGUAGE USING SPHINX
Authors	Aman Ankit ¹ , Sonu Kumar Mishra ² , Rinaz Shaikh ³ , Chandraketu Kumar Gupta ⁴ , Prakhar Mathur ⁵ , Soudamini Pawar ⁶ and Anil Cherukuri
Year	September 2016
Categories of token for Marathi words	10,000 Marathi words
Tool used	JSAPI-Open Source JAVA –API Sphinx Library-Hidden Markov Model
Output	Analog-Digital/Speech –Text
2.Title	Recognition of Isolated Marathi words from Side Pose for multi-pose Audio Visual Speech Recognition
Authors	Sadhana Sukale ¹ , Prashant Borde ² , Shivanand Gornale ³ ,

Year	Pravin Yannawar ¹ , 2016
Categories of token for Marathi words	9300 Sample
Database	VVISWa ^o (Visual Vocabulary of Independent Standard Words)
Tool used	2D SWT and LPC features under Multipose AVSR environment. Using KNN
Accuracy level	90 %
Output	Analog-Digital/Speech –Text
3.Title	Design and Development of Word Recognition for Marathi Language
Authors	Potale Shubham ¹ , Kharpude Pratik ¹ , Patil Rahul ¹ , Ajay Kumar Gupta ²
Year	2016
Categories of token for Marathi words	50 Speakers, 10 Isolated words, very small vocabulary
Tool used	MATLAB ,Sphinx 4 platform MFCC and LPCC
Output	Analog-Digital/Speech –Text
4.Title	Automatic Speech Recognition System Using MFCC And DTW For Marathi Isolated Words
Authors	Kishori R. Ghule , Ratnadeep R. Deshmukh
Year	2015

Categories of token for Marathi words	100 speakers, 100 words, and 30,000 sample database
Tool used	Mel-Scale Frequency Cepstral Coefficients (MFCC) and Dynamic Time Warping (DTW). For database
Accuracy level	PRAAT, PC360 computer and PC350 headset, 89 %
Output	Analog-Digital/Speech –Text
5. Title	Automatic Speech Recognition of Marathi isolated words using Neural Network
Authors	Kishori R. Ghule*1, Ratnadeep R. Deshmukh
Year	2015
Categories of token for Marathi words	100 speakers, 100 words and 30,000 sample database
Tool used	Discrete Wavelet Transforms (DWT), Artificial Neural Networks (ANN).
Accuracy level	60 %
Output	Analog-Digital/Speech –Text
6. Title	Development of Marathi Language Speech Database from Marathwada Region
Authors	Pukhraj P. Shrishirmal, Ratnadeep R. Deshmukh, Vishal B. Waghmare, Sushma Borade, Pooja V. Janse, Ganesh B. Janvale
Year	October 2015
Method/ Techniques	PC 350 and PC360 headset of Sennheiser, PRAAT software
Categories of token	230 sentences in Marathi language, 36,864 Words

for Marathi words	
Output	Analog-Digital/Speech –Text
7.Title	A TEXT-TO-SPEECH SYNTHESIS FOR MARATHI LANGUAGE USING FESTIVAL & FESTVOX
Authors	Sangramsing Kayte ¹ , Monica Mundada ¹ and Dr.Charansing Kayte ²
Year	Nov 2015
Categories of token for Marathi words	Marathi Vowels and consonants
Tool used	open source Festival TTS engine., (G2P) conversion that were written in Festival's format.G2P algorithm
Accuracy level	96 %
Output	Text to Speech –Digital to Analog
8.Title	Review on Speech Recognition System for Indian Languages
Authors	Jinal H. Tailor, Dipti B. Shah
Year	June 2015
Output	Review Paper
9.Title	Advanced Marathi Sign Language Recognition using Computer Vision
Authors	AmitkumarShinde, Ramesh Kagalkar
Year	May 2015
Categories of token for Marathi words	43 Marathi Isolated words, and Deaf Sign Symbols
Tool used	JAVA

Accuracy level	90 %
Output	Sign Language- Text
10.Title	Speech Recognition in Marathi Language on Android O.S.
Authors	Saroj B. Jadhav, JayshreeGhorphade and RishikeshYeolekar
Year	August 2014
No. of database	Few Vowels &Consonents.,
Tool used	MFCC,DTW
11.Title	Automatic Speech Recognition for Ahirani Language Using Hidden Markov Model Toolkit (HTK)
Authors	Ajay S. Patil
Year	June 2014
Categories of token for Marathi words	20 Ahirani words by collecting data from 10 speakers
Tool used	Hidden Markov Model ToolKit (HTK). ,HSLab and Sennheiser PC 350 special edition microphone
Accuracy level	94 %
Output	Audio-Text/Analog-Digital
12.Title	Development of Automatic Speech Recognition of Marathi Numerals - A Review
Authors	Yogesh K. Gedam, Sujata S. Magare, Amrapali C. Dabhade, Ratnadeep R. Deshmukh
Year	March 2014
Categories of token for	0-9 Marathi Numerals,100 Speakers,3000 database

Marathi words Tool used	Mel Frequency Mel cestrum (MFCC) technique for feature extraction and for dynamic time wrapping (DTW),PRAAT, “ software and „Sennheiser PC360“ and „Sennheiser PC350“ headset
13.Title Authors Year Categories of token for Marathi words Tool used Output	Creation of Marathi speech corpus for automatic speech recognition Santosh Gaikwad, Bharti Gawali *, Suresh Mehrotra Nov 2013 28420 isolated words and 17470 sentences from around 500 speaker PRAAT,CSL software Audio-Text
14.Title Authors Year No. of database Output	Study of Lip Prints among the Population of Marathi Neeti Kapoor*, Prakash Tiwari** Feb 2013 200 People Lip Prints Lip print study for Marathi people
15.Title Authors Categories of token for Marathi words Accuracy level Output	A Review on Acoustic Phonetic Approach for Marathi Speech Recognition Rohini B. Shinde,V. P. Pawar Marathi Voewls 98.5 % Review Paper
16.Title	Development of Isolated Words Speech Database of

Authors	Marathi words for Agriculture Purpose P. P. Shrishrimal*, R. R. Deshmukh, Vishal B. Waghmare
Year	2012
No. of database	100 Marathi words, 10 people
Tool used	PRAAT

Literature Review-

In speech recognition, transcripts are created by taking recordings of speech as audio and their text transcriptions. Speech recognition mostly revolves around three approaches namely Acoustic phonetic approach, Pattern recognition approach and Artificial intelligence approach. Creation of acoustic model requires a large database of speech and training algorithms. The output of an ASR system is recognition and translation of spoken language into text by computers and computerized devices. The key contribution in this paper is to create corpora for Marathi language and explore the use of Sphinx engine for automatic speech recognition. The paper talks about speech recognition using CMU-Sphinx library. The library provides suitable framework for speech to text conversion and results can be improved by analyzing the dialects of Marathi language. They have briefly discussed the Speech Recognition System and various approaches which can be used to develop ASR in various languages. Hidden Markov Model is popular for building rudimentary ASR.[1]

The paper presents a new multi pose audio visual speech recognition system based on fusion of side pose visual features and acoustic signals. The work was implemented on 'vVISWA' (Visual Vocabulary of Independent Standard Words) dataset comprised of full frontal, 45degree and side pose visual streams. The work

highlighted in this research work, provides an idea about isolated Marathi word recognition from side pose using 2D SWT and LPC features under MultiposeAVSR environment. The feature were fused using feature level fusion mechanism was classified using KNN. 90% correct classification was achieved on „vVISWa“ data set with consideration of only side pose AV streams. These results clearly indicates that multiposeAVSR system based on robust visual features offers enhancement is recognition of words from even side pose where the acoustic recognition is poor.[2]

The project is capable to recognize the isolated Marathi word. At the initial level effort is made to providehelp for basic operations. Most of the research is carried out on MATLAB but we go for Sphinx 4 platform as it concerns with JAVA.A conclusion that for isolated word all the work is done in MFCC and LPCC or in MatlabNo another work is done using Sphinx tools[3]

This paper describes an approach of isolated words speech recognition by using Mel-Scale Frequency Cepstral Coefficients (MFCC) and Dynamic Time Warping (DTW). This ASR develops for large vocabulary. MFCC extract the features of spoken words speech signals. For database100 isolated words are taken from Marathi language and recorded from 100 native speakers with 3 utterances. Dynamic Time Warping algorithm is used for the feature matching purpose. DTW algorithm measures similarity between two sequences, which may vary in speed or time.Develop a speech database and automatic speech recognition system of isolated words in Marathi language is the aim of this research. [4].

The proposed method is implemented for Marathi isolated word. 100 words are collected from Marathi language. ASR implemented for 100 speakers give three utterances of 100 words. The features from the signals are extracted using Discrete

Wavelet Transforms (DWT) because they are well suitable for processing non-stationary signals like speech because of their multi-resolutional, multi-scale analysis characteristics. Speech recognition is a multiclass classification problem. So, the feature vector set obtained are classified using Artificial Neural Networks (ANN). During classification stage, the input feature vector data is trained using information relating to known patterns and then they are tested using the test dataset. Develop a speech database and automatic speech recognition system of isolated words in Marathi language is the aim of this research. From this experiment conclude that NN is a powerful technique for classification and gives result very fast in development of Automatic Speech Recognition [5].

In this paper the design and development of speech corpus in Marathi language of Marathwada region is discussed. The paper describes the development of two isolated speech database for Agriculture domain, one isolated word speech database for Travel domain, isolated speech database of Numbers, and a continuous speech database for agriculture purpose. The developed speech database will be useful for all the researchers which are willing to work on speech technologies for Marathi Language. There are 101,000 utterances of isolated words and 36,864 utterances of continuous spoken sentences in the developed speech corpora. The corpora was developed at 16kHz sampling frequency and in natural environment. The corpora is annotated and will be made available for the researchers.[6]

This research paper describes the Implementation of the first, usable, Marathi Text to Speech system for Maharashtra Marathi using the open source Festival TTS engine. Besides that, this research paper also discusses a few practical applications that use this system. This system is developed using di-phone concatenation approach in its waveform generation phase. Construction of a di-phone database and implementation of the natural language processing modules are described.

Natural language processing modules include text processing, tokenizing and grapheme to phoneme (G2P) conversion that were written in Festival's format. Finally, a test was conducted to evaluate the intelligibility of the synthesized speech [7].

In this paper survey related to indo Aryan languages usage for communicating directly with the machine has been performed. This mechanism includes various techniques and experimental results. By finding proper noise removal techniques accuracy level can be increased. And there is a scope for developing the Speech Recognition System for Gujarati Language [8].

The first step of this system is to create a database of Marathi Sign Language. The proposed system also includes efficient and robust hand segmentation and tracking algorithm to achieve better recognition rates. A large set of samples has been used to recognize 43 isolated words from the Standard Marathi sign language. In proposed system, they intend to recognize some very basic elements of sign language and to translate them to text and vice versa in Marathi language. Deaf sign users are purely depends on the sign language interpreter for communication. This system will help deaf sign user in improving their quality of life significantly. With the help of this system deaf person can be signer independent. The vocal people from society can also learn the sign language and contribute to communicate with the deaf people. The offline mode recognition will helps to learn sign language and gives 100% results. The offline detection of sign language will work based on the predefined database. The different images were tested and result found that new technique of classification gives 90% accuracy. The proposed system was implemented in JAVA [9].

An experimental database of phonemes (some vowels and consonants) is collected for speaker dependent system. MFCC are extracted from speech signal of the spoken words. DTW algorithm is used for measuring similarity between two word

sequences, which may vary in time or speed to construct the minimum distance warp path. Paper discussed some feature extraction and detection techniques and their pros and cons. Some new methods are developed using combination of more techniques [10].

This paper describes the implementation of HMM (Hidden Markov Model) based speaker independent isolated word speech for Ahirani which is a commonly spoken language in the Khandesh region of Maharashtra State of India. The system is developed using Hidden Markov Model ToolKit (HTK). The system is trained on 20 Ahirani words by collecting data from 10 speakers and is tested using data collected from another 10 speakers in room environment. This paper details the experiment by discussing the implementation using the HTK Toolkit. The experimental results show that the performance of the system is 94% and is speaker independent. The system has given encouraging results for selected twenty Ahirani words [11].

This paper describes the development of automatic speech recognition of Marathi numerals i.e. Shunya (Zero) to Nau (Nine). Paper describe the speech recognition of Marathi digits using MFCC and DTW technique. In MFCC, the main advantage is that it uses Mel-frequency scaling which is very approximate to the human auditory system. Feature matching was done with the help of Dynamic Time Warping (DTW). DTW is the best nonlinear feature matching technique in speech identification, with minimal error rates and fast computing speed. With the help of VQ, the unique representation of each speaker is done in an efficient manner. Many problems arise during the data collection for approaching the peoples to data recording. [12].

This paper describes the collection of audio corpus for Marathi language. The objective of the research is to create the speech corpus which can be used for automatic speech recognition system for various domains like telephonic inquiry

system, teaching tutor etc. The size of corpus collected is 28420 isolated words and 17470 sentences from around 500 speakers. The speech utterances were recorded in 16 kHz in three recording medium, a headset, desktop mounted microphone and Mobile phone. The corpus is transcribed as well as annotated and is available for recognition system. The paper discusses optimal design and development of speech corpus for Marathi language.

The research is also contributing towards the transcription as well as labeling of the speech corpus, which will be of great interest for researcher working in same domains. The work of comparing the created database with the standard available corpus is in progress [13].

The research paper comprises study of 100 female lip prints and 100 males lip prints of Marathi community. Prints are divided into 6 types such as branched, rectangular, long vertical, short vertical and diamond and prints of a person studies by dividing lips into four quadrant (A, B, C, and D). This study shows that lip prints are unique to an individual and behold the potential for recognition of the sex of an individual and shows percentage variation of different types of lip prints in male and female lip prints samples. This technique is helpful in sexual dimorphism on the basis of presence of different types of pattern. This research involves the study of 200 lip prints in Marathi community 100 lip prints of male and 100 of female shows branched (type 3) pattern present most in both the sexes. [14]

This paper discusses the phoneme used in Marathi language as a possible basic unit of speech recognition. For the purpose of the research described in this paper, a basic unit of speech recognition is the intermediate form of speech information around which much of the recognition processing is organized for human beings or for machines. The general opinion of phonetician and psycholinguists is that there

is indeed such a unit with relatively few distinct types¹. For this research a basic unit is ideally an output of acoustic-phonetic processing and an input to the lexical processing stages. In this paper experiment is done on only vowels in Marathi language. Result of the experiment:- The recognition rate of person through selected SRS system is 98.5%. Application of the result:- The selected SRS system can be applied for all Marathi language people who can speak and read Marathi language in appropriate form all the world. They hope the SRS created will serve as baseline system for further research on improving[15].

This paper describes the proposed procedure to be followed for collecting the isolated words data from the farmers of the Aurangabad District for developing an Automatic Speech Recognition System in Marathi Language. The paper presented the procedure that would be followed to develop a speech database of isolated Marathi words for agricultural purpose from Aurangabad District of Maharashtra. The said database will be useful to cover all the phonetic variations of the Aurangabad district. It will be helpful to develop a Robust Automatic Speech Recognition System. [16].

Conclusion -

Communication is an essential part of human life. Human beings communicate or pass message to one another by writing to each other, by some sign language or through speech. Writing to each other was the oldest and most widely used method for passing the messages earlier. Marathi is one of the 23 recognized languages by the constitution of India written in Devanagari script. By considering this importance of Marathi this paper gives value addition to researcher who are interested in ASR for Marathi language. This paper will give exact idea about selection of proper tools, feature extraction technique, methodology, different input

given and output received. It also gives limitations involve such as to accuracy and acceptance. Which can help them in their own research.

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“OPPORTUNITIES AND CHALLENGES IN MARKETING THROUGH SOCIAL NETWORKING SITES”

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ABSTRACT:

Ernest (1946) has observed that Indians are genetically programmed to be the members of the social groups and the greatest themes pervading the Indian life is the social interdependence (Walter, 2013). People have deep sense of ‘inseparability feel’ from 2 various groups and Indians are deeply involved. Many of them have one of their greatest fears of being alone without any social belonging and support. Psychologically, they are socially connected and deeply embedded into the emotional interdependence and the social nexus for the intellectual , mental development and growth of civilization and were segmented on the basis of caste, religion, age, economic conditions, geographical locations, etc, emerged as the need for all (Wikipedia, 2012).

The availability of internet has revolutionized the ability to stay connected as the need of interdependence is unchanged, but the methods of being connected have changed. While social networks have been there long back, the potential of the internet to promote connections is now being fully recognized and exploited. Social networking sites like Face book, Twitter, LinkedIn, etc. are used not only for social connectivity but also for marketing because they very well follow the principle of “by the people and for the people”. In this study opportunities and challenges in marketing through social networking sites has been analyzed

Keywords: Social Networking Sites, Marketing

1. INTRODUCTION

1.1 SOCIAL NETWORKING SITES: AN OVERVIEW

To say that this is a definitive list would be to underestimate the speed of innovation in this field. It is important to note that this is a list of social networking sites. The two are often confused with one another as the terms tend to be used indiscriminately when the overlap between the two can be quite blurred. There is however, a distinction to be made between the two.

A social networking sites is a place where users gather to create, disperse and uses Social Networking Sites, be it written articles such as blogs, video, photos , galleries etc on facebook, blogs, video YouTube. On most of these sites there is a social networking element, usually through the ability to comment and respond to the published content, the core focus of these sites is the dissemination of various media forms. It is this core focus that separates the two forms.

Social networking sites are built around connecting friends and family, people business of like mind or interests regardless of physical location. The core focus is on the engagement in social discourse and the building of a network or community with which you wish to interact. Facebook, LinkedIn, Twitter, Google+, Trip advisor, holidayiq.com and You Tube would be examples of social networking sites.

An interesting knock on effect of the popularity of social media sites is the way they impact on search engines such as Google. These search engines use complicated and highly secretive algorithms to decide in which order to place results. Trying to increase the ranking of a webpage on search engine results has become so important that an entire industry has grown up around it. SEO or Search Engine Optimization is where much of the current internet marketing budgets of companies is being spent.

Consumers produce as much if not more information on products as retailers and manufacturers. Millions of articles are created each year for the tourism industry alone, reviewing everything from hotels to the best seat on a particular plane model of a particular airline⁴. A search for Coca Cola returns with their Facebook page at 3rd in the results and Twitter in 4th. Searching the word Heineken returns the same as well as Heineken's YouTube page in 6th. Search engines see these companies' Social networking sites pages as being of more relevance to a generic search than articles in high profile online news sources. The popularity of these Social networking sites pages is also linked back to the company home page helping to raise that site's profile in search results.

A high profile on social media helps to raise the profile of the main webpage. The more popular the social networking sites are the more relevance a search engine will place on it and in turn onto the company site.

Facebook

Facebook is the by far the largest social network in the world with one billion individual users covering the entire globe⁵.

Twitter

Twitter is a Micro-blogging site not unlike SMS text messaging on a mobile phone.

Twitter is becoming more significant within the travel industry with particular emphasis.

LinkedIn

LinkedIn is a business related social networking site with approximately 100 million users in over 200 countries around the world.

YouTube

Every minute of every day 72 hours of video are uploaded. In a single month the equivalent of 4 billion hours of video are streamed from this site.

Google+

Google plus, a self-service program for creating online advertisements campaigns

2.2 Objective of the study

In order to pursue the afore-mentioned prime objective, some allied objectives have also been identified which are as follows:-

- i. To figure out the profile of users of social networking sites.
- ii. To study the trends and shifts in the marketing practices from traditional marketing to online marketing.
- iii. To find out the opportunities available to the marketers in marketing through social networking sites.
- iv. To study the scope of social networking sites to be used as a marketing tool.

Scope of the Research

The scope of the study is to know the opportunities available to the organizations while using social networking sites as a tool for marketing as well as to know the challenges that have to be faced while doing the same.. After the analysis of the data, the researcher has attempted to present the findings based upon the same and has also given some specific recommendations for the marketers

Limitation of the Research

Though due care has been taken to make the sample the true representative of the universe, yet there might have been some discrepancies in choosing the sample unit. The occurrence of the sampling error may also be a limitation as the sample represents only a fraction of the universe. A larger sample would have been a better option for conducting this research study but the time, effort and cost involved restricted the researcher to a relatively smaller sample. Another limitation

may be the biasness on the part of the respondents while filling up the questionnaires.

1. Study was restricted to India
2. Study was restricted to selected Social Networking Sites like Facebook ,LinkedIn ,
Twitter , Google+ ,and You Tube
3. All information was collect on Primary and secondary data and online.

2. LITERATURE REVIEW

“Research is to see what everybody else has seen and to think what nobody else has thought.” -Albert Szent The basic purpose of the ‘Review of Literature’ is to acquire thorough and state of the art knowledge of the problem area so that the researcher can develop a comprehensive view. The review helps in finding the gaps in literature available and eventually facilitates formation of a precise research problem. The researcher should acquaint oneself by going through different studies already undertaken in the problem area as well as the related areas. The review of literature has hitherto been a cumbersome exercise that requires continuous monitoring and concentration. This chapter presents an overview of work undertaken by academicians, researchers and experts in the field of marketing through social media, particularly through social networking sites. According to a news report in The Times of India (2014) the social networking sites have become so popular that even the yoga-guru Baba Ramdev is going to host a ‘social media shivir’ from July 24-26, 2014 at Patanjali yogpeeth, Haridwar. As indicated by the report the purpose of this shivir is to help build a legion of volunteers who would be proficient in using social media for Ramdev. He has verified that his account on facebook and Twitter have over three million likes and more than 1.26 lakh followers. Barry (2014) has opined that when the computing

and connectedness industry began its meteoric rise in the 1990s, information technology vendors and users alike scrambled for new ways to utilize the growing capabilities provided by the internet and broadband communications. Among the most attractive of these was customer relationship management (CRM). There are already a raft of examples of brands building campaigns around selfies, some successful and others not so much. As with any trend, businesses will seek to access to that ready-made audience, but it also takes a level of comprehension on how best to do so – as with all aspects of social media, understanding your audience is critical to success. There is definitely opportunity within the selfie trend, but brands have to establish the best way to realise it, what will resonate with target consumers. This requires listening and monitoring trends within your target groups to know what they will and won't engage with. But it also necessitates an understanding of the psychology of selfies, of why people engage in this activity in the first place (Andrew, 2014). Businesses are already coming to terms with the need to integrate their social media efforts with their content strategy, and are seeing the impact of social media in terms of lead generation, referral traffic and revenue.

3.1 SOCIAL NETWORKING

Social networking and communication has changed significantly since the introduction of online social networking sites such as Facebook, MySpace etc. (Lee & Conroy, 2005). Evolution of social networking been portrayed in figure-I in the form of timeline (Boyd & Ellison, 2007). The clutter of websites toward the end of 2007 portrays the increasing popularity of the online social network concept among general population and at the same time potential was identified in the field by many business houses and entrepreneurs. It all started with sixdegrees.com named after six degrees of separation concept in 1997 based on model of web of

contacts. Six degrees of separation concept is based on the assumption that every person is away from other person on this earth by approximately six steps and a person can connect to any other person over six degrees through this site. Sixdegrees.com users were able to send messages up to six degrees over the site. This was the first demonstration of today's popular social networking concept. This site was closed in 2001 but again restated in 2010 to join the wave of social network boom. This was followed by LiveJournal and AsianAvenue social network sites in 1999 to LinkedIn and MySpace in 2003. The year 2005 was the year that saw the birth of today's most popular social network site Facebook which commercialized from high school network for everyone in 2006.

Today, Facebook is having more than 500 million active users, out of which 250 million login at least once every day. On an average each person has 130 friends on this site and people spend over 700 billion minutes per month on Facebook and on an average every user is connected to 80 community's pages, groups and events. Facebook users only share more than 30 billion pieces of content (web links, news stories, blog posts, notes, photo albums, etc.) each month (Facebook, 2011). Facebook is only one social media site. As per the published statistics on E Consultancy blog Twitter has 175m user accounts, LinkedIn has 100m. By the start of 2011, average number of tweets per hour is over 4 million (Hird, 2011).

3.2 SOCIAL NETWORKING AND INDIA

Social media is now ingrained in the way tech-savvy Indians live their lives. The popularity of social media is increasing day by day and so is its usage. As per a collaborated study (Nielsen, 2011) on Social Media usage conducted by two companies the Nielson and AbsolutData through an online survey on sample population of 2000 respondents spread across top five metros and tier-1 cities in

India, use of social media is on boom in India with not only about 30 million Indians becoming members of social networking sites but also that these people are spending more and more time on these sites daily than on personal email. 20 per cent Indians spend between an hour and three hours on social network sites as compared to only 8 percent spending the same time on personal email. People in India are moving away from the traditional method of old one-to-one communication (email) to one-to-much communication i.e. social network sites. Participants in the virtual democracy i.e. social network are able to share experiences with their online community and satisfy their social needs. India is experiencing a boom in telecommunication sector. There has been an increase in number of mobile communication devices and it has been estimated that almost 45000 Indians will intend to join social network sites each day.

3.3 MARKETING OPPORTUNITY THROUGH SNS

“Social media is not an island. It is a high-power engine on the larger marketing ship.” -Matt Dickman Social media marketing can definitely be used as a tool for increasing brand awareness, increasing the target customer-base, doing market research, generating leads, and building loyalty. Social networking sites can build online communities, where existing and potential customers can interact with like-minded individuals (Wright and Hinson, 2008). These communities provide an insight, as well as useful feedback, that can help the marketers improve their products and services to better suit the needs of their target audience (Mangold and Faulds, 2009). Maintaining the firm’s or marketer’s profile on these social networking websites is a worthwhile exercise as they will be able to see firsthand how the marketing strategy and tone of voice they has used to communicate with their client base is received. Such valuable feedback can assist in improving their marketing campaigns, and the overall brand values their company projects. Social

media has changed the world of technology as well as marketing, within the last few years. The use of social media has been gradually developed at interpersonal as well as institutional levels. It has been added to the marketing agendas of many organizations

4. RESEARCH METHODOLOGY

1. Primary Data: The following methods are used for data collection

- Questionnaire
- Interview, Discussion
- Email

2. Secondary Data Sources: The following was referred for collection of secondary data

- Books
- Journals, Magazine
- Company Publications: Newsletter, Advertisement/Brochure/
Annual Reports / Company Profiles
- Social networking Sites

4. ANALYSIS

5.1 Presentation, Classification and interpretations of data collected for Consumers

Table 5.1: Notice of offers/advertisements/community/pages on social networking sites

Response	Frequency
Yes	31
No	79
Total	110

5.1 Notice of offers/advertisements/community/pages on social networking sites A perusal of the table 5.1 shows whether respondents notice any kind of advertisements/brand pages on their respective account on social networking site(s). About 31 respondents reported that they notice one or the other kind of advertisements/brand pages/community pages etc on the social networking sites. Therefore, it is an opportunity for the marketers that social networking sites can also serve as a medium to promote the respective brands. However, it is also a challenge for the marketers as to how to make people notice their promotional content.

Table 5.2: Information received on new product/offers via social networking sites

Response	Frequency
Yes	28
No	72
Total	100

5.2 Information received on new product/offers via social networking sites The table 5.2 makes it obvious that about 28 percent of the respondents like to receive some kind of information on new product or offers etc through

advertisements/community pages on social networking sites. It can be deduced that social networking sites can be used as an additional medium for communicating information about the product-features, sales promotion offers, etc. In days to come, the number of people receiving information on social networking sites is going to be bigger as indicated by the previous studies.

Table 5.3: Information sharing on recent purchases

Response	Frequency
Yes	42
No	58
Total	100

5.3 Information sharing on recent purchases The table 5.3 informs that about 42 respondents of the respondents have shared information about their recent purchases on social networking sites. This can be interpreted that the people create the information, pass the information to others, which may also influence the decision-making process of others. It would be in fitness of the things to mention here that if individual uploads information of recently acquired products others too in all probability would get motivated to flaunt their purchases. This ‘viral impact’ has significant implication for the marketers.

Table 5.4: Future-purchase affected by number of likes on social networking sites

Response	Frequency
Yes	11
No	89
Total	100

5.4 Future-purchase affected by number of likes on social networking sites The table 5.4 reveals that about 11 respondents of the respondents communicated that their future-purchases stands affected by the number of likes on a particular product/brand on the social networking sites. This is clear that individuals have the ability to influence each others' decisions. The electronic word of mouth generation is a significant implication for the marketers,

Table 5.5: Liking a page for lucky draw/procurement of free samples

Response	Frequency
Yes	10
No	90
Total	100

5.5 Liking a page for lucky draw/procurement of free samples The table 5.5 suggests that 13 respondents of the respondents have liked/joined brand pages on one or the other social networking site for the reason of procuring free samples. Free samples always have been many takers and as such it is a surprise that such a small percentage of respondents have liked a page for free samples. It can be explained that either the respondents do not have the information on this aspect or they suspect it as some kind of joke or trap. Considering these possibilities, marketers would have to think outside the box solutions to tempt people towards lucky draws and free samples.

Table 5.6: Brand recommendation to counter-members

Response	Frequency
Yes	28
No	72
Total	100

5.6 Brand recommendation to counter-members The table 5.6 makes it clear that 28 respondents of the respondents have recommended one or more brands to their friends/counter-members on social networking sites. This is an opportunity for the marketers that people tend to share their opinions with others and social networking sites are emerging as a novel and innovative platform for them where they can share their opinions, provide suggestions to others regarding different brands. This is the way electronic word of mouth may get generated and spread through the social networking sites.

Table 5.7: Notice of the promotional elements on social networking sites

Response	Frequency
Advertisement(s) that appear at Login/ Logout	81
Advertisement(s) that appear at right side of site page	10
Information on number of Likes on a particular Brand	05
Information through Product Page/ Community	04
Total	100

5.7 Notice of the promotional elements on social networking sites The table 5.7 depicts the placement of promotional element on social networking sites which are most noticeable to the respondents. It is clear that an overwhelming majority of the respondents i.e. about 81 respondents notice the advertisements that appear at the time of login/logout, followed by 10 respondents who notice the advertisements that appear on the right side of the social networking sites. It can be interpreted that marketers can advertise their product/brand using the login/logout points as they are the most noticeable to the target customers.

SUGGESTIONS:

1. In the era of internet revolution, when increasing number people are becoming the members of different social networking sites, the marketers must take the advantage of this golden opportunity.
2. The brands must have a strong and active presence on different social networking sites. The marketer needs to research various social networking sites available and after reviewing the features of all, the appropriate site(s) must be selected.
3. Accordingly, the most appropriate strategy should be selected to reach the target audience. It is important to focus on those social networking site(s) that would enable the marketers to reach their intended audience, and position the firm as a thought leader, in the industry.
4. The elements like contests, general knowledge tests, games, puzzles, etc. could be of great help in getting the customers' engaged in an active manner. One of the most significant opportunities available before the marketers is the availability of the personal information of the target customers on different social networking sites. As indicated in the findings of the study also, the customers include a variety of their personal information on such sites, which could be of great utility to the marketers.
5. Marketers may adopt promotional elements such as Contests/Free Samples distribution, etc, so as to motivate the target customers to like/join the brand page on social networking sites for future purchase also.

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CORPORATE SOCIAL RESPONSIBILITY TOWARDS CUSTOMERS

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ABSTRACT

Everywhere we can observe the application of CSR by business houses. Many Corporate now started to think separately about conducting CSR activities with very innovative way. It is the matter of psychology. In the Abraham Maslow's Need of Hierarchy Theory, it has mentioned that the persons are joining the organization for different needs. These needs arise mostly in a sequential way. The way is fulfillment of first need and after settlement of this need, there is a creation of other need. This theory is based on common people. There is always exception in social science. It is applicable for an individual i.e. an employee. After the fulfillment of almost three to four needs, an individual gets the feeling of self actualization which is related with having the feeling of contributing to the welfare and development of the society. Being a part and parcel of society, they may feel to work without return, sometimes with own pocket for the wellbeing of mankind. The employee started to think more and more about the society in the form of environment, social and economical wellbeing of the nation. This similarity can be observed in the corporate sense of social responsibility. While earning revenue, nowadays corporate are spending some amount on CSR activities for removing the side effects of their business practices and offering the needful activities for the wellbeing of society. When at any particular point of profit maximization, corporate is compelled by the law to conduct social beneficial activities by

utilizing the funds from their profit margin. This is CSR activity. One may find the slight feature of difference. In individual case working on social responsibility is a spontaneous activity; very few people conduct it and second is a mandatory activity. India is ranking at 59th place in CSR Index. There is a need of working more on it.

Key Words: CSR, Customers, Society, Responsibilities

INTRODUCTION: CORPORATE SOCIAL RESPONSIBILITY (CSR)

CSR is a business approach that contributes in sustainable development by delivering economic, social and environmental benefits for all stakeholders. It is (also called corporate conscience, corporate citizenship or responsible business) a form of corporate self-regulation into a business model. In short, CSR activities are the initiatives to assess and take the responsibilities for the company's business process effect on environmental and social wellbeing. It is the company's sense of responsibility towards the society and environment in which they operates.

There are mainly three dimensions of this concept i.e. economic, social and environmental responsibility. Every corporate have to make good balance of these three pillars. CSR is important for defining the accountability of the company. If the company knows about its social responsibility very well then definitely they would get succeed. CSR enables to take active participation in social problems and the important element of this responsibility is the Customer. It is the duty and obligation of corporate to be responsible to customers. There is a direct relationship between the satisfied customer and profitability of the business.

Need And Importance Of Corporate Social Responsibility

Being a part of society, revenue making organizations should contribute for the social, economical and environmental benefit activities. In long run, it will help for the sustainable growth and development of nation and naturally, of globe. Following discussion will elaborate the need and importance of CSR activities in the world of businesses:

1. It can be a best medium of solving the societal problems and issues of the society.

Under CSR various companies develop new products which may be the need of a particular class of the customers. By solving the complaints of the consumer in a very positive way definitely helps the corporate to maintain their profitability. For exam, light weight multipurpose knives has been development by the Swiss Company. Products in sachet are also developed due to the less purchasing power of poor consumers.

2. It is very helpful to build and retain public image of the firm for long span of time in front of the stakeholders. By considering the suggestions and focusing on quality product as per the promise of company builds the image of the firm in market. CSR also functions in the area of environment which is very important on this context.
3. It helps the Government to control on malpractices like artificial monopoly, black marketing, unfair pricing policy in trade and following the business ethics.

By following the norms and standards given by the government officials, CSR can work more effectively and efficiently.

4. Retention of Employees.

The companies which operate CSR regularly for the wellbeing of the socio-environmental factors have a good image in public. In such company, employees are interested to be in for long time. They are interested in working same company who takes care of their family and society.

5. Decrease in negative aspects of the business processes.

There may be the chances of adverse effects of business processes on environment. Under CSR, by going through the anti-adverse tools, many companies are trying to keep pollution free environment from the initial stages of business. They conduct social audit and green audit too.

6. Assist the society to maintain the cultural influence on people's mind.

During the times of festival, companies spends enough amount from its funds on participating in the festival. It keeps the bonding of the company with the society.

7. CSR activities contribute to the macroeconomic development of a developing country by delivering sustainable benefit to all stakeholders.

8. Balanced ecosystems, Waste management, Clean and Green environment etc. CSR activities lead to better world and healthy environment if conducted in systematically and honestly.

9. CSR is important for creating wealth and employment, in improving quality of life of society members.

10. In all, CSR is needed to build a reputation as a responsible business and as a good citizen in front of the stakeholders.

CSR towards Customers

In modern era of business, customer is treated as the King of the market. Though there is a trend of production before demand, business houses use a very

systematic approach to identify the needs and desires of the customers. Changing purchasing habits of the customer, recent changes in the world of fashion and trends globally, economical status of the potential consumers, technological and communicational advancements, cultural impact etc. are the factors which are used to do the market research analysis. It shows that corporate are not interested to serve the customers according to their taste and need along with the target of business profitability. We can observe that on one side there is high increase in the prices of the product and increase in margin of profit of the business houses every year and on another side corporate are keen in delivering value products to the customers. This is the outcome of CSR. For strong bonding with the customers for our product and retention of the existing customer line can be possible with creating sense of responsibility among all levels of corporate employees. Business houses are getting their existence in the form of brand, goodwill and profitability only due to the positive response of the customers. So naturally, it is the duty and responsibility of the corporate to focus on ethical behavior with the society, with the customers. It is the truth that a business cannot work without customers. The survival and growth of business is depending on the customer satisfaction, delivering quality service and support. So it is suggested that better to misguide the customer in terms of quality, weight and price of the product, the business houses should work on winning the confidence of the customers. Only one step is needed to be followed that focusing on a positive and ethical attitude towards customers and fulfilling various social responsibilities towards the customer which are as follows:

1. Quality:

The corporate should produce and trade quality products. According to ‘there is always room for improvement in quality; the corporate should make improvements in the quality of products and services.

2. Deal with the Fair Prices:

The corporate should design a fair price policy which will control on charging high prices by taking advantage of monopolistic competition. Once you found cheating to the customer, you may lose that customer base in future.

3. Focus on After Sales Service:

Now a day, many customers are interested in using high quality, quite expensive type of products. Such durable products should be sell accompanying with after sales service. It is important to be in commercial touch with the customers. This is important in product diversification decision, if any.

4. Regular and Controlled Supply:

In this global era, everyone is getting benefit of 24*7 policies of businesses. So consumers should receive the products and services as and when they demand. Excess supply or artificial control on supply should be prohibited by the organizations which will also help in maintaining regular relationship with the customers.

5. Control on Unfair Trade Practices:

It is the first responsibility of corporate to be strict on regulating the artificial monopoly, production of low quality goods, non disclosure of hidden content in the product to the society which may be harmful to the health and environment. This is the core responsibility of the corporate.

6. Safety of Customers and sorting of their complaints regarding the Product:

While trading any of the products, the corporate should think twice about the safety of the users of the products. They have to give suggestions to the customers about how to use sensitive products such as drugs, phenyl, rat and bedbug killers, LPG products, food products etc. In case of any issue, the corporate should take the responsibility of correction according to the complaint placed by the customers which is needful. In the case of Maggie, Nestle has taken such responsibility.

7. Proper functioning of Research & Development Team:

The product should get improved always as well as the cost of production should also get decrease. For this, consistent research should be done to develop the quality of product and services, which is beneficial for increase in the demand and profit.

8. Use of fair advertising :

The corporate must use the advertisement media which will lead the customers with proper and real information of the products and services. This is the social responsibility that the customers should be provided with the features, usage, side effects, and ingredients of the product in honest way.

9. Organization of Training Programmes, if necessary:

Introduction of new technology in product definitely require the proper training to the users free of cost or with very less fees. The products like Microwave, Vacuum Cleaner, Statistical tools, new Computer Software, Engineering products and services etc. requires training programmes which should be arranged by the sellers i.e. business houses.

10. Improving Standard of Living:

By delivering value products to the customers with regular supply, definitely there may be increase in standard of living of the society. Satisfied

customers make mouth publicity with free of cost which is the result of consumer satisfaction in all above mentioned areas.

Indian Scenario

Indian Government has provided various guidelines regarding the implementation of CSR by business houses. These guidelines are useful to assist in meeting social and environmental standards at international level. The market became the one village i.e. global village in this LPG era. CSR is still going through the many phases India. Majority of the corporate are now enough aware about their sense of responsibility towards social elements. They are interested in working in economic, social and environmental area with very unique way. In last decade, we could observe various negative effects of the business practices on the environment and community. We are still facing the problems of frauds, malpractices, artificial monopoly, air pollution, water pollution, noise pollution. It has resulted in our contribution in wellbeing of mankind in a very negative way. We need to come out from this. CSR is the core step of Indian business strategy to be a part of sustainable growth and development of our country. Companies are contributing CSR funds in different social activities. CSR is the solution of the social woes. Timely guidelines issued by Government of India are proving very helpful in meeting social and environmental standards. On the context it becomes very important to focus on Indian scenario. According to the Country Sustainability Ranking, India ranked at 59 the place in the year 2016 after analysis of ESG performance (Environmental, social and governance indicators), it received the weight of 15%, 25% and 60% performance respectively. This mentions the need of improvement in almost all of these three areas which are mentioned. In this context, Government of India has taken initiative with the help of some other regulatory bodies. The Indian Institution of Corporate Affairs (IICA) and the

Bombay Stock Exchange (BSE) have done an agreement to develop a Corporate Social Responsibility Index which would be helpful in assessing impact of BSE listed companies' business practices. In addition to this, it would look after to criterion i.e. 2 per cent spending from the profit is mandatory as per the new Companies Act.

India has become the only country in the world with legislated corporate social responsibility (CSR) and a spending threshold of up to Rs. 15,000 crore. The new law mandates that all companies, including foreign firms, with a minimum net worth of Rs. 500 crore, turnover of Rs. 1,000 crore and net profit of at least Rs 5 crore, spend at least two percent of their profit on CSR. According to the report Indian CSR Outlook, near about 8,000 companies will come under this criterion. Higher economic growth and increase in companies profit, this mandatory spending will go up. (Source: Report by Reanalysis Consultant's Pvt. Ltd's Indian CSR Outlook)

In India, TATA, Wipro, Infosys, SKF, Mahindra & Mahindra, Trusts of various Temples, Cognizant, Garware, Phinolex, L&T, Reliance, Birla Group, Bajaj, Mittal Steel, Hindustan Lever, Cipla, Accenture, Nestle, Future Group, Microsoft many more business tigers are conducting various CSR activities by spending the amount more than mandatory criterion. In addition to this various small firms, local or regional enterprises are running such activities efficiently though they are under the limit of CSR Criteria.

Concluding Observations

CSR is the responsibility of the business houses for their impacts on society. The corporate are now alert about impact of their business practices on economic, environmental and social areas. They need to take initiative in their social responsibility towards customers. They have to concentrate honestly on providing

quality products and services, delivering increased standard of living, attending the complaints of the customers immediately, offering products and services with reasonable price, avoiding all unfair trade practices. No doubt, it would help in creating reputation and goodwill in society. The customers are the heart of every business. CSR can be termed as a lubrication tool which will help for smooth and healthy functioning of the business. If enterprise respects the customers by all means, the side effects on economy and environment will automatically get decreased and that is the main reason of conducting CSR activities by every type of enterprise though it come under mandatory criterion or not. CSR is neither a trend nor a fashion of the age. It is the core business strategy used to maintain the balance of growth between the business and society. This could be possible with the initiative by Government of India at correct time. It becomes the part of the mission of the corporate to include the wellbeing of mankind while setting the goal of high profit.

CSR is a tool of helping people around the world while increasing their profit.

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A STUDY OF DIGITAL MARKETING STRATEGIES OF FASHION INDUSTRY IN INDIA

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ABSTRACT

Advancements in technology and an increasing number of web users over the years have transformed the face of marketing, advertising, and brand promotion in India and marketers and brands equally are trying to reach their target audience through channels that consumers use most namely Digital marketing .

Max, a division of Lifestyle International (P) Ltd. shares 18 million for social media and digital marketing promotions and strategies revolved around the season launch theme following its 'AIDA' model: Attention, Interest, Desire and Action. Leveraging the popular Instagram platform, Lifestyle launched 'Insta weaving' in the year 2015 which highlighted key season trends using a hashtag (#) such as InstaGlam, InstaSleek etc. which had around 250 followers, organically grew to 23,500 followers in just 10 months. Shoppers Stop engages with its Facebook fans by creating unique contests such as 'Perfect For Me' that provides suggestions based on their likes, search history etc. By providing a range of products from credible international brands and designing exclusive fashion-forward products under the Koovs label, Koovs.com website a leading fashion website in India to increase the Group's revenues.

Thus, with the help of effective Digital Marketing campaign, fashion brands can reach heights of success by visualizing ideal customers and tailoring perfect marketing to them which will ensure a perfect fit.

KEYWORDS: Digital Marketing, Marketing Strategies, Marketing Techniques, Fashion Brand.

INTRODUCTION

In the present world of business, it is becoming nearly impossible to think of running an enterprise without the support of digital marketing initiatives. Apparel & Fashion Industry is almost no different. With E-Commerce sites on the rise day by day, people behind them take enormous advantage of Digital Marketing Programs to penetrate in to the market and to have a wider reach of the audience.

Social media is an evolving platform used by the fashion industry to generate discussion, brand recognition, and improve consumer relations through interactivity and networking. The following study examines the current uses and standards of industry professionals regarding the different social media platforms to determine effective practice. The innovative new instruments in public relations strategy provide key benefits and widespread impact for users, designers, firms and publications that are transforming relationships and brands in the fashion industry. Fashion Industry and social media marketing compliments to a large extent as most of the fashionistas are quite active on Instagram, Facebook, Twitter, etc. emphasis on such platforms have become more imperative and inevitable. Social media becomes an eye opener when it comes to fashion. Most of the millennial, Gen Y, Gen X take the help of social media to get to know about the latest trends in the world of Fashion.

Fashion has touched every sphere of modern consumers from all over the world. Fashion can be defined as a statement a place, a class, a time, a religion, a culture, and even a nation. It is also a conventional form of expression defines a person. In present scenario marketers have realized the immense potential to yield business in this booming segment. Fashion Marketing is utilizing recent trends in fashion to analyze, develop, and implement sales strategies. The emerging trends in the Fashion retailing help the economic growth in India. Indian organized retail sector is increasing in a frenetic pace in a very short span of time. Ultimately fashion retailing has a chance of tremendous economic growth both in India and abroad.

Industry Facts

- Shopaholics look for information online before (87%), during (82%) & after (35%) visiting a store (Google).
- 75% of mobile users say they reach retailer website or app on their smart device to address their needs (Google).
- 56% of marketers say a consistent brand experience is a top digital priority (Boston Retail Partners).

Apparel sector in India has taken a paradigm shift. With the growth and rising of urbanization has given rise to fashionable gennext consumers having attitude of spending huge amount of money to look trendy. Retail apparel market has also gone through significant changes and created growth opportunity for both Indian as well as foreign brands. Fashion and apparel retailing in India is one of the largest segment of the retailing and account for almost 39% of the organized retail sector. Apparel sector in India is estimated to grow to \$220 billion by 2020.

Fashion industry is touted to be a 1.3 trillion USD globally; broadly fashion is classified into apparels, jewellery, personal accessories, footwear, etc. The following infographics presents the percentage of stake by respective segment.

Growth of Women Empowerment

In the past, the men's apparel market in India has been considerably bigger than the women's apparel market. With only 20 percent of India's urban women in the workforce, women's wardrobes have been limited to sarees and items for special occasions. Today, women are more enthusiastic to put on differently when they go beyond the home.

Marketing strategy for fashion retailing is changing day by day. Fashion retailing sectors like apparel, jewelry, accessories, wallets, footwear, bags, etc. are exceptionally competitive with slight profit margins. Retailers have implemented technology to achieve global sustainability and tackle shrinking profit margins. Technology facilitates customer engagement, ease of product selection, customization, promotional content, loyalty benefits and customer relationship management.

Scope of the Study

Because of the largely undocumented connection between social media use and increased consumer reaction and brand trending, research indicates that there are no prevalent or established industry standards regarding the use of social media in the fashion industry. By comparing the impact of social media on fashion public relations strategy with parallel industries, the question arises of content control and production of such social media outlets. The fashion industry incorporates designers, consumers, brands and media, which are interlinked by social media tools. The use of these outlets is relatively new in the fashion industry and the

investigation of how they are beneficial and whom they reach exemplifies the exponential exposure social networking provides. The field of public relations emphasizes reputation and open forums for dialogue. According to Wilson 3 (2012), “to have power in fashion today means to have real impact, the kind that demonstrably moves an industry, as opposed to merely moving merchandise,” which is achieved through the effective use of social media (Wilson).

OBJECTIVES

- To study the trends of latest developments in the Apparel in India.
- To study the trends of Digital Marketing use for promoting the industry
- To analyze the scope for future growth in the apparel industry.

LITERATURE REVIEW

Brown and Fiorella refer to how the marketing of influence, as a strategy, emerged out of a variety of practices and recent studies in which the focus falls on the specific individual targets (or groups of individuals) rather than approaching the overall market as a whole. Influence marketing sets out by identifying those individuals able to wield influence over potential consumers and structuring the subsequent marketing strategies around these influential persons. The authors refer to how the term “influence” still remains both complex and poorly interpreted. This “influence” essentially reflects the “power” generated by a person or entity in relation to (or over) another person. Reality is now experienced through a hyper-connected world with an enormous abundance of data spanning news, advertisements and opinions. The Internet and the virtual communities have established a universe in which everybody may serve as a source of information, as opinion leaders and potential influencers (Brown and Fiorella, 2013; Halvorsen et

al.). Hence, influence marketing correspondingly stems from the convergence of different sources of knowledge and practices such as word-of-mouth, digital marketing, social marketing or even neuromarketing. This studies the social dynamics of a particular community, identifies those with influence in these environments before designing and developing platforms for the dissemination of stories and constantly measuring the results throughout the entire process with the objective of altering consumption habits and the perception of the values of brands, products or services. Thus is very common to associate the concept of influence marketing to social media tools. These communication instruments include a wide set of online tools and technologies, as such the blogs, chat rooms, discussion forums, service ratings websites, internet discussion boards, moblogs and social networking websites.

According to Helen McCormick and Charlotte Livett, online fashion retailers must adequately interlace hedonic leisure with realistic utilitarianism to provide a mutually-satisfying e-shopping experience.

The fashion industry's previous "tell style" standards of communication were one-way and limiting to where public relations professionals could dictate and control their organizational methods; conversely, social media actively enforces monitoring or discussing content with consumers. The discussion of power in the fashion industry today is directly correlated to the impact one has on consumers and critics, as opposed to merely selling merchandise or advertising. An effective impact is one that creates brand recognition, further discussion, and consumer approval via comments and reposts.

Wilson explains how "it was this criterion that The New York Times considered foremost when setting out to define a new power establishment: those pullers of strings who, reacting to seismic shifts in technology, communication and the economics of their industry, have reshaped the way the rest of the world sees,

senses and consumes fashion” . Social media sites extend beyond the RSS feeds and collages previously posted by designers and brands because social networking gives consumers the power to share experiences and questions with other consumers who have experience with those brands and companies.

According to Papasolomou , “the Internet implementation in the marketing process is inexpensive, delivers instant international reach, offers great real time feedback, and reaches millions of people for whom the web is the center of virtually all communications”. Social media is a means by which designers and publications can host discussions to better understand the concerns and desires of their consumers.

Andrew G. Parsons suggested that Interactions between sensory stimuli have a major impact on fashion shoppers’ perception about a store. Fashion retailers are less differentiated in their application of sensory motivation than they could be to attain the response they anticipate. Stagnation from repeated exposure can reduce affect for the store whereas small alterations in stimuli levels can revitalize and increase affect. The dual factors generate very dissimilar experiences for the customers with regards to presenting fashion online, the first area recognized product viewing, enables the consumer to customize how they see and interact with the garment stimulating more serviceable effects, and the second portal, aesthetic fashion information is determined by the retailer tendering information about the garments motivating hedonic effects.

The social media revolution in the fashion industry enables user-generated content to gear the conversations between designers and brands and their consumers. The emergence of social media has had widespread effects in the fashion industry in how it has created a constant dialogue and immediate feedback with people. According to Sinclair , consumers are active creators and monitors in social

networking, and are no longer passive receivers of marketing messages. “As a result of the widespread growth of online social networking and user-generated content sites, a shift in the balance of power is occurring”

By using social media tools as effective marketing strategies, “the fashion industry can uncover a goldmine of consumer inspiration and trend-testing”. Social media sites empower designers and publications with the ability to identify and capitalize on “what's hot and catch rising trends in advance of market saturation which can make all the difference to a fashion brand or retailer's margin”

With fashion rapidly becoming a must have” for the masses and technology playing an important role in making it viable to incorporate fashion elements at reasonable prices, the retailers around the world are also embracing this change. „Leggings” seen as a fashion forward statement in the 80s is now a universal trend that has become mainstream fashion and this versatile fashions are the fashion world”s latest obsession When it comes to fashion, where change is a constant, there is a growing need for good information tools to remain ahead of competition opine Paul and Paul.

The importance of using and following social media for designers and brands is in predicting the future demand for products and collections. Predictive analytic tools compare previous trends with ongoing topic discussions to conclude fashion winners for the future. “To augment traditional analytics, some retailers and fashion designers have applied analytic techniques to social media interactions to get real-time feedback on where fashion is going and what consumers think of their upcoming designs” Social media sites have updated who dictates trends and topics in the fashion industry for a better public response, from merchandising to design transparency to promotions. According to Agathou , technology and social media has revamped public interaction and input in all facets of the fashion industry, “with live streaming from the hottest runway shows, real time shopping, bloggers

gaining their seats among fashion editors and celebrities and of course tweets from the first row giving to us all a virtual seat” .

According to Sweetser, “leadership within a profession or even within an organization may not require elite prominence in worlds of social media...but those who are more influential relative to others in the same group...are more likely to see the value of social media for themselves personally” . The fashion industry is still relatively new to social media, and mainstream practitioners still question the credibility of these sites and outlets. The intentions of those in the fashion industry to enter the social media scene can also be uncertain; “early research on other social media applications, such as blogs and social networking sites, rarely demonstrate a strong commitment to relationship building and dialogue from the practitioners running the organizational accounts”. Because some social media venues have already come and gone, such as MySpace and Tumblr, public relations practitioners often fear implementing social media into their marketing campaigns for fashion clients. “Stories like these provide a glimpse into the proliferation of social media and exhibit the growing interest and concern regarding the resonance of these communication platforms”

For third-party vendors and conveyors, social media means potential applications for brand building. Magazines now employ style bloggers, have digital apps to regularly update consumers, and can disseminate information more regularly than monthly publications. With the transition to social media sites, glossy magazines are less in style given their delayed printing after fashion events and updates. The impact of social media on publications is in “its potential to open up new opportunities for communication while simultaneously changing the way that organizations disseminate and receive information, respond to their stakeholders, and research audience views and motivations”. The two-way communication

between consumers and producers in the fashion industry benefits all parties considering the strengthened relationship built on trust and transparency and the potential discussion platforms for suggestions and trend setting.

According to Binkley, social media has a “marketing promise that is obvious for business: it has deep potential as a customer-service channel for retailers”. The immediate reaction and discussion that social media allows and encourages creates a trusting relationship between consumers and designers. This online networking is granting the world an unprecedented level of access to fashion gurus.

According to Noricks , the most active social media sites “have helped to generate more access between fashion brands and consumers, thus, making fashion brands appear more transparent and open.” Because of popular consumer reaction in favor of company transparency, social networking sites ultimately can lead to increased consumer trust (Noricks). From a public relations standpoint, the benefits of social media use in the fashion industry stem from the improved relationship between consumers and designers. In an article in the Public Relations Review, DiStaso found that “public relations professionals felt that social media created a platform for open dialogue with publics that encouraged interaction and raised unexpected topics that helped strengthen the relationship”

RESEARCH METHODOLOGY

In order to add information about the subject, it is important to be aware of the analyses already made around the subject. In this case, the secondary research is based on articles and interviews made about the Digital Media and their users. Case studies are among the possibilities to get data about a certain side of the subject that a survey cannot reveal. Those documents are mostly newspapers, and bring a new point of view, external to the point of view of users and companies. Advantages of secondary researches are the easy access of information. Plus, the

amount of information can be bigger than just using primary research. Even though it seems to be a good means to get access to the information needed, secondary research has some limits. First of all, the information provided can be biased by the point of view of the person responsible for the analysis of data. The sources have to be relevant and the article or support should be omniscient. For the research about the topic of Social Media, the main support is newspapers and Internet that provide online versions of published articles.

DATA ANALYSIS

Now in our days, the Internet has brought a whole new dimension to the relationship between celebrities and their audience. Following those changes, new opportunities have emerged, potentially changing the strategies of companies. The industry of Fashion is one of those most influenced by those changes. Social media are now used by a large amount of people and represent potential channels in order to promote a brand or a product for companies. Even though marketing theory remains the same, the execution of the strategies of a company can submit to change in order to fit into those new communication channels.

According to the survey, Social Media users aim to connect with each other and to reach a better communication. Messages circulate faster and the information is shared easily between two or more individuals. Plus, it lets reach a large amount of persons in a small amount of time because the audience wants to stay updated about subjects they care about. Social Media represent a good means to implement a connection between an individual with influence, such as famous actors, and a large audience in order to create awareness toward some specific product. Celebrity endorsement is an example of this. Instead of using a celebrity in order to represent the product inside an advertising campaign, the product will be promoted

by the celebrity, in its own environment. The celebrity will serve the promotion of the product by adding a product review. It is about using the influence and the brand awareness of one celebrity instead of focusing on the brand awareness of the product or the company.

The goal here is to create a link into the mind of the potential buyer between the product and the celebrity the audience follow on Social Media. Each of the popular persons on Social Media owns its proper brand image that follows the different steps into the Customer Based Brand Equity. The more popular they are, the more brand awareness they have and so they are more influence toward their audience. As said earlier, the Social Media represent a huge opportunity for the Marketers. The promotion of product or brand can be under a lot of forms, such as the creation a specific range of product with the name of an Internet celebrity such as Zoella. But, even though marketing strategy has to be adapted, it is not about changing the Marketing Theory or the Marketing tools used in order to implement a strategy on the market.

Even though opportunities are real, the marketing strategy based on Social media has its limits. There exists a lack of regulation on how to use Social Media celebrities in order to promote a product. Some account will present product reviews without notifying that they are paid by a company in order to publish this review. In this case some individuals consider this form of advertising as misleading publicity. This is about the ethic of the company and the celebrity, who can either say when she owns money for a post or a review about a product or either say nothing and make her audience believe that it is her own and objective point of view.

Social media channels are present in everyday life and so represent an ideal means of promotion for the company. But because they are still new, there is a lack of regulation that represents an important limitation in the use of those as Marketing and communication channels. Because Social Media can reach a large audience, the control and the ethic issue about the use of those is hard to settle.

LIMITATIONS

The inclusion of quantitative data in this study could have amounted to greater accuracy in the responses and conclusions of the need and use of social media in the fashion industry, but this form of data collection was limited due to monetary and time restraints based on the parameters of the project.

CONCLUSION

The researches about Digital Media and Marketing strategy have highlighted the fact that marketers need to adapt their tools in order to fit into this new channel of communication for fashion Industry. For brands and designers joining the social media bandwagon, the benefits are numerous. Besides being a free tool for public relations, social media is also connecting potential buyers to marketers. The influence of Digital Media on human behaviour is important. It is about being part of a community that shares the same conviction and same interest. Most of the time, those communities are united around an aspirational figure.

Digital Media are now well integrated in the everyday life of people. The question that can be asked is for how long those Social Media such as Facebook, Instagram or Twitter would stay relevant, until a new innovation arrived. The emerging designers, as well as the high end labels are using social media as one of their marketing strategies. With the big brands and designers in the industry using social

media to create hype and buzz of fashion shows and events just before they are actually launched. The fashion industry is going through a transformation as far as social advertising is considered & it would be safe to conclude that future of the fashion Industry looks promising.

The passion with which both consumers and designers have embraced social media is overwhelming. Undoubtedly social & Digital media is the most modern trend in fashion in today's world and we have every reason to believe in the power and impact of social media.

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A STUDY ON IMPACT OF RETENTION IN SELECTED IT COMPANIES IN PUNE

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ABSTRACT

Information Technology is one of the fastest growing industries in India and has played a significant function in lashing the country's economic condition on an encouraging growth curvature and has greatly contributed in altering India's image from a developing country to a global leader with globally competing standards in this sector. As IT industry is very aggressive market place often requires large number of IT professionals and it becomes essential for an organization to retain its talent to be sustainable and be productive. When a performing employee leaves an organization it gives it a setback and planning goes haywire. There are number of reasons why an employee leaves an organization and what measures HR department has adopted to reduce such attrition. This study is an exercise to understand various retention strategies on employee attrition in selected IT companies in Pune.

KEY WORDS: Retention, Retention Impact, Talent Retention

INTRODUCTION:

The IT industry is one of the fastest growing industries in India and plays a very important role in the country's economy. The IT industry has a great potential to foster the growth and productivity of country's economy which is creating large number of jobs every year. With a great boom in IT sector job opportunities are getting created. The fast growth and entry of the new companies have resulted in new job creation and opportunity for the talented employees. The remuneration has also gone up by 10-20% at the entry and 30-40% at the senior levels. The Indian IT industry may recruit millions of employees in the coming years. As per the report of NASSCOM, the Indian IT industry can touch revenue of 130 billion USD by 2015 with a CAGR of about 14% and the contribution to the annual GDP 7% by this industry and can create 14.3 million jobs with its diverse business verticals from software consulting to retail etc. Many Indian IT firms have become global entities and a number of global giants making India as their home for IT requirements.

Increased output and the excellent performance of the majority of companies can't be a reality unless employees sustain, support and contribute to the organization, as employees are the key stake holders in the companies vision and mission and the execution of business objectives with the formulated strategies. So managers at various levels must show their concern to the employee's well being at the work place. The employee turnover has always been a challenging issue and burning topic for the IT industry. Despite lucrative packages compares to almost all industry segments, it has been witnessing attrition at all levels in companies which has constantly kept companies to hunt for the right talent. India is the 3rd largest IT market globally with highly competent workforce. The total number of passing engineering graduates and diploma holders each year and the major chunk of it

joining the IT industry market conditions also is changing. IT industry is one of the most noteworthy and quick rising industries in India and has been successful in creating precious brand name for itself in today's competitive global platform. IT industry consists of software industry and IT-enabled services with further branching into BPO/KPO etc. India an exceptionally better in providing IT enabled services.

Despite an incredible growth IT sector has a good rate of employee turnover. It can be in different forms, but the main reason employee leaving services by resignations from the job. The company after recruiting talented candidates give them all facilities and amenities including reasonably well pay package find it difficult to retain the employees, a significant amount of money is spent every year in training, benefits, welfare with a view to motivate and to enhance job satisfaction and to create loyalty to the organization, however, employee turnover remains a critical issue for HR professionals to address and resolve completely.

In this research paper, researchers have tried to find our various strategies which could be successful in retaining the employees which can be very effective if implemented properly at all levels in an organization.

IMPORTANCE OF EMPLOYEE RETENTION IN IT INDUSTRY:

The struggle to hold on to the important human resources is strong and fierce among the IT companies. Top management and department of human resource invests great amount of time, money and effort to retain its workforce. It's a method by which employees are motivated to stick to the organization for the maximum number of years, and such retention is very useful for employer as well

as for the employees. Retention of employees is a prime task for an organization to sustain itself in the market. An employee's exit interview can be of vital importance for an organization to plan and execute remedial measures to retain its remaining workforce.

OBJECTIVES

1. To understand the HR concept & practices in retention of the employees.
2. To study the impact of retention on employee and the employer.
3. To find out the importance of retention.
4. To understand the facts of retention of all the employees.

DEFINITION

The workforce Planning for Wisconsin State Government (2005) defines **retention management** as “a systematic effort by employers to create and foster an environment that encourages current employees to remain at the same employer having policies and practices in place that address their diverse needs”.

LITERATURE REVIEW

Gurpreet Randhawa (2007) stated that a significant correlation between job satisfaction and turnover intentions suggesting thereby that higher the job satisfaction, lower is the individual's intention to quit the job.

Jewell and Segall, (1990) and Locke (1976) suggested that people, who are satisfied with their jobs, tend to stay in them longer, i.e. lower turnover, and be less absent.

Kaliprasad (2006) stated that despite the fact that a company may try to bring all these factors into play to enhance employee retention, an employee can still choose to leave the workplace because of, for example, bad management.

Kaliprasad (2006) stated that, out that an organizations skill to retain its employees completely depends upon its ability to manage them. He found out four interlinked processes that can be utilized for an effective human resource management system: the motivational process; the interaction process; the visioning process; and the learning process.

RESEARCH METHODOLOGY

A descriptive research design was used for the study. It is Stratified random sampling method was employed to select the respondents, from different IT industries in Pune. The Sample Size of 200 was selected. Out of that 110 respondents were given their feedback. An online Survey method was employed and a structured questionnaire was developed to collect the primary data.

There are two parts in the questionnaire. Part -1 related to demographic information of the respondent and Part -2 had questions related to the satisfaction, relation of the Impact of Retention. Statistical test was used to measure relationship between selected variables. The data was analyzed using the T test and ANOVA in SPSS.

HYPOTHESIS

H₀: There is no impact of demographic factors on Impact of Retention in IT Industries in Pune.

H₁: There is an impact of demographic factors on Impact of Retention in IT Industries in Pune..

LIMITATION

The Primary data was collected for the purpose of study only. The questionnaire was collected from IT Industries from Pune.

FINDING

Table 1:- Perception of Respondents on Retention (Content wise Analysis)

Statistics of Perception of Respondents on Retention												
	Year of Service in Current Company	Are you Satisfied in Current Job	Are you satisfied with the current Profile	Satisfy in Culture of Company	Providing facility	Change the Organization	Impact upon Performance	Appraisal Policy	Talent Retention	Policy for Talent Retention	Aware of Policy Talent Retention	Important of Talent Retention
Mean	1.8818	1.1909	1.2455	1.2000	1.3000	1.3636	1.3000	1.0727	1.1091	1.1182	1.2455	1.0545
Std. Error of Mean	.10148	.03764	.04122	.03831	.04389	.04608	.04389	.02487	.02986	.03092	.04122	.02175
Std. Dev	1.06428	.39482	.43233	.40183	.46035	.48325	.46035	.26088	.31318	.32430	.43233	.22813

Source:- Survey Data

Table 2:- Perception of Respondents on Retention as per experience (Content wise Analysis)

Perception of Respondents on Retention as per Year of Service in Current Company					
		Frequency	Percent	Valid Percent	Cumulative Percent
Year of Service in Current Company	Below 3 Years	54	49.1	49.1	49.1
	4-6 Years	30	27.3	27.3	76.4
	7-10 Years	11	10.0	10.0	86.4
	10 Years & Above	15	13.6	13.6	100.0
	Total	110	100.0	100.0	
Source:- Survey Data					

Table 3:- Perception of Respondents on Retention in various factors (Content wise Analysis)

Perception of Respondents on Retention in various factors (Content wise Analysis)					
	Dichotomous Date	Frequency	Percent	Valid Percent	Cumulative Percent
Are you satisfied with the current Job?	Yes	89	80.9	80.9	80.9
	No	21	19.1	19.1	100
Are you satisfied with the current Profile?	Yes	83	75.5	75.5	75.5
	No	27	24.5	24.5	100
Are you satisfied the culture of the company?	Yes	88	80	80	80
	No	22	20	20	100
Do you think that the	Yes	77	70	70	70

company is providing the better facility?	No	33	30	30	100
Do you think an employee should change the organization by any reason?	Yes	70	63.6	63.6	63.6
	No	40	36.4	36.4	100
Do you think that Retention will impact upon the performing the Job?	Yes	77	70	70	70
	No	33	30	30	100
Do you have appraisal policy in your company?	Yes	102	92.7	92.7	92.7
	No	8	7.3	7.3	100
Do you know what Talent Retention is?	Yes	98	89.1	89.1	89.1
	No	12	10.9	10.9	100
Does your company has any policies for Talent Retention?	Yes	97	88.2	88.2	88.2
	No	13	11.8	11.8	100
Are you aware of such policies?	Yes	83	75.5	75.5	75.5
	No	27	24.5	24.5	100
Do you think retention of talent is Important?	Yes	104	94.5	94.5	94.5
	No	6	5.5	5.5	100
	Total	110	100	100	

Source:- Survey Data

1. More than 90% respondents suggested that, Retention of Talent is Important and Appraisal Policy is already in their companies which impact the retention.
2. 80-90 % of the respondents remarked that they know the Talent Retention and they are satisfied their current job and current company also and also their company has the Policies of Talent Retention.
3. 60-80 % of the respondents suggested that, they are satisfied with their current Profile, They aware about the Talent Retention & It is impact upon the performing the job.
4. Below 40 % of the Respondents are not agreed upon above perceptions.

It indicates that the company policies are important factor for Appraisal policy and it should be important for their retention Policy.

Table 4 :- Satisfaction of Respondents as per Gender

Group Statistics as per Satisfaction of Respondents as per Gender					
	Sex	N	Mean	Std. Deviation	Std. Error Mean
Satisfaction Level	Male	68	6.5147	1.72983	.20977
	Female	42	7.0000	1.59267	.24575

Source:- Survey Data

Table 5 :- Satisfaction of Respondents as per Gender (**Independent Samples Test** for Qualification)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Satisfaction Level	Equal variances assumed	1.059	.306	-1.473	108	.144	-.48529	.32953	-1.13847	.16788
	Equal variances not assumed			-1.502	92.472	.137	-.48529	.32311	-1.12697	.15639

Source:- Survey Data

P value is obtained as 0.144 (>0.05), thus it concluded that there is **no** significant difference between Male and Female respondents with regard to Satisfaction of Retention Policy of the Company .

Table 6 :- Satisfaction of Respondents as per Qualification (Anova Test for Qualification)

Descriptive Satisfaction of Respondents as per Qualification (Anova Test for Qualification)								
Satisfaction Level	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Under Graduate	3	7.0000	.00000	.00000	7.0000	7.0000	7.00	7.00
Graduate	48	6.8750	1.41984	.20494	6.4627	7.2873	5.00	9.00
Post Graduate	55	6.4000	1.90127	.25637	5.8860	6.9140	3.00	10.00
Above Post Graduate	4	8.5000	.57735	.28868	7.5813	9.4187	8.00	9.00
Total	110	6.7000	1.68806	.16095	6.3810	7.0190	3.00	10.00

Source:- Survey Data

Table 7 :- Satisfaction of Respondents as per Qualification

Satisfaction Level (ANOVA Test)					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	19.650	3	6.550	2.386	.073
Within Groups	290.950	106	2.745		
Total	310.600	109			

Source:- Survey Data

P value is obtained as 0.073 (>0.05), thus it concluded that there is **no** significant difference among the different qualifications of respondents with regard to Satisfaction of Retention Policy of the Company.

Table 8 :- Satisfaction Level of Respondents as per Age Group (Anova Test)

Satisfaction Level					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.275	3	2.425	.847	.471
Within Groups	303.325	106	2.862		
Total	310.600	109			

Source:- Survey Data

P value is obtained as 0.471 (>0.05), thus it concluded that there is **no** significant difference among the different age group of respondents with regard to Satisfaction of Retention Policy of the Company .

Table 9 :- Satisfaction Level of Respondents as per Age Group

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
21-30 Years	60	6.7500	1.25718	.16230	6.4252	7.0748	5.00	9.00
31-40 Years	40	6.8250	2.11996	.33520	6.1470	7.5030	3.00	10.00
41-50 years	5	5.8000	1.09545	.48990	4.4398	7.1602	5.00	7.00
51 years & above	5	6.0000	2.73861	1.22474	2.5996	9.4004	4.00	9.00
Total	110	6.7000	1.68806	.16095	6.3810	7.0190	3.00	10.00

Source:- Survey Data

Table 10 :- Satisfaction of Respondents as per Year of Experience

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Below 5 Years	54	6.3889	1.47196	.20031	5.9871	6.7907	4.00	9.00
6-10 Years	31	7.7097	1.32145	.23734	7.2250	8.1944	6.00	10.00
11-15 years	3	5.0000	.00000	.00000	5.0000	5.0000	5.00	5.00
16-20 years	13	6.0000	2.15058	.59646	4.7004	7.2996	3.00	9.00
20 years above	7	6.2857	2.28869	.86504	4.1690	8.4024	4.00	9.00
Total	108	6.6759	1.69429	.16303	6.3527	6.9991	3.00	10.00

Source:- Survey Data

Table 11 :- Satisfaction of Respondents as per Year of Experience (Anova Test for Satisfaction as per Experience)

Satisfaction of Respondents as per Year of Experience (Anova Test for Satisfaction as per Experience) ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	53.008	4	13.252	5.371	.001
Within Groups	254.149	103	2.467		
Total	307.157	107			

Source:- Survey Data

P value is obtained as 0.001 (<0.05), thus it concluded that there is a **significant** difference among the different age group of experiences of respondents with regard to Satisfaction of Retention Policy of the Company .

Table 12 :- Importance of Talent Retention of Respondents

Descriptive Statistics of Importance of Talent Retention of Respondents			
	N	Mean	Std. Deviation
Salary	110	4.0636	.82703
Recognition	110	3.8364	.88336
Feasibly Working Hour	110	3.9636	.80054
Culture	110	2.8273	1.45173
Valid N (list wise)	110		

Source:- Survey Data

Table 13 :- Importance of Talent Retention

Group Statistics Importance of Talent Retention					
	Sex	N	Mean	Std. Deviation	Std. Error Mean
Salary	Male	68	4.1471	.77776	.09432
	Female	42	3.9286	.89423	.13798
Recognition	Male	68	3.9412	.82647	.10022
	Female	42	3.6667	.95424	.14724
Feasibly Working Hour	Male	68	3.9706	.79119	.09595
	Female	42	3.9524	.82499	.12730
Culture	Male	68	3.0000	1.49626	.18145
	Female	42	2.5476	1.34713	.20787

Source:- Survey Data

Table 14:- Descriptive Statistics -Reasons for Employee Leaving the Organization

Descriptive Statistics Reasons for Employee Leaving the Organization			
	N	Mean	Std. Deviation
Change of location	110	2.7273	1.05717
Traveling	110	2.7727	.93514
Unsatisfying pay package	110	4.2364	.92793
Career opportunities	110	4.3909	.91967
Job rotation	110	3.2818	.96861
Further education scope/assistance	110	2.7182	.92003
Overseas Opportunity	110	3.3636	1.03806
Knowledge /Skill development / training / workshop	110	3.0545	1.24765
Safety / Security	110	3.2364	1.32670

Good working environment	110	3.5273	1.11462
Promotional opportunities	110	3.8182	1.12667
Any other Reason	110	2.7000	1.18515
Valid N (list wise)	110		

Source:- Survey Data

Table 15 :- Importance of Talent Retention (T Test for Gender)

Independent Samples Test of Importance of Talent Retention (T Test for Gender)										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Salary	Equal variances assumed	.079	.780	1.351	108	.179	.21849	.16170	-.10202	.53900
	Equal variances not assumed			1.307	77.862	.195	.21849	.16714	-.11427	.55124
Recognition	Equal variances assumed	3.644	.059	1.595	108	.114	.27451	.17215	-.06672	.61574
	Equal variances not assumed			1.541	77.600	.127	.27451	.17812	-.08012	.62914
Feasibly Working Hour	Equal variances assumed	.449	.504	.115	108	.908	.01821	.15783	-.29463	.33104
	Equal variances not assumed			.114	84.188	.909	.01821	.15941	-.29878	.33520
Culture	Equal variances assumed	3.411	.068	1.599	108	.113	.45238	.28289	-.10836	1.01312
	Equal variances not assumed			1.640	93.918	.104	.45238	.27592	-.09547	1.00023

- i. The average satisfaction level of all the respondents is **6.70**. It means the Retention is Impact upon the company as well as the employer
- ii. It indicates that the below satisfaction level of each employee is impact upon their job and it varies from different parameters.
- iii. Most of the respondents agreed that the salary is the most important factor i.e **4.06** of retention.
- iv. It also indicates that culture of the organization is little bit impact upon the retention.
- v. On the Basis of T Test the Mean of the Men Respondents are greater that Female respondents

Table 16:- Reasons for Employee Leaving the Organisation

Reasons for Employee Leaving the Organisation (Anova)						
		Sum of Squares	df	Mean Square	F	Sig.
Change of location	Between Groups	5.831	4	1.458	1.320	.267
	Within Groups	115.987	105	1.105		
	Total	121.818	109			
Travelling	Between Groups	3.073	4	.768	.874	.482
	Within Groups	92.245	105	.879		
	Total	95.318	109			
Unsatisfying pay package	Between Groups	13.854	4	3.464	4.546	.002
	Within Groups	80.000	105	.762		
	Total	93.855	109			
Career opportunities	Between Groups	11.264	4	2.816	3.654	.008
	Within Groups	80.927	105	.771		

Reasons for Employee Leaving the Organisation (Anova)						
		Sum of Squares	df	Mean Square	F	Sig.
	Total	92.191	109			
Job rotation	Between Groups	11.238	4	2.809	3.241	.015
	Within Groups	91.026	105	.867		
	Total	102.264	109			
Further education scope/assistance	Between Groups	7.004	4	1.751	2.156	.079
	Within Groups	85.260	105	.812		
	Total	92.264	109			
Overseas Opportunity	Between Groups	18.489	4	4.622	4.904	.001
	Within Groups	98.965	105	.943		
	Total	117.455	109			
Knowledge /Skill development / training / workshop	Between Groups	13.025	4	3.256	2.183	.076
	Within Groups	156.648	105	1.492		
	Total	169.673	109			
Safety / Security	Between Groups	14.379	4	3.595	2.127	.083
	Within Groups	177.476	105	1.690		
	Total	191.855	109			
Good working environment	Between Groups	16.338	4	4.084	3.601	.009
	Within Groups	119.081	105	1.134		
	Total	135.418	109			
Promotional opportunities	Between Groups	20.688	4	5.172	4.615	.002
	Within Groups	117.675	105	1.121		
	Total	138.364	109			
Any other Reason	Between Groups	6.329	4	1.582	1.132	.346

Reasons for Employee Leaving the Organisation (Anova)						
		Sum of Squares	df	Mean Square	F	Sig.
	Within Groups	146.771	105	1.398		
	Total	153.100	109			

P value is obtained as **less than 0.05** in Unsatisfying pay package, Career opportunities, Job rotation, Overseas Opportunity, Good working environment & Promotional opportunities factors. Hence it concluded that there is **a significant** difference among the different age group of experiences of respondents with regard to Satisfaction of Retention Policy of the Company .

P value is obtained as **greater than 0.05** in Change of location, Travelling, Further education, scope/assistance, Knowledge /Skill development / training / workshop, Safety / Security & any other Reason factors. Hence it concluded that there is **no significant** difference among the different age group of experiences of respondents with regard to Satisfaction of Retention Policy of the Company .

DISCUSSIONS

It indicates that the company policies are important factor for Appraisal policy and it should be important for their retention Policy. Hence the company should take the necessary steps to retain the employee.

1. It is observed that there is **no** significant difference between Male and Female respondents with regard to Satisfaction of Retention Policy of the Company. Hence the general policies must be created for the benefit of the employee.
2. It is concluded that there is **no** significant difference among the different qualifications of respondents with regard to Satisfaction of Retention Policy

of the Company. Hence the policy should be applicable for all employees irrespective to education level.

3. it is found that there is **no** significant difference among the different age group of respondents with regard to Satisfaction of Retention Policy of the Company . Hence the policy must be satisfy for all age group.
4. It is concluded that there is a significant difference among the different age group of experiences of respondents with regard to Satisfaction of Retention Policy of the Company. So experience policy should be framed.
5. It is observed that the factors like Unsatisfying pay package, Career opportunities, Job rotation, Overseas Opportunity, Good working environment & Promotional opportunities factors are more important for retention.
6. It is observed that the factors like Change of location, Travelling, Further education, scope/assistance, Knowledge /Skill development / training / workshop, Safety / Security & any other Reason factors is not the major problem to create retention.

CONCLUSION

The IT sector has lead to various reasons for attrition as mentioned in the findings. For employees now have to be retained by providing the stress busters, deserved recognition, fair treatment and growth opportunities. Salaries are no more a retention tool . Besides of that lots of expectations are demanded by the employee. The employees would care for to work at a place that keeps up their attention and growth in balance with the work and organisational goals and targets which will be better for the employee and the employer as well. The organization should take care of a fair salary and other monetary benefits to the employees as per the ability and talent. There should a fair performance appraisal program and no space for any

type biasness. All the rewards and facilities have been provided on the basis of performance of the employees. Finally we can say that organisation should have employee friendly organisational culture with positive working conditions, low pressure and higher opportunities for career growth which will reduce the retention at a great extent and increase employee attitude in order to continue in the organisation.

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LIP READING THROUGH ARTIFICIAL INTELLIGENCE

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Abstract

Human interact with each other by using speech. They express thoughts, feelings, and ideas by speech. Speech recognition is the process to identify words or phrase from spoken language and convert into machine readable format. In the fast development of knowledge and communication technology, communication sector has improved continuously. Artificial intelligence could be a field that includes a broad, extremely technical and specialized analysis space. Machine learning, is already used in business with the help so many technology like Artificial Intelligence and other also. Where as Lip reading is an active area of AI research. Machine learning can be the correct answer to help many of hearing-impaired people read what's being said in the world all around them.

By giving importance to all these things, Google Deep Mind and Oxford University researchers combine developed an automated lip-reader called LIP-NET that far outperforms a human expert. Deep Mind and Oxford also plan to make the data publicly available to help many other researchers in their respective research field.

Keywords: LIP READING , ARTIFICIAL INTELLIGENCE

Introduction:

Researchers from Google's AI division DeepMind and the University of Oxford have used artificial intelligence to create the most accurate lip-reading software ever. Using thousands of hours of TV footage from the BBC, scientists trained a neural network to annotate video footage with 46.8 percent accuracy, where as a professional human lip-reader was only able to get the right word 12.4 percent of the time.

The research follows similar work published by a separate group at the University of Oxford. Using related techniques, these scientist were able to create a lip-reading program called LipNet that achieved 93.4 percent accuracy in tests, compared to 52.3 percent human accuracy. However, LipNet was only tested on specially-recorded footage that used volunteers speaking formulaic sentences. By comparison, DeepMind's software known as "Watch, Listen, Attend, and Spell" was tested on far more challenging footage. 'Watch, Attend and Spell' (WAS), the AI software has been developed in collaboration with Google's DeepMind. The system was trained by running it on thousands of hours of BBC news programs.

More than 5,000 hours of footage from TV shows including *Newsnight*, *Question Time*, and the *World Today*, was used to train DeepMind's "Watch, Listen, Attend, and Spell" program. The videos included 118,000 difference sentences and some 17,500 unique words, compared to LipNet's test database of video of just 51 unique words.

WAS was also tested by putting it against an expert lip-reading human. The test was simple, try to guess what was being said in a silent video using only the person's mouth movements. The results were quite surprising as the AI system

correctly lip-read 50 percent of silent speech and the human could only guess 12 percent. The test also concluded that the machine made small mistakes like missing an “s” at the end of a word, or single letter misspellings.

Lead-author Joon Son Chung of the study said, “It is great to see research being conducted in this area, with new breakthroughs welcomed by Action on Hearing Loss by improving accessibility for people with a hearing loss. AI lip-reading technology would be able to enhance the accuracy and speed of speech-to-text especially in noisy environments and we encourage further research in this area and look forward to seeing new advances being made. Lip-reading is an impressive and challenging skill, so WAS can hopefully offer support to this task – for example, suggesting hypotheses for professional lip readers to verify using their expertise. There are also a host of other applications, such as dictating instructions to a phone in a noisy environment, dubbing archival silent films, resolving multi-talker simultaneous speech and improving the performance of automated speech recognition in general.”

Summary:-In future it is useful for visual speech recognition method using video without evaluating audio signals which include lip reading, features extraction and recognition. It could be used to translate an unknown language to a known language. Automatic speech recognition or Lip reading is used in video conferences, multimedia systems and low communication systems.

According to Google and Oxford University, Lip Reading through AI is more Accurate than humans.

1. Oxford University and Google DeepMind built an AI tool that can read lips far better than a professional human lip-reader, which could help the hearing impaired.
2. The model used BBC videos, and was able to surpass the benchmarks set for similar research in the field.
3. Google DeepMind also recently was able to get its AI systems to sound more human with advanced text-to-speech technology innovations.
4. Newly developed AI system can efficiently lip-read better than human.
5. In upcoming days it will be very useful for research who are interested I to work in this are, this work will be useful for them in their research.
6. This will help researcher to convert lip reading inputs in their own language. Which will be helpful in many areas.

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“A STUDY ON IMPACT OF SOCIAL NETWORKING SITES AMONG HIGHER EDUCATION STUDENTS”

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ABSTRACT:

The study of this research aims to create an immense level of awareness among the higher education students to such social networking sites and find how adversely and positively is students affected by the usage of these sites and also understand the usage efficientiveness. Facebook, Twitter, LinkedIn, Skype and Instagram are a few such sites that attract maximum of the higher education students to tune in to them and thereby embodies their own merits and demerits that desperately need to create an actual picture among the higher education students. It has now become an evident and usual sight to face individuals being insensitive to chat in all social gatherings where they are so preoccupied and engrossed into their phones that they do not even bother to look up as to where they are which results in their inability to prioritize as to what is important and what isn't. Attention has thus been shifted from real to virtual world and visible to invisible friends. Social networking sites have become an integral part of the lives of people.

The study of social networks has received significant interest from researchers in various domains such as psychology, philosophy, education, and lately communication science. The power of new digital technologies in the expansion of academic scholarship is seldom questioned by the scholars. The educational institutions have realized that social networking sites are highly accessible to the

higher education generation of students. The students make use of social networking sites for academic purposes. The various networks and social structure established within social networking sites have facilitated better interaction have also facilitated formation of study groups, promoted research projects and extended academic support for distance and campus based education in modern times.

Keywords: Social Networking Sites, Facebook, Twitter, Higher Education.

INTRODUCTION

In the new millennium social media have emerged as the most popular media of communication. There are several factors which have contributed to this rapid growth and development of social media. Prominent among them include technological factors (increased broadband availability, the improvement of software tools and the development of more powerful computers and mobile devices), social factors (rapid uptake of social media by higher education er age groups), economic factors (increasing affordability of computers and software and growing commercial interest the social media sites) and political factors (increasing political mobilization and several political changes across the world). The world has witnessed a shift in the focus of Web applications towards social interaction, collaboration and networking. This development has also influenced education. Social media application has become a new way of life in the field of education. Scholars and technocrats had identified the ways and means for the inclusion of various social media applications in the learning process in higher education. The tools range from general-purpose tools for the generic community of interest to highly specialized tools for the support of learning in higher educational environment. The present study evaluated the impact of social networking sites on Iranian students who are pursuing higher education in

Karnataka state. The salient aspects of the study namely features of social media, development of social media, impact of social media on society, application of social media for educational development, application of social media for higher education management, application of social media for personality development of students, significance of the study, statement of the problem and objectives of the study are amplified in this chapter.

Social Networking sites are termed to as web based services that give an opportunity to individuals to create their own personal profile with the choice of their own list of users and thereby connect with them in an altogether public forum that provides them with features such as chatting, blogging, video calling, mobile connectivity and video/photo sharing. People spend more than usual hours on **social** networking sites to download pictures, browse through updates seek entertainment and chat around with friends to keep themselves connected to one another. These sites have held an addiction to the higher education students wherein they find it difficult to concentrate on their work and prefer logging in and jumping across one site to another. Some have derived benefit out of these sites whereas some have become academically challenged by the use of these websites. Individuals have set their own limits as to when and when not to access these websites but we witness very few out of the lot who does not access or make use of these sites at all.

Evaluating the amount of research that surrounds the usage of social networking sites in the education system, it is important to determine whether or not, have these sites led to any impact on student engagement and achievement. This paper will be therefore able to review the available literature to

study and present both the positive and negative impacts of online networking on the most high in demand segment of our society.

LITERATURE REVIEW

Impact of social networking websites on the education of the higher education management students:

The researcher tries to portray, social networking sites such as Facebook, MySpace and Twitter are gaining popularity with the pace of time and due to their attractive features the **higher education students** of today's generation is fascinated towards them. The study argues against the notion claiming that due to the rapid popularity of social networking sites the higher education students tends to distract themselves from their studies and professions but on the contrary is also developing friendly and social ties with the world that revolves around them.

Impact of social networking sites in the changing mindsets of higher education management students on social issues:

This paper elucidates that men spend more time as compared to women on social networking sites to review these social issues and yet women are very sensitive to issues like these existing in the world. The higher education students takes active participation and also raises their voices in order to express their opinions and views on social issues being discussed on these sites. Also, the findings state that even though the higher education students reciprocates to these events they still do not take up discussions beyond web and forget about them once they sign off. Thereby, these sites prove to be a boon to the higher education students in terms of spreading awareness about these issues that arise].

Impact of social networking sites on higher education management students:

This study establishes the fact that out of all the respondents targeted, nearly 55.4% of the total population from people ranging in the age group 15 to 25 use social networking sites and also states that most of the users from the same age group use these sites as a medium to seek entertainment. In terms of gender division, male users are more as compared to female users wherein male users generally derive knowledge based information from these sites. It focuses on the fact that most of the higher education students uses these sites due to influence of their friends and just because their friends have been using and accessing these sites. This also illustrates the academic performance of students using social networking sites. Students acquiring 3.0 to 3.5 GPA in examinations are most inclines to these sites for entertainment.

The effect of social networking sites on adolescents' social and academic development: Current theories and controversies:

The paper offers a review of the emerging research surrounding social networking sites and higher education students. The technologies and offers of these sites are such that they fascinate and attract the higher education students and teenage. Determining its popularity, parents and educators have lend an ear to its concern and consideration. These concerns range from higher education students privacy, safety, time consumption, health issues, psychological well being and academic performance. However the study must be finally specified about theories as to how higher education students uses social networking sites and must enact communication behavior that should result in their benefit.

Effect of social networking sites usage on the studies of higher education management students:

This study evaluates the effect of social networking sites on the students and justifies that no significant effect of these sites are found to hamper their studies

but there is no clear balance of its usage. Students do not realize as to when and where to use these social networking sites and are witnessed using them in areas such as lecture halls while lectures are going on and also during study and reading hours of their work schedules. This incorporates the suggestion to higher education students in order to efficiently allocate their time and reschedule their timings to face terms with what needs to be done.

OBJECTIVES OF THE STUDY:

- To determine the usage of specific social networking sites by the higher education management students.
- To analyze the credibility over the information received from social networking sites.
- To understand the pros and cons of social networking sites known by the higher education management students.
- To study the influence of social networking sites on the personal and professional life of the higher education management students..
- To evaluate the uses of social media among higher education management students in Pune.

RESEARCH METHODOLOGY

1. Primary Data: The following methods are used for data collection:

- Questionnaire
- Interview, Discussion
- Email Secondary Data Sources:

2. The following was referred for collection of secondary data:

- Books
- Journals, Magazine

- Company Publications: Newsletter, /Brochure/ Annual Reports / Company Profiles
- Social networking Sites

This paper incorporates the quantitative approach to study the research objectives. Sampling has been done effectively and the tool that has been employed to work on the data collection is particularly questionnaires where the questions were close ended along with usage of tools such as pie charts. The sample has been taken mainly from Pune region. In all, 100 questionnaires were filled and reciprocated enthusiastically by the respondents.

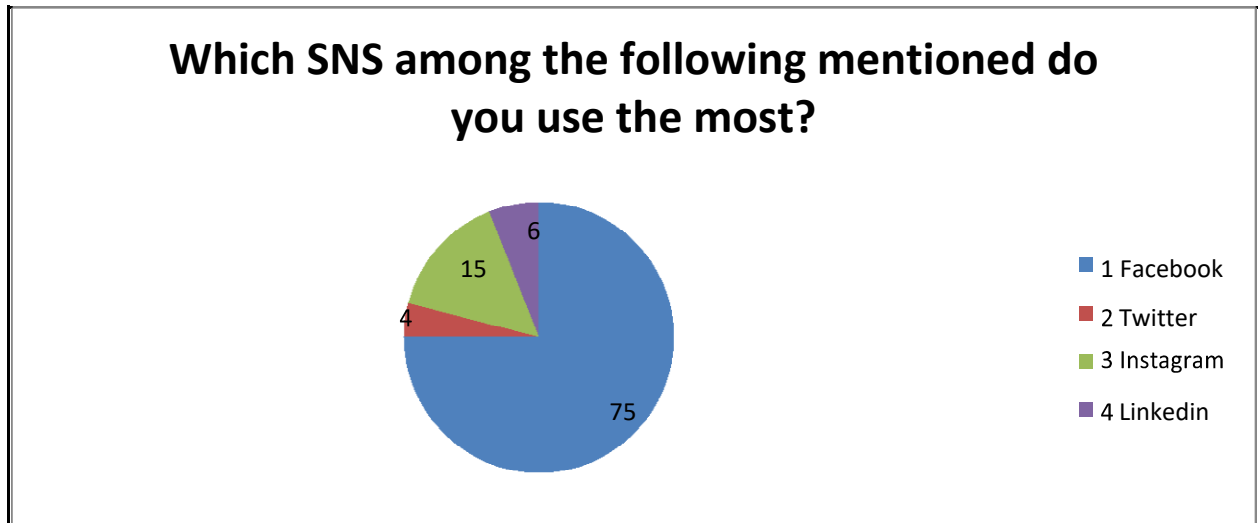
DATA ANALYSIS:

They were asked a total of 10 questions. On being asked as to which social networking site the target audience uses the most, 75 responded to Facebook holding the maximum share amongst the rest. 15 responded to Instagram, 6 responded to Twitter and only 4 responded to LinkedIn thereby proving that maximum of the audience's share is inclined towards the platform of social utility that connects them with their friends and peers who live around them other than a professional platform that offers them an opportunity to professional networking.

Table No: 1: Showing various Networking sites

Sr. No	Social Networking Sites	No of Respondent
1	Facebook	75
2	Twitter	4
3	Instagram	15
4	LinkedIn	6

Figure No: 1



When respondents were asked about the amount of time they spend on accessing Social Networking Sites a day, the majority spent more than 2 hours bearing a total of 45, whereas 38 spent 1 to 2 hours and 17 spent less than an hour on these sites indicating that a major part of our higher education students spends more than 2 hours accessing social networking sites a day, thereby highlighting an extensive impact of social networking sites on the higher education students on the grounds of an ability to attract a large number of population's time.

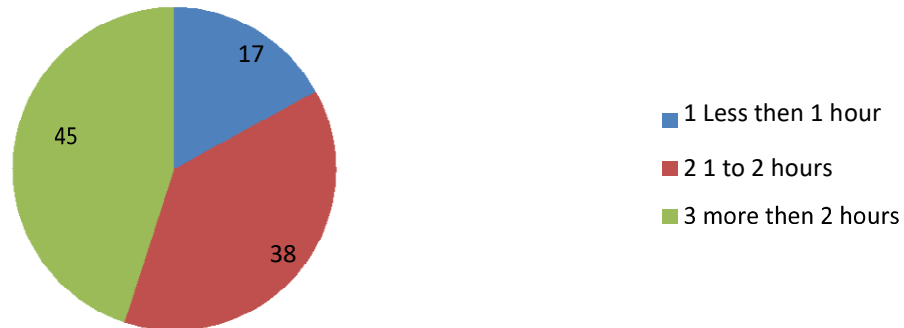
Table No 2:

Sr. No	No of Hours	No of Respondent
1	Less than 1 hour	17
2	1 to 2 hours	38
3	more then 2 hours	45

Source:Primary Data

Figure No 2:

For how long do you access social Networking Sites a day?



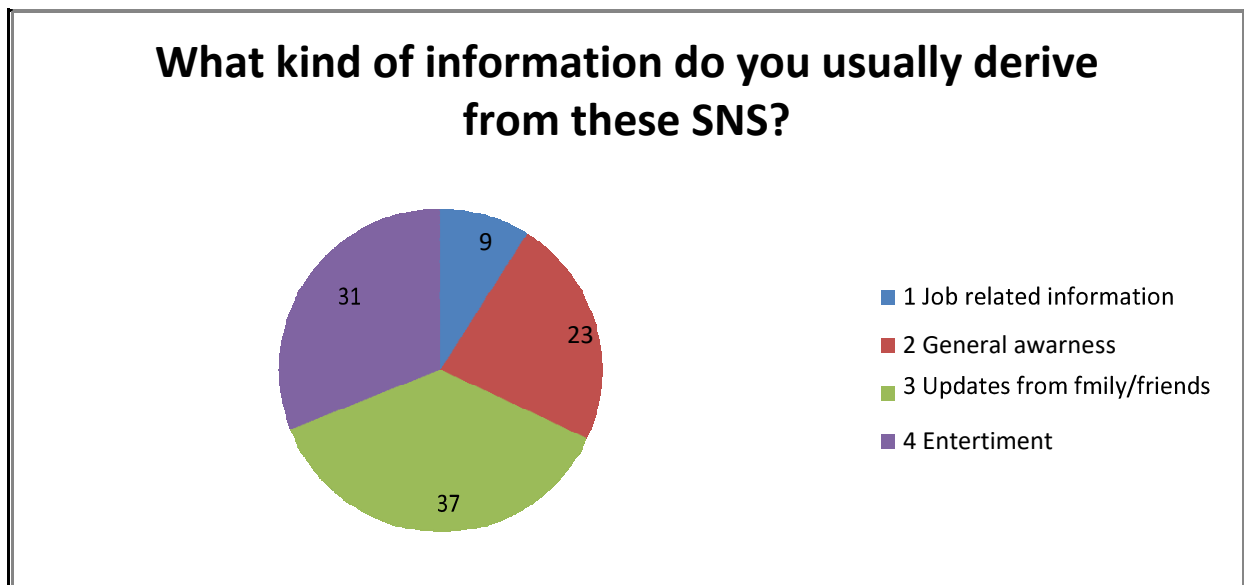
In order to know about the kind of information the higher education students usually derives from these social networking sites, 37 responded to updates from family/friends, 31 seek to these sites as a source of entertainment, 23 derived information about general awareness and only 9 lookupto them as a source of job related information. The data evidently shows the inclination of the higher education students towards an urge of knowing as to what goes around in their near and dear ones lives. This in a way keeps them connected but simultaneously leads to a loss of focus towards their own goals, since only a small proportion of the higher education students seeks interest in gathering relevant information pertaining to jobs and general awareness).

Table No 3

Sr. No	Information Derive	No of Respondent
1	Job related information	9
2	General awareness	23
3	Updates from family/friends	37
4	Entertainment	31

Source:Primary Data

Figure No: 3



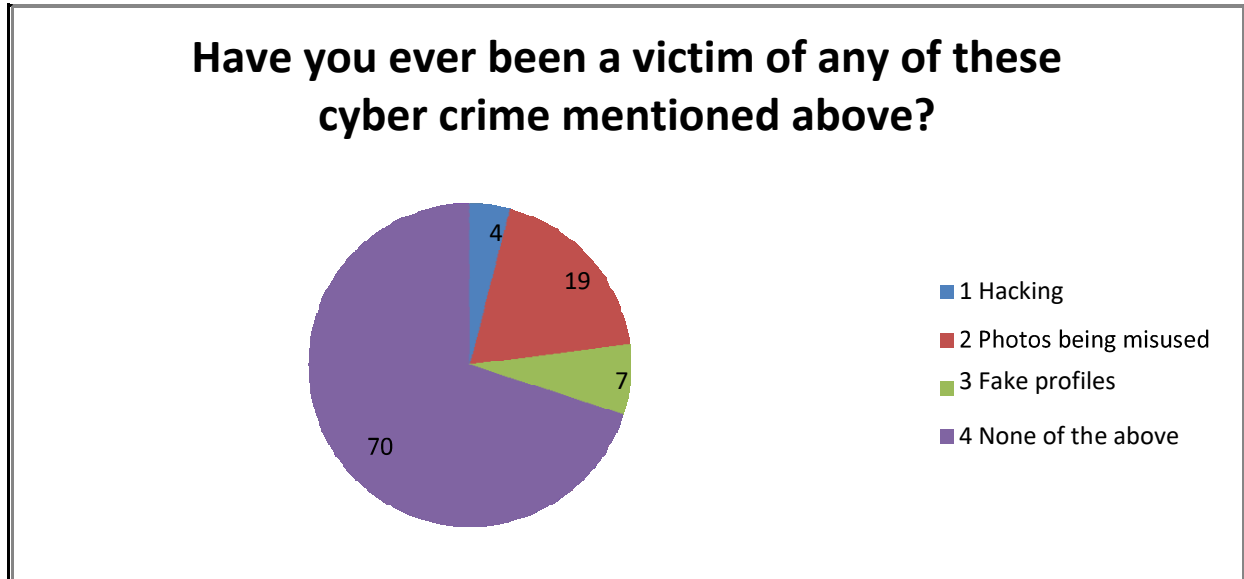
When the question of cyber-crime was raised to the respondents, a remarkable 70 of the sample was proven to be immune from them validating the improved privacy and account settings these sites provide to their users. However, on the contrary 19 of the respondents were a victim of hacking, 7 being the victim of fake profiles and 4 being attacked by fake profiles thus imparting to our knowledge that even today a noticeable proportion of the higher education students is being victimized by cybercrimes

Table No 4

Sr. No	Victim	No of Respondent
1	Hacking	4
2	Photos being misused	19
3	Fake profiles	7
4	None of the above	70

Source:Primary Data

Figure No: 4



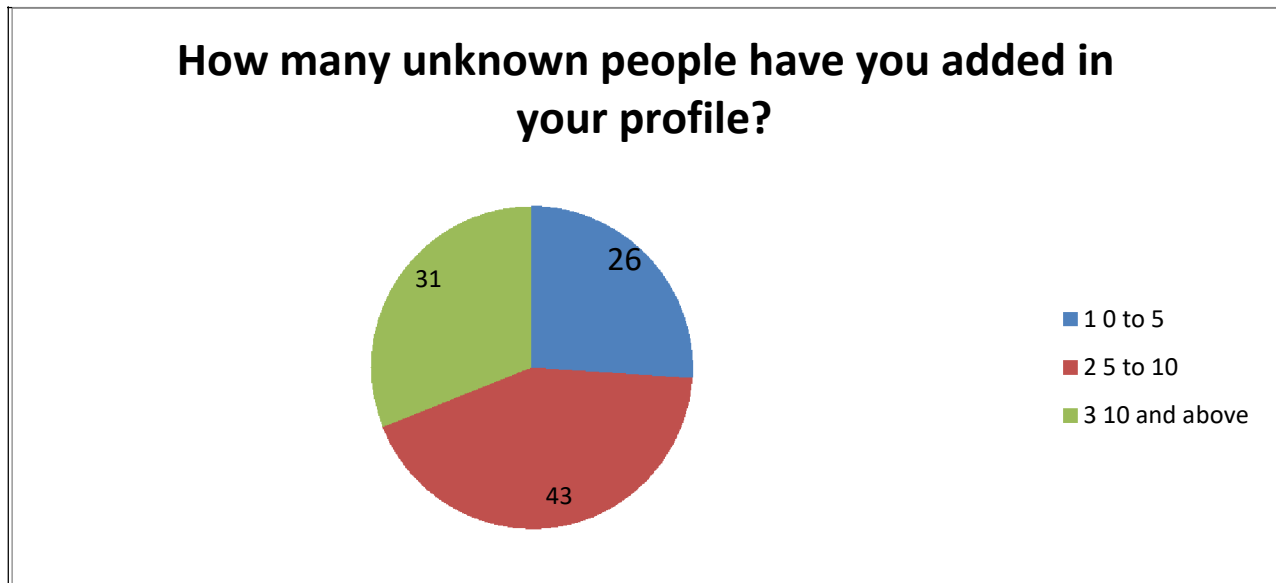
Amongst this sample, the majority being 43 were the ones who had added 5 to 10 unknown people/strangers in their profiles and 26 were those who had added 10 and above unknown people in their profiles, presumably because the higher education students is attracted to expand their network by connecting with new people across the globe. Breaking the data down further, 26 still existed amongst those who had no unknown people added to their profiles for reasons preferably being non evasion of privacy and secrecy.

Table No 5:

Sr. No	People Added	No of Respondent
1	0 to 5	26
2	5 to 10	43
3	10 and above	31

Source:Primary Data

Figure No: 5



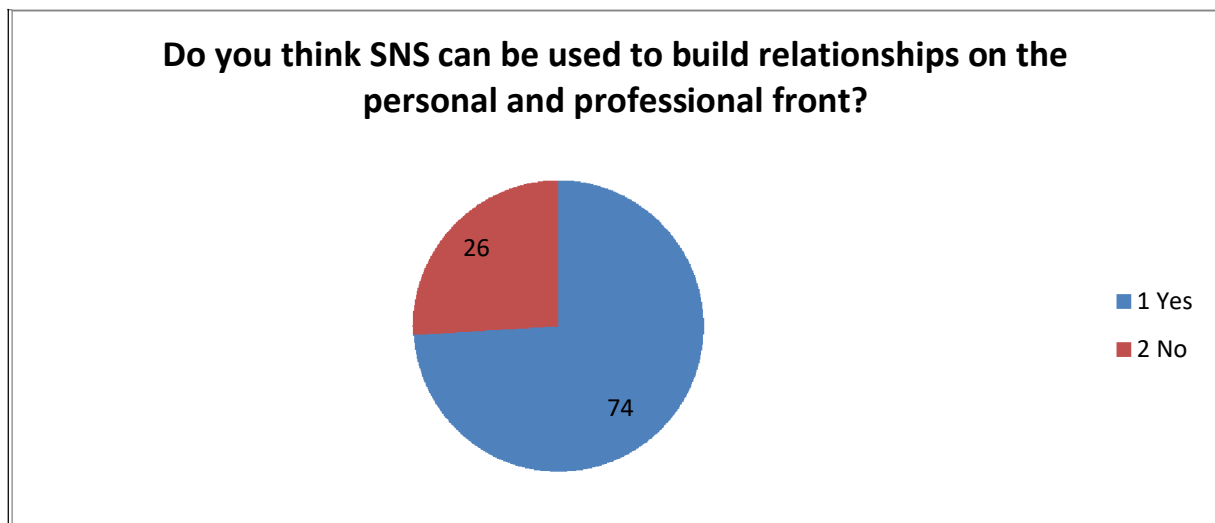
When asked whether or not do these social networking sites build relationships on personal and professional front, nearly 74 agreed whereas, 26 disagreed elucidating the fact that Social Networking sites offer a huge networking platform to people across various zones to connect with one another on both personal and professional fronts. It has brought about a revolutionary change and also has proven to be beneficial in all walks of life. Thus, it proves to hold its own advantages in every individual's life across the globe.

Table No 6

Sr. No	Built relationships	No of Respondent
1	Yes	74
2	No	26

Source:Primary Data

Figure No: 6



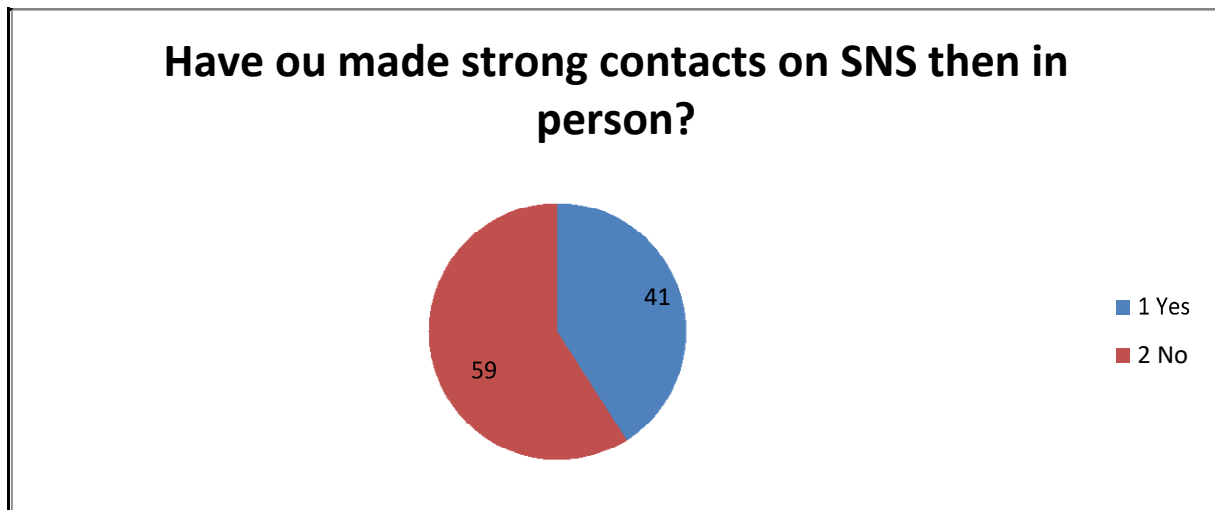
59 of the target audience has disagreed to have made stronger contacts on social networking sites and 41 on the contrary have agreed to have done so. The data thus justifies a thin line of difference between the two options laid down by stating that majority of the respondents feel that even today the real world exists on a larger scale than the virtual to reside in. Perhaps, the faith and trust they hold onto people only validates and strengthens beyond the boundaries of social networking sites. Also, these sites have not influenced the higher education students to such an extent where they would build stronger contacts on social media than in person.

Table No 7:

Sr. No	Strong Contact	No of Respondent
1	Yes	41
2	No	59

Source: Primary Data

Figure No: 7

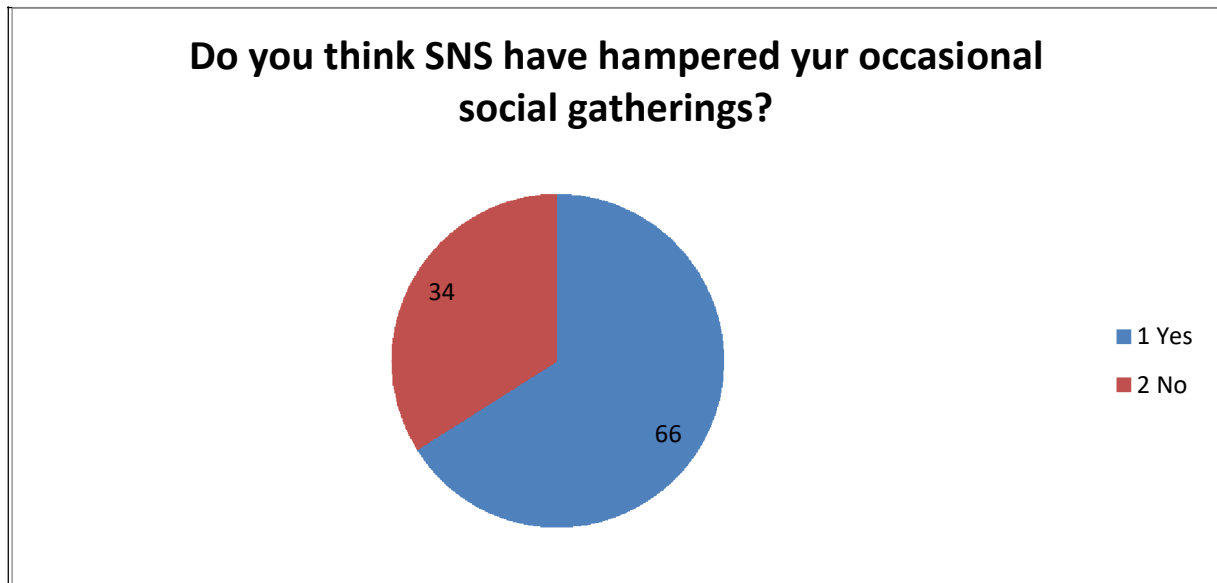


From the data collected above we already have analyzed that a huge sum of the higher education students tends to spend more than two hours a day on social networking sites justifying the reason to have hampered nearly 66 of the higher education students's social gatherings. Since abundant of their time is being spent surfing these sites for various purposes they happen to neglect their social gatherings and prefer sitting back home with an alternative to access these sites. On the other hand, an average of 34 people existed in the sample who disagreed to have admitted about their social gatherings being hampered due to these sites

Table No 8

Sr. No	Hampered occasional social gatherings	No of Respondent
1	Yes	66
2	No	34

Figure No: 8



Source:Primary Data

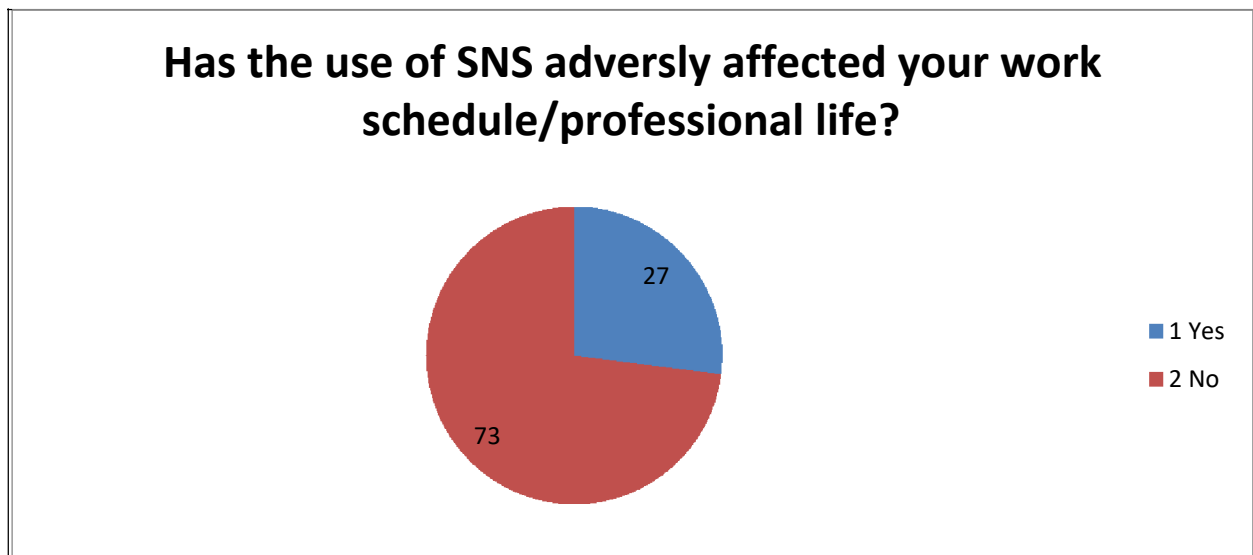
73 being a large proportion of the higher education students targeted have not had their professional lives and schedules being adversely affected through their use of social networking sites highlighting the fact that people have developed a mindset to prioritize their tasks by keeping work first. However clarifying that though these social networking sites have been expanding to gain momentum in their popularity but have not affected the higher education students to the level of their inability to prioritize their own schedules and realize as to what is more important.

Table No 9:

Sr. No	Adversely affected work schedule/professional life?	No of Respondent
1	Yes	27
2	No	73

Source:Primary Data

Figure No: 9



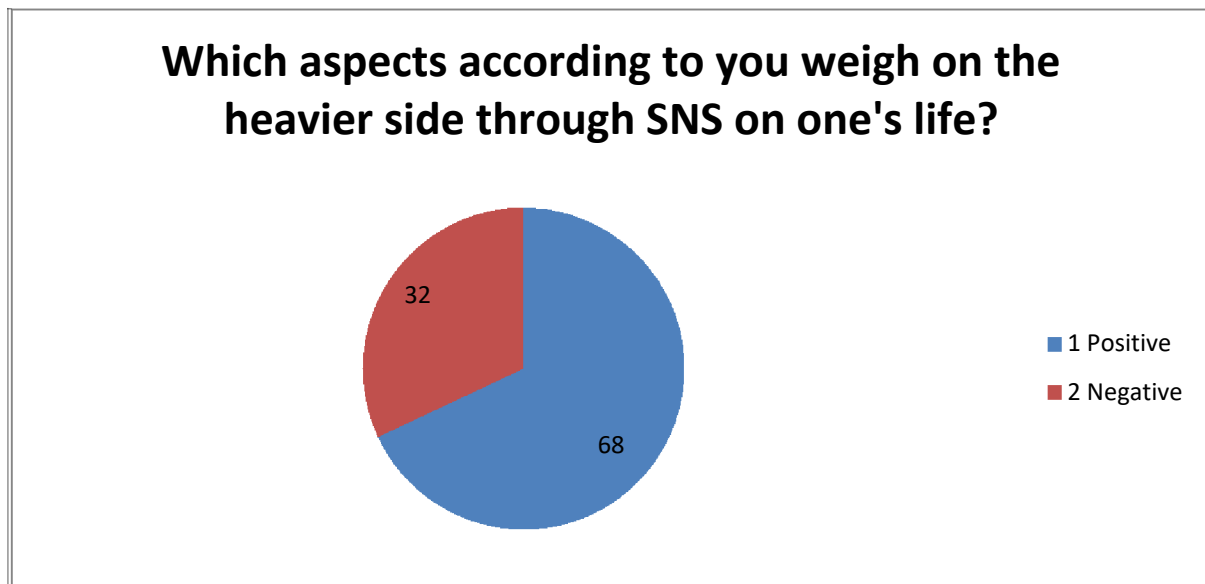
On being asked to compare the positive aspects to the negative ones these social networking sites bear on one's life, a notably 68 of the targeted group chose former to the latter. In turn vindicating the sense of realization each individual embodies about the proper usage of social networking sites that has led to a positive impact in each of their lives. The positive aspects thereby weigh heavier when compared to the negative ones ranging to almost 32.

Table No 10

Sr. No	weigh on the heavier side through SNS on one's life	No of Respondent
1	Positive	68
2	Negative	32

Source:Primary Data

Figure No: 10



FINDING & CONCLUSION:

- The primary objective of the research undertaken was to throw light on how effectively has the usage of social networking sites affected the higher education students by evaluating both of its positive and negative aspects.
- With reference to the study it was evidently figured out how smart, intelligent, witty and aware the higher education student is in the current era.
- Social Networking Sites serve to their purpose of connecting them with people all across the globe by not hampering their work hours and schedules. However, social networking sites offer them a platform to connect with new people, share experiences and gain exposure.
- The higher education students can thus discriminate between the real and virtual world and admits to the fact that social networking sites do not provide an opportunity to build stronger contacts with people than in person.
- The level of trust and faith weighs higher on their contact building in the real world than in virtual for the plain reason of cybercrimes still attacking a significant number of people.

- The target group prefers spending an abundant amount of time on these social networking sites on an average of more than 2 hours a day which keeps them away from their own purpose of existence and interacting with their own natural surroundings.
- The credibility of these sites have not been clearly validated because the kind of information derived by the higher education students from these sites has a greater part of its inclination towards entertainment and updates from family and friends than general awareness and job related information.
- With reference to the expected outcome the study has diverted to a different angle wherein not only negative impacts have proven to exist through the usage of social networking sites but also the existence of positive impacts have occupied a place in one's life.

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