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Preface

In the twenty-first century, organizations are facing many new challenges. Some people would argue that society and the economy have changed so radically that the last century's management practices and theories are no longer relevant. The truth is management has become more important than ever. Almost everything we do today as individuals or organizations requires us to interact with large-scale institutions, such as government agencies, banks, health-care providers, insurance companies, school systems, universities, online retailers, and technology service providers. How has management theory and practice evolved to manage this new organizational and business environment? Interestingly, it has become both more specific and more general.

Several forces are significantly shaping management practices today, including the pace of change, technology, globalization, diversity, and social expectations. Keeping these things in mind this book was conceptualized with an objective to publish the researches being done on various Advances in Management, Social Sciences and Technology. conference.

We hope that this book will be prove to be helpful to students, research scholars, academicians and business executives in having a better understanding of the concept of Advances in Management, Social Sciences and Technology.

Acknowledgements

I am really feeling very honored and privileged to express my gratitude to all those who supported me in my Journey of publishing this Edited book on “Advances in Management, Social Sciences and Technology”.

Nothing can be possible without the Blessings of the Almighty. I bow to the supreme power for always being there with us in all our endeavors.

This Edited Book is the hard work of all the dedicated researchers. We are indebted to all of them for their quality work and for making this book a possibility.

I am thankful to my parents Ms. Nazma Rahman & Mr. Nakibur Rahman for making me understand the importance of education and for making me a confident individual.

I am indebted to my Mother-in- law Ms. Rumena Begum who has always supported in all my decisions. Without her support I could not have been able to pursue my professional career. I know she is always blessing us from the Heaven above.

My deepest gratitude is towards my Husband Dr. Akhter Alam and my Son Irfan Alam for always coping up with my erratic work schedules. They have been my pillar of strength. Without their motivation and support I would not have been able to complete this project.

Last but not the least, I express special thanks from the core of my heart to Mr. Arvind Kumar and Empyreal Publication House for their support to print and publish this book in a very short span of time.

Dr. Tazyn Rahman

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A STUDY OF STRESS COPING SKILLS OF COLLEGE

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ABSTRACT

In the present investigation an attempt has been made to measure the Stress coping skills of post graduate students of Bijapur city in Karnataka. Stress coping skills inventory by Jerabak, Answer sheet, Scoring key and Norms were used. The mean and standard deviations were computed from the raw data for the selected sample. To find out the significant difference between the sub-groups t-test was employed. The results show that there is a high level of Stress Coping Skill among college and university students of Bijapur city of Karnataka state. There is significant difference between sub-groups such as UG & PG, women university and Karnataka university, govt. college and private college, arts and science, arts and social science, arts and commerce, arts and education, education and commerce, arts and science, Govt. and private arts, science and commerce in their level of Stress Coping Skill. There no significant difference between Govt. college and Private college, arts and science, arts and social science faculties of women university in their level Stress Coping Skill. The is a significant deference between English and kannada, kannada and Bioinformatics, MCA and Pharmaceutical Chemistry, Economic sand Sociology, Economics and Women's studies, Economics and Social work, Sociology and Women's studies, Sociology and Social work, Women's studies and Social work, M.Ed, and M.Com, M.Com and MBA in their level of Stress Coping Skill.

INTRODUCTION

Stress is the demands placed on the individual that are perceived as threatening and demands that tax the individual's resources. Stress thus involves a perceived threat which an individual thinks that may strain or exceed his/her resources. Stress includes tightening of muscles, increased heart rate and breathing seems more rapid. Both the person who is lethargic to do anything and the person who always has to do something may be experiencing stress.

The term stress refers to situations that pose demands, constraints, or opportunities. However, a stress-arousing situation for one person might be a neutral event for another, whether a creation situation is stressful for us or not depends on how we appraise a life event and how we rate our ability to deal with it.

Coping Skills: Coping Skills are characteristic way of dealing with difficulties-influence how we identify and try solving problems. People who cope successfully do not only know how to do thing, they also know how to approach situation for which they do not have a ready available response.

Stress and illness: There is growing evidence that stress plays an important role in illness and health. Selye proposed a model of stress reaction in the body called the General Adaptation Syndrome(GAS) which has three phases; Alarm reaction, Resistance and Exhaustion. Alarms reaction is a familiar sensation to everybody and is best known as "fight" or "flight" responses. In resistance, the distinctive reactions of the alarm fade and disappear and the body seems to "return to normal". Exhaustion is one in which badly resources are depleted and the organism loses its ability to resist so that further exposure to the stress can lead to disintegration and death.

The causes of stress are many. Pressures or stresses also come from within, from the beliefs, attitudes and expectations about the world and ourselves from our habits and behavior and from our personality. Stress falls into different groups, physical, environment stresses, such as noise and pollution, cultural expectations and more personal social expectations from family, friends and colleagues. For many people, it is the small daily events which cause the most stress.

Stress affects both physical and emotional well-being of an individual. Coronary heart disease is prominent when it comes to them and stress along with hypertension following heart disease; the second most common stress-related illness and probably those of the alimentary canal ranging from indigestion to ulcer. Two major problems are peptic ulcer and irritable bowel syndrome. Other illnesses include certain skin disorders and various types of mental and emotional disorders.

Stressful Situations: Stress can have undesirable effects on behavior, thought, and bodily functioning, because different people react to stressors and their effects on the different bodily symptoms is often low. It is particularly hard for people to deal with several stressors that occur at nearly the same time.

Stress-arousing Situations: Stress can arise either from specific situations or from developmental transitions. Stressful events vary in several ways: duration, severity, predictability, degree of loss of control, self-confidence of the person, and suddenness of onset.

Life Transition: Life transitions, such as going to college, getting a job, having a baby, and moving, may also be stressful. Adolescence is a time of particular stress because of physical changes, role changes, and changes in parent-child relationships.

CLINICAL REACTIONS TO SRTESS

Among the disorders that seem most related to stress are adjustment disorders, posttraumatic disorders, and dissociative disorders.

Adjustment disorder: An adjustment disorder is a reaction to recent stress and usually disappears when the stress level decreases. Common symptoms of adjustment disorders are depression, anxiety, disruptive or reckless behavior, sleep problems, deterioration in performance, and social withdrawal.

Posttraumatic disorders: Posttraumatic stress disorder (PTSD) may after an extreme stress such as a natural disaster, a serious accident, or participation in battle or other war-related situations.

Dissociative disorders: Sudden temporary alterations of consciousness that bolt our painful experiences are characteristic of dissociative disorders

TREATING STRESS RELATED PROBLEMS

A variety of approaches are used other alone or in combination to treat stress-related disorders.

Supportive Therapy: In Supportive Therapy the therapist provides acceptance and a noncritical attitude in orders to give the clients an opportunity to relax enough to engage in problem solving.

Drugs and sedatives: Drugs and sedatives act on the nervous system to allow the person to feel a temporary decrease in stress. This treatment is often combined with a psychological therapeutic approach.

Relaxation Training: Relaxation Training is a structured approach to tension reduction that also helps to decrease feelings of stress enough that the person can focus on working out problems.

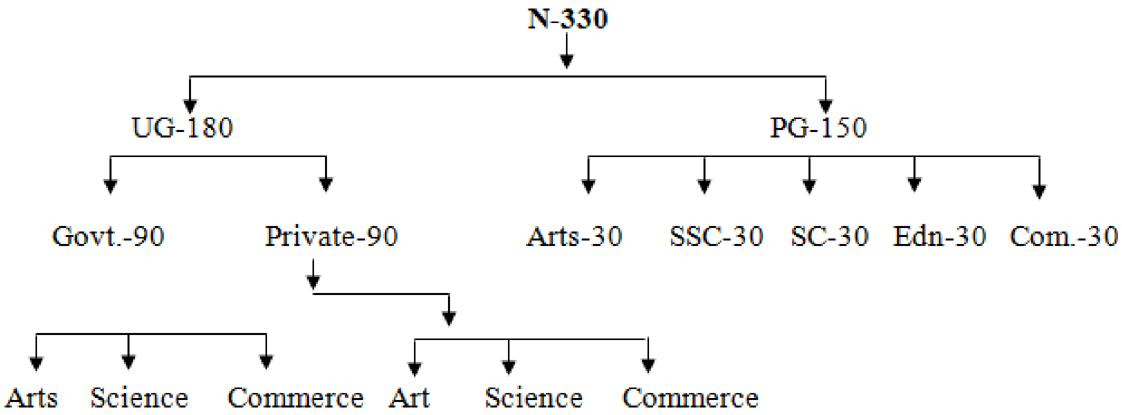
Systematic Desensitization: Systematic Desensitization is a process designed to eliminate fear in specific types of situations by pairing relaxation techniques with imagining the presence of the anxiety-associated stimuli.

Cognitive Modification: Cognitive Modification **is** the process of learning to think about or construe anxiety-producing situations in a different way.

Social Intervention: Social Intervention involves treating not just the individual with the problem, but also involving family members in the treatment process.

1) STATEMENT OF THE PROBLEM:
"A Study of Stress Coping Skill of Graduates and post-graduate students of Bijapur City"

3) METHOD
a) Sample
The study was conducted on a sample of 330 under graduate and Post-graduate students of Bijapur city in the of Karnataka state. The stratified random sampling was adapted for the present study. The sample design is as follows:



b) Materials
Stress Coping skills inventory by Jerabak, Answer sheet, Scoring key and Norms.

c) Procedure
The students were seated comfortably; the answer sheet was given to the students and was asked to fill in the personal detail. Then the inventory was handed over and following instructions were given, "This test is designed to evaluate how you cope with your stress. Read every statement carefully and indicate how often it applies to you. In order for the test to be valid, all the questions must be answered. There is no time limit but usually this test can be completed within 20 minutes". After completion by the students, the responses were scored as given in the scoring key.

4) RESULTS AND DISCUSSION
The means and standard deviations were completed for the selected sample. To find out the significant difference between sub-groups 't'-test was employed.

Null hypothesis 1: There is no Stress Coping Skill among the college and university students.

Table-1: Mean score of Stress Coping Skill of college and university

Group	**N**	**Mean**	**SD**
All UG and PG students	360	223.16	41. 81

As per the table-1, all post-graduate and under-graduate students fall under category high Stress coping skill. The Stress Coping Skill was dispersed widely in PG and UG students as per the standard deviation value cited in table-1. Hence, the null hypothesis was rejected in favor alternative hypothesis. Therefore it is concluded that there is a high level Stress Coping Skill among under-graduate and post-graduate of women's university of Karnataka state in India.

Null hypothesis 2: There is no significant difference between the respective sub-groups in their level of Stress Coping Skill.

Table 2: Significant difference between the different sub-groups in their Stress Coping Skill.

Variable	Sub-group	n	Mean	SD	Obtained 't'-value	Level of significance
level of education	Under-graduate	120	210.85	19.47	133.99	Significant at 0.05 level
	Post-Graduate	300	205.85	20.46		
Institution	Women university	300	224.96	37.51	21.87	Significant at 0.05 level
	Karnataka university	60	225.66	32.47		
level of education	Govt. college	40	220.5	29.15	0.46	Not Significant at 0.05 level
	Private college	60	238.33	39.37		
Faculty	KSWUB-ARTS	80	220.5	29.15	0.45	Not Significant at 0.05 level
	KSWUB-SCIENCE	40	229.5	29.71		
Faculty	KSWUB-ARTS	80	220.5	29.15	1.43	Not Significant at 0.05 level
	KSWUB-SOCIAL SCIENCE	40	213.0	34.88		
Faculty	KSWUB-ARTS	40	220.5	29.15	3.43	Significant at 0.05 level
	KSWUB-COMMERCE	60	221.0	37.13		
Faculty	KSWUB-ARTS	80	238.33	39,37	19.41	Significant at 0.05 level
	KSWUB-EDUCATION	60	229.5	29.71		
Faculty	KSWUB-EDUCATION	40	238.33	39.37	26.48	Significant at 0.05 level
	KSWUB-COMMERCE	60	213.0	34.88		
Faculty	GOVT.ARTS	40	238.33	39.37	13.8	Significant at 0.05 level
	GOVT. SCIENCE	80	221.0	37.13		
Faculty	GOVT.ARTS	40	238.33	39.37	13.8	Significant at 0.05 level
	GOVT.COMMERCE	80	229.5	34.88		
Faculty	GOVT.SCIENCE	40	238.33	29.71	87.65	Significant at 0.05 level
	GOVT.COMMERCE	40	221.0	37.13		

The table - 2 reverts that the obtained t – values such as 133.99, 21.87, 3.43, 19.41, 26.48, 13.8, 13.8, 13.8, and 87.65 are greater than the table t – values respectively. Hence the framed null hypothesis was rejected in faviour of alternative hypothesis. Therefore, it was concluded that there is a significant difference between the respective sub - groups in their level of Stress Coping Skill.

And the table – 2 also reveals that the obtained t – value0.46. 0.45 and 1.43 are less than the table t – value at 0.05 level of significance. Hence, the framed null hypothesis was accepted in the case of Arts and education students of Women's university Therefore, it was concluded that there is no significant difference between the respective sub - groups in their level of Stress Coping Skill

Null hypothesis 3: There is no significant difference between the respective sub-groups in their level of Stress Coping Skill.

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Table 2: Significant difference between the different sub-groups in their Stress Coping Skill.

Variable	Sub-group	n	mean	SD	Obtained 't'-value	Level of significance
Department	English	20	217.5	29.91	12.61	Significant at 0.05 level
	KANNADA	20	221.0	28.61		
Department	MCA	20	260.0	32.86	12.81	Significant at 0.05 level
	Bioinformatics	20	223.0	30.51		
Department	MCA	20	260.0	32.86	88.42	Significant at 0.05 level
	Pharmaceutical Chemistry	20	232.0	43.34		
Department	Economics	20	218.0	24.89	35.22	Significant at 0.05 level
	Sociology	20	227.0	24.71		
Department	Economics	20	218.0	24.89	48.99	Significant at 0.05 level
	Women's studies	20	231.0	28.61		
Department	Economics	20	218.0	24.89	37.87	Significant at 0.05 level
	Social work	20	229.0	39.23		
Department	Sociology	20	227.0	24.71	15.10	Significant at 0.05 level
	Women's studies	20	231.0	28.61		
Department	Sociology	20	227.0	24.71	6.89	Significant at 0.05 level
	Social work	20	229.0	39.23		
Department	Women's studies	20	231.0	28.61	6.69	Significant at 0.05 level
	Social work	20	229.0	39.23		
Department	M.Ed.	40	213.0	34.88	60.16	Significant at 0.05 level
	M.Com	40	213.0	33.15		
Department	M.Com	20	204.5	31.85	10.29	Significant at 0.05 level
	MBA	20	234.5	36.15		

The table - 2 reverts that the obtained t – values such as 12.61, 12.81, 88.42, 35.22, 48.99, 37.87, 15.10, 6.89, 6.69, 60.16, and 10.29 are greater than the table t – values respectively. Hence the framed null hypothesis was rejected in favor of alternative hypothesis. Therefore, it was concluded that there is a significant difference between the respective sub - groups in their level of Stress Coping Skill.

5) FINDINGS AND CONCLUSIONS

1) There is a high level of Stress Coping Skill among college and university students of Bijapur city of Karnataka state.

2) There is significant difference between sub-groups such as UG & PG, women university and Karnataka university, govt. college and private college, arts and science, arts and social science, arts and commerce, arts and education, education and commerce, arts and science, Govt. and private arts, science and commerce in level of Stress Coping Skill.

3) There no significant difference between Govt. college and Private college, ARTS and SCIENCE, ARTS and SOCIAL SCIENCE faculties of women university in their level Stress Coping Skill.

4)The is a significant deference between English and kannada, kannada and Bioinformatics, MCA and Pharmaceutical Chemistry, Economic sand Sociology, Economics and Women's studies, Economics and Social work, Sociology and Women's studies, Sociology and Social work, Women's studies and Social work, M.Ed. and M.Com, M.Com and MBA level of Stress Coping Skill.

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USE OF FLEXIBLE MATERIALS FOR STABILITY OF SLOPE

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ABSTRACT

Soil nailing is a development procedure used to upgrade the quality of ground that guarantees the security of new or existing area inclines. The fortifying activity of the ground is expanded by means of the nail inclusion process which in returns increments malleable power in soil nail. The principle part of the opposition becomes from the development of pivotal power, which is a strain power. In particular, cutting and bowing may contribute little to the obstruction. Various bars are introduced into a incline during the top-down unearthing. The exhuming support is a compelling and efficient approach to construct a maintenance divider to help peak, connect projections and parkways. This procedure is viable on lopsided soils, broken stone, shale and hard surface conditions. In this exploration, a physical model is readied that contains pressure measure, Acrylic sheet, flex sensor, Multimeter and steel bars. The soil for the model is gathered from the grounds of Chandigarh University. Strainer examination is performed to decide the sort of soil. To decide the adequacy of the readied mode various tests have been performed. Two materials named as Drainage Geo net and Expanded metal mesh were used with three different nail arrangements and for each nail arrangements Expanded metal mesh is able take more stress than the Drainage Geo net.

Keywords – Flexible materials, flexible facing, physical model, stress, strain

1. INTRODUCTION

The development of hilly and far-off areas, the dam's construction and hydroelectric projects in hard terrain, all needs stabilized ground in one way or another way. In the past, many stabilization methods have been developed to combat these situations. Stabilization of the Earth such as mechanical and chemical land stabilization, drilling, earthworks, crushed stone and ground gravel, are useful in providing structural and service-oriented stability. In this paper, the detail description of one such technique utilized for ground stabilization known as soil nailing is provided.

Soil nailing technology is employed to offer reinforcement for natural and steep slopes on site. If unstable existing grounds require support and nearby buildings are sensitive to deformation, the utilization of soil nailing provides stability through temporary construction or permanent support structures and take appropriate measures to decrease ground movement.

Soil nailing walls are a widely used technique for keeping vertical cuts on any slope that is even more vertical in the ground with vertical slopes and normal angles. A large part of the cost of landing is related to the construction of the reinforced concrete surface. Soil facing mechanism helps to provide the stability between soil and inserted nails. In addition, the top layer facilitates surface erosion, weathering and moisture loss from the surface of the soil nail system. In this manner, to get better stylish look of the nail structure, confronting assumes a significant job.

2. LITERATURE REVIEW

Soil nail innovation was first utilized in France to assemble a perpetual holding divider cut in delicate shake. The task, attempted in 1961, was where steel nails were utilized to fortify a holding divider. The main soil nail divider to utilize current soil nailing procedure was worked close Versailles in 1972. The method included introducing high-thickness, grouted soil nails into a 60-feet-high divider and confronting it with strengthened system.

G.L. SivakumarBabu., (2009) havestudiedsoil nailing is being utilized in numerous geotechnical applications to enhance dependability of unearthed vertical cuts and existing slants. This paper shows a couple of contextual analyses on the adjustment of a vertical cut and enhancement of incline security utilizing soil-nailing strategy. It was discovered that the vertical cut soundness/slant dependability enhanced because of the fortifying impact of nails. In the paper, a couple of contextual analyses on soil nailing have been displayed showing its points of interest. There is a need to utilize this strategy on vast scale in India in numerous framework extends wherever materials to understand the specialized and monetary favourable circumstances related with the procedure.

Cheng et al., (2015) have studied that the utilization of traditional steel in corrosive area faces many problems. Therefore it become essential to used shielded steel such as carbon fiber reinforced polymer (CFRP) / glass fiber reinforced polymer (GFRP) in loose fill soil. The test has been carried out with various materials and different kinds of steel bars in Hong Kong, Korea.

A.Karthikeyan Santosh Kumar (2017)in this investigation displayed a contextual analysis in which soil-nailed divider was planned and built. The dirt nailing was done in a mind boggling ground conditions having both soil spread and endured hard shake. The haul out test directed has affirmed that the structured nail limit. Cost investigation performed by looking at the structured soil-nailed divider and customary holding divider for this site showed that the dirt nailed divider was efficient for the present contextual investigation. Hence this technique ends up being progressively effective in holding steep slants where less space is accessible for development of ordinary holding dividers.

Rawat et al., (2018) presented a model to determine the failure of soil slope under various load conditions. In this research, the authors have inserted nails at different angle such as 10 degree, 15 degree and 30 degree respectively. Homogeneous soil slope has been prepared and subjected to various loads. The resistive as well as driving forces are taken into account for the calculation of safety. From the test it has been analysed that the safety factor has been lessen by increasing the seismic acceleration.

3. MATERIALS AND METHODOLOGY

Initially, the soil is collected from Chandigarh university campus and then various properties were studied on the basis of code (IS2720). The properties such as moisture content, specific gravity, compaction characteristics and unconfined compression strength have been analysed.

Table 1 Properties of soil

Properties	**Values**
Water Content (%)	11
Specific Gravity	2.56
Optimum moisture content (OMC)(%)	7.3
Maximum dry density(MDD) (g/cc)	1.98
Coefficient of Uniformity	5.6
Coefficient of Curvature	0.64
Unconfined Compressive Strength (Kg/cm^2)	0.118

From the above results the soil was categorized as poorly graded sand.

Physical Model

A physical model was prepared with the Perspex sheet (acrylic sheet) of thickness 8mm. The dimensions of the model such as length, width and height were taken as 60 cm, 40 cm and 50 cm respectively. Three types of nail arrangements were used namely as square, rectangular and staggered. The dimensions and nail length were selected according to the soil nail manual.

The model drawing is shown is figure below

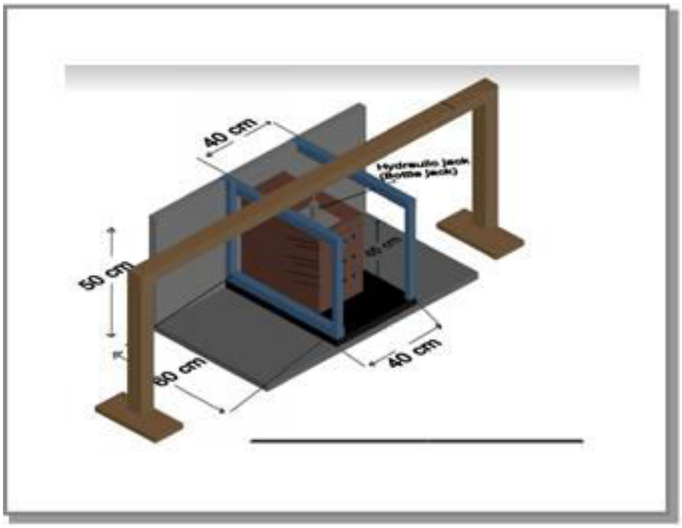

Fig 1. Physical Model Drawing

The various components used in the physical model are described below.

Pressure hydraulic jack (bottle jack)

Pressure hydraulic jack of bottle jack having weight 5 ton is used and placed in between the Perspex sheet. It is used to lift heavy loads and works on the principle of screw action.

Figure 2. Perspex sheet model and hydraulic jack

During the research, hydraulic jack is placed in between the Perspex sheet of 8mm thick as shown in above figure

Flex sensor

The flexible sensor is just like a variable resistor. As the nails bend, the resistance of the flexible sensor increases. Sensors like this are used in Nintendo Power Glove. A multi-meter is attached to the switch to measure the resistance sensed by flex sensor and then strain is calculated by using the formula written below:

$$Strain = \frac{\Delta R / R}{\Sigma_c}$$

Here Σ_c stands for gauge factor, its value lies between 2 to 2.5 and for 200 KΩ, the value of gauge factor is 2.1.

At last, the design model is tested, the tested setup of the proposed model. Copper wire is attached with each nail and resistance is measured using digital multimeter.

Various flexible materials used in this research work are as follow-

- Drainage Geo net
- Expanded metal mesh

These materials are chosen for the research work as these materials have tensile strength which is required to balance the tensile stresses that are acting on the slope.

4. RESULTS AND DISCUSSIONS

As mentioned above, two materials were used for this research and three types of arrangements i.e square, rectangular and staggered are discussed for both the materials.

Table 2: Stress and Strain reading for Drainage Geo net using 4 nails in square pattern

Stress (N/mm^2)	Strain in N1	Strain in N2	Strain in N3	Strain in N4
0	0	0	0	0
0.49	0.154	0.023	0.227	0.124
0.98	0.209	0.087	0.281	0.148
1.96	0.280	0.150	0.354	0.208
3.92	0.289	0.291	0.461	0.253
4.9	0.303	0.420	0.476	0.336

Table 3: Stress and Strain reading for Drainage Geo net using 6 nails in rectangular pattern

Stress (N/mm^2)	Strain in N1	Strain in N2	Strain in N3	Strain in N4	Strain in N5	Strain in N6
0	0	0	0	0	0	0
0.98	0.039	0.019	0.002	0.016	0.044	0.041
1.96	0.044	0.006	0.005	0.021	0.060	0.041
2.94	0.077	0.019	0.005	0.029	0.062	0.136
3.92	0.103	0.024	0.003	0.031	0.177	0.142
4.9	0.130	0.049	0.019	0.067	0.224	0.179
5.88	0.282	0.093	0.096	0.132	0.329	0.260
6.370	0.442	0.095	0.098	0.132	0.342	0.308

Table 4: Stress and Strain reading for Drainage Geo net using 8 nails in staggered pattern

Stress (N/mm^2)	Strain in N1	Strain in N2	Strain in N3	Strain in N4	Strain in N5	Strain in N6	Strain in N7	Strain in N8
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.980	0.006	0.002	0.002	0.004	0.002	0.004	0.004	0.014
1.960	0.013	0.017	0.023	0.011	0.013	0.009	0.040	0.022
2.940	0.019	0.026	0.028	0.044	0.019	0.026	0.050	0.032
3.920	0.027	0.045	0.042	0.044	0.023	0.032	0.050	0.017

4.900	0.037	0.071	0.065	0.061	0.029	0.037	0.061	0.026
5.880	0.050	0.069	0.083	0.065	0.064	0.077	0.097	0.049
6.970	0.062	0.074	0.085	0.068	0.086	0.100	0.141	0.095

Table 5: Stress and Strain reading for expanded metal mesh using 4 nails in square pattern

Stress (N/mm^2)	Strain in N1	Strain in N2	Strain in N3	Strain in N4
0	0	0	0	0
0.49	0.047	0.135	0.662	1.047
0.98	0.088	0.198	0.725	1.092
1.47	0.125	0.238	0.748	1.178
1.96	0.162	0.31	0.81	1.258
4.9	0.225	0.365	0.858	1.342

Table 6: Stress and Strain reading for expanded metal mesh using 6 nails in Rectangular pattern

Stress (N/mm^2)	Strain in N1	Strain in N2	Strain in N3	Strain in N4	Strain in N5	Strain in N6
0	0	0	0	0	0	0
0.98	0.0107	0.0269	0.0262	0.0219	0.0033	0.0173
1.96	0.0607	0.0748	0.0692	0.0632	0.0130	0.0342
2.94	0.1142	0.0748	0.0935	0.0610	0.0181	0.0360
3.92	0.1451	0.0966	0.1201	0.0865	0.0164	0.0190
4.9	0.2252	0.1526	0.1816	0.2341	0.1636	0.0486
5.88	0.3193	0.3329	0.3633	0.2459	0.4195	0.2268
6.86	0.3392	0.3683	0.3745	0.2623	0.4366	0.2841

Table 7: Stress and Strain reading for expanded metal mesh using 8 nails in staggered pattern

Stress (N/mm^2)	Strain in N1	Strain in N2	Strain in N3	Strain in N4	Strain in N5	Strain in N6	Strain in N7	Strain in N8
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.98	0.019	0.005	0.006	0.004	0.002	0.004	0.051	0.002
1.96	0.028	0.017	0.043	0.016	0.059	0.012	0.062	0.012
2.94	0.053	0.027	0.117	0.094	0.084	0.022	0.102	0.015
3.92	0.099	0.040	0.169	0.118	0.084	0.041	0.102	0.028
4.9	0.116	0.060	0.184	0.153	0.090	0.055	0.118	0.051
5.88	0.129	0.064	0.203	0.160	0.114	0.087	0.135	0.049
7.056	0.210	0.111	0.241	0.190	0.145	0.090	0.153	0.051

DISCUSSIONS

We require facing material so as to hinder deformation thus limiting the mobilization of shear stress along nails. Flexible facing is designed to provide the necessary restrains to areas of slope between the bearing plates as well as erosion control.

From the above Tables it is found that Expanded metal mesh have taken up maximum stresses as compared to the Drainage Geo net. In general both the flexional and axial stiffness of facing controls the deformation.

In the present research work we had studied three types of arrangements for soil nailing i.e square, rectangular and staggered arrangements and from the Table no 5,6 and7 it can be concluded that maximum stresses are taken up by the Expanded metal mesh as this particular material have higher stiffness as compared to other material, and further there is increase in normal force and shear resistance along the potential slip surface in frictional soil.

Further we can conclude that flexible facing approach also represents environmental benefits as it would allow the growth of vegetation and use of flexible materials may also provide significant savings. In addition to this if one nail becomes overstressed for any reason it will not cause failure in the entire system but it would redistribute its overstress to the adjoining nails.

5. CONCLUSIONS

- From the experiment performed on design model using different material, it can be concluded that the present study will lead to an increase in the soil slopes load handling and slope stability
- This research can be used as construction technique that even reflects cost-effective and low environmental impact.
- Maximum stresses are taken up by Expanded metal mesh for all the nail arrangements due to its higher stiffness.

6. CONFLICT OF INTEREST

- The author declares that I have no conflicts of interest.

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A VOTING BASED CLASSIFIER FOR CREDIT CARD FRAUD DETECTION

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ABSTRACT
Credit card fraud is a major problem now days and it is increasing day by day. The reason behind the tremendous increase in the credit card fraud is due to the rise of digital payment systems. Credit card frauds can be detected by previous history of transactions and also by analyzing the real time transaction details. Various simple and hybrid machine learning models are used in the past for detecting credit card fraud. In this paper a voting based classifier which is an ensemble model is used to detect the credit card fraud. Different machine learning classifiers like Naïve Bayes, Decision Tree, Random Forest, K Nearest Neighbors etc. are used in this voting classifier. The results of this study conclude that the ensemble of LR, RF and DT gives best results using hard voting.

Keywords: Credit card fraud, machine learning, Voting Classifier, KNN, DT, Hard Voting, Soft Voting.

I. INTRODUCTION
Credit card fraud is defined as the unauthorized use of other person's card. This type of fraud results in the large financial losses every year. The people are interesting in online shopping and cashless transactions now days. With the increase of interest of people in online and cashless transactions, the fraudulent activities are also increasing day by day. According to Federal Trade Commission, in 2018, they processed 1.4 million fraud reports which results in loss of $1.48 billion. Credit card fraud can be detected by many methods. The purchasing is done by credit card is either physically or virtually. In Physical card purchase, the cardholder presents the card to merchant physically. Here fraudster has to steal the card for attempting a fraud. In the second category which is of virtual card purchase, card is not needed physically. Only some of the important information about the card is needed. Fraudster has to obtain that important information for committing a fraud. Various machine learning algorithms are used in this paper. A voting classifier is used to detect the credit card fraud in this paper. Voting classifier mainly has two types hard voting and soft voting. This paper is mainly organized into sections six sections. The first section gives the introduction about the credit card frauds. The second section discuss about the related works and literature review regarding this problem. The third section gives the details about voting classifier and various machine learning classifier used in this study. In this study random forest, decision tree, Naïve Bayes, K Nearest Neighbors, Logistic Regression and Voting classifiers are used. The fourth section discusses about the experimental setup and dataset used and fifth section contains the results. The last section contains conclusion and future works.

II. RELATED WORK
Ghosh and Reilly used a fraud detection system based on neural network. They used a dataset of Mellon Bank's transactions of 2 months period. Neural network was trained on frauds due to lost cards, application frauds, stolen cards, counterfeit cards, mail order fraud and NRI frauds[1]. Leonard presents a rule based expert system. It helps to alert banks and other financial institutions for the fraudulent activities. It takes data from a real Canadian bank[2]. Chan, Luo, Liang, Lee presented an approach which prevents frauds before the initial use of cards. This approach does not use any real transaction data. They use SVM and ANN for

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investigating the time varying fraud problems[3]. Shen, Tong and Den tested three different classification models: Decision trees, neural networks and logistic regression for their applicability in credit card fraud detection and find that NN and LR performs better than D[4]. Gadi, Wang and Lago used 5 different classification methods for credit card fraud detection: Neural network, Bayesian Networks, Naïve Bayes, Artificial Immune System and Decision trees. They compare these classification models and conclude that DT and AIS are best methods in this experiment[5]. Panigrahi, Kundu, Sural and Majumdar presents a fusion approach using Dempster- Shafer theory, rule based filtering and Bayesian learning which combines the current as well as past behavior[6]. K.K and Chezhian constructs an efficient fraud detection system which taken into account behavior changes by combining classification and clustering techniques and then generate association rules. They use BOAT decision tree classification and K-means clustering technique[7]. Sahin and Duman developed classification models based on ANN and LR for detecting credit card fraud. The transactions are identified as legitimate or normal on the basis of the suspicion score produced by the classifiers[8].Salazar, Sofent, Soriano, Vergara presents an automatic credit card fraud detection data mining technique. It is linear signal processing technique. Discriminant based classifiers and advanced non-Gaussian mixture classification methods are used to classify the fraudulent and non fraudulent transactions[9]. Sahin, Bulkan and Duman used a cost sensitive decision tree approach for fraud detection. It minimizes the sum of misclassification costs. Here misclassification costs are taken as varying[10]. Olszewski presented a unsupervised method for fraud detection which is based on user accounts visualization and threshold type detection. Self organizing maps are employed as visualization technique here[11]. Pozzolo, Boracchi, Caelen, Alippi and Bontempi proposed a realistic fraud detection system. They address that delay in finding accurate labels and the interaction between alerts and supervised information have to considered[12]. Bahnsen, Aouada, Stojanovic, Ottersten proposed a credit card fraud detection system which taken into the account feature engineering strategies. They proposed a new set of features based on analyzing the behavior by expanding the transaction aggregation strategy[13]. Avoyemi, Adentumbi and Olowadara present a comparative analysis of credit card fraud detection using machine learning techniques. The performance of naïve bayes, k-nearest neighbor and logistic regression is evaluated and results show that naïve bayes performs better than other two[14]. Pumsirirat and Yan proposed a deep learning based models for detecting frauds in credit card. They used models of deep Auto-encoder and Restricted Boltzmann machine to find anomalies[15]. Randhawa, Loo, Seera et al. proposed a credit card fraud detection model using adaboost and majority voting and finds that majority voting is giving better results[16]. Kumar, Soundarya, Kavitha, Keerthika Aswini used Random Forest to detect credit card fraud and shows that it gives 90% accuracy[17].Table 1 gives the details about various related works in detecting credit card fraud.

TABLE I: LITERATURE REVIEW

S.No	Title of the Paper	Year	Techniques Used	Results
1	Credit card fraud detection with a neural network	11994	Feed forward neural network with 3 layers	Detected more fraud compared to rule based
2	Personalized approach based on SVM and ANN for detecting credit card fraud	22005	SVM and ANN	ANN has highest training accuracy
3	Credit card fraud detection using Hidden Markov Model	22008	Hidden Markov Model	System accuracy is close to 80%

4	Boat Adaptive Credit Card Fraud Detection system	22010	K- means clustering and BOAT classification algorithm	High performance than existing decision tree algorithms
5	Detecting credit card fraud by using genetic algorithm and scatter search	22011	Genetic algorithm and scatter search	Performance of existing solution increased by 200%
6	A cost sensitive decision tree approach for fraud detection	22013	Cost sensitive decision tree	Performs better than traditional DT, ANN and SVM
7	Credit card fraud detection and concept-drift adaptation with delayed supervised information	22015	Sliding window approach and Ensemble Approach	Feedback on delayed samples provides precise results
8	Credit card fraud detection using machine learning techniques: A comparative analysis	22017	Naïve bayes classifier, k-nearest neighbor, logistic regression	Naïve bayes performs better than other two
9	Credit card fraud detection using Adaboost and majority voting	22018	Adaboost and Majority Voting	Majority voting is giving better results than Adaboost
10	Credit card fraud detection using Random Forest Algorithm	22019	Random Forest	Gives 90% accuracy
11	Credit card fraud detection using machine learning	22020	Random Forest and Adaboost algorithm	Random forest works better

III. VOTING CLASSIFIER

A voting classifier consists of ensemble of two or more classifiers. The prediction is made by each classifier and then voting based classifier gives the highest majority voting class as output class. In other words voting is the simplest way of combining the predictions from multiple machine learning algorithms. It is mainly of two types: Hard voting and Soft Voting. In a hard voting classifier, predicted output class is the one which has the highest majority of voting. And in the soft voting classifier, predicted output class is the average of the probabilities of all given classes. Various machine learning models for voting classifiers are used in this paper like Random Forest, Decision tree, K Nearest neighbor, Logistic Regression, etc.

Decision Tree: In decision tree model, algorithm is considered to be a decision tree. Decision tree models are used to develop classification systems. These classification systems are able to classify future observations on the basis of a set of decision rules.

Naïve Bayes: It is used for classification of data. The classification is done the basis of Bayes theorem. According to Bayes theorem,

$$P(A|B) = \frac{P(A|B)P(A)}{P(B)}$$

Here probability of happening of A can we find when B has occurred. A is taken as hypothesis and B is taken as evidence. Features are independent here and they do not affect each other. This is the reason that it is called as naïve.

K- Nearest neighbors: K- nearest neighbor is a classification and regression method. It is a supervised machine learning algorithm. This method stores all the available cases and used to classify new cases based on the similarity with the stored cases.

Logistic Regression: It is a statistical model used to model the probability of any event or class. It uses a logistic function to model a binary dependent variable.

IV. EXPERIMENTAL SETUP

The experiment is performed in Python on Jupyter Notebook 6.0.1. Dataset is taken from Kaggle which contains the transaction of European cardholder done in 2 days in September 2013. It contains total of 284,807 transactions out of which 492 are fraud. 10 folds cross validation is used to carry out the experiment. A voting classifier has been used to find the best results and both the hard voting and soft voting has been performed. The machine learning classifiers used

in the voting classifier are decision tree(DT), Naïve Bayes(NB), Random Forest(RF), K Nearest Neighbor(KNN), Logistic Regression(LR), etc. The performance is evaluated on the base of cross validation score given by the different classifiers.

V. RESULTS

This study used various classifiers like Random Forest, Decision Tree, Naïve Bayes, Logistic Regression, K Nearest Neighbor, Voting Classifer. The cross validation score of each classifier is evaluated using the 10 folds cross validation. The results are compared on the basis of cross validation scores. It is clear from the results that the ensemble of Logistic Regression, Random Forest and Decision Tree using hard voting gives the best results as compared to individual classifiers. There is a slight difference in the score of hard voting and soft voting. Both hard and soft voting gives almost same results. Table II contains the results of individual classifiers and voting classifier respectively.

TABLE II: RESULTS OF INDIVIDUAL CLASSIFIERS

Classifier	Cross Validation score	
	Mean	Standard Deviation
Logistic Regression	0.967827	0.011632
Random Forest	0.865357	0.116833
K- Nearest Neighbor	0.954398	0.015488
Decision Tree	0.998640	0.000526
Naïve Bayes	0.873654	0.118756

The results of the individual classifiers show that decision tree gives the best cross validation score and random forest has the worst score. Table III contains the cross validation score (mean and standard deviation) when voting classifiers is used. The results shows that the ensemble of LR, RF and DT gives best results using hard voting when voting classifier is used.

TABLE III: RESULTS USING VOTING CLASSIFIER

Voting Classifier	Hard Voting		Soft Voting	
	Cross Validation score		Cross Validation score	
	Mean	Standard Deviation	Mean	Standard Deviation
LR+RF+NB	0.974399	0.021221	0.974123	0.021601
LR+KNN+NB	0.966183	0.027084	0.965975	0.028373
DT+LR+NB	0.974148	0.021223	0.974324	0.021198
KNN+RF+NB	0.990234	0.008989	0.990584	0.008687
LR+RF+DT	0.999387	0.000124	0.999343	0.000147

VI. CONCLUSION AND FUTURE WORK

Credit card fraud detection is a challenging problem and increasing at a very fast rate due to the rise of digital payment systems. In this paper, voting classifier is used for detecting credit card frauds. Voting classifier is providing better results as compared to individual machine learning classifier. Here in this experiment we use the ensemble of 3 classifiers at a time. In future we can use the ensemble of more than 3 classifiers and check the effect on results.

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AN EMPIRICAL STUDY ON THE FACTORS INFLUENCING WORKING WOMEN'S PREFERENCE FOR ONLINE SHOPPING OF DRESSES IN MUMBAI CITY

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ABSTRACT
Women are known to be fond shoppers of attires and accessories, especially those based in urban set up. more specifically, those who are working. With the evolution of online shopping, which offers safety, variety and trendy ways of shopping, many of the working lot have been offered a time-saving, safe shopping experience in platter. Studies have proved that working women prefer frequent shopping of dresses online through various apps than taking time out of their routine and physically going to shops. With e-commerce paving its way to the retailers, online shopping has become a way of life for most of the Indians especially working women. Indian online market is has grown extensively Main reasons of growing preference for online shopping are internet penetration, increasing number of e-tailors (online retailers), ease of shopping, flexibility in delivery, increasing purchasing power etc. According to Gizmobaba's report online transaction of women has doubled in past two years. As per one Google study, it is expected to drive 25 per cent of the total organized retail sales in India by 2020 and is expected to reach $60 billion in gross merchandising value. This study is an attempt to analyse online attire buying pattern of working women based in Mumbai during work from home period.

Keywords: attire shopping, e-commerce, online shopping, working women, e-tailers.

INTRODUCTION
Women are proven shoppers, be it attire, food or other essentials. Most of the women call "shopping a hobby, where they used to take time out to visit various shops, see, touch and feel every single product/ brand that they buy. Especially, when it comes to clothing and accessories, they, try out various outfits and then buy the product. Internet is redefining the shopping behaviour of people across the globe. It has become a hotbed of advertising, shopping and commercial activity (Rowley, 1998). People's daily life is influenced by internet more so as compared to past (Hsieh et al., 2013). Consumers are getting used to virtual experience from physical experience, adapting to online purchases. According to Lee and Zhang (2002) after e-mail usage, instant messaging and web browsing, online shopping is the third most popular internet activity. The process a customer takes to purchase a service or product over the internet is referred as online shopping (Jusoh & Ling, 2012) where a consumer buys from an online store from home at his/her convenience. Online shopping is growing in India (Suresh & Shashikala, 2011). According to the reports of IAMAI-KPMG[1], the total number of Internet users in India (out of a total population of 1.25 billion) would reach 600 million by 2020. According to PricewaterhouseCoopers[2] report, e-commerce sector in India has grown by 34% (CAGR) since 2009 and was expected to be in the range of USD 60-70 billion by 2019.

Extensive research on attracting and retaining consumers from a consumer-oriented or a technology-oriented view was triggered by the rapid growth of online shopping (Jarvenpaa & Todd, 1996). Examining consumers' prominent beliefs about online shopping, that may influence purchase channel selection is the focus of consumer-oriented view. Predicting consumer acceptance of online shopping by analysing technical specifications of an online store is the scope of technology-oriented view. Internet is being used as a channel of information and commerce in the rapidly growing online businesses.

Online shopping an E-Commerce form is on the roar and this trend is accelerating at a fast pace. This form of shopping has altered the perception of the people to shop and made them risk takers in this regard. This study is one of its kind in which the previous literature are studied in exhaustive form and different researcher' side as are put forth. The literature from the past studies was reviewed which impelled the researcher to conclude that the women play a dominant role when it comes to shopping, however in the context of Online shopping they are lagging behind the men. Online shopping proves to be convenient and time saving and no need to travel or wait in queue. They exist all time and they are available anytime and anywhere (Elizabeth Lloyd et. al., 2014). online stores extend consumers with unlimited and affluent information about products and services(Ward and Lee 2000). They furthermore have some online tools to 2 help consumers compare, make a purchase decision among various products and services. In the recent years, online buyers have more control and negotiating power than consumers of retail stores because the online shopping offers more communicating activities between consumers (Kumar and Maan 2014) and online retailers as well as greater accessibility of information about products and services (Delafrooz et. al., 2009).

Trust seems the main factor hindering the women to shop online. Most of the women especially young prefer to shop where there is positive word of mouth. The literature also reveals that the risk factor plays a dominant role in the women mindset due to the technicality of e-shopping sites.

Due to changes in the economic environment, the number of young working women are interested to shop over the internet (Hernandez et. al., 2010). In India, 80% women choose to interact with stylists while buying fashion and lifestyle products through online when given an option (Rajput et. al., 2012). Younger women felt that online shopping is a convenient shopping mode. However, nowadays most of the fashion portals have expert stylists who 3 help them to choose a product which perfectly suits their personality, hence making their online shopping experience much more stress-free and organized (Passyn et. al., 2011).

REVIEW OF LITERATURE

Marketing to women delivers a better return on the marketing dollar through both higher customer acquisition and greater customer retention. Because women are more inclined to long term brand relationships, enhanced loyalty means every marketing dollar invested in acquiring female customers' results in a higher retention rate (Barletta, 2003).

Studies on the women buying behavior dimensions suggest that Females are more pro-environmental while shopping than their male counterparts (Zelezny et al., 2000). Farhurst et al., (2007) concluded from their study that word of mouth from consumer families and friends can influence decision style, as what and where to buy.

Park and Lennon (2004) concluded that television advertisements can highly influence women buying behaviours along with information received from their friends (Sheers 2007), as females in comparison to males are highly knowledgeable about price and types of stores (Scheers, 2007), and hence this knowledge can influence the retailer management strategies.

Kassarjian (1981) has implied a positive relationship between socioeconomic status and purchasing involvement, and in fact describes his "low- low involvement" consumer as being a member of the lower socioeconomic class. This would lead to the assumption that higher income might be associated with higher purchasing involvement. The positive relation- ship found between income and search effort (Clax- ton, Fry, and Portis 1974) Newman and

Staelin(1972) would provide some indirect support for this notion. However, it would seem that the marginal utility of purchasing involvement would be low for high in- come groups, since they can purchase almost anything they want and value their free time more than the money that they could save by wise purchasing. Thus it seems that a curvilinear relationship could be expected between purchasing involvement and income, with moderate levels of income producing the highest levels of purchasing involvement and low and high in- come groups relatively less involved.

RESEARCH METHODOLOGY

This research follows a relative logical strategy and attempts to observe the apparel shopping patterns and determinants of working women of various age groups of women during "work from home period" residing in select suburbs of Mumbai City.

AREA OF STUDY

Select suburbs of Mumbai (Mulund, Ghatkopar, Chembur and Matunga)

Primary Source

A purposive sampling method was adopted to elicit information from among working women in select suburbs of Mumbai City. The data collected by administering questionnaires through google forms to 150 women. Out of the total 100 surveys, some were incomplete and some were filled in an incorrect manner. Excluding these flawed surveys, 132 complete surveys were available to conduct the analysis.

Period of data collection

July 1, 2020 to July 31, 2020

Secondary Source

i. Data analysis

To evaluate the data, analysis is carried out, to acquire the results, a descriptive technique is used and inferential statistics such as Chi-Square test of association was employed.

OBJECTIVE OF THE STUDY

The objectives of the current study are –

1. To ascertain the perception of working womens' shopping of attires online
2. To assess the factors influencing the respondents to adopt to shopping of dresses online
3. To ascertain the level of satisfaction of respondents on shopping dresses online.

Limitations of the Study

The following are the limitations of the present study:

1. The study covers the limited geographical area of select suburbs of Mumbai City. So, the result of the study may not be justified to other metros

2. The targeted population of the study is only the parents whose daughters of the age group 20 to 50 years old.

Current study is focused on highlighting how the shopping pattern of dresses of working women

RESULTS AND DISCUSSION

1. Demographic profile of the respondents

Figure 1 Age wise distribution of the respondents who shop dresses from online portals during work from home period

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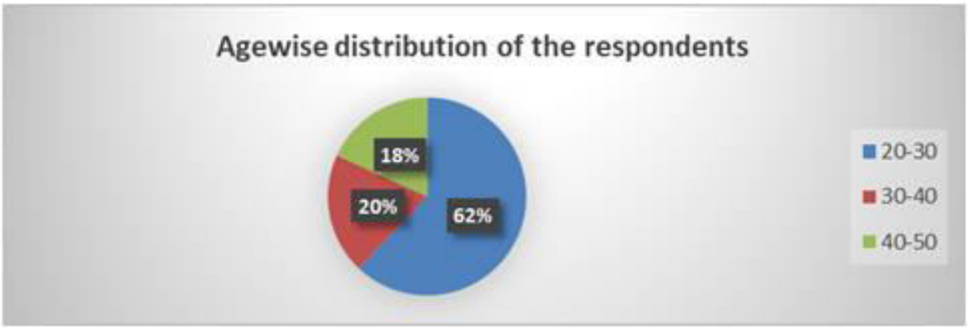
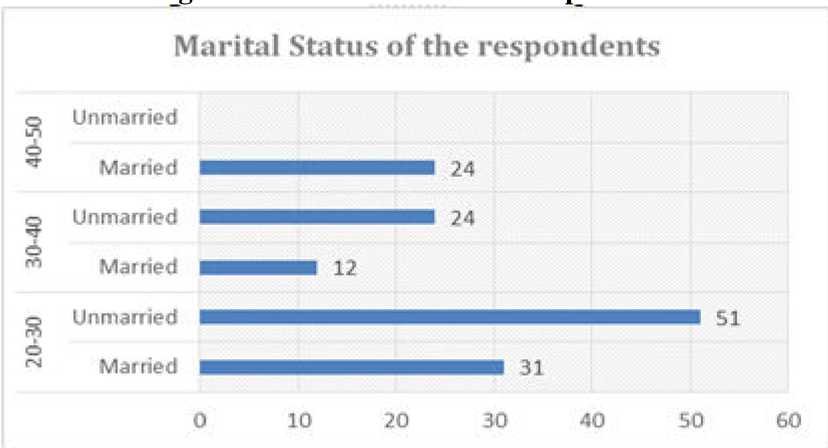


Source: Analyses were based on the sample surveyed

2. Marital status of the respondents

Figure 2 Marital status of the respondents



Source: Analyses were based on the sample surveyed

Hypotheses Testing Using Chi-square Analysis

H0:There is no significant impact of respondents' income on their online shopping of attire.

Table 1: Chi Square analysis to test the significant association of respondents' income on their online shopping habit of dresses.

Income	**Online shopping of dresses**		**Total**	**Chi-Square**	**Df**	**P value**
	Yes	**No**				
Below2500	2	0	2	13.39	6	.0.05
2500-5000	20	22	42			
5000-10000	42	1	43			
10000-15000	27	0	27			
15000-20000	4	0	4			
25000-30000	3	10	13			
Above 30000	1	0	1			
Total	99	33	132			

Source: Analyses were based on the sample surveyed

From the above table it is observed that $p<0.05$, income plays an important role in the adoption of online shopping of dresses and proved that this is positively correlated with the income level of the respondent

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Table 4 Educational profile and their frequency of shopping dresses online while on work from home period

Education	frequency of shopping dresses online while on work from home period						
	Fortnightly	Monthly once	Once in two Months	Total	Chi-Square	Df	P value
High school	6	2	3	11	26.623	7	.006
UG	22	13	25	63			
PG	3	5	19	58			
Total	31	20	47	132			

Source: Analyses were based on the sample surveyed

From the above table it is observed that p<0.05, education also plays an significant role in the frquency of online shopping of dresses by working women during “work from home” period and proved that this is positively correlated with level of the respondent.

Respondents’ perception about online shooping of dresses during work from home period

1. **Figure 3 Respondents reasons for preferring to shop dresses online**

Table 6 Reliability Statistics for preference factor

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
.649	.692	6

Source: Analyses were based on the sample surveyed

Table 7 Inter Correlation Matrix for preference factor

Inter-Item Correlation Matrix							
Factors	Saves time	Saves travel	Variety of brands offered	Feel it safe and reliable	Offers convenience of getting delivered at home	Easy return and refund	24*7 access for buying, returning etc
Saves time	1.000	.677	.315	.374	.158	.355	
Saves travel	.777	1.000	.238	.372	-.011	.218	
Variety of brands offered	.415	.238	1.000	.092	.121	.197	
Feel it safe and reliable	.474	.372	.092	1.000	.227	.254	
Offers convenience of getting delivered at home	.157	-.011	.121	.227	1.000	.205	
Easy return and refund	0.81	.218	.197	.254	.205	1.000	
24*7 access for buying, returning etc	0.51	0.362	0.492	0.326	0.256	0.326	1.000

Source: Analyses were based on the sample surveyed

Over 80 percent of the respondents prefer shopping dresses online as it 24*7 access, time saving and its easy to learn and use the app. While over 33 percent of them opined that they use online ways to shop dresses because of propmt service, ease of transactions, high reliability and simple service.

Cronbach's reiabilty show the factors resonsible for the popularity of online shopping of dresses by women. These six factors have contributed greatly to the popularity of online shopping of dresses habits among the respondents of the are.

Table 8 depicts the problemsor ceoncerns of digital shopping of attires as opined by the respondentsas perceived by them

Table-8 Accessibility factors

Concerns of the users	No of respondents
Safety of personal information and hacking	26
Worried about security IN transaction	27
Digital battery consumption of the apps	70
Customer queries getting resolved promptly	69

Source: Analyses were based on the sample surveyed

Over 70 percent of the respondents were worried about their safety and personal information getting leaked, how secure would their transactions be, avoiding getting hacked and dicsconnection of network or the specific transaction while transacting. They were a;so concerned about the receptivity of the services and how soon their queries would addressed by the customer care executives.

Table 9 Reliability Statistics for Accessibility factors

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
.710	.716	4

Source: Analyses were based on the sample surveyed

Their satisfaction parameters could be measured by frequency of usage. About 51 percent of them put through dress shopping transactions using their mobile phones everyday. While over forty per cent of them used it several times a day and they opine that ease of use, time saving factor and user friendly are the aspect that made them use online shopping apps.

The reliability statistics table

Table 10 Inter-Item Correlation Matrix for Risk factors

Factors	Safety of personal information and Hacking	Worried about security IN transaction	Digital battery consumption of the apps	Customer queries getting resolved promptly
Safety of personal information and hacking	1.000	.684	.376	.374
Worried about security IN transaction	.684	1.000	.238	.272
Digital battery consumption of the apps	.376	.238	1.000	.374
Customer queries getting resolved promptly	.374	.272	.374	1.000

Source: Analyses were based on the sample surveyed

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Table 11 Reliability Statistics for Risk factors

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
.663	.675	2

Source: Analyses were based on the sample surveyed

Table 12 Reliability Statistics for Receptive factor

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.747	.731	4

Source: Analyses were based on the sample surveyed

Table 13 Item-Total Statistics for Receptive factor

Factors	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Safety of personal information and hacking	11.3700	2.417	.654	.623	.620
Worried about security IN transaction	11.3600	2.374	.717	.699	.583
Digital battery consumption of the apps	11.6400	2.293	.652	.463	.619
Customer queries getting resolved promptly	12.0400	3.635	.182	.096	.846

Source: Analyses were based on the sample surveyed

Table 14 Reliability Statistics for accessibility

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
.744	.744	7

Source: Analyses were based on the sample surveyed

Table 15 Item-Total Statistics for availability

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
q21	20.4600	5.705	.491	.356	.706
q22	20.4600	5.867	.484	.449	.708
q23	20.4700	5.646	.615	.457	.677
q24	20.9000	6.394	.367	.219	.733
q25	21.0600	6.340	.397	.194	.727
q26	21.1200	6.187	.493	.292	.707
q27	21.0300	6.474	.369	.210	.732

Source: Analyses were based on the sample surveyed

q21 --wide range of anytime, anywhere access to all brands, any type of fashion/ fabric

q22 --wide range of anytime, anywhere access to all brands, any type of fashion/ fabric q23 --Bank providing information /data related to the usage of net banking

q24 --Apps/ portals provides right details associated with its services related to the usage

q25 --Address security concerns by outlining security measures related to the usage of online shopping apps or portals

q26- Popular colourful advertisements, based on consumer preferences, makes it easy to locate the required kind of dress

q27 Websites that allow an easy visualization related to the usage of Apps for shopping and payment

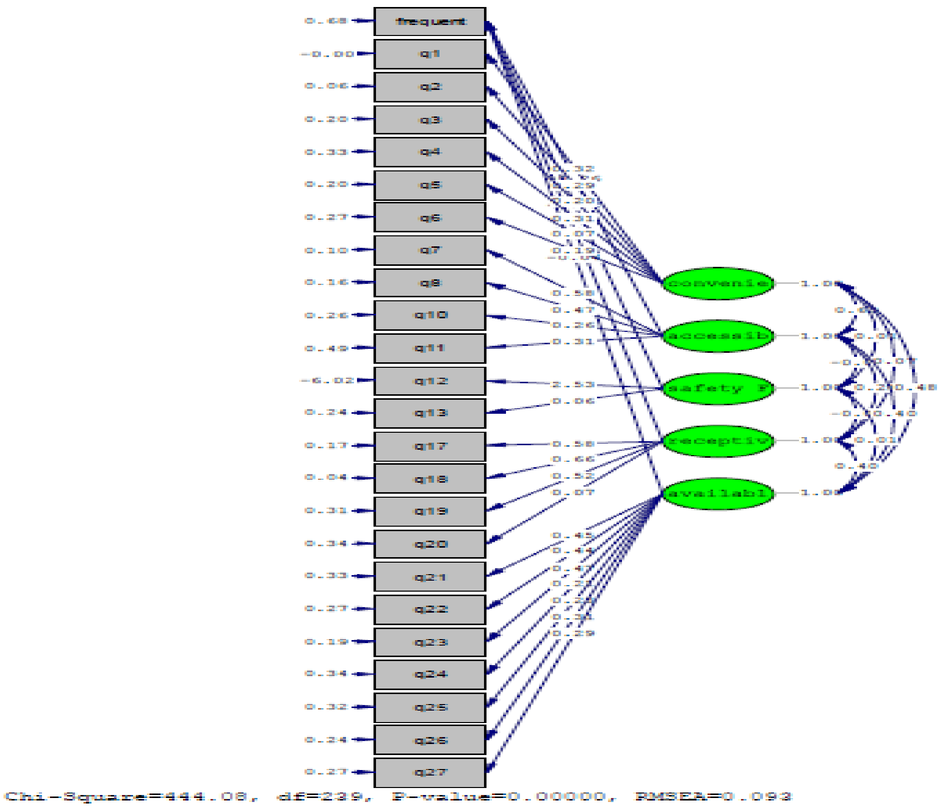
Table 16 CRONBACH'S RELIABILITY TEST

S.No	Groups	Cronbach's Alpha
1	Convenience	0. 637
2	Accessibility	0.610
3	Risk	0.774
4	Receptive	0.763
5	Available	0.824

Source: Analyses were based on the sample surveyed

Table 16 depicts that customer satisafaction is based on the above four factors as the Cronbach's Alpha is above 65% for Convenience, Accessibility, Risk, Receptive, Available.

Figure -5 path diagram for respondents shopping of dresses online during work from home period



Source: Analyses were based on the sample surveyed

Table -17 Chi-Square Test of Model Fit

Value	444.08
Degrees of Freedom	239
P-Value	0.00
χ^2 /df	1.86

Source: Analyses were based on the sample surveyed

The null hypothesis is that there is no difference between the patterns observed in these data and the model specified. So, unlike many cases where you are hoping to reject the null hypothesis, in this case, the null hypothesis cannot be rejected as the chi-square value above, this model is acceptable.

The Chi-Square Test shows the model fit and p value shows its signifinance level, Although the seems good, it is also appropriate to check the value of Chi-Square divided by df (Wheaton, Muthen, Alwin and Summers,1977) as the Chi-Square statistic is particularly sensitive to sample sizes (that is, the probability of model rejection increases with increasing sample size, even if the model is minimally false), and hence chi-square divided by degrees of freedom is suggested as a better fit metric (Bentler and Bonnett, 1980). It is recommended that this metric not exceed five for models with good fit (Bentler, 1989). For the current CFA model, as shown in above table Chi-Square is 1.86, suggesting acceptable model fit.

Another measure of goodness of fit is the root mean square error of approximation (RMSEA).

Table-18 RMSEA Test of Model Fit

Estimate	0.093	
90 Percent C.I.	0.079	0.11
Probability RMSEA	< 0.05	0.00

Source: Analyses were based on the sample surveyed

An acceptable model should have an RMSEA less than .05. You can see above that the estimate for RMSEA is .093, the 90 percent confidence interval is 0.11, .079 and the probability that the population RMSEA is less than .05.Again, consistent with our chi-square, the model appears to fit. This can be interpreted as meaning that the model explains the correlation to within an average error of 0.093 (Hu and Bentler, 1990). Hence the model shows an overall acceptable fit. The model is an over identified model.

Table-19 Inter Construct Correlation Matrix

	Convenience	Accessibility	Risk	Receptive	Available
Convenience	1				
Accessibility	0.66	1			
Risk	0.03	0	1		
Receptive	0.08	0.24	-0.04	1	
Available	0.49	0.3	0.01	0.52	1

Source: Analyses were based on the sample surveyed

Table 19 depicts the correlation matrix of independent the hypotheses is tested relating to the pattern of causal structure linking several variables that bear on the construct of usage intention of internet banking. Usage Intention is influenced by the Convenience, Accessibility, Risk, Receptive andAvailable on online attire shopping.

Table-20 Hypotheses testing of working womens' preferences for shopping dresses online

Hypotheses	β	Supported/ not supported
Convenience related to the usage of net banking	-0.36*	Supported
Accessibility related to the usage of net banking	-0.26*	Supported
Risk related to the usage of net banking	0.47*	Supported
Receptive related to the usage of net banking	-0.039*	Supported
Available related to the usage of net banking	0.59*	Supported

*Significant at 0.01 level Source: Analyses were based on the sample surveyed

All hypotheses are accepted. Online shopping of dresses of women is influenced by Convenience (β=- 0.36), Accessibility (β=0.26), Risk (β=0.47), Receptive (β=0.039), and

Available (β=0.59).

Hypotheses	Latent construct	β	Supported/ not supported
Saves time	Convenience	0.43*	supported
Saves travel	Convenience	0.38*	supported
Variety of brands offered	Convenience	0.20*	supported
Feel it safe and reliable	Convenience	0.31*	supported
Offers convenience of getting delivered at home	Convenience	0.071*	supported
Easy return and refund	Convenience	0.19*	supported
No need to preserve dockets/ receipts	Accessibility	0.58*	supported
Customer review	Accessibility	0.47*	supported
Saves travel	Accessibility	0.26*	supported
Variety of brands offered	Accessibility	0.31*	supported
Free of unsafe personal information related to the usage of net banking for payment	Risk	2.53*	supported
Worried about security IN transaction related to the usage of net banking	Risk	0.063*	supported
online shopping inquiries receive responses within the stipulated turnaround time related to the usage of net banking	Receptive	0.61*	supported
Employees are knowledgeable to queries related to the shopping isuues	Receptive	0.68*	supported
customer concerns related to the usage of net banking	Receptive	0.57*	supported
flexible to customers' need related to the usage of apps/ portals	Receptive	0.072*	supported
a high number of software's related to the usage of net banking while payment	Receptive	0.47*	supported

gateways are used			
wide range of anytime, anywhere access to all brands, any type of fashion/ fabric	Available	0.47*	supported
Bank providing information /data related to the usage of net banking	Availability	0.49*	supported
Apps/ portals provides right details associated with its services related to the usage	Availability	0.24*	supported
Address security concerns by outlining security measures related to the usage of online shopping apps or portals	Availability	0.26*	supported
Popular colorful advertisements, based on consumer preferences, makes it easy to locate the required kind of dress	Availability	0.33*	supported
Websites that allow an easy visualization related to the usage of Apps for shopping and payment	Availability	0.31*	supported

*Significant at 0.01 level Source: Analyses were based on the sample surveyed

All hypotheses are accepted. Consumer intention to use online shopping portals/ apps for dresses is influenced by Convenience factor which contains 24h Accessability(β=0.43), travel saving (β=0.38), prompt service (β= 0.20), speedy retrieval of account information services(β=0.31),;easy and quick (β=0.071) and reliable (β=0.19). In according to accessibility is influenced by not much training (β=0.58), not require a mental effort(β=0.47), easy learning (β=0.26), and Simpler/clearer service (β=0.31). Under risk factors safe personel information (β= 2.53),security in transaction (β=0.063). Under Receptive factor Mobile banking inquiries receive responses within the stipulated turnaround time (β=0.61), Employees are knowledgeable to queries(β=0.68), customer concerns (β=0.57) and flexible to customers' need (β=0.072). In respective to availability factor, a high number of software's (β=0.47), wide range of anytime, anywhere access to all brands, any type of fashion/ fabric, (β=0.47), Bank providing information /data(β=0.49), Apps/ portals provides right details associated with its services related to the usage (β=0.24), Address security concerns by outlining security measures (β=0.26), Address security concerns by outlining security measures related to the usage of online shopping apps or portals.(β= 0.33) and Websites that allow an easy visualization related to the usage of Apps for shopping and payment (β=.31).

To sum up, the research was carried to have better understanding on the driving factors that influence the usage of online shopping of dresses by women . Here we classified the factors under five factors say convenience, accessibility, risk, receptive and availablility which helps to judge the intensity to adopt net banking were emprically validated with model fit for online shopping of dresses by women during work from home period was successfully verified.

CONCLUSION

The empirical results of the current study show that there is a direct relationship between online shopping habits of dresses of women and service quality, customer perception and satisfaction of the customers (in a metro city --Mumbai) dimensions and customer satisfaction with the online way . An understanding of the factors, revealed in the study, though there were security concerns, the advantages were more prominent than the drawbacks. This has led to the popularity of usage of online apps and portal for shopping by working women. Surprisingly, the trend to shop attires and the reasons for them to go in for online shopping of dresses did not go down, even though they are not going out much.

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AN IMPLEMENTATION OF BLOCKCHAIN AND MACHINE LEARNING ALGORITHMS TO REDUCING THE FAKE NEWS IN TWITTER

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ABSTRACT

The problem of fake news gets worse every day and has very damaging effects in various fields such as politics. Due to the availability of social media, it is very easy to spread fake news and it becomes difficult to identify the culprit. Since the culprit of such action has not been identified, the problem remains. Therefore, it is necessary to identify the source or origin of such fake news in order to take the necessary actions. With microblogging platforms like Facebook, Instagram, Pinterest, Twittter, and Tumblr, users can write new posts that are publicly visible. Twitter has distinguished itself as an overwhelming press team providing information to the global..It is Not uncommon for users of this website indicate an advanced feature events such as natural disasters, political events, etc. Because of the popularity of Twitter, this led to the spread of false positive data on the accused. This in-depth program aims to reduce the spread of bugs on Twitter through an algorithm based blokcheyna and establish algorithms and machine learning. "Tweet" is generated based on the node checks blockchain. Commission acts on the basis of the concept of tweets.

Keywords: Blockchain, Microblogging, Politics, Sentimental Analysis, Tweet, Twitter.

I. INTRODUCTION

Based on the concept of blockchain in social media, our network uses the security, instability and transparency of blockchain to build trust between shared messages. We will focus on speculation that may be posted in selected areas of the community that verify the authenticity of other messages among users. For many of this generation, social media offers all kinds of world and local news. But this does not work if the person / organization uses him or her to spread false news. Because media click stories take less time to spread exponentially. The news goes viral around the world in a matter of days. These organizations allow other people to take advantage of people's desire to share interesting news without knowing the facts or the consequences.

Social media was interested in the introduction in 1840 of the Telegram to the United States, which united the country. Since then, the use of social networks is increasing daily [1].

The growing popularity of Twitter on social media is the reason why spammers spread false information. Therefore, Twitter needs to be protected from fraudulent information providers or spammers. Companies are working to fix fake tweets to make Twitter safer. For example, Trend Micro filters out unwanted URLs using the Web Replication Technology (WRP) encoding filter.

Due to time constraints, the URL could not be written before it reached the user. To solve this problem, researchers used algorithms based on the law to extract unwanted theta [7]. Because industries that rely on the media to run their business, having spam tweets is a major security breach. This necessitated finding ways to reduce and download spam. False stories are meant to mislead readers, and their circulation today is eighty-five percent more than it was in 2017. [8]

There are many algorithms to detect inaccurate information, but it is very difficult to know the origin or origin of these records. So acquit the guilty. Access to social networks and open access to social networks have exacerbated this problem. Anyone can access the media, and thus the spread of false news quickly leads to more serious casualties. Because anyone can post on social media, the amount of false information is growing rapidly. The main purpose of this article is to study the literature on various forms and search for these styles. Once again, we have identified shortcomings and created a new type of problem-solving, carefully monitoring and evaluating text messages using blockchain technology. We believe that as soon as the origin of this type of untruth becomes known, the necessary steps can be taken to find it and the problem is gradually solved. Inspired by all the questions in this article, the goal is to reduce the spread of false news on Twitter with the blockchain Proof of Work (PoW) algorithm built into group algorithms and machine learning. .

II. RELATED WORK

There are a number of research studies on the discovery of lies in social media, other research studies have also used the blockchain approach for their own sake [7]. In a research study, Guild examined the use of different methods of false perception [8].

One search engine used the classic Naive Bayesian classifier to display incorrect text messages [9]. In the search study, the non-correlated non-K algorithm was used to compare faulty messages as reliable information [10].

Youngkyung Seo, Deokjin Seo, and Chang-Sung Jeong set the example by looking at false stories using storytelling. Shivam B. Parikh and Pradep K. Atreus conducted color studies to expose false stories [12].

In search of a veeter classifier for technological improvements [13].

Kai Shu, Huang Liu and Suhang Wang developed data with real knowledge [15]. In two customer interviews, they delivered two messages (false and real) [20]. One meeting had experienced clients (who easily see false news), and the other meeting was false (usually relying on false positives) [16]. They conducted similar surveys of these customer groups based on the strengths of those who are open and honest. Experiments showed that they were able to detect color mismatch messages from real text messages [18].

The authors have developed a new way of learning-finding the myths that are associated with this news story with high-profile sites. They made their contribution in the Facebook Messenger chat and approved it with the help of the program '. is true and shows an analysis of 81.7% of the results is a false conclusion [19].

Shaban Shabani; Maria Sokhn suspected fraud and provided the information available, promoting advice that evaluates public safety groups and considers whether public information is required or not.

Some developers have recently become addicted to the blockchain and have taken a different approach. For example, Shitang Yu; Bo Zhang; Zhou Shao and others created a character quo with a blockchain that surpassed the old version. They used the compliance agreement of the PBFT-DPOC agreement to understand the self-autonomy of electronic devices.

III. PROPOSED METHOD

When a user sends a tweet and accesses a Twitter server, the tweet is sent to the study section of the machine that converts the information into a political and apolitical message. Tweets that are advertised as non-political are advertised without continuous advertising or tweets. If the message is classified as a political message, it is displayed according to its hearing and is determined by the weight of the value. In the case of a tweet that is a period of time, the threshold is set by dividing the number of active N N sites in the blockchain area by 2, which is H. If 50% of the names agree that the tweet is true, it is considered reliable. Part of the threat tweet time - 25%. For example, imagine a tweet about someone's death. The tweet is then sent to the blockchain control node with a threshold set at the previous level. The control node sends a tweet to all corresponding nodes. Nodes then intensify the tweet and mark it as clear or unambiguous. Then they put the tweet and its digital signature on the blockchain. The nodes referred to here are personal or system nodes and false alarms that report information capabilities in real time. After a while, the control node touches the string. When the day of deportation arrives, the tlog is released. If the reliability number is below the threshold, the tweet will remain unsolicited and the user's role in disseminating false information will be announced on Twitter. The full functionality of the described mode is shown in Figure 1 in the architecture diagram.

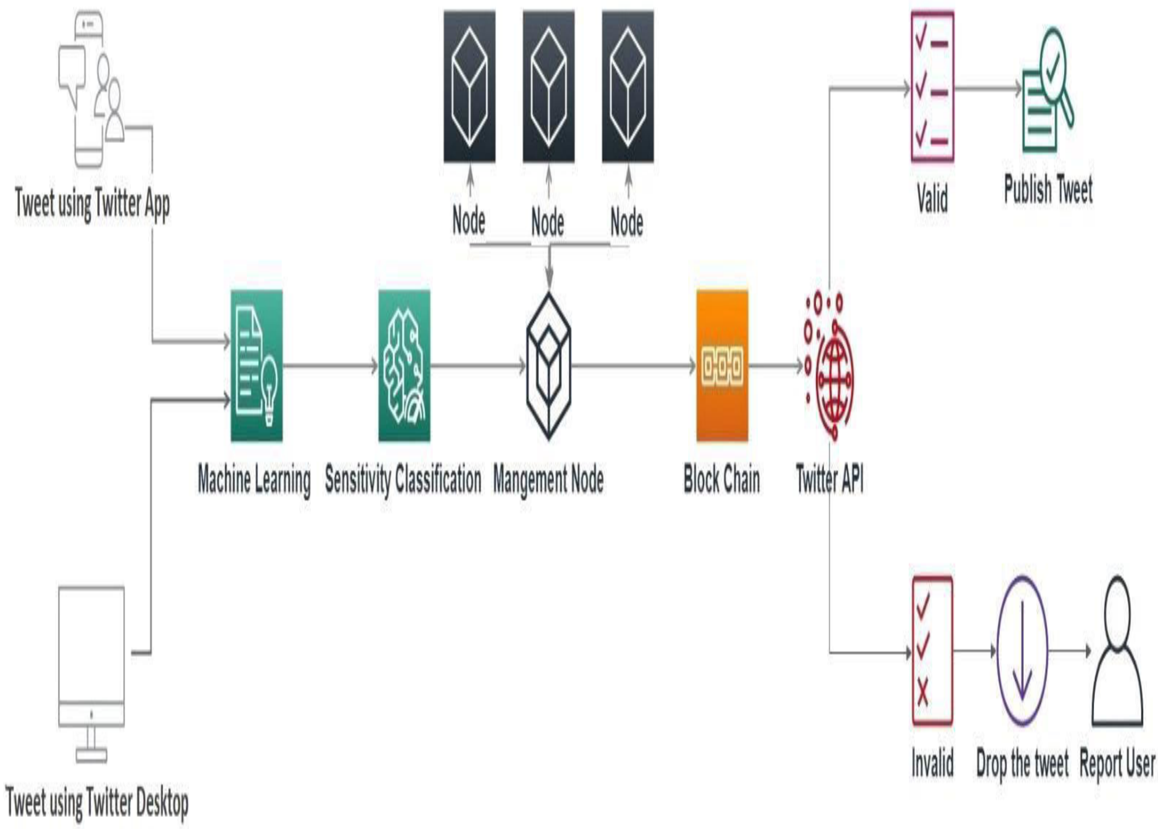

Fig. 1(a). Architecture diagram of the proposed system using blockchain

OBTAINING AND CLASSIFYING TWEETS

The experimental methods collected by the experiments were integrated using Python messaging using the Twitter library. Tweets are divided into political and non-political using machine learning algorithms designed using the same custom planning API. The data is generated as colored messages and is shown in Figure 3. The internal content is sorted according to the feel of the tweet and transferred to the blockchain authorization. In this program, the sound of a tweet is read using search terms that search for complex words, such as death, funeral, death, and so on. Based on a word list, and it certainly comes back when there are words in the description.

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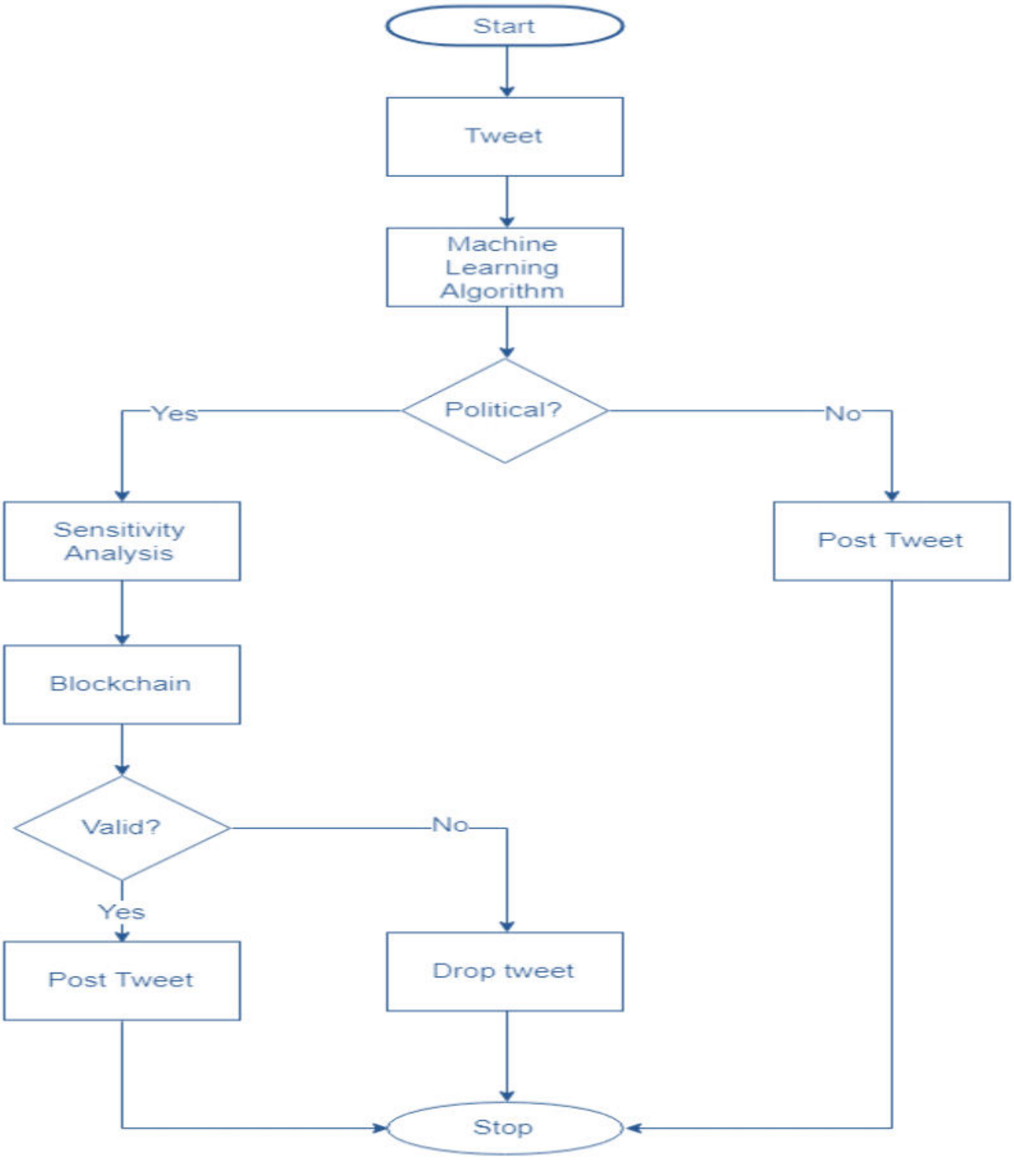

Fig 1(b). Working model of Proposed Method

IV. BLOCKCHAIN - PROOF OF WORK

These strategies are used to increase sales before adding them to the blockchain. This saves the log entry for all exchanges taking place. The valve will be designed for this information, and the miner will add to the curtain after adjusting the hash manual [11]. Bitcoin-based cryptographic methods are difficult to adapt due to the built-in protection against joint attacks, due to the large amount of pressure required to adjust the hash value [12].

Blockchain Buildings

The site is hosted by Node JS, which uses blockchain to interact with transparent, crypto-js, body-parser, ws (WebSocket) and file system library. It is the launch of HTTP and P2P services from two different angles. The HTTP service is used to communicate between a user and a node, while the P2P service is used to communicate between that node. When the server starts, the first block with this index, followed by the hash, timestamp, data, hash, and digital signature, enter the blockchain as parliament. The subscription sends all tweets to the appointed manager. Blockchain browsers use web links to interact with each other. Once the name is intended for management, it begins to interpret the tweet and then develops a broker with cut-out data and a digital signature of the names. This section is attached to the blockchain.

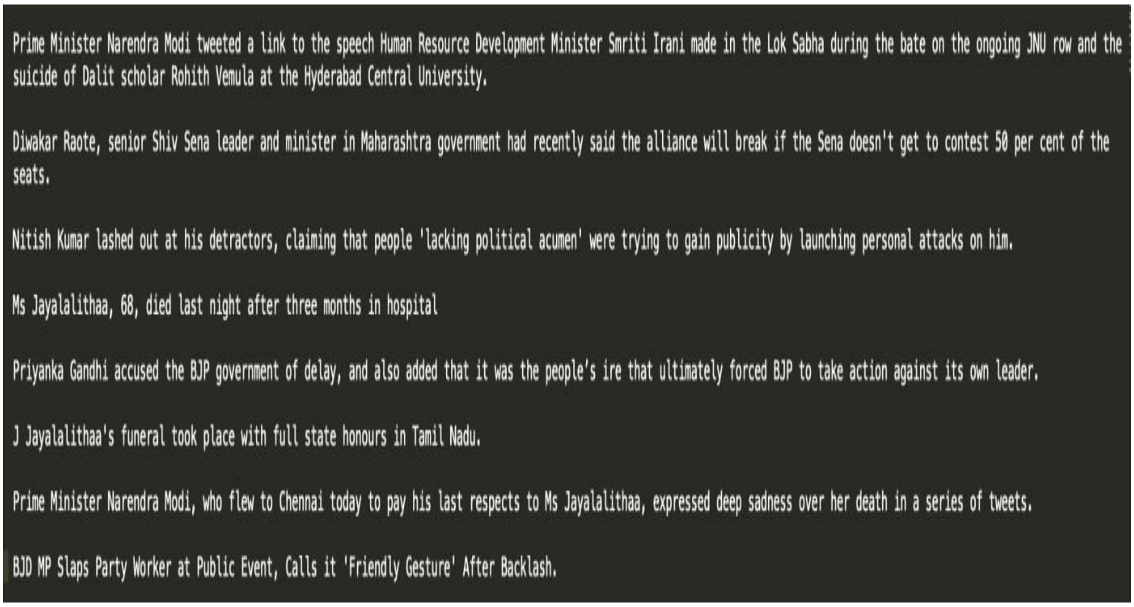

Fig 2. Loading of Sample Dataset

Figure 3 shows the tweet that was added to the blockchain after using node A. The cover is then sent to all connected nodes. Any node can save the lock and confirm the message as well. Figure 4 shows that Tweets are transmitted from node A to node B. After a while, the control node creates a chain and sends its capture and operation to the Twitter server.

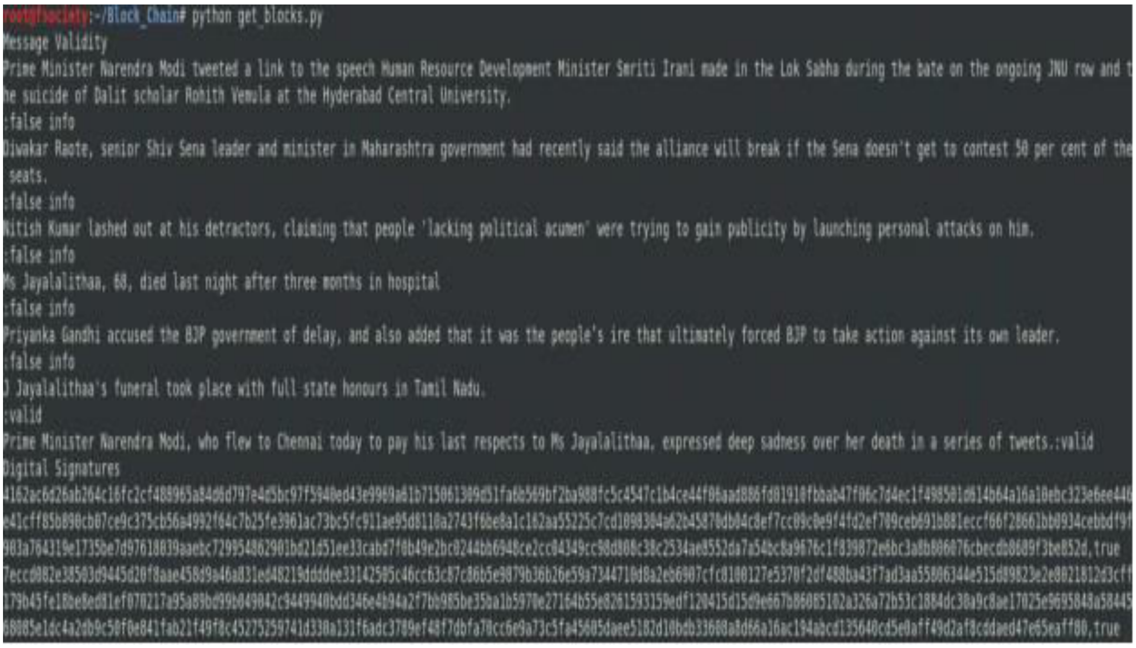

Fig. 3. Validation Message after broadcast by Node A

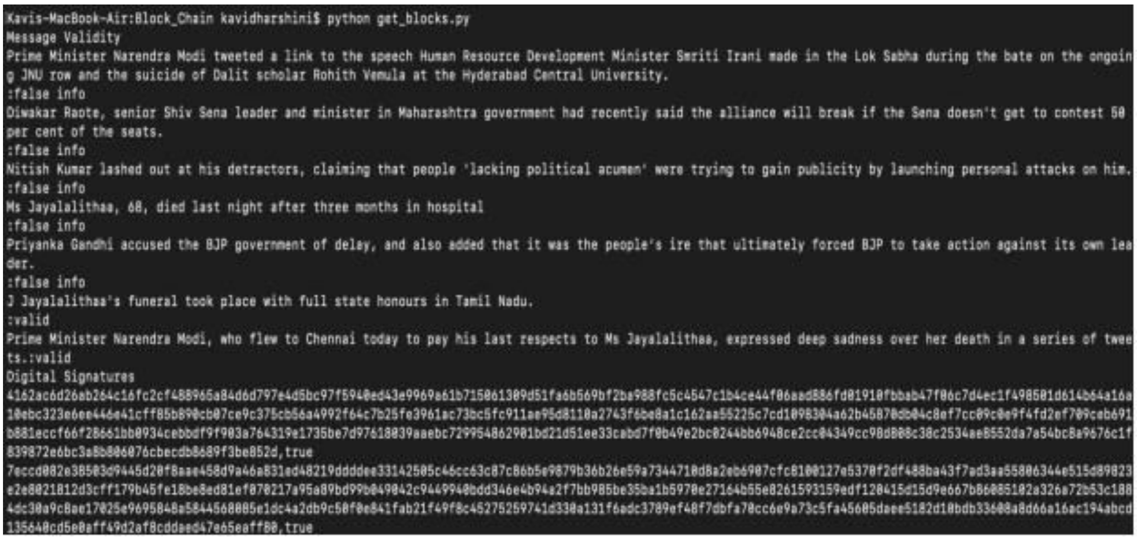

Fig. 4. Messages retrieved at Node B

WORKFLOW STEPS

Step- 1: Retrieve the Tweets from Twitter using the Python library.

Step- 2: Tweet the custom parallel authorization manager to classify it as Non-political and political.

Step- 3: Send the tweet as soon as it seems downloaded using the Tweepy Python library.

Step- 4: Insert the tweet into the sensitivity analysis algorithm and click on the tweet with the threshold from the sensor.

Step- 5: Tweet the Blockchain Nodes.

Step- 6: When the time is up, the blockchain nodes resend the the reliability of the tweet, as shown in Figure 5.

Step- 7: Post the tweet if it's valid by nodding using the Tweepy Python library. This is shown in Figure 6.

Step- 8: If the nodes say it is a fake, delete the tweet and warn the user on Twitter.

Fig. 5. Validation Result of the System

Fig. 6. Server posted the Tweet after validation

V. CONCLUSION

The aim of the current investigation was to investigate the use of a new blockchain-based algorithm to detect and prevent fake messages and misleading information on Twitter. In this study, I presented how the blockchain consensus algorithm Proof-of-Work (PoW) as well as classification and machine learning algorithms work. Extensive experiments with the data set collected on Twitter have shown that the system can prevent the spread of fake news better than the methods described in the literature.

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BUILDING CAPACITY THROUGH INCREMENTAL LEARNING APPROACH (ILA) BY POSHAN ABHIYAAN IN NORTH LAKHIMPUR, ASSAM

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ABSTRACT

A key programme pillar under the POSHAN Abhiyaan is an innovative learning-by-doing approach called the Incremental Learning Approach (ILA). The approach aims at building the capacity and motivation of program functionaries, which is critical for effective service delivery and behaviour change at the community level. POSHAN Abhiyaan aims to reduce malnutrition, through a life-cycle concept, adopting a synergized and result-oriented approach. Implemented by the Ministry of Women and Child Development (MWCD), Government of India, the target of the mission is to bring down stunting in children 0-6 years of age from 38.4% to 25% by 2022. It also aims to reduce anaemia among women and adolescent girls in the age group of 15-49 years and reduce low birth weight. In this regards the District Social welfare office of North Lakhimpur, Assam in collaboration with Department of Home Science, North Lakhimpur College organized an Incremental Learning approach (ILA) training for the ICDS officials like the supervisor, Block Coordinator and Project assistant from different nine blocks of North Lakhimpur, Assam. Total participants for the training programme were 113 and the duration of the training was for four day. The ILA training framed some modules which focus on different contents like maternal, child health and nutrition umbrella under the POSHAN Abhiyaan. In order to make these sessions interactive and interesting, the experts used different participatory methods of training, such as role-play, group discussion, and periodic question and answer session. At the end of the training they were evaluated through an examination and the feedback shows a positive outcome. ILA has resulted in greater satisfaction among the participants as well as increased engagement during the training. Findings highlighted the perception of frontline functionaries in terms of the impact of these training on their day-to-day work. The participants felt that there has been an improvement in terms of clarity on the subject matter, their approach to home visits, and perceived effectiveness of their counselling to the beneficiaries.

Keywords: ICDS, ILA, Malnutrition, Poshan Abhiyaan,

Objectives of the paper

To enumerate the concept of ILA

To organized and evaluate the ILA training

INTRODUCTION

India embarked on an ambitious effort in 2018 – the Prime Minister's Overarching Scheme for Holistic Nourishment called POSHAN Abhiyaan -- to address multiple forms of malnutrition. Recognizing that malnutrition levels in India are high and have been slow to change over the last decade, this National Nutrition Mission attempts to address key essential components recognized to be critical in the fight against malnutrition. This is a flagship programme of the Ministry of Women and Child Development (MWCD), Government of India, which ensures convergence with various programmes i.e., Anganwadi Services.

The vision of Poshan Abhiyaan is to ensure attainment of malnutrition free India by 2022. The objective of POSHAN Abhiyaan is to reduce stunting in identified Districts of India with the highest malnutrition burden by improving the utilization of key Anganwadi Services and improving the quality of Anganwadi Services delivery. Its aim to ensure holistic development and adequate nutrition for pregnant women, mothers and children.

Poshan Abhiyaan envisages establishing a system where programme functionaries will become more effective to plan and execute each task correctly and consistently through methodical, ongoing capacity building, called **'Incremental Learning approach (ILA)'**. Such a system use opportunities in the form of existing supervisory interactions at different levels, through which practical and guided learning may be accomplished.

The proposed system envisages breaking down the total learning agenda into small portions of doable actions as the range of skills and tasks to be learnt is quite substantial, and since adults naturally learn by doing rather than through theory alone. The approach is to build incrementally on small amounts of learning at a time, until all skills, understanding and actions have been put into regular practice, and have been internalized by the functionaries and a supportive supervisory mechanism is put in place.

The ILA trainings are delivered in a cascade from state to sector level by the ICDS officials, and supervisors. The approach aims to create 'ongoing learning platforms' for field functionaries, where the face-to-face sessions help them imbibe and apply new knowledge to their day-to-day work, with time to reflect on whether and how the content of the training was useful in improving services.

The programme

- **Objectives:** The specific objectives of the ILA are:
  - Build skills based on understanding of priorities among frontline workers, through a learning-by-doing approach;
  - Strengthen supervisory structures and skills through a similar approach;
  - Enable coordinated functioning of ICDS and health programmes to achieve common goals.
- **Key elements of the ILA**
  - Structured supervisory interactions for ongoing learning, planning and review;
  - Planned learning agenda with clearly defined outputs and outcomes;
  - Use of evidence, for learning and improving performance;
  - Mechanisms for enabling convergent actions between ICDS and health programmes;
  - External facilitators/ resource persons
  - Cascading system of controlled monthly inputs
  - Technical and training responsibilities
  - Administrative and managerial responsibilities

Thematic Content: ILA modules

The content focuses on the maternal, child health and nutrition umbrella under the POSHAN Abhiyaan. These topics have been organized in thematic modules or flipbooks, which contain detailed technical information related to each topic. A total of 21 such modules (Table 1) have been developed so far in Hindi, English, Marathi and Telugu. The key feature of these modules is the simple manner in which the technical information is explained. It also addresses locally prevalent myths and misconceptions. For the trainings at state and district level, a triad of modules on similar themes is covered. However, a single module per session is covered for the block and the sector level trainings.

An illustrated list of these 21 modules is shown in the table below.

Table 1: ILA MODULES

Modules	Topics
1.	Why this monthly meeting?
2.	Making or updating home visit planner & initiating home visits
3.	Planning and organizing Community Based Events at AWC
4.	Observing breastfeeding in newborn babies – Why and How?
5.	Identification and care of a weak newborn baby
6.	Complementary feeding: diet diversity
7.	Preventing anemia in women
8.	Assessment of growth in children
9.	Ensuring complementary feeding improves over time
10.	Ensuring exclusive breastfeeding
11.	Care of the weak newborn – How many weak babies are we missing?
12.	How to ensure timely initiation of complementary feeding?
13.	Identifying and preventing severe acute malnutrition
14.	Feeding during illness
15.	Supporting mothers with issues in breastfeeding
16.	How to take care of weak newborn with the help of Kangaroo Mother Care
17.	Identification and referral of sick newborn
18.	Preventing illnesses to avert malnutrition and death
19.	Prevention of anemia in girls and adolescents
20.	Birth preparedness – for institutional and home delivery
21.	Preparation during pregnancy – for newborn care and family planning

Source: ILA guidelines of Poshan Abhiyaan

Training Modality

Frequency

The training frequency and the volume of content covered under each session have been finalized based on the educational levels and learning capacity of the ICDS officials and functionaries. A two-day training session, covering three ILA modules, is organized every quarter for the state and district groups, while one thematic module is covered in each monthly cycle for the block level and the AWWs. This helps the participants absorb the technical knowledge thoroughly as well as develop skills to plan and deliver services to beneficiaries as envisaged. For AWWs, the monthly sector meetings are utilized to conduct these trainings.

Training session

Conducted by a facilitator and a co-facilitator, the sector level ILA training encompasses three crucial steps, as illustrated below. At the start of the session, the facilitator reviews the status of implementation of agreed actions in the last training. This is followed by covering the content of the selected topic, and finally guiding the participants to develop an action plan for implementing the acquired knowledge on the ground.

The actions planned for delivery/ implementation are the expected outputs for that month, and are monitored during supervisory interactions. Over a period of time, these actions are expected to produce changes in specific outcome indicators such as coverage of services and maternal nutrition practices as well as infant and young child feeding and caring behaviours. In order to make these sessions interactive and interesting, the facilitators are expected to make use of different participatory methods of training, such as role-play, group discussion, and periodic question and answer session.

Monitoring and supervision

Regular supervisory visits by the state/ district/ block ICDS officials and pre and post training assessments are undertaken to ensure quality of training delivered and to assess AWWs' knowledge and skills, respectively. Standardized reporting of these sessions is done through reporting formats. The reports are collated at different levels so that the status of implementation of the entire cascade is available with the state every month.

Methodology

Four days ILA training programme was organized by the Departments in North Lakhimpur College. Total participants were divided into two groups i.e., two days training for each group. It is important to do thorough planning for effective execution of the trainings. The preparatory steps include – sanction, allocation and timely disbursement of budget; translation of modules/ takeaways in local languages; printing and timely distribution of modules; preparing a calendar of sessions; and ensuring availability of facilitators**.** The agenda for the training were prepared by the officials such as District Resource Group (DRG) and programme coordinator. Out of 21 modules, seven modules were included in the agenda for the training. The modules include in-built questions, discussion points, and exercises to guide the facilitators. When followed, the sessions were delivered more effectively ensuring better understanding among the participants. The modules were simple to use and easily understandable. The details of the ILA training modules are listed below.

Table 2: ILA Modules for the training

Day 1		
TIME	SESSION	FACILITATOR/RESOURCE PERSON
10.00 am - 10.15 am	Inauguration of the program	Honorable Deputy Commissioner
10.15 am – 10.30 am	Welcome speech by DSWO and Introduction of participants along with 4 day orientation agenda.	District Social Welfare officer (DSWO)
	Overview on NNM and its key components- ILA, CAS, CBE, JAN ANDOLAN	
	Understanding about Maternal and Child Health Status & Importance of 1000 days interventions.	
10.30 am- 11.00 am	**Pre test**	
11.15 am – 12.15 am	**ILA Module 1**: Why this Monthly meeting?	CDPO (Karunabari block)
12.15 pm- 1.15 pm	**ILA Module 2:** Making or updating Home Visit planner & initiating Home visits.	Supervisor , Narayanpur ICDS
2.00 pm to 3.00 pm	**ILA Module 3:** Planning and Organizing Community Based Events at AWC.	CDPO (Nowboicha block)
3.00 pm to – 4.00 pm	Interaction and Discussion, wrap up for day 1	

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Day 2		
9.30 am – 10.00 am	Recap on Module 1,2, and 3	
10.00 am – 11.00 am	**ILA Module 4:** Observing Breastfeeding in Newborn babies – Why and How?	District Project Assistant
11.15 am- 12.15 pm	**ILA Module 5:** Identification and care of a weak newborn baby	District Coordinator
12.15 pm- 1.30 pm	**ILA Module 6:** Complementary feeding: diet diversity	HOD, department of Home Science, NL College
2.15pm – 2.30 pm	Orientation on Module 6 continued…..	HOD, department of Home Science, NL College
2.30 pm – 3.30 pm	**ILA Module 8:** Assessment of growth in children	District Coordinator
3.30 pm 4.00 pm	Post test	
4.00 pm – 5.00 pm	Planning Exercise for Sector level orientation	
	Feedback	

Evaluation

The ICDS officials (DPOs/ CDPs) are primarily responsible for supervision and review of the IL sessions and their quality of implementation. After every round of IL, structured review of process done in the subsequent rounds. Pre- and post- training assessments and field visits were undertaken to ensure quality of training delivered and to assess AWWs' knowledge and skills, respectively. Standardized reporting of these sessions is done through reporting formats. The reports are collated at different levels so that the status of implementation of the entire cascade is available with the state every month.

Results

Findings of the training highlight improvement in knowledge among functionaries as well as beneficiaries on aspects related to maternal and child nutrition. Some of these findings include, improved knowledge among the participants regarding care of weak newborns (percentage AWWs who responded that weak newborns should not be bathed immediately and not given anything other than breast milk increased from 50% to 65%), improved knowledge among pregnant women on exclusive breastfeeding (from 51% to 60%) and improved practice among lactating women on exclusive breastfeeding (from 48% to 56%).

ILA has resulted in greater satisfaction among the participants as well as increased engagement during the training. Findings highlighted the perception of frontline functionaries in terms of the impact of these trainings on their day-to-day work. The participants felt that there has been improvement in terms of clarity on the subject matter, their approach to home visits, and perceived effectiveness of their counselling to the beneficiaries.

Feedbacks

"Earlier we would give information to the beneficiaries even if we met them on the way. But now we prepare for home visits like we've been told in the ILA training. We first decide what we should say when we go to a lactating woman so that we don't miss any point. Also, we make sure to engage the family members in the discussion." - Participant

"Earlier the pregnant women were not taking proper food, iron tablets, or rest during the day. But now they have started doing all of it. I guess it is partly because I have explained the importance of doing so, in great detail. Now these pregnant women willingly come to the AWC and ask us to update their names in the register for different services." - Participant

"After attending the ILA training, my concept on different topics is very clear. I'm very much benefited from this training and able to make understand others regarding mother's health, complementary feeding, breastfeeding, etc. " - Participant

CONCLUSION

The ILA has made way for a more creative, yet systematic method of capacity building, where a standard training package is delivered for every cadre in ICDS. It is participatory in nature and the focus is not just on the delivery of content, but also on the 'planning and use' of that content for effective service delivery and supporting behaviour change among beneficiaries.

The MWCD recognizes the importance of quality implementation of this capacity building intervention, which is critical in ensuring effective service delivery under the POSHAN Abhiyaan. The Ministry has issued guidelines and conferred with the states to help systematically plan and execute these trainings, along with the introduction of a simple quality checklist for the supervisory cadre.

ABBREVIATIONS

AWC	Anganwadi Centre
AWW	Anganwadi Worker
BRG	Block Resource Group
CAS	Common Application Software
CDPO	Child Development Project Officer
CPMU	Central Project Management Unit
DPO	District Programme Officer
DRG	District Resource Group
ICDS	Integrated Child Development Scheme
ILA	Integrated Learning Approach
LBW	Low Birth Weight
MWCD	Ministry of Women and Child Development
NHM	National Health Mission
POSHAN	Prime Minister's Overarching Scheme for Holistic Nutrition
SNRC	State Nutrition Resource Centre
SPMU	State Project Management Unit
WCD	Women and Child Development

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EFFECTS OF HEALTH INSURANCE SCHEMES ON OUT-OF-POCKET SPENDING

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ABSTRACT

Not only the World Bank had warned against the possible exclusion of the poor from having access and using health care services, it also strongly believed that the poor tend to suffer more from the kind of health problems that can best be addressed by government preventive programs. And also that the poor can also be protected through enrollment to health insurance companies or other risk sharing schemes. Rather than protecting the poor, the implementation of these measures did not abolish out-of-pocket expenses. Insurance companies for instance, do not cover small predictable costs such as low-cost curative care while inefficiencies and shortcomings of free health care schemes push beneficiaries to spending out-of-pocket money. And conditions for referral health care services and copayments are set to reduce the miss use of these services. Thus, rather than reducing financial burdens, health insurance mechanisms contribute in impoverishing their enrollees and beneficiaries. Analysis of existing literature on health insurance schemes in Burundi shows that this readymade model has failed to protect their members from illness risk and has caused them financial looses.

Keywords: Health insurance, protection of the poor, risk sharing

INTRODUCTION

Insured persons need health insurance companies for their health while health companies need contributions from enrolled members to sustain their businesses. However, this win-win situation is always complicated trough unilateral mechanisms aiming to limit expenses of the insurance company. The long waiting time at health care facilities resulting from a long list of documents and signatures, the limitation of health coverage, the balance health costs covered by the member in terms of percentage of the total cost, etc., are some of the major pushing factors to spending out-of-pocket money. In Burundi for instance, the financial burden of cost of inefficiencies of the mandatory government health insurance company and free health insurance funded trough taxes, is put on the shoulders of both the members and beneficiaries. This unproved situation in health Insurance business has financially ruined their members. For instance, despite the gaps between national health systems(NHS), insured persons in the North and uninsured persons in the South share in common that individual or/and households pay exorbitant out-of-pocket money for health care services. The narrow coverage network and the conditionality to limit the use of health services make some persons to avoid buying insurance or enrolling to government subsidized insurance because it makes no difference in terms of extra direct payments of out-of-pocket money on health care services. Also Specialty medicines are not included in the package list, the administrative burdens discourage the members to wait for long time, the unclear charges on generic medicines as the contribution of the member, etc., make the enrolled to spend either his savings, selling a portion of his property, taking loans, avoiding conventional health care services or simply waiting home hopelessly the will of the Almighty God. Instead, health insurance should result into significant reduction of cost barriers to receiving care services, including prohibitive out-of-pocket (OOP) payments. This paper explores the ways through which health insurance companies are making profits from deductions from employees' salaries and voluntary individual contributions. I have used the secondary data to analyze this confusing game in the health sector.

1. Major social protection systems in Burundi

The country accounts for three major social protection systems that include social (i) insurance system based on employment and financed by both the employer and the employee; (ii) social insurance systems subsidized through taxes and (iii) private micro social insurance systems financed mainly by voluntary and individual social contributions.

1.1 Mandatory Government Health Insurance

Mutuelle de la Fonction Publique (MFP) is a government compulsory health insurance that enjoys autonomous management (PNDS 2006-2010). It was created to cover health care for public servants and their dependent, and it had a coverage network of 10 percent of the then total population. The employer contributes 6 percent while the employee pays 4 percent. This government health insurance company pays 80 percent of medical acts, hospitalization and pharmaceutical products but only 70 percent for specialty pharmaceutical products (PNDS 2006-2010). But due to some inefficiency some members choose to cover 100 per cent of the total cost of the health care services and pharmaceutical products. The MFP is the country's largest health insurance that covers a range of services provided by public and religious health facilities, both contributors are not associated in its management. The contribution required from members of MFP has not significantly changed in terms of percentage which remains comprised between 10 to 30 percent. However, from the 80s when MFP was created till today the nominal value of public servant salaries has dramatically changed due the devaluation of national currency and other economic related problems.

2. Social Insurance Systems Subsidized Through Taxes

2.1 The free care insurance was introduced in 2006 and it covers all pregnant women and children under five years across the country. In 2009, this policy was coupled with the Results based financing (RBF) to increase the demand and supply of curative health care services that provide direct benefits to the client(patient). As per this policy, beneficiaries pay zero fees at government or private health facility that implement it. But, due to inefficiencies in implementing this policy, beneficiary households are still making direct payments at local health centers. Pregnant women pay money on delivery to nurses on duty in order to receive good care. This amount paid depends on the ability of the family to pay and the nurse on duty. Household beneficiaries spend more money on drugs at private pharmacies (Buregeya E. and Mehender S. 2019). This free health care policy has failed to abolish direct and indirect payments from the patients making health centers and nurses benefiting from the policy. Thus, by trying to game this policy, the health care facilities try to illegally recover user fees from beneficiaries particularly in rural areas.

2.2 Medical Assistance Card (CAM) is a voluntary insurance scheme for the informal and rural sector, allowing families to enroll in the system. . The cost of one CAM is BIF 3000 (=$1.69) and is bought by household. The government pays subsidies to health centers according to the quantity of patients received. The beneficiaries of medical assistance card (CAM) include two categories of people: (i) children aged more than 5 years to 13 years old and from 14 years and above. Outpatient for the first category pays BIF 800 (=$0.45) while outpatient for the second category pays BIF 500 (=$0.25). And admitted patients for the two categories pays BIF 1000 (=$0.56) per day. And the government reimburses BIF 3200 (=$1.80) to health centers for health care services provided to a patient aged between 5 years and 13 years and BIF 2000 (=$1.12) for a patient aged 14 years and above. With regards to admitted patients, the government reimburses BIF 360 (=$0.20) per day.

The problem with this insurance scheme is that decision makers did not take into account the real sources of income and the purchasing power of rural beneficiaries. The results of a 2019 study in one of the rural commune of Burundi show that 42 per cent of rural population had an monthly income comprised between zero US $ and five US$. The 20 per cent contribution exceeds the monthly incomes of most CAM holders and due to regular problems of stock-outs of drugs at local health centers and due to the non respect of government fixed tariffs, CAM holders have to pay extra money for their medical consultations and also buy all prescribed medicines at local private providers (Buregeya E. & Mahender S. 2019). Local health centers not only benefit from both reimbursements from the government and direct payments from CAM patients but also they rely on illegal user fees to buy drugs.

2.3 The indigent insurance. This income based insurance was introduced in 1984 and targeted indigent children enrolled in schools and any other poor person approved as such by both the current Ministry of National Solidarity and Health. Its care coverage includes consultation, drugs, childbirth, etc for health centers and district hospitals. Health care services are free of charge because they are paid by both the Ministry of National Solidarity and the balance by respective municipalities. A total of 10 percent of Burundi population was benefiting from this insurance scheme in 2012. Insufficient allocation of the budget for this insurance scheme and less than a dollar per indigent, limited number of hospitals to 2 per province where health care services can be provided to beneficiaries are the main reasons pushing these beneficiaries to spending out-of-pocket money at both government and private health care providers.

3. Private Micro Social Insurance Systems

3.1 Health Insurance in the Structured Private Sector

The formal private sector doesn't have health insurance in the real sense. The type of health insurance consists of direct payments to health care providers by employers. From 1993 until 2003, the association of employers of Burundi (AEB) has been trying unsuccessfully to set up an insurance system similar to the Mutuelle de la Fonction Publique (PNDS 2006-2010).

3.1.1 The country lacks a functioning national health insurance system though there is a presence of a range of private insurances that have been developed since 2010. They provide different arrangements for employers to cover their worker's health care costs, ranging from institutionalized care in large companies, to providing a purchase order or vouchers, establishing a custom designed health insurance fund in companies or contracting with a private insurance company. At the Mutuelle de Santé des Caféiculteurs du Burundi (MUSCABU), hospital expenses are capped at US$ 51 per year while at the Union pour la Coopération et le Développement (UCODE), private or denominational care is limited to US$ 20. These private insurance also have inefficiencies that make the member pay out-of-pocket expenses. For instance, there is lack of government capacity to control and enforce the law in terms of company's compliance. Another problem is due to the lack of central reporting and/or tracking system for the coverage of medical care by employers. The determination of care services coverage is left to the employer.

3.2 Health Insurance in the Informal Private Sector

Community health insurance (CHI) were created in few provinces but their number was still insignificant. This was related to the lowest purchasing power of the population and the high level of indigent persons due to political conflicts in the country (PNDS 2006-2010).

3.3 Community based insurance (CBI). The country accounts for over 30 community health mutual. They mainly cover health care services such as consultations, laboratory, hospitalization and medicines at public, private and non-profit health facilities and in some exceptional cases, they can cover inpatients care services. They target rural and informal populations who are entitled to make direct payments of 20 percent in government health facilities and 40 to 50 percent in private clinics depending on coverage conditions set by every mutual association.

CONCLUSION

All health insurance managers have set up sophisticated ways of recovering money through voluntary (or involuntary) created shortcomings and package lists that push members to making out-of-pocket expenses. The most common ones are (a) delays to issue good care ("*bon de soins*"), (b) insufficient reimbursements, (c) lack of sustainable funding, (d) low enrolment, (e) limited coverage network, and (f) outdated tariff system, (g) absence of regulation and (h) unclear responsibilities (UNICEF, 2017, Buregeya E. and Mahender S. 2019). These shortcomings are partially solved through different ways. Some health insurance company managers set up some strategies that save their businesses from collapsing on the one hand but which financially ruin their members. As results, members of government, private or community based health insurance scheme complain about out-of-pocket expenses. There is always mismatch between the money they contribute in health insurance and the benefits they receive from it.

All insurance schemes available in the country are not able to abolish direct payments from enrolled members. Those enrolled in mandatory government health insurance contribute predefined out-of-pocket money defined in terms of percentages set by the government. In the private sector, the limited health care services coverage to only curative health care services that provide personal benefits to the member and to a certain age group also constrain members to spending out-of-pocket money. I also found that all these schemes are characterized with all sorts of inefficiencies but which are beneficial to them. Members once they don't receive all required services from their insurance companies and in due time, they are constrained to get these services from other providers through direct payments from their savings or by taking loans to save their lives. And there is no room for members to claim refund of the money they spend in such circumstances. There is in fact a puzzling egg-chicken question here. The health insurance company's business and the members' health: which one is really insured? This question can also be raised at the community base insurance levels where they are supposed to work with poor people.

SCOPE FOR FURTHER RESEARCH

1. Further studies are needed to reduce inefficiencies of health insurance schemes in order to maximize benefits of the enrollees and beneficiaries and therefore create a win-win situation.

2. For mandatory health insurance schemes, further studies are needed to establish the final end of the money generated through lack of compliance of their agents to the existing rules and regulations.

3. Managers of community based insurance schemes are also making profits from contributions made by poor people due to lack of legal framework. There is a need for further studies to analyze their financial impacts on these voluntary enrollees.

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HR ANALYTICS – NEW INSIGHT IN HUMAN RESOURCE MANAGEMENT

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ABSTRACT

Human Resources have always been a very important asset of an organization. Human Resource function should be aligned with business goals, employees should be treated as resource to have a competitive advantage and thus organizations can achieve success in the competitive market. HR analytics helps in aligning the HR strategy with the business strategy. HR managers use HR Analytics to formulate strategies that enable the organization to have competitive advantage over its competitors.HR Analytics helps in the improvement of workforce performance thus increasing the productivity of the employees which in turn increases revenue of organization. This paper highlights the integration of HR Analytics within a company and suggests some tools used in HR Analytics. The study includes the development of HR analytics is based on integration of data across disciplines and IT infrastructure. It identifies that HR analytics has different dimensional views. It is not restricted to data collection, measurements, statistical analysis and logical reasoning but also relevant capability set for organizations needs to be identified.

Keywords: HR Analytics, People Analytics, Workforce Analytics, Dimension

1. INTRODUCTION

Over the decade HR department has evolved as a vital function. Human Resources have always been a very important asset for an organization. With the emergence of new technology, much of the traditional work has been automated. It focuses on managing people within the organizations, emphasizing on policies and systems. Human Resource function should be aligned with business goals, employees should be treated as resource to have a competitive advantage and thus organizations can achieve success in the competitive market. HR analytics helps in aligning the HR strategy with the business strategy. HR managers use HR Analytics to formulate strategies that enable the organization to have competitive advantage over its competitors.

Human resource analytics refers to the application of the analytic processes to the human resource functions in an organization so as to improve the employee performance and therefore improving return on investment. HR Analytics, is the quantification of people drivers on business outcomes. Analytics tracks the impact of metrics on business performance. Decision making is one of the critical organizational processes including behavior, performance of motivation and stress of employees (Griffin and Moorland, 2011[18]). HR Analytics provides statistically valid data that can be used as an evidence for creating decisions and new strategies. it consists of various modeling techniques like behavioral modeling, predictive modeling, impact analysis, cost-benefit-analysis and ROI analysis (Levenson, 2005[34]) required for strategic HR decision-making. It helps managers to focus on hard facts instead of intuition (Falletta, 2014[14]). Though many organizations have started using the HR analytics but there still remains an immense room for growth in this area.

The present study is aimed at exploring the existing literature about the relationship between Human Resource Analytics and the role it can play in improving the existing range of managerial and HR-related tasks. The investigation of this literature will be helpful in providing insight into to what extent organizations are using analytics in HR and its relevance in decision making. It highlights to what extend HR Analytics is used within a company and suggests some HR Analytics tools used in HR Analytics. It focuses on various dimensional views on HR analytics. HR analytics has a huge implication in improving the managerial decision-making process.

2. RESEARCH AIMS AND OBJECTIVES

The following research aims at exploring the existing literature to understand the relationship between human resource and analytics and analyzing the importance of its role in the improvement of the existing range of managerial and HR related research.

The present study enumerates the following objectives.

1. To examine the existing literature on the HR analytics, its evolution and how much is it implemented within the organizations and to evaluate the existing studies qualitatively.
2. To examine the various dimensional views on HR Analytics.

3. LITERATURE REVIEW

3.1 Integration of HR Analytics within a company

3.1.1 Term - HR Analytics

Analytics, in general, refers to "the use of analysis, data and systematic reasoning to make decisions" (Davenport, Harris, & Morison, 2010[10]).The term HR Analytics refers to the application, statistical and data mining techniques on the data concerned with the people working in the organization. HR Analytics is a process and not a tool as it produces valuable innovative insights (Smeyers & Delmotte, 2013[42]) into decisions made by the management. The "Garbage in –Garbage out" strategy can be applied here as the poor data when combined with the excellent analysis will produce results that are of of little value. The main objective of HR Analytics is to bring support in decision making regarding managing people in the organization. (KPMG, 2013 [31]).

Human resource analytics is an art of applying research and numerical processes to the human resource vertical of an organization with an intent of enhancing employee performance with a view to get a better ROI. HR analytics is the quantification of people drivers on business outcomes. Applying analytics helps to understand the impact of various metrics on the performance of the organization.

It helps to answer the following example questions:

1. How does learning & development investment impact sales performance for my account managers?
2. Will quicker promotions help us retain our top talent?
3. What can we do to retain employees and thus save money?
4. How can we best improve customer satisfaction through smart people processes?

HR Analytics represent statistical techniques and experimental approaches that can be used to show the impact of HR activities, including more sophisticated solutions, based on 'predictive models' and 'what-if scenarios.'

Few of the practices of human resources are empowered by information technology which utilizes descriptive, pictorial, and statistical analyses of Human Resources data like human

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capital, processes of human resources, performance of the organization to establish influence on business and facilitate decision-making that is data driven (Marler and Boudreau (2017)[37]).

Gustafsson(2012)[19], stated different terms for HR analytics that can be used interchangeably – Talent Analytics(Davenport, Harris and Shapiro, 2010[11]), HR Analytics (Mondore, Douthitt and Carson, 2011[40]), Talent Intelligence (Snell, 2011[43]), or Workforce Analytics (Hoffman, Lesser and Ringo, 2012[23]).

HR Analytics helps in forecasting the demand and supply of people, identifying training needs of employees, suggests suitable employments tests which suit applicant's profile, implementing performance related pay and maintains effective employee database. Overall it helps in decision making based on available data about career planning, trainings, rewards, recruitments, retention and organizational effectiveness and efficiency.

Figure 1: Human Resource Analytics

(Source : Analytics India magazine ,2015)

3.1.2 Evolution of HR Analytics

The history of HR analytics can be traced back to the late 1900‟s when Fredrick W. Taylor analyzed the job performance of the employees and laid down the measurement of performance to do the job in the factory in his Scientific Management studies. He also initiated time management exercises. Henry Ford measured the speed of assembly lines. Analytics received more attention as computer aided models in the form of decision support system came into existence during late 1960"s. Then in the early "80s when the reporting and basic metric capabilities were introduced, widespread use of HRMS - Human Resources Management System and benchmarking opportunity started happening. The prime focus was on the adoption of HRIS and automation of HR practices (DeSanctis, 1986[13]; Mathys & LaVan, 1982[39]; Lederer, 1984[33]; Magnus & Grossman, 1985[36]; Taylor & Davis, 1989[44]).In the year 1990, both academic research and organizations started collecting evidence on how to reduce the administrative tasks of HR process by using HRIS. Organizations started using computer systems in HRM (Kossek, et al., 1994[30]; Mathieson, 1993[38]; Hannon, Jelf, & Brandes, 1996[21]; Haines & Petit, 1997[20]).In the subsequent years, with the growth of internet, more companies started using HRIS. In 2000, a new term electronic HRM (e-HRM) was evolved. Although majority of the organizations used administrative e-HRM there was an increase in the use of strategic applications such as talent acquisition, performance management and compensation management (CedarCrestone, 2006[5]).

Forward to today, 'Big Data' has made its entry in HR Operations and can be described as data that is very large in volume, diverse in variety, high in velocity, fine-grained in resolution, exhaustive in scope, relational in nature, but still it can be flexible in nature (Kitchin, 2014[29]).In addition to digitalization of HR, concept of HR Analytics has gained importance. Boudreau & Ramstad, 2005 argued that with such a paradigm shift – HR can be used as a strategic function such as finance and marketing to enhance decisions about people just as marketing enhances decisions about customers and finance enhances decisions about money (Boudreau & Ramstad, 2005[3]). Encouraged by many success stories of organizations using HR Analytics, generating savings up to $100 million and at the same time improving the retention rate and productivity of employees, advanced HR analytics is really becoming mainstream within no time (Fecheyr-Lippens, Schaninger, & Tanner, 2015[15]) and all the time more is considered as an essential HR tool (Boston Consulting Group, 2014[2]).

3.1.3 Comparison of HR Metrics and HR Analytics

HR Functions have a direct impact on organizational performance. The organizational performance is improved by the introduction of HR Analytics in HR functions. For this, proper HR metrics is required. Appropriate analytic models and measures of company performance are very necessary to evaluate the effectiveness of HR programs on company's performance

People generally interchangeably use the term metrics and analytics. However, it is very important to distinguish between HR metrics and HR analytics. Since the time, Jac Fitz-enzd(1984)[16] published 'How to Measure Human Resources Management' ,outlining the metrics that can be used to effectively measure employee performance and Kaplan and Norton's introduction on the concept of balanced scorecard (Kaplan & Norton, 1996[27]), the use of metrics in human resource management has gained a lot of popularity. Standard practices for calculating and reporting common metrics – like turnover, headcount and time to fill and financial based metrics such as cost per hire, led to efforts etc became very common. This data can be viewed from different perspectives and in different formats (Liberatore & Luo, 2010[35]) example through tables, charts and graphs; this data can be summarized in a more comprehensible manner. Metrics are just the measurements that help to evaluate the effectiveness and efficiency of a function. It helps to compare different data points. Metrics does not tell anything about a cause, why something is happening and what is the likelihood of any event to reoccur in future. Hence metrics precedes analytics. In HR Analytics, value chain evolves from opinions, data, metrics, analytics, and insights, and ultimately leads to actions (Dekas, 2011[12]). Hence it describes, input can be transformed into output which adds value to a product. HR Analytics helps the managers to make decisions based on changing state of Human Capital based on facts and figures. To evolve as a true strategic partner, Human Resource needs to develop better analytics and metrics (Lawler, Levenson, & Boudreau, 2004[32]). HR analytics capitalizes on the information retained on the human resource information system.

3.1.4 Types of HR Analytics

Different forms of analytics can be categorized into descriptive, diagnostic, predictive, and prescriptive analytics (Jim Watson 2016[46]). Descriptive Analytics is the first type of analytics. It involves understanding of past behavior and outcomes (Fitz-enz 2010[17]). It tells about what has already happened in the past and is happening in the current situation. Examples can be dashboards which gives details about how many people have left last month and how many people are currently employed. Based on this past data, predictive analytics can be done for the future. Secondly, Diagnostic Analytics is the causes of the event that has taken place. Example if employees have left the organization in past, then what is the reason they have left the organizations and then the causes are ranked accordingly. Thirdly Predictive Analytics can be used for identifying what might happen in future. Example who is the top performing employees in the organization and whether they will leave the organization or stay in the organization, how many people will leave the organization in next 30 days? Lastly, Prescriptive Analytics which suggests the decisions, options and actions to be taken based on predictions. Example what actions should be taken to retain top performing employees of the organization?

3.1.5 HR Analytical Tools

The major HR analytics vendors include Oracle (US), SAP (Germany), Infor (US), Workday (US), Sage Software (UK), Kronos (US), MicroStrategy (US), IBM (US), Tableau (US), Zoho (India), Crunchr (Netherland), Visier (Canada), TALENTSOFT (Paris), GainInsights (India), and Sisense(US). Oracle HR Analytics by Oracle is a solution tool which helps with data analysis of performances of employees, background screening, and suggests ways of encouragement. IBM Kenexa can significantly be used for retaining top employee talent and getting maximum output from their current workforce. SAP Success Factors Workforce Analytics provides tangible insights on the workforce data to assist business make important strategies not only for today but also that are future forward. R is the most widely used HR analytics tool which helps in statistical analysis and visualization of massive data sets. Python is another programming language and can be used for statistical analysis and visualization.

Jasmit Kaur and Alexis A. Fink (2017)[28] interviewed 22 respondents from 16 companies, found that for data analysis and visualization; most of the companies (94%) are using R Studio followed by Tableau (83%), Python for data analysis, data cleaning and data management. Traditional and trust worthy tools such as SPSS and Excel are also used by some companies for analysis. Few new technology tools such as Intel's Saffron, HireVue's video analytics, IBM's Watson Talent, are sanctioning Artificial Intelligence. However, HR analytics is still at experimentation stage and there is long way to go in the future.

3.2 Different Dimensional Views of HR Analytics

The development of HR analytical systems has been accelerated by technology, which is rapidly consolidating the analytics landscape. The future progression of HR analytics, which is conquered by models that basically focus on the progress of the analytical component itself. Jac Fitz-enz (2010)[17], in his book 'The new HR analytics', discussed the 5-step value ladder of measuring people analytics. The very first step marks the start of HR measurement which refers to the recording the HR data related work such as hiring, training, supporting or retaining. The second step links this recorded work to the objectives of an organization, which the managers set periodically and review on a regular basis. The third step involves the benchmarking process. Step four constitutes the descriptive analytics which analyses past behavior, outcomes, and trends of recorded HR data. The final step is predictive analytics, which transforms data into meaningful information by observing the patterns in the previous step of descriptive analytics and helps to predict the future based on data based models.(Fitz-enz, J. (2010)[17]).

Other models related to Hierarchy of analytics ascend from descriptive analytics, through correlation analytics, to predictive/prescriptive analytics (Sesil, 2014[41]), or from reactive - operational reporting, through Proactive - advanced reporting and Strategic analytics, to predictive analytics (Bersin by Deloitte, 2013[1]).Whatever hierarchy the organizations follow, they aim toward what can be considered as the holy grail of HR analytics: predictive analytics (Harvard Business Review, 2013[22]).

However, there is much more to HR analytics than measurements and statistics (Cascio and Boudreau (2011)[4]). Models need to be developed in logical manner so that the relationship between the variables can be analyzed truly. Thus the positioning of HR analytics within the HR department or within a general business intelligence department may be influenced considerably on the logically developed models.

Coolen and IJselstein (2015)[7] stated that HR analytics is not just restricted to measurements, statistics, and some logical reasoning. Identification of HR analytics relevant capability set for your organization is also very necessary. They introduce the HR analytics capability wheel and stated that "only those organizations that manage to create and maintain a balanced blend of different relevant capabilities will be successful in HR analytics" (Coolen & IJselstein, 2015[7]). These 'relevant capability set' were described as perspectives such as - the business perspective (doing research relevant to business); the human resources perspective (knowing about HR processes, available HR data, and ethics of examining employee data); the consultant viewpoint (selling HR analytics to business and presenting results in a conclusive manner); the data scientist view (conducting statistical analyses, and also being able to work with more cutting edge developments such as machine learning algorithms); the IT architect perspective (understanding the HR IT landscape and data warehousing); and the software perspective (in-depth knowledge of working with analytical software, depending on whether this is outsourced or conducted inhouse) (Coolen & IJselstein, 2015[7]). The last two perspectives indicate the use of Information technology in HR analytics. The next big thing Coolen (2015)[6] foresees is the use of analytical business-user-friendly self-service analytical software. Table 1 identifies various dimensions of HR Analytics according to various researchers.

Table 1: Dimensions of HR Analytics

1	• An evidence based view of HR Analytics
2	• Measurment of HR Functions using HR Metrics
3	• Roadmap for Decision Making
4	• Used as Predictive Analytics-Helps in Decision Making
5	• Necessary Logical Model Development for implemention
6	• Prioritization of HR Investments Patterns
7	• Balanced blend of different relevant capabilities
8	• Link between academic and industry interface

Source: Author's Research

4. CONCLUSION

HR analytics is therefore an evidence-based methodology for improving individual and organizational performance by making better judgments on the employee's side of the business. It can undoubtedly enhance the credibility of the HR functions by improving the HR effectiveness, policies and practices and contributing to the competitive advantage of organizations that develop it as a core competency. HR analytics expose the redundant efforts, resources and budgets which are not producing any relevant impacts on productivity of the organization, and hence improves the effectiveness of HR. As such, HR functions and professionals can develop a strategic responsibility in collaboration with marketing and finance department and develop new skills and capabilities. Along the way, HR professionals will need to address ethical dilemmas. Undoubtedly; HR analytics takes effort to minimize these current challenges being faced by many organizations. An integrated IT infrastructure is required to assist the use of multi-source data in analyses. The data collected from all disciplines should be centralized in a single database to so that the combined analyses can be carried out. Today, every function has independent analytics team. In future, focus will be on a centralized analytics team for all functions in an organization. This team will then be focusing on identification of opportunities for improving business performance. Technology was seen as the main driver for the development of HR analytics. Developments are seen in the automation of data collection and data preparation activities, which are very time consuming. Furthermore, offering access of self-service applications to line managers may help to speed up the analyses and helps in development of HR analytics considerably.

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IMPLEMENTATION OF AUTOMATIC IRRIGATION SYSTEM FOR GREEN HOUSE AND OPEN FIELDS USING IOT

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ABSTRACT

Agriculture is very essential for the development of any country. India depends upon agriculture more than 50 % of Indian population works in the sector of agriculture. Agriculture sector or agribusiness can be strong if new and modern technologies were implemented to it, IoT can play a vital role in it. Sensor used for the implementation of the IoT circuits have the capability to sense the environment properly and provide the accurate information regarding their surroundings. IoT has the potential to reshape the world their role in the agri-sector can change the traditional methods used in.

Keywords: Internet of Things, sensors, smart agriculture.

1. INTRODUCTION

Agriculture products are the basic needs for any civilization this contains the clothes we wear two the food we eat agriculture is everywhere. Agriculture is very essential what the development of any country modernization of the Agri business is required because in India, we are still using the traditional methods for the agriculture. To develop this sector we need to develop the traditional methods of agriculture. Agriculture can be defined as the art science and occupation off growing various crops developing the dirt and raising animals this process includes:

- conservation of water resources
- financing cultivation marketing processing and the distribution of the products
- Small scale industries, supply, Farm production

In India the techniques used for the generation of crops are traditional and they are passeddown from generation to generation which is not effectiveshow me need to implement the current science and innovationin the agriculture sector to increase the cultivation show that farmers can take advantage using the common sources on which the agriculture and horticulture rely upon[1]. With the use of IoT we can keep an eye on our fields which are far away from the farmers home. IoT we can help in collecting, monitoring and processing the data related to the crops which we use to grow in our fields smart agriculture usesIoT and wireless sensor networks for the remote connectivity it not only enables the new techniques for the ranchers for farming their fields but it can also reduce the workload of the Ranchers[2].The base of IoT is embedded electronics or embedded system technology as it is a combination of both hardware and software, this allows the IoT systems to communicate in inside the environment and outside the environment [3]. Although it is easy to implement the IoT systems, these IoT devices also faces few challenges Like hardware systems, security issues, data analysis, Network challenges etc. Data analysis plays a vital role in almost all the applications of wireless sensor network and IoT as all the decisionsimplemented by the user directly depends upon the data collectedby the digital or analog sensors from its surrounding environment. All IoT gadgets are deployed in an open environmentso they may face the harsh conditions. These harsh conditions may damage the embedded system.Security plays a very important role in any industry similarly farmers need to have the knowledge about the security and safety of the technology used by them in a proper way to execute each and every instruction accurately. But in case of India most of the farmers do not have the proper knowledge regarding the technology as they are still using the traditional methods for the agriculture processing. In this paper we have proposed a system for the smart irrigation of open fields as well as a system for the green house to implement the smart irrigation in. we have used ESP8266, ArduinoMicrocontrollers to achieve this process in case of an open field scenario we have used soil moisture sensor, water flow sensorto control the ignition in the open field, whereas in case of a greenhouse we have used DHT22 a digital humidity and temperaturesensor to control the flow of irrigation hen greenhouse, later sections of this paper describes about literature survey propose system and conclusion.

2. LITERATURE SURVEY

Title	Author	Year	Sensors	Microcontroller	Findings System and achieved Result
Internet of Things-Based Hardware and Software for Smart Agriculture: A Review[1]	Brij Bhushan Sharma and Nagesh Kumar	Jan 2020	-	-	➢ IoT will play a vital role in smart agriculture process. ➢ Monitoring of Moisture Mineral Level, Humidity and pH level is required to implement IoT in agribusiness. ➢ IoT can reduce the workload of Rancher's
Applicability Of Wireless Sensor Networks & Iot In Saffron & Wheat Crops : A Smart Agriculture Perspective[2]	Mohammad Wasi Rasooli, Brij Bhushan Sharma, Nagesh Kumar	Feb 2020	-	-	➢ WSN and IoT applications are capable enough to enhance the agricultural fields. ➢ WSN and IoT can play a vital role in monitoring the properties of growth of the crops and soil. ➢ IoT devices are easy to Interface.
Opportunities and Challenges with WSN's in Smart Technologies: A Smart Agriculture Perspective[3]	Nagesh Kumar and Brij Bhushan Sharma	Jan 2020	-	-	➢ Agricultural machinery including IoT can be used to maintain the agricultural fields. ➢ Pest control and crop diseases can be controlled easily using IoT.
GREENHOUSE MONITERING	S.Muthupavithran, S.Akash,	Mar 2016	cozir sensor	cc3200 ARM cortex M4	➢ With the use of COZIR sensor and

USING INTERNET OF THINGS[4]	P.Ranjithkumar			microcontroller	CC3200 ARM Cortex M4 Microcontroller designing of green-house automation is implemented ➢ Monitoring of the greenhouse is possible in all situations. ➢ Values of three parameters Temperature, carbon-dioxide, and humidity is analyzed and shown using graphs.
Do-it-Yourself Digital Agriculture Applications with Semantically Enhanced loT Platform[5]	Prem Prakash Jayaraman, Doug Palmer, Arkady Zaslavsky, Dimitrios Georgakopoulos	April 2015	Soil Moisture Sensor, Phenonet-OpenIoT	JAVA-based semantic sensor stream processor. Arduino	➢ Implementation of enhanced digital system for agriculture is presented. ➢ Open platform for IoT has been introduced in this paper.
IoT based Smart Greenhouse[6]	Ravi Kishore Kodali, Vishal Jain and Sumit Karagwal	Oct 2017	Temperature and Humidity, ultrasonic sensor	Intel Galileo Gen 2 and Arduino	➢ With the use of IoT advantage is introduced that smart devices in greenhouse can remove the insecticide and pesticides from crops. ➢ Hibiscus is grown under the generated environment, introduced implementation where authors have noted that they were able to reduce the water requirement upto 70 to 80%. ➢ Growth rate is also increased
DATA MINING TECHNIQUES FOR INCREASING SMART FARMING	Vandna, K.L. Bansal	Feb 2020	-	-	➢ Various Data extraction techniques were discussed for

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IN AGRARIAN SECTOR[7]					various parameters. ➢ They have shown that in case of agronomy lesser number of data mining techniques were introduced.
Internet of Things Based Smart Greenhouse: Remote Monitoring and Automatic Control[8]	Mohammad Woli Ullah, Mohammad Golam Mortuza, Md Humayun Kabir, Zia Uddin Ahmed, Sovan Kumar Dey Supta, Partho Das, Syed Mohammad Didar Hossain	2018	Soil Moisture Sensor, LDR, Temperature and Humidity Sensor	AtMega328	➢ Proposed model used to monitor the Temperature Humidity and Soil Moisture. ➢ For the future purposes database is introduced so that data can be used for the utilization of the system properly. ➢ They have compared the device with other devices and found that their system is more stable. ➢ They have used GSM AND GPRS MODULE to transmit the data over internet.
Internet of Things for Greenhouse Monitoring System Using Deep Learning and Bot Notification Services[9]	Nuttakarn Kitpo, Yosuke Kugai, Masahiro Inoue, Taketoshi Yokemura and Shinichi Satomura	2019	Temperature, Humidity and Illuminance	----	➢ IoT system is proposed for the agricultural solutions. ➢ Image analysis were performed using the deep learning in 6 growth stages of tomato. ➢ System is able to detect between green and red colors of the crop. ➢ System has a accuracy of 91.5% . ➢ Due to capability of the system to identify in between the red and green color harvesting date

					can be predicted with accuracy of 91.5 %
IoT enabled Plant Sensing Systems for Small and Large Scale Automated Horticultural Monitoring[10]	Sherjeel Khan, Muhammad Mustafa Hussain	2019	Ultra-lightweight flexible sensory, Flexible lightweight plant growth monitoring sensor, LARGE SCALED REMOTE SENSING SENSORS, Winged Sensor Platform		➢ Lightweight platform can be placed on the plant's leaf to monitor the microclimate so that plant growth can be monitored as plant growth can only be monitored through leaf of the plant. ➢ Strain Sensor is used to measure the growth of the plant by measuring it on the micrometer scale. ➢ Flexible sensors are converted to lightweight platforms equipped with the wings made of paper. ➢ minimalistic compact dropping mechanism is used.
AGRO-TECH: A DIGITAL MODEL FOR MONITORING SOIL AND CROPS USING INTERNET OF THINGS (IOT)[11]	O.Pandithurai, S.Aishwarya, B.Aparna, K.Kavitha	2017	Humidity sensor (DHT11), Temperature Sensor (LM35), Soil moisture sensor, PH sensor	ArduinoUNO, AT89s52 MCU	➢ Authors have proposed a software names as AGRO-TECH ➢ Several sensors have been used like DHT11 for humidity and LM335 analog sensor for the temperature monitoring and
IOT Based Crop-Field Monitoring and Irrigation Automation[12]	Rajalakshmi.P, S.Devi Mahalakshmi	2018	Soil moisture Sensor, DHT11 Temperature and humidity Sensor, Light Dependent Resistor, Ultrasonic Sensor	Arduino Mega	➢ Mobile application and Web application have been developed by the authors to control the automation from anywhere. ➢ Ultra-sonic sensor has been used to

					monitor the water level in the tank ➢ Water wastage has been removed as the system works in an effective manner.
IOT BASED SMART CROP-FIELD MONITORING AND AUTOMATION IRRIGATION SYSTEM[13]	R. Nageswara Rao, B.Sridhar	2018	Soil moisture sensor, Temperature sensor (LM35)	RASPBERRY PI 3 MODEL B	➢ Irrigation system based on Raspberry pi Microcontroller has been Implemented. ➢ For the storage of data cloud computing is used. ➢ Controlling of the irrigation process has been achieved
Agricultural Crop Monitoring using IOT- A Study[14]	Dr. D.K. Sreekantha, Kavya.A.M	2017	---	------	➢ IoT enables the crop monitoring in an easy and effective manner. ➢ Various Sensor can be used to fetch the data regarding agricultural parameters. ➢ There may be a challenge regarding the energy consumption
Effective Utilization of IoT for Low-cost Crop Monitoring and Automation[15]	Petcharat Suriyachai, Jakkapong Pansit	2018	DHT11	NodeMCU ESP8266	➢ Authors have designed and implanted IoT based crop monitoring system ➢ Temperature and Humidity value will be store to the cloud based platform. ➢ Open weather API has been used for the weather predictions
Rice Crop Monitoring System - A IoT Based Machine Vision	Tanmayee.P	2017	Webcam	Raspberry Pi	➢ The developed system is capable in monitoring and detecting the affective area.

Approach[16]					➢ It has the capability to moving in forward and backward directions. ➢ The webcamCapture the images and after processing these images, if affected area found then the system can spray the pesticide.
A Novel Framework for Smart Crop Monitoring Using Internet of Things (IOT)[17]	Kamal Kumar Ghanshala, Rahul Chauhan, R.C Joshi	2018	Metos NPK Sensor, Moisture Sensor, Humidity & temperature sensor, Soil pH	Arduino Mega2560	➢ Framework has been proposed in this paper to monitor the crops in agricultural fields. ➢ NPK values are measured so the farmer can have the knowledge regarding the fertilization requirement of the fields ➢ Soil Moisture Sensor and temperature sensor will provide the value of humidity and Temperature. ➢ Zigbee Protocol has been used with Arduino Mega for the communication purposes.
Design of IoT Blockchain Based Smart Agriculture for Enlightening Safety and Security[18]	M. Shyamala Devi, R. Suguna, Aparna Shashikant Joshi, Rupali Amit Bagate	2019	------	**------**	➢ Proposed system has been implemented by the authors using Ethereum Private Blockchain network ➢ IoT device were simulated using the LivCoAP.
IoT and Analytics for Agriculture[19]	Prasant Kumar Pattnaik Raghvendra Kumar Souvik Pal	2020	Soil moisture sensor	ESP8266, Arduino Uno	➢ Solar Power based automatic drip irrigation system has been implemented.

	S. N. Panda				➢ Water flow from the overhead tank is controlled using the solenoid valve.
AgriSys: A Smart and Ubiquitous Controlled- Environment Agriculture System[20]	Aalaa Abdullah, Shahad Al Enazi and Issam Damaj	2016	Temperature, Humidity, pH, Soil Moisture, Light Sensor	Fuzzy Controller MIMO	➢ Authors introduced a system namely Agrisys based on Fuzzy Controller. ➢ Experimental results provide Increased productivity, Enhanced safety, Easier agriculture procedures, Instant interventions around the clock, Advanced lifestyle
Smart Farming – IoT in Agriculture[21]	Rahul Dagar, Subhranil Som, Sunil Kumar Khatri	2018	Water Volume Sensor, Motion Detector Sensor, Soil pH sensor, Soil Moisture Sensor, Air Temperature Sensor	Node MCU ESP8266	➢ Agricultural process can be made more efficient and accuracy can be increased. ➢ Various sensors have been used to monitoring the agricultural fields.
Smart Drip Irrigation System for sustainable Agriculture[22]	Kavianand G,Nivas V M,Kiruthika R,Lalitha S	2016	TemperatureLM35, humiditySY-HS-220, moisture, soil pH and soil nitrogen sensor	ARM9 processor AT91SAM9G45	➢ Fully automatic drip irrigation system has been introduced. ➢ ARM Processor has been used to fetch the real time controlling.
Implementation of an Automated Irrigation System for Agriculture Monitoring using IoT Communication[23]	Deep Rani, Nagesh Kumar, Brij Bhushan	2019	Soil Moisture Sensor, pH Sensor, water flow sensor	Arduino Uno and ESP8266	➢ A system is designed for the management of water supply to the paddy crops. ➢ ESP8266 provides the data to the server for further future proposes

3. PROPOSED SYSTEM

This paper proposes the system for the green house and open fields. The proposed system is based on the development of device by embedding various sensors, which can detect the various parameters like temperature, humidity, and moisture content of the soil to control the irrigation of the green-house and open-fields for agriculture.

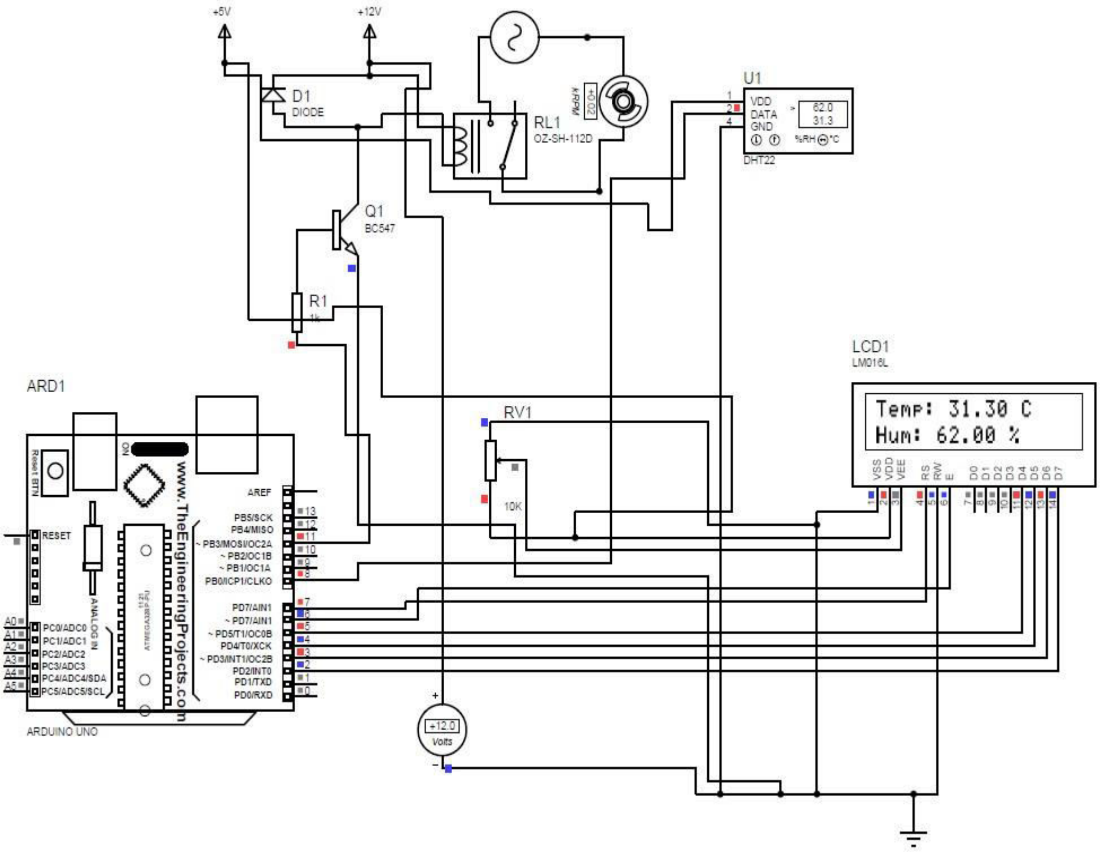


Figure 1. Circuit diagram of proposed system.

Hardware Description:

- Arduino Uno Rev3
- Node MCU ESP8266
- Solenoid Valve
- Relay Module
- Soil Moisture Sensor
- DHT22 (Digital Temperature and Humidity Sensor)
- 16X2 LCD

Software Description

- Arduino IDE

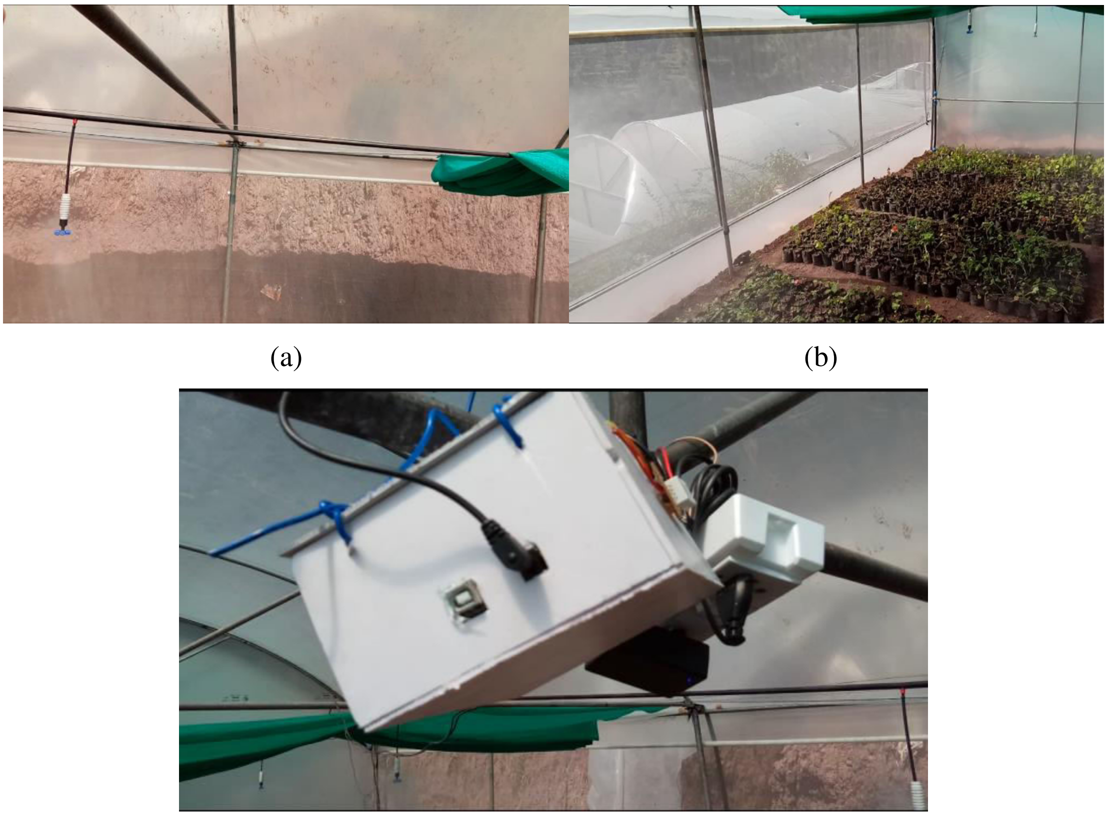
Cloud Based Platform

- NETPIE

Working and Experimental Analysis

In the proposed system NodeMCU ESP8266 is used for the transmission of the data to the NETPIE where we can analyze the data for future purpose. After embedding the sensor to the system we have implemented it in a green-house where experimental results showed us that the system was perfectly controlling the irrigation, and we were able to control the supply of water for irrigation using a solenoid valve. If talk about the working of the circuit, DHT22 (Digital Temperature and Humidity Sensor) continuously monitors the parameter of humidity and temperature and at a specific value of the parameters it starts and stops the supply of water automatically, similarly to counter any false reading we have introduce the soil moisture sensor to this circuitry which will continuously monitor the moisture content of the soil. On the basis of the experimental setup in the green house we can say that our system provides:

- Easier agriculture procedures
- Fast response system
- Low-cost
- Reliable



(a) (b)

(c)

Figure 2. (a, b, c): Implemented project inside green house

Figure2. a, b, c represents the execution of the proposed system in greenhouse. Although during the implantation of this system we realized that we could switch to solar power for the working of the whole system. However, we also come to know that we need an open water tank to maintain the pressure of water in the sprinklers. As we had faced a problem to maintain the pressure in sprinklers with overhead water tanks due to the role of atmospheric pressure being not applied to the overhead water tanks as they are closed. Readings taken from the proposed system are shown below in table 2. We have checked the readings of the temperature and humidity every hour throughout a day from 6 AM to 7 PM.

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Table 2. Real Time Monitoring of the greenhouse

Temperature (°C)	Humidity (RH%)	Time	Status of Fogging System
19 °C	65%	6 AM	OFF
19°C	65%	7 AM	OFF
19°C	68%	8 AM	OFF
20°C	68%	9 AM	OFF
24°C	71%	10 AM	OFF
26°C	75%	11 AM	OFF
30°C	78%	12 PM	OFF
33°C	80%	1 PM	OFF
35°C	85%	2 PM	ON
38°C	83%	3 PM	OFF
36°C	84%	4 PM	OFF
35°C	85%	5 PM	ON
34°C	84%	6 PM	OFF
32°C	84%	7 PM	OFF

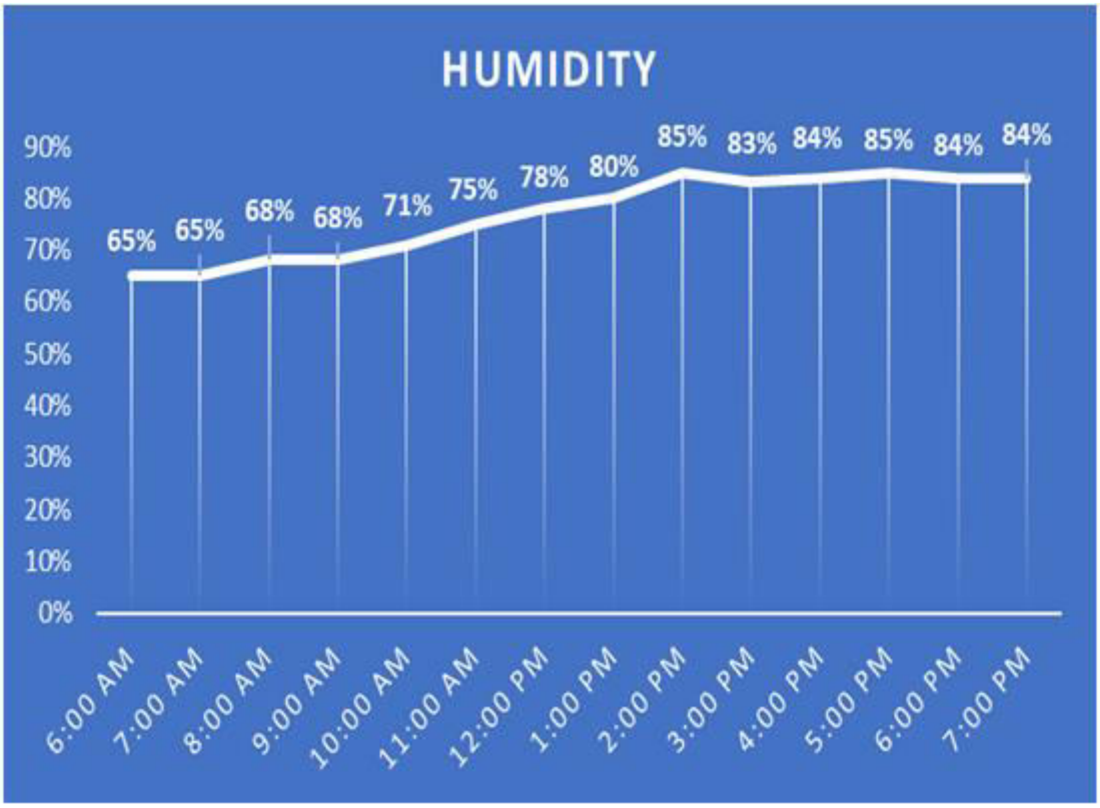

Figure 3: Humidity level measured inside green house.

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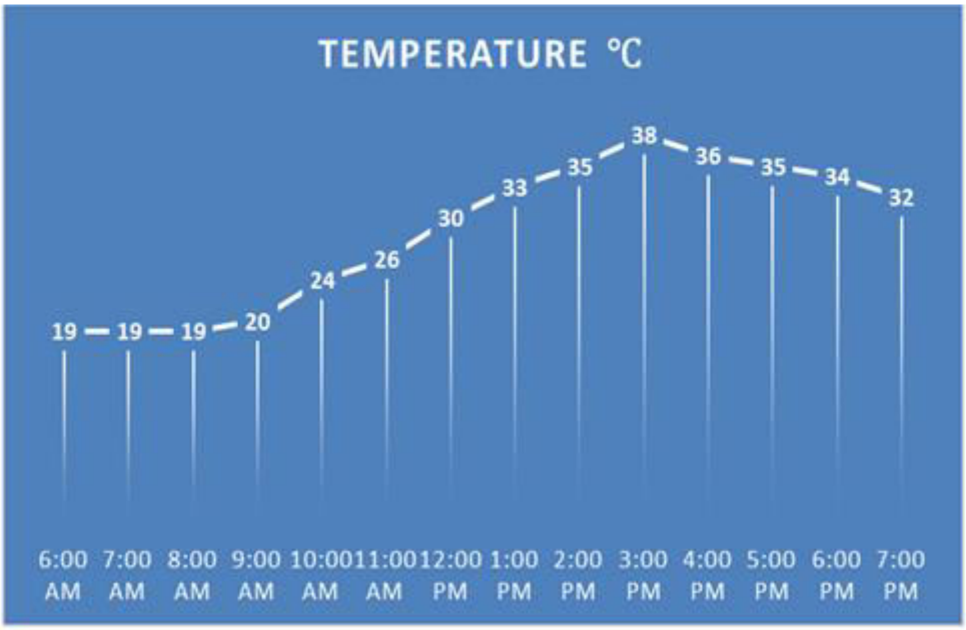

Figure 4: Temperature measured inside greenhouse

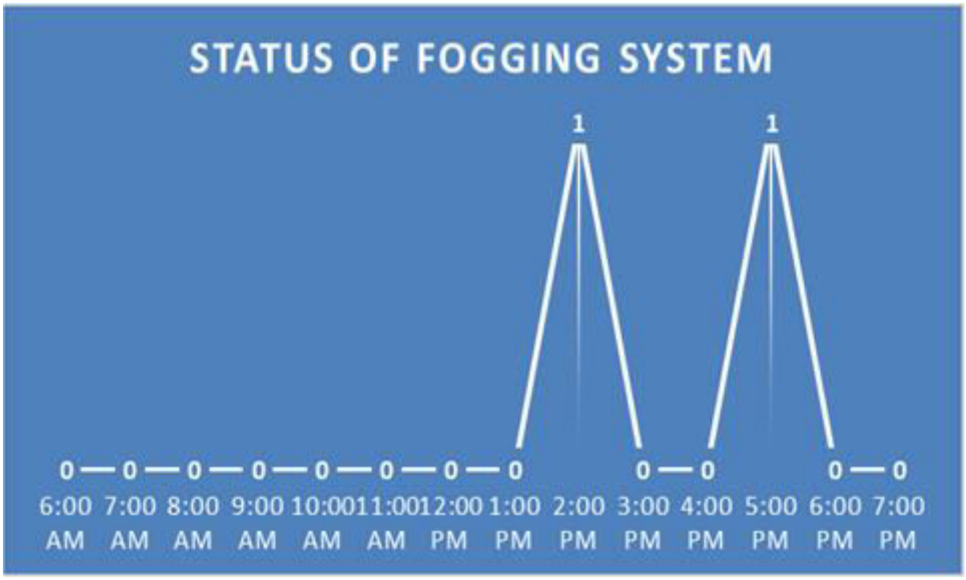

Figure 5: Status of the fogging System inside greenhouse

4. CONCLUSIONS

This paper has presented the design and Implementation of the IoT Based automatic irrigation system. In the proposed system various sensors like DHT22 and Soil Moisture Sensor have been used to sense the specific parameters. For the storage of data IoT Cloud based platform using NETPIE is used for future purposes. Real-time data reading was shown on the LCD screen, as the proposed system using soil moisture sensor and Humidity, temperature sensor we are able to reduce the wastage of water, which always takes place during the traditional methods of irrigation. So, we can say that we have designed and implemented a system for the farmers, which is low-cost device and requires almost zero knowledge of the electronics to use it.

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ISSUES AND CHALLENGES OF WOMEN EMPOWERMENT IN KASHMIR: A STUDY

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ABSTRACT
Women empowerment has been an issue of immense discussions and contemplation over the last few decades worldwide. Today the empowerment of women has become one of the most important concerns but practically women empowerment is still an illusion of reality. Women are the most vulnerable section owing to violence caused by armed conflict and militancy in Kashmir. They are facing many issues and challenges related to education, domestic violence, employment and economy. For human evolution and existence of humanity we need both men and women but still we have witnessed inhumane, unethical and immoral practices against women in Kashmir. It is the fact that women in Kashmir have been denied equal opportunities, equal status and equal position at mostly all sectors of our society especially in Kashmir.In this context, the present study has been prepared in order to know the various issues and challenges faced by women in Kashmir.Based on primary and secondary sources of data and other relevant sources wherever necessary the paper attempts to identify the status of Kashmiri women in the present day changing society related to health, domestic violence & job opportunities and to examine the significance of various policy measures which are being undertaken by the government for the upliftement of women.The author found that there has been a significant impact on these variables.

Keywords: Women, issues & challenges, empowerment, Kashmir

1. INTRODUCTION
History has ineffectively witnessed women's suffering in the formof discrimination, subjugation, exploitation, degradation, aggression and humiliation. In Kashmirwomen are regarded as the inferior. The society of Kashmir is multicultural in nature. Its socio – economic setup have also defined and shaped by varying indigenous and exogenous forces and factors such as political instability, conflict and unrest. Violence aganist women are a result of gender relations that assumes men to be superior to women. Given the subordinate status to women much of gender violence is considered normal and enjoys social sanction. Violence includes physical aggression, sexual abuse, burns, emotional and economic threats and control over speech and actions. Women have been confined within four walls and have limited exposure to modern communication tools, low level of education with limited freedom. Gender discrimination is on rise due to prevailing social, economic and political turmoil's. Women in Kashmir also face a lot of issues and challenges i.e.; domestic violence, unorganised health sector, lack of decision making authority, illiteracy and ignorance and also many cultural practices and customs hinder the women empowerment. Rising inequality can lead to social instability, undermining long term human development progress. The high male sex ratio at birth reflects women's status in society, entrenched patriarchal mores and prejudices, which are an aspect of deep rooted socio cultural beliefs. The key driver however is the combination of patriarchal mores and greatereconomic value of boys in the presence of a dowry system. In contemporary times women are suffering from the issues of domestic violence, sexual harassment, child marriage, female feticide/ infanticide, illiteracy etc. The women's world is limited within domestic sphere also in which for her every activity. She has to follow the patriarchal decisions. She is socialized in such a way that she could perform expected roles in proper manner. Consequently she has been put away from receiving education which restrict her

to avail employment opportunity to be aware of her rights and duties and to participate in decision making and political affairs of the society in Kashmir. The condition of women is further wretched by the conflict situation. The conflicting situation of Kashmir has snatched women's rights and hit their hardships. A large number of women became widow and half-widows. Though for women empowerment in Kashmir requires strong and sustained commitment by governments and other stakeholders.

2. REVIEW OF LITERATURE

Bader, C (2013) the author stated under this research that women were not safe during the 18th century and that they had to face all sorts of social atrocities and the biggest one was prostitution. Not only women above the age of 18 years but girls who were as young as 10 years of age, were traded by the kashmiri men just because they were getting lucrative sum of money for selling women to the visitors as well as to the men of other states mainly Lahore, Calcutta, Bombay Delhi and Peshawar. Further Punjab, Lahore and Ludhiana were considered as the states where rein most prostitutes from Kashmir were sold. **Gopalan S (2001)** In their research mentioned that remarriage of a widow was banned in Jammu and Kashmir because any women who was widowed was considered as unfortunate for the family of her husband and so it was believed that remarrying her will ultimately lead to the death of her new husband too. All the women of Kashmir were made to pay the cost of superstition in which the people of Kashmir lived for years till they were made aware of the fact that remarrying a widow was not wrong and that women too deserved to live their life freely without any limitations on them. **Bhagat P (2002)** the study reveals that the Kashmir government earned a lot from the taxes that were paid by the registered prostitutes of the state but still the government was never bothered to spend for the empowerment of women. No emphasis was ever laid on the education or development of these women and rather they treated as machines which generated cash for the state irrespective the vegetative state that all the women in the state were living in.

3. RESEARCH METHODOLOGY

3.1. Universe of the study

The universe of the present study constitutes rural and urban areas of Srinagar district of Kashmir valley. As per the census, 2011 of Jammu and Kashmir the total population of Srinagar district is 1,180,570; of which male and female are 618,790 and 561,780 respectively. The literacy rate of women in Srinagar district is 61.81 percent and male literacy rate is 75.87. And the general sex ratio is 895.

3.2. Sampling plan and design of the study

The sampling plan of the present study is based on a sample of 150 respondent selected through stratified random sampling method from rural and urban areas of Srinagar district of Kashmir. Descriptive research design was used to get information from the respondents within the study area and the information was collected through interview schedule.The respondents are stratified on the basis of residence.

3.3. Hypotheses of the study

The hypotheses of the study are as under:

Women empowerment is a very serious issue in the present day changing society. From the past several decades, Kashmir has witnessed that women are suffering from various issues challenges due to domestic violence, unemployment and domestic violence. They are being discriminated in every sphere of life, their social and educational conditions are very miserabledue to the lack of awareness patriarchal nature of society and conservative approach of the people towards women empowerment. This kind of attitude of the people has hindered the process of women empowerment in Kashmir which has increased the vulnerable position and women are lacking behind in the process women empowerment.

3.4. Objectives of the study

1. Toanalyse the status of Kashmiri women in the present day changing societyand to identify the various issues and challenges related to health, domestic violence, economy job opportunities in the study area;

2. Toexamine the significance of various policy measures which are being undertaken by the government for the upliftement of women in the study area;

4. RESULTS AND DISCUSSIONS

The findings of the study are as follow:

4.1. High level of domestic abuse due to their vulnerable position

Domestic abuse is a major concern of the present society. Women are suffering from domestic abuse and these have been seen in past few years. In this context the respondents were asked to express their opinion which is shown in the below table:

Table 1: Domestic abuse & vulnerable position of women

S.No	Theme	Response	Number	percentage
High level of domestic abuse due to their vulnerable position		Yes	98	65.33
		No	52	34.66
Total			**150**	**100.00**

Source: Based on field study carried out in Srinagar, in the year 2020

The above table depicts that out of 150 respondents, 98 respondents (65.33 percent) are of the view that women in Kashmir are definitely subject to high level of domestic abuse specifically with rise in domestic violence cases that are extremely nerve wracking and also reveals the evil side of the society and the remaining 52 respondents (34.66 percent) are of the opinion that kashmiri women are extremely powerful and strong because of which today even after suffering from domestic violence they have the option of going to the court and claiming their rights. The study further reveals that the majority of the respondents show that women are definitely in a vulnerable position and this is the reason because of them being subjected to high amount of domestic violence that shall be eliminated by taking specific legal measures that could help and empower the status of Kashmiri women in the present contemporary era.

4.2. Kashmir conflict substantially impacted the position of women in present scenario

Kashmir conflict becomes an ongoing problem. It causes stress, depression, anxiety and resentment among all especially women. In this context the data is collected from the respondents shown in the below table:

Table 2: Kashmir conflict & the position of women in the present

S.No	Theme	Response	Number	Percentage
Kashmir conflict substantially impacted the position of women in present scenario		Yes	150	100
		No	0	0.00
Total			**150**	**100.00**

Source: Based on field study carried out in Srinagar, in the year 2020

The above table indicates that 150 respondents, (100 percent) of the respondents are of the view that the position of women has deteriorated substantially after the initiation of insurgency and conflict within the Kashmir. The study shows that all the women have definitely suffered a lot because of the state insurgency and conflict. The reason for such is that due to excessive and daily conflict women are unable to come out of their homes, thus hampering their ability to go out and work for their family.

4.3. Government policies implemented effectively for upliftement of women

There are number of government policies for the upliftement of women but these policies are not implemented effectively. In this context the respondents were asked to express their views which are shown in the below table:

Table 3: government policies for upliftement of women

S.No	Theme	Response	Number	Percentage
Government Policies implemented effectively for upliftement of women		Yes	60	40.00
		No	90	60.00
Total			**150**	**100.00**

Source: *Based on field study carried out in Srinagar, in the year 2020*

The above table shows that 60 respondents (40 percent) are of the view that many policies and measures are effectively implemented for the upliftement of women and 90 respondents (60 percent) are saying that the steps taken by the government are not implemented effectively. Thus the study indicates that most of the respondents are of the view that many policies and programmes for the upliftement of women are taken from time to time by the government but no such results of these policies has come out yet and despite these policies there is no improvement in the condition of the women. No doubt many policies and schemes benefited to some extend but still they are victims of many social evils like dowry, illiteracy, rape and molestation.

4.4. Government efforts to create better employment opportunities for women

Unemployment is a social issue of serious concern at the present both in Kashmir and national level. Work opportunities have not kept pace with the increasing population. Unemployment rate is high and the problem of unemployment is more prevalent among women in Kashmir. In this context the respondents were asked to express their opinion which is shown in below table:

Table 4: Employment opportunities and women

S.No	Theme	Response	Number	Percentage
Government efforts to create better employment opportunities for women		Yes	40	26.66
		No	110	73.33
Total			**150**	**100.00**

Source: Based on field study carried out in Srinagar, in the year 2020

The above table depicts that 40 respondents (26.66 percent) are of the view that the government is taking effort to create employment opportunities for women and 110 respondents (73.33 percent) are of the view that the government is not really taking any significant efforts for generating employment opportunities for kashmiri women. Thus the study shows that there is no employment opportunity for women and they believed that the opportunities which are available are not enough to provide them equal opportunity as opposed to men.

5. SUMMING UP

Thus the women in Kashmir are treated as inferior. She spends most of the time in domestic chores. They are confined into four walls of the houses. They are facing so many issues and challenges like sexual harassment, dowry system, economic and emotional threats, illiteracy, ignorance, domestic violence, molestation etc. the women condition further wretched by the conflict situation. This situation in Kashmir snatched all the rights and freedom of women and number of women becomes widow and half widow. The policies and schemes of the government try to address the issues and challenges of women to some extend but all these are not sufficient for women empowerment. There is need of the time that the government should take some concrete steps and remove all the barriers which comes into the way of women empowerment.

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OUTLINE OF THE RAJBANSHIS CULTURE OF WEST DINAJPUR: A BRIEF ANALYSIS

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ABSTRACT
'Culture' means the life of creation. The inner idealism which manifested by the creation of a man is called 'culture'. People's livelihood, their eating habits, movements, mourning, joy, pain, education, language, dress, behavior, story-telling, daily work etc. are called together 'culture'. The culture of all humnan beings are not be the same, yet the citizens of the same country. There are different types of cultures in different geographical locations, different ethnic and religious groups of people. Although cultures flourish on languages yet, there noticed different cultures among the same language speaking communities due to the contrast on belief and attitude among them. Therefore, despite being the same caste or community, there is a distinction between the culture among them. That is why culture is not the same between the Bengali-language speaking Bengalee communities and Bengali-speaking Rajbanshi community. There may also be differences between Bengali-language speaking Rajbanshi people and Hindi-speaking Rajbanshi people. There are both similarities and differences between the culture of the Rajbanshis of different districts. It is true that the life of the people, the social and cultural characteristics of the people is different according to their geographical location, environment and surroundings. Therefore, the characteristics of the culture of the Rajbanshis is not the same of every districts of North Bengal. 'The outline of the Rajbanshis culture of West Dinajpur district' is formed by the ingredients of geographical location of West Dinajpur, surroundings of the district, life-style of the Rajbanshis, status of education, socio-economic condition, languages, rituals, customs etc.

Keywords: Rajbanshi, Indigenous People,Society, Culture, Formation,Transformation etc.

INTRODUCTION
Nobody is born as a caste on earth. After birth of a child, his identity sets up the existing social system. So a person's identity becomes changed in terms of time. As a result, a persons conduct and behavior may be differ among the ancestors and descendants, even the overall socio-cultural systems became fragile and took new identity of the human society. The identity of a strong group of people takes too much time to disappear, but relatively the less dominant group of people does not take much time to disappear. In terms of time or obligation, the identity of a person may be change. Many times the old identity disappears and they get new acquaintance in the society. In different historical periods, many tribal people abandoned their profession and took agriculture as a profession and later occurred evolution towards their caste and culture. So no caste on earth is a pure caste today. Every caste has become a mixed caste today.

In the discussion, the caste identity of the Rajbanshi might have been different and they has been named as "Rajbanshi" through the time of evolution. However, today the Rajbanshis are bear the identity of an established ethnic group of North Bengal. Rajbanshi refers to the descendants of the Kshatriya king and they are known as 'Rajbanshi Kshatriya'. Once they were the descendant of the Kshatriya ruler, so they are known as the 'Kshatriyas'. The Kshatriya kings were dominated in the early-medieval period. So their descendants and followers are known as 'Kshatriya Rajbanshi'.

Rajbanshi refers to the descendent of the King. Those who belong to the king are called 'Rajbanshi'. The Rajbanshis are the descandents of which king, it is clearly not mentioned anywhere. In ancient times, various dynasties ruled in India and their followers were called themselves as descendants of that king. However,the real descandent of the king is hidden among the primitive caste and communities. Because there was no separate identity of every ethnic group during that time, identity of the other members of any community was revealed by the identity of their leader of the concerning tribe. Therefore, the people of every backward community were known to be the clerical leaders or the loyal subjects of the king. But when the king's fall, the common people were afraid of losing their identity. So they tried to find their existence by identifying the corresponding king. In this way, the Rajbanshi caste has emerged as a special follower of the king. Once the region of Dinajpur was known as Pundravardhana. So the people of this region were known as 'Pundra' or 'Pod'. And those who were associated with the Royal administration, they came to be known as Kshatriya or 'Paundra Kshatriya'. It is known from the sources that in the contemporary period of ancient Indus Civilization, a strong state was created in eastern India called '*Pundradesh*' or the land of 'Pundra',whose capital was named Mahasthangarh. The place is currently located in Bangladesh. An advanced civilization was developed centred by the capital named Mahasthangarh in the land of Pundra which spread throughout Pundra-Radha-Banga. The main center of this great civilization of Pundradesh was Kotivarsha. It was an ancient city and administrative center located in the middle of West Dinajpur.

Once the people of different blood group were lived in this region like, Australians, Mongolians, Alpine, Adi Ardic, Austric etc. In the era of the Mahabharata, there ruled a powerful king named Basudeva Pundra in this region. All the people of this land once used to bear the identity of the Kshatriya king.So the people of Pundradesh were called '*Pundra*'. The king of Poundra was himself belonged to Kshatriya, so he called the king of 'Poundra Kshatriya' and the people of that country were called '*Pandra Kshatriya'*. Among the Pundra Kshatriyas, there lived people belonging to different ethnic groups like *Andhra, Pundra, Sarbar, Pulind, Mutib, Ashura* etc. in the subsequent period, people of different ethnicities received different titles based on occupation and work. But the backward class of people who were majority of the society were not able to attain self-reliance in the society based on their own work or profession. They have been living in this region for a long time bearing the identity of the king.

Most of the ethnic group of people of that region, were belonged to Pundra, Kshatriya, Poundra Kshatriya etc. In the Maurya era, many people of Pundra's country were convinced in Ajibik, Sahajiya, Jaina, Buddhism and collected their own designations through the nature of their occupations. '*Pundradesh*' became 'Pundravardhana Bhukti' in Gupta era and most of the people of that region were converted into Vedic Brahminic religions and were employed in different occupations. Later, in the Pala period, the Pala kings were Buddhist, so some portion of the people were transformed into Buddhism. Some parts of Pundravardhana are included in the Varendra region during the Pala period. The people of this region were engaged in different occupations and activities in the Pala period and got separate identity. During the Sena age, the influence of Vedic Brahminic religion increased in this region. As a result, the people of these regions have an impact on religious and social life. But after the arrival of Islam in 1204, people have been suffering in the lives of local residents. Most local residents were converted to Islam due to fear the sword or influenced by the idealism of the Islam. Although they did not behave in Islam, their next descendants became converted to Islam. And those who could keep playing Kshatriya religion, one part of them is now living as the identity of other ethnic groups as the upper class of society. The rest of the people live in the name of 'Rajbanshi Kshatriya' or

'Rajbanshi' with the name of the greater Rajbanshi community. They are the people of the Rajbonshi community recognized by the constitution today.

In the first half of the sixteenth century, the rise of the Koch-Dynasty in the centered by Kuch Bihar, led to the formation of a community as a follower of the king. In fact, the dynasty established by the King of Koch Bihar is known as 'Koch-dynasty'. The followers of the Koch-kingdoms were borne as the descendants of the Koch-King. As a result, the followers of the Koch-Kings were also revealed by self-expression as 'Rajbanshi'. But along with the Koch-dynasty, the existence of the 'Rajbanshi Kshatriya' caste was also present. Of course, the number of Kshatriya Rajbanshis was low. It is seen, in this way, people of different ethnic groups have become the followers of the king. Actually, instead of bowing down to Islam's strict repression in Bengal, most of backward people became a follower of the Koch-King. In this way, Kshatriyas were also got mixed with the followers of the Koch-dynasty. As a result, the Koches and the Rajbanshis became involved in the same society and culture. So, the British officials have identified of both of the 'Koch' and 'Rajbanshi' as the same ethnic group of people in different census repots.

Western part of greater Dinajpur,i.e.the land of West Dinajpur was under the administration of Islam rule for a long time, so there was no power and influence of the Rajbanshi people. The number of Rajbanshi families are reduced from the land of Dinajpur due to conversion into Islam. Therefore, the Rajbanshis of this region lived for a long time with their own society and culture as a minority community. It is worth noting that the Rajbanshi and Muslim villages were located nearby, but they did not have any communal disputes. Rather, social relationships were developed between them. Thus, some of the religious rituals of Islam have entered into the Rajbanshi society. Rajbanshis were minor, so it was possible. After the forty decade of the 20th century or since the beginning of India's independence, occurred penetration of the Rajbanshis to West Dinajpur. After 1947, the political and religious crisis was created in East Pakistan for various reasons during the years of 1952, 1962, 1971. As a result, the Rajbanshi people were entered to India from different districts like Dinajpur, Thakuragao, Panchagarh, Rangpur, Bogra, Naogaon, Gaibandha, Joypurhat, Nawabganj of East Pakistan. After entering India, they took shelter in various police stations of border areas of West Dinajpur. The density of population in this region of greater Dinajpur was not so much at that time. Though there was a large number of Muslim families, some of the prosperous families of Rajbanshis lived in this region. With the help of them, the Rajbanshi refugee families from the East Pakistan were took easy accommodation in West Dinajpur. Although many families of the refugee Rajbanshi took shelter in the government camp, some refugee Rajbanshi families were able to build houses on government vest lands by the help and sympathy of the local Rajbanshi Jotedar families.However, some Rajbanshi families were bought land in different areas of West Dinajpur with their own money. Ofcourse, only those who had relatives in West Dinajpur areas were successful.Later, they built houses in that field. In fact, the relatives of Rajbanshis were spread across different regions of undivided Dinajpur and in 1947, when their partition was done, their own relatives were divided in the same way. As a result, with the help of the Rajbanshis living in the Indian state of West Bengal, the Rajbanshis of East Pakistan were able to buy land in different parts of the state. It was also for the families of the non-Rajbanshi people.

Bangladesh was independent in 1971 but the refugees who came to India before 1971, they did not return to Bangladesh. They lived in different villages and tows in West Dinajpur district. Subsequently, they made Indian citizenship by submitting the receipt of land revenue or by the help of various political parties.Thus, in the period from 1947 to 1992, the number of Rajbanshis increased due to enter the Rajbanshis from the East Bengal to West Dinajpur district.

So, after the subsequent census reports of 1941, it was found that the number of Rajbanshis of West Dinajpur district increased significantly. Thus, the number of Rajbanshis increased in the census report of 1971, 1991 and 1991. In the initial stage, there is a social and cultural conflict among the Rajbanshi families who had come from East Pakistan with the local Rajganshis, gradually they are mixed in the process of mutual coexistence and association with each other. The relations of both the Rajbanshis of two neighbouring countries have developed due to living in te same land and same environment for long time.The greater Rajbanshi society was developed in West Dinajpur district by organizing social programs, commuting, eating, and marriage. Rajbanshis are generally conservative in their social and cultural practices, customs, worship, popular culture etc. So it took a long time for easy interaction and coordination between the Rajbanshis of the two countries. However, among the Rajbanshis of West Dinajpur district, some non-Rajbanshi people have entered in different ways. The number of Rajbanshis has increased by establishing marital relations, getting the constitutional benefits, raising their social status, due to lack of census reports etc. Thus Rajbanshi society of the West Dinajpur district was formed with the Rajbanshis of the two countries today.

FORMATION OF THE RAJBANSHI CULTURE

The ancestors of the Rajbanshis lived in group-wise. If the number of families with general interest is more or less the share of each other, then the sum of families is called a group. But the term of the group can not last long. So at the same time, the same purpose, interests, thoughts and equal groups together form a separate society. The Rajbanshis have been formed in their own society beyond the greater society, by living the same geographical environment, same place for long and following the same language, the use of food, dress and customs, social customs, public beliefs and ideas of people etc. Various customs and rituals were introduced to the Rajbanshi society in different ways. These customs and rituals have long been well cared for and celebrated by them. By the way, those customs and rituals have become their own customs. Once these customs and rituals were not confined to the Rajbanshi society, it was spread out in the larger society. Other communities of greater society have become suitable for the era by adopting modern education. But for the conservative mindset, the Rajbanshis could not leave the old customs and rituals of the society. In the process, the social customs and rituals abandoned by the larger society have become the customs of Rajbanshi society.

It is true that, the characteristics of life, society and culture is varied according to geographical location. Therefore, the characteristics of the society, culture and living conditions of the Rajbanshis of all districts of North Bengal are not the same. A mixed culture has been created among the Rajbanshis of West Dinajpur district. In the mixed culture, there is seen to be touched of the Rajbanshi culture, Bengalee culture as well as Islamic culture. The word of 'culture' was first imported into English literature at the end of the sixteenth century by Francis Bacon. In the middle of the twentieth century, the use of the term 'culture' in the writings of English scholars in broad and deep sense by Robert Era Park and Tailor etc. The meaning of 'culture' means that any society or nation has a standard use rule in a matter, it is called the culture of the respective community of people in the form of a fairly universal character, behavior or attachment. In essence, culture is an individual personality, or culture of community and the community is culture. So in the life of the Rajbanshis of West Dinajpur district, there developed own culture by the ingredients of different communities cultures.

In every society, there are some disciplines that govern man's behavior, and a person follows the social customs in his conduct. These customs, which are common and established in the society and conduct the behavior of the dwellers of the society, are called Social Custom. According to E.S.Rogardus "Customs and traditions are group accepted techniques of control that have become well established that are taken from generation to generation." As the medium of social control, the influence of customs is observed in all societies of the world. Tradition is permissible by the society and the various rituals of acceptable conduct to the public. In the Rajbanshi society, they have to follow their customs and social customs in the society simultaneously.

People live in the environment of nature and have created some special methods of conduct for life and livelihood. Special behavioral methods have emerged in different areas of the life of the people which involved in society. Consumption of food items, preservation, preparation and adoption, marriage and sex life, dress-wear etc. All these methods of conducting behavior in different areas of society are followed in the society. These rituals are known as 'folklore' or popular usage. The folklore is not prescriptive but has existed in society for a long time and they got access to scripture by supporting a part of the priests.

The geographical location of West Dinajpur district is different from other districts of North Bengal, which is east of the long border of Bangladesh, Bihar on the west, Darjeeling district on the north and Malda district in the south. At the same time, the social, cultural and living conditions of residents of Bangladesh, Bihar, Darjeeling and Malda districts affect the residents of West Dinajpur. Rajnanshi is not majority in West Dinajpur, but their effect of work is not easy to influence on other communities. But in other districts of North Bengal, especially in the districts of Jalpaiguri and CoochBihar, their influence falls on other communities due to the majority people of the Rajbanshi community. Rajbanshis of West Dinajpur was deprived from other districts of North Bengal and completely outside the influence of Calcutta. As a result, the society and culture of the Rajbanshis of West Dinajpur have met together by the culture of local Rajbanshi people, the Rajbanshis of different districts of Bangladesh, culture of refugees, culture of Malda and Bihar residents. Besides, there has been the influence of Islamic culture among the local residents due to the continuation of Muslim rule in West Dinajpur region for a long time. Until the Partition of 1947, two types of cultures had high prominence in the adjoining West Dinajpur region. One Muslim culture and other is Rajbanshi-Polya culture. There was a similarity with the Rajbanshi-Polyaya culture of West Dinajpur to the culture of Rajbanshis in other other districts of North Bengal at that time. But since the independence, the cultural elements of this region have changed a little bit. Although the material of Muslim culture is one, but there imported different cultural ingredients into the culture of Hindu and Rajbanshi society.

So the information about the Rajbanshis is not available in various books to build the outline of the Rajbanshi culture of West Dinajpur. Most of the information is absent from Rajbanshi culture of West Dinajpur. Among the Rajbanshi cultures of West Dinajpur, there are 60 percent of the cultural elements are present from the Rajbanshis of North Bengal. Out of the remaining 40 percent of the cultural component, 20 percent cultural materials of the Rajbanshis of the eastern Bengal, 10 percent Vedic Hindu culture and 10 percent Islamic cultural elements have been entered into the culture of the Rajbanshis of West Dinajpur. As a result, the culture of the Rajbanshis of West Dinajpur, is not pure Rajbanshi culture. The culture of the Rajbanshi society of West Dinajpur has become a 'mixed culture'. Rajbanshis are usually simple and liberal in nature, so they can easily adapt any other culture of different communities. So the social relations between the Rajbanshis are very strong. In most Rajbanshi families, there is a virtuous priest who is called '*Guru Thakur'* or '*Guru*'. Once there were accustomed the '*Tradition of Jajamani'* among the Rajbanshis of the West Dinajpur. Rajbanshis of West Dinajpur were adopted discipleship with initiation of 'mantras' or 'chant' from '*Jajman*' or Priest. Naturally, according to the instructions of the 'Yajaman' or Priest, all family rituals and customs were run in the Rajbanshi familis. The virtuous priests or '*Jajmanas*' are usually the Brahmin clan. As a result, Brahmin culture and behavior were introduced in the Rajbanshi families through the

Brahmin Priest. So, the ingredients of upper Hindu cultures are seen in the Rajbanshi culture of West Dinajpur.

Since 1947, Rajbanshi people came to West Dinajpur to the people of Hindu communities from East-Pakistan or present Bangladesh. People of the Rajbanshi community who came to West Dinajpur did not come from a particular region or districts. They came from different districts of East Pakistan or Bangladesh. Therefore, there was no similarity to the mutual cultural elements among the people of the Rajbanshi community coming from East Pakistan. Besides, along with the culture of local Rajbanshi-Poliya-Cultural component of West Dinajpur, combined with the cultural elements of the Rajbanshis people of East Pakistan or Bangladesh and formed rich Rajbanshi culture by mixed cultural elements. That is the Rajbanshi culture of West Dinajpur which combined with the culture of Greater Dinajpur, culture of Thakuragao district, culture of Panchagarh district, culture of Rangpur, Culture of Bogra, culture of Naogaon district, culture of Gaibandha region, culture of Joypurhat region, culture of Nawabganj region, culture of Rajshahi district is one of the them. It is not the end here, the cultural elements of the Rajbanshis of West Dinajpur have been combined with the culture of the neighbouring Bihar state and cultural elements of Malda district.

Since 1947, the traditional social customs and rituals of the Rajbanshi family came under coup. The people of the Rajbanshi community took shelter at West Dinajpur with the people of other communities of Hindu society from different districts of East Pakistan, like Thakurgao, Panchagarh, Rangpur, Bogra, Naogaon, Gaibandha, Joypurhat, Nawabganj, Rajshahi etc. due to partition of India in 1947.People of the Rajbanshi community who came from East-Pakistan or Bangladesh, they mainly took shelter in Rajbanshi villages of different blocks of West Dinajpur district. Once only the people of the Rajbanshi community were lived in the Rajbanshi inhabited villege and there did not live any families of other communities. Since 1947, Non-Rajbanshi people have started living in the Rajbanshi inhabited villages of West Dinajpur district. As a result, the customs and rituals of other communities have been infiltrated with the culture and society of the Rajbanshis of West Dinajpur.

INGREDIENTS OF THE RAJBANSHI CULTURE

Prior to 1947, the cultural elements of Rajbanshis were fairly similar in the adjoining areas of West Dinajpur district. But since 1947, cultural elements of the Rajbanshis of East-Pakistan or Bangladesh met together with the local Rajbanshi-Paliya cultural materials. Thus, the traditional culture of the Rajbanshi society of West Dinajpur came together with folk culture of the Rajbangshi families comming from different regions or districts of East-Pakistan or Bangladesh. As a result, the folk culture of West Dinajpur is full of variety of diversity. This cultural theme of West Dinajpur has been combined with the Islamic cultural element, the cultural elements of the lower caste Hindus and the cultural elements of upper-caste Hindus. The cultural elements are exchanged among the inhabitants of different religions and communities due to living together in the same land. As a result, the folk culture of West Dinajpur spread among the different religions communities and it is very difficult to separate them from the each communities. Although, most of the elements of folklore have disappeared among the various communities, it is remained as folkculture among the Rajbanshi community. Because the Rajbanshis have adopted and kept many aspects of their folk culture for decades. In course of time, folk cultural elements have become their own culture.

Thus, some folk dances were entered into the Rajbanshi culture, like *Palatia songs, Chikni dance, Ghamhira song, Behar dance, Hudum dao dance, Mashan dance, Mask dance* etc. Various folk games were involved in the Rajbanshi culture like, *Leaf hiding, Iching Biching, Jumping,* leaf, *Gollachat, Baichi, Hidding* and Dhappa*, Gadol, Ashkash, Marbel, Buraburi*, *Kut-*

kut,ekka-dokka, *Bag-Bakri game, danguli game* etc.The rituals of ritualistic gods are mixed in the Rajbanshi culture. For example, *Lokbatta, Dala Puja, Nabnana, Amait or Ambubachi, Hudum Deo*, *Banger Biyao*, *Gumbhira Puja, Pusuna* or *Paush Parwan, Kashpuja, Gite Pooja, Gochhorpon or Gachibuna* etc. Besides, there includes in the Rajbanshi culture, like folk-riddles, folk tales, folk songs, folk fairs, crafts, tradesmiths, shola art, kantha art, idol industry etc. Among the Rajbanshis, there is a trend of folk dances such as *Gram Devata, Mashan Puja, Worship of Mather, Worship of Folk God* etc. There are some songs that are popular in the society, but they are found only in Rajbanshi society alone. For example, *Kandani Bishahari song*, song of Rice paddy cutting, song of the peasant etc. The use of different musical instruments such as *Do-tara, Khanjani* etc. have been used in the Rajbanshi society for a long time. Besides, the Rajbanshis have their own spoken language or mother language. In addition to speaking in Bangla, Rajbanshis used their mother tongue as Rajbanshi or Kamtapuri language as the medium of communication. Gearson First observed this language, according to him, "When we cross the river (Bhramhaputra) comming from Dacca,we meet a well marked form of speech in Rangpur, and the districts to the north and east. it is called Rajbanshi."

RECENT TRENDS

Rajbanshis are the original inhabitants of greater North Bengal. Rangpur, Dinajpur, Cooch Behar, Jalpaiguri, Rajshahi, Mymensing etc. are the original inhabitants of Rajbanshis. Community. The Rajbanshis living in the West Dinajpur district have coexisted together in greater Dinajpur, Thakuragaon, Panchagarh, Rangpur, Bogra, Naogaon, Gaibandha, Joypurhat, Nawabganj and Rajshahi districts of West Dinajpur. From the time of 1947, the evolution of the original inhabitants of the Rajbanshis took place and spread to abroad. Some families of Rajbanshis spread across Tripura, Assam, Bihar and West Bengal. After the central government's rehabilitation process, some displaced families were given rehabilitation in Orissa and Dandakaranya. In this way the life and livelihood of the Rajbanshis evolved. Once upon a time the Rajbanshis used to depend on the local economic source. So, the Rajbanshis did not have any particular occupation. Over time, the livelihood of the Rajbanshis has changed.

Since the seventy decades of the twentieth century, it has observed the tendency towards the Rajbanshi families to get out of their conservative mindset. For the conservative mindset, the Rajbanshis used to live for a long time continuing their primitive society, culture and way of life. Over time, all the primitive falk culture, the society and the cultural elements are identified as the culture of the Rajbanshi of the society. As a result, easily fall back to other communities of the contemporary. As a result, they were identified as a separate community of people in the larger society. However, they are the indigenous inhabitants of West Dinajpur district. Their overall development should be the first but they gone back to the last row of the society due to lack of modern education. The introduction of modern education among the Rajbanshi society and the changing of social customs and rituals were done in various ways. Thus, till 1947-1992, the traditional customs and rituals of the Rajbanshi society have been changed in different ways these are social customs, rituals, folk foods, cloths, folk technology, faith, cultural activities etc. As a result, some traditions and customs of Rajbanshi society were lost, and some of those were added.

In order to livelier, people collect cultural material from a larger society. In course of time those are turned into their own cultural materials. Various elements of folk culture of different districts of East-Pakistan or Bangladesh have been merged in the Rajbanshi society of West Dinajpur. But in time, all those folk cultures have become virtuous in the Rajbanshi culture. After a long time being implemented as a part of the Rajbanshi society, in course of time those cultural elements have changed. As a result of the entry of the light of modern education among

Rajbanshi society, some elements of the cultural activities have eliminated from the Rajbanshi society. Again, some elements of Rajbanshi culture evolved and some gradually disappeared.

Gradually, the popularity of folk cultures like, *Palatia songs, Chikni dance, Ghamhira song, Behar dance, Hudum dao dance, Mashan dance, Mask dance* etc. were reduced in the Rajbanshi society. This folk dance has been completely closed from many areas of West Dinajpur district. Various people's activities in the Rajbanshi society, such as *Leaf hiding,Iching Biching, Jumping, Gollachat, Baichi, Hidding and Dhappa, Gadol, Ashkash, Marbel, Buraburi, Kut-kut,ekka-dokka*, *Bag-Bakri, Danguli* etc. were disappeared from the Rajbanshi society. Instead of these games, some popular game has introduced like, cricket, Football, Batminton etc. As a result, the compatibility of large-scale sports has been preserved.

Ritualistic rituals mixed in and adorned in the Rajbanshi culture. There is a decrease of some folk festivals like, *Lokbatta, Dala Puja, Nabnana, Amait or Ambubachi, Hudum Deo, Bunger Biyao, Gumbhira Puja, Pusubuna or Paush Parwan, Kashpuja, Gite Pooja, Gochhorpon or Gachibuna* etc. Once in every Rajbanshi family, it is a form of compulsory behavior, but these rituals are not present today.Many Rajbanshi families have no idea about those practices. These rituals seems to like a phantasy story to the new generation.

Apart from this, there is no practice towards some folk cultures among the Rajbanshi society today like, folk tales, folk songs, folk story listening etc. Folk festivals arose from the Rajbanshi society as well as cottage art,crafts,shoal art,idol art etc. At one time, many Rajbanshi families were engaged in crafts, cottage art, shoal art, and folk festivals. Rajbanshi elderly women used to stitch their Kanthas. When did sewing in exchange for his work and money. Those works were seen very often in the Rajbanshi villages.

Once upon a time, some songs were present on the occasion of various activities in Rajbanshi society. For example, Kandani Bishahari song, song of Rice paddy cutting, song of the peasant etc. In that village, the land is all but there is no longer a farmer or song. The use of different musical instruments during private or home occasion such as Dotara, Khanjani etc. were used in Rajbanshi society for a long time. When any program started at home, all those people would be doing domestic shows with musical instruments. Especially in the month of Bhadra(Bengali month), these songs were held in the program. But there is no practice pf those falk song in the Rajbanshi families today.

CONCLUSION

As a result of continuing to live in the same land and to follow the same social customs, rituals, beliefs, food clothes, language and culture, a separate society and culture have developed among the Rajbanshis. That is the Rajbanshi society and culture. This society and culture of the Rajbanshis possess a slightly different trait from the larger human society. Since the formation of West Dinajpur district in 1947, the society and culture of Rajbanshis of greater Dinajpur were divided. A stream of Rajbanshi culture was known as the Rajbanshi culture of Bangladesh and another stream of Rajbanshi culture was developed in the name of Rajbangshi culture of West Bengal. From the time of India's independence, elements of different cultures came into being in Rajbanshi culture and grew up in a mixed culture, which is different from the Rajbanshi culture of pre-independent India. In the culture of the Rajbanshis of West Dinajpur, the elements of the Hindu culture is seen as a variant of the Rajbanshi culture, and there are also some features of Islamic culture. However, the culture of the Rajbanshis of West Dinajpur district is composed by the Rajbanshi and Non-Rajbanshi cultural elements like, languages, food, clothing, rituals, customs, customs etc. But gradually the evolution of the culture of the Rajbanshis continued due to modern education. During the period from 1947 to 1980, the culture of Rajbanshis of West Dinajpur was formed with mixed elements of ther communities and since the 1980s, the

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Rajbanshi culture of this district has been started. Since that decade, the Bengali Hindu culture of West Dinajpur started entering. Even the differences between the culture of the residents of the town and the educated Rajbanshis and the culture of the little educated rural Rajbanshi people. As a result, the modern trend in the Rajbanshi culture and traditional and old continues simultaneously. As the rate of education increases among the Rajbanshis, the old trend continues to be decaying to the modern trend. So since the 1990s, the modern trend of Rajbanshi culture became strong and many elements of the old trend were suppressed. The number of old-fashioned holders and carriers continued to decline and the modern trend became the subject of Rajbanshi culture. So since 1947, different elements of Rajbanshi culture have changed in every decade. Of course, now many elements of Rajbanshi culture are extinct and there is an addition to the new cultural material. As a result, with the Rajbanshi culture component of West Dinajpur district, there is very little difference between Bengali Hindu culture. Although not only in the rural areas but also in rural areas of West Dinajpur.

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PERFORMANCE EVALUATION OF APACHE HADOOP, APACHE SPARK, AND APACHE FLINK

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ABSTRACT
The applications of big data processing is continuously extending to wide range of areas such as social media analytics, public administration, Business analytics, scientific research, recommendation systems, human sentiment analysis, etc. Therefore there is an urgent need to have conclusive and decisive evidence to determine the big data tools which provide high performance mainly in terms of speed of throughput, scalability, type of data big data processing (static/stream). This study aims to provide an empirical support for the performance of three very widely used tools in big data. Apache Hadoop, Apache Spark, and Apache Flink have gained a lot of attention due to their distinct characteristics for processing and analytics of big data. Although these frameworks are independent of each other and based upon different working principles they can all be categorised as big data processing tools. All these tools can be used for batch data processing. However Hadoop Mapreduce framework ca not be used for stream data processing therefore in this study only batch data has been considered for performance evaluation.

Keywords: Big data processing, Business analytics, computational power, datasets, data analytics, decision making, performance.

1. INTRODUCTION
In the past decade the amount of data being created has skyrocketed. More than 30,000 gigabytes of data is generated every second [1], and the rate of data creation is only accelerating. The data we deal with is diverse. Users create content like blog posts, tweets, social network interactions, and photos. Servers continuously log messages about what they're doing. Scientists create detailed measurements of the world around us. Big data analytics is being used to monitor traffic and detect route damages in real time. Big data is also transforming many public administration sectors such as waste management, healthcare services, employment services, optimising tax collection [2]. Internet is the largest source of data and is continuously becoming incomprehensible. The alarming growth in data has deeply affected businesses. Services like social networks, web analytics, and e-commerce often need to manage data at an extensive scale which is too big for the traditional databases and a result complexity increases with scale and demand. Fortunately, scalability and simplicity are not mutually exclusive. Big Data systems use many machines working in parallel to store and process data, which introduces some fundamental challenges unfamiliar to most developers. Traditional database systems, such as relational databases, have been pushed to the limit and everywhere these systems are breaking under the pressure of Big Data. Traditional systems, and the data management techniques associated with them, have failed to scale to Big Data. To tackle the challenges of Big Data, a new class of technologies has emerged. Many of these new technologies have been grouped under the term NoSQL. In some ways, these new technologies are more complex than traditional databases, and in other ways they're simpler. These systems can scale to vastly larger sets of data, but using these technologies effectively requires a fundamentally new set of techniques. Big data industry is constantly increasing in size, applications and intensity. With broad range of services dependent on big data, the need for performant and cost effective big data processing techniques has surged tremendously. There are plenty of tools and techniques available in the market, each having its own usage and

limitations. Tools are mainly divided into 3 broad categories on the basis of their usage: Data Management tools, Data storage tools, Data Analytics tools [3]. Organizations and individuals have variety of options to choose as per their requirements but the dilemma arises when there are multiple options for similar requirements. At this point the tools which best suites the needs of the user should be selected. Primary parameters are performance and cost-effectiveness and on top of that there are be more fine parameters for evaluating a tool based upon its category of usage. Suitability of a tool for specific type of tasks can be determined through research and development.

2. PREVIOUS WORK DONE

This Section provides an overview of the previous studies in this field. In [5] authors performed a comprehensive survey of big data processing techniques, technologies, challenges, and applications. Authors have discussed also discussed several underlying methodologies to handle the data deluge. In [6] authors conducted an extensive analysis of big data analytical methods and big data challenges in order to help others understand this landscape with the objective of making robust investment decisions. In the study [7] authors discusses the Big data technology along with its importance in the modern world and existing projects which are effective and important in changing the concept of science into big science and society too. The various challenges and issues in adapting and accepting big data technology, its tool are also discussed in detail along with the problems Hadoop is facing. The authors in [8] put their focus on three main things: why big data is different from past Very large database techniques and what the most challenging aspects of big data are, to determine how can industry and academia collaborate towards solving Big Data challenges, to consider the role of the data management community within the Big Data solutions ecosystem. The study [9] compares Apache Hadoop and Apache Spark frameworks and figure out their strengths, weaknesses, unique characteristics and try to answer whether Spark can replace Hadoop or not. In the study [10] authors reviewed recent trends of storage and computing tools with their relative capabilities, limitations and environment they are suitable to work with. It also aims to find some available computing and storage paradigms and tools that are being used in current scenario to address challenges of Big Data processing. Study [11]conducted a review on the key features of Apache Spark for big data analytics. This review focuses on the key components, abstractions and features of Apache Spark.

3. BIG DATA PROCESSING

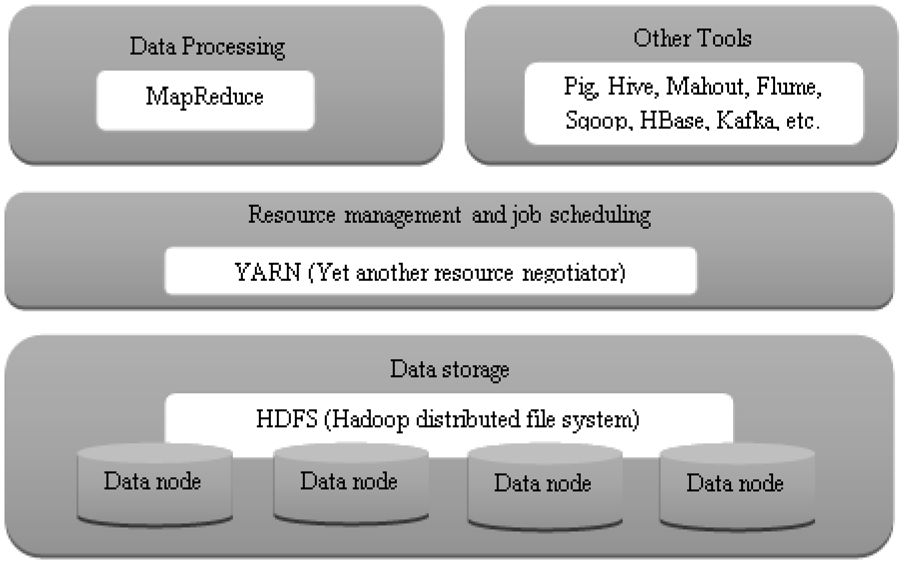
Big data processing consists of both storage and processing the data for analysis. The traditional tools and techniques were based on the principle of simple data structure, but big data is mainly composed of unstructured data. Therefore, big data requires non-traditional technologies to gather, organize, process and to gain insight from large data sets.

Big data processing and analytics

Big data processing includes collecting, storage and processing large sets of data of structured and unstructured data to gain useful insights and discover meaningful patterns which are otherwise hidden. The insights and patterns help businesses in the decision making process, improving their operational efficiency, and in gaining an edge over other business rivals. There are many open source big data analytics tools such as Apache Hadoop, Apache Spark, Apache Flink and others used by many large organizations for their big data processing

a) Apache Hadoop

Apache Hadoop is an open source architecture used for building big data processing systems. Hadoop is most widely used as batch/static big data processing framework. The key to its success is its distributed storage and parallel processing of data. Hadoop distributed file system is responsible for the distributed storage of data and MapReduce is responsible for the parallel processing of data. There are other components such as YARN (yet another resource negotiator), Hadoop Common libraries which are responsible for different services and functions in the Hadoop framework. Also on top of Hadoop many different abstractions have been developed which provides new capabilities to this framework and these abstractions on top of Hadoop forms the Hadoop ecosystem. Figure 1. Shows the Hadoop architecture [12].



The core concept of Hadoop is the distributed storage of data. The data is divided into blocks of equal sizes and each data block is stored in a replicated manner across different nodes. Splitting the data into static chunks and replication provides efficiency and fault-tolerance and also is very crucial for parallel processing of that data. The MapReduce framework is very efficient in processing large datasets in a scalable and fault-tolerant manner. The computation is done using map and reduce functions which make the use of Key-Value pairs. Hadoop program first determines the location of the input data and then launches multiple map tasks each for every node containing data blocks of the input file. Each of these tasks is assigned a subset of the input and executes map function on that subset of data. These map tasks produces key-value pairs as output which are sent to all the reduce tasks. The reduce tasks are responsible for sorting the key-value pairs by key. Each map task distributes its output to all the reducer tasks. Hadoop framework avoids a lot amount of data traffic on the network by dividing the tasks into smaller and independent tasks and sending the task functions to the nodes which contains the data.

b) Apache Spark

It is an Apache open-source in-memory cluster computing framework used for big data processing. Spark has received huge popularity in the field of big data processing mainly due to its ability to provide low latency and high throughput for huge data sets in contrast to many other frameworks. Spark provides a general-purpose framework suitable for different big data processing tasks such as batch processing, interactive queries, stream processing, graph processing, etc. Spark isn't any more general or scalable than Hadoop MapReduce, but its model allows it to have much higher performance for algorithms that have to repeatedly iterate over the same dataset because Spark is able to cache that data in memory rather than read it from disk every time. Many machine-learning algorithms iterate over the same data repeatedly, making Spark particularly well suited for such use cases.

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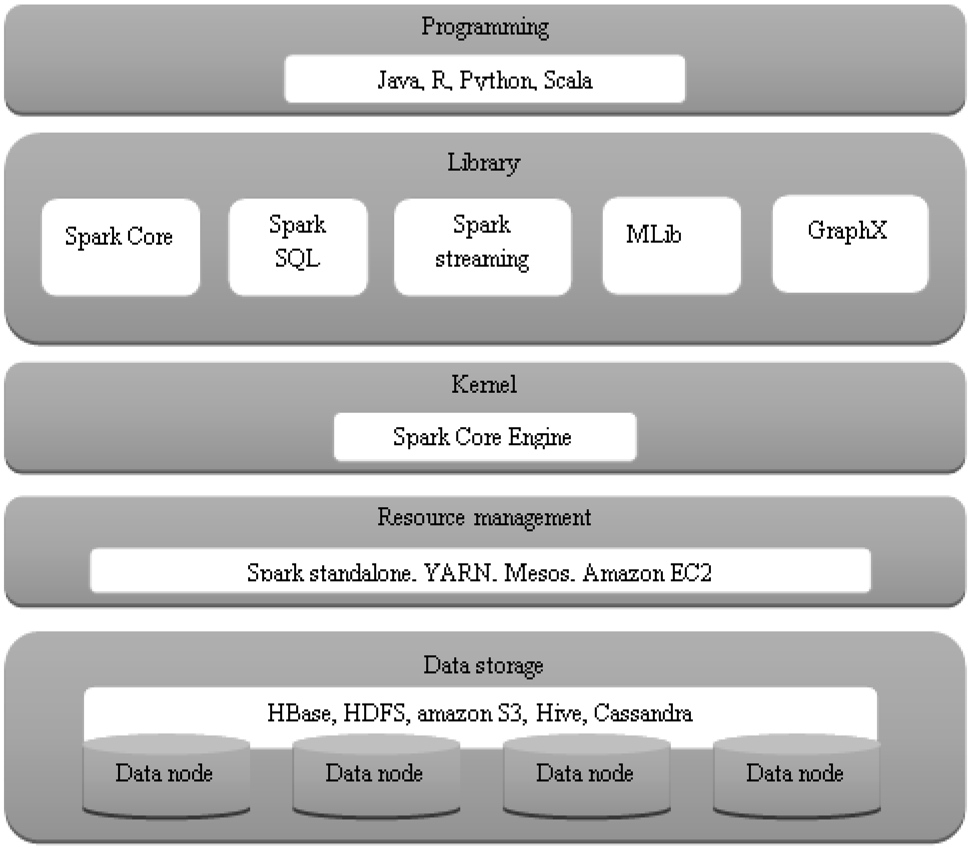


Spark uses in-memory cluster computing framework for big data processing. It is fundamentally based upon resilient distributed datasets (RDD) which are data sets stored in distributed fashion and available in read only mode. These datasets are maintained in a fault tolerant manner. Spark uses its own cluster management and hence cannot be categorised as modification of Hadoop. It can also use external cluster managers such as Hadoop YARN, Apache Mesos or Kubernetes. For distributed storage spark can use different interfaces such as HDFS, Alluxio, MapR File System, Cassandra, Amazon S3, and others.

c) Apache Flink

Apache Flink is an in-memory processing framework used for both batch and stream processing of big data. Flink provides high-throughput and low-latency output for both the real time and batch data types. Flink is highly fault-tolerant in case of machine failures. Flink Programs supports various programming languages such as Java, Scala, Python, and SQL. Flink has a specialized API for processing static data sets, uses specialized data structures and algorithms for the batch versions of operators like join or grouping, and uses dedicated scheduling strategies. The result is that Flink presents itself as a full-fledged and efficient batch processor on top of a streaming runtime.

Apache Flink is based on the distributed streaming data-flow engine. Flink provides 2 different APIs i.e. the DataSet API for processing static/batch data sets, and the DataStream API for processing unbounded/real-time data streams. Flink executes arbitrary dataflow in parallel and pipelined manner. There are 3 different types of processes in Flink. First is the client that takes the program code, transforms it to a dataflow graph, and submits it to the JobManager. The JobManager coordinates the distributed execution of the dataflow. It tracks the state and progress of each operator and stream, schedules new operators, and coordinates checkpoints and recovery. A TaskManager executes one or more operators that produce streams, and reports on their status to the JobManager. The TaskManager maintain the buffer pools to buffer or materialize the streams, and the network connections to exchange the data streams between operators. Flink's pipelined runtime system enables the execution of batch and stream processing programs. It has high fault tolerance to steadily recover the state of data streaming applications. This process creates continuous snapshots of the distributed data stream and operator state. In case of failure, the system can rely on these snapshots and revert back.

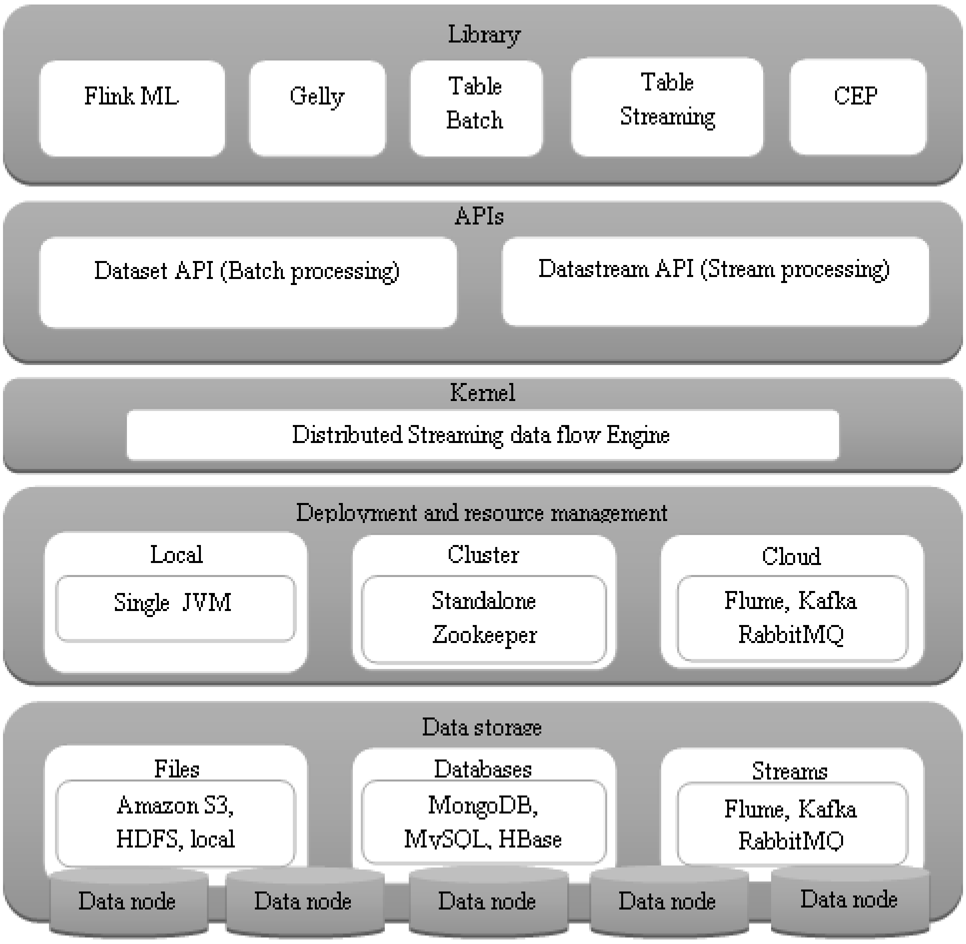


Figure 3. Flink Architecture [10]

4. RESULTS

In this study the performance comparison of Hadoop, Spark and Flink has been done using the Word Count algorithm. For comparing and evaluating the performance of these tools, datasets of different sizes are used and there execution time of these different datasets is used for comparing the performance of these tools. A single node clusters is used for the purpose of running these tools. The performance of the word count algorithm for all the three tools i.e. Hadoop, Spark, Flink is compared using the runtime for different datasets. For the purpose of equitable & justified comparison following metrics have been applied while running these tools:

- All tools have been run as single node cluster.
- Tools ran on the same cluster machine

- HDFS was used as the storage system for all 3 tools.
- Implementation of the algorithm used is based on the same programming language.

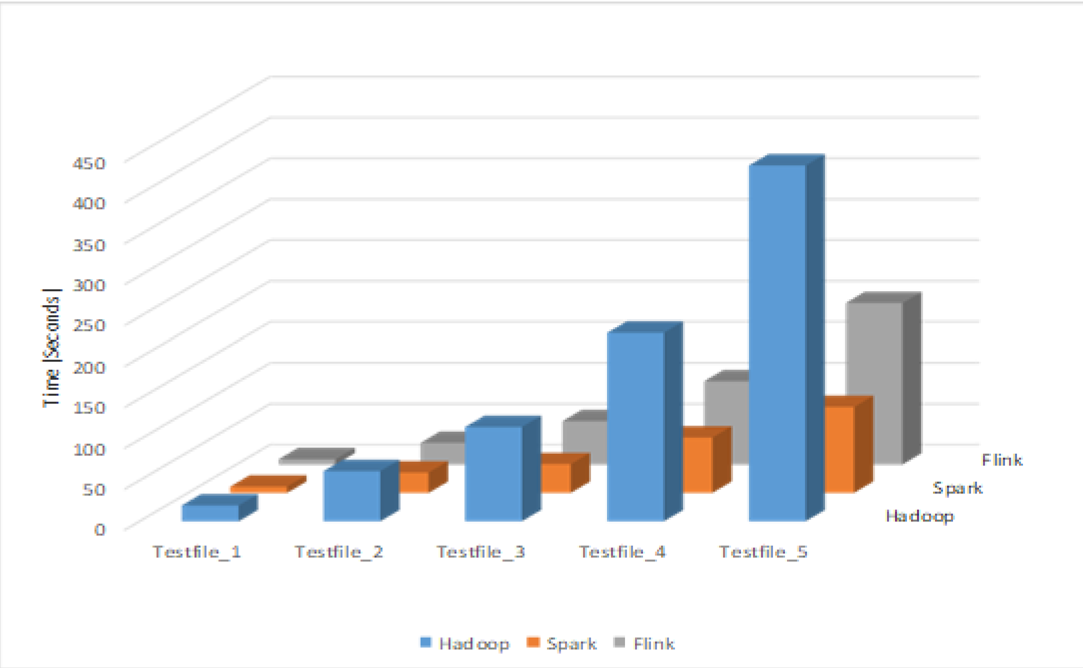
In this study, the performance comparison of Hadoop Map Reduce, Apache Spark and Apache Flink is done based on the execution time using the word count algorithm on the datasets of different sizes. Table x.1 shows the Execution time comparison of all the three tools for the datasets of different sizes. The observations are as follows:

Table 1. Word count execution time comparison table

Dataset	Dataset size	Execution time (seconds)		
		Hadoop	Spark	Flink
Testfile_1.txt	45.3 MB	19.506	7.792	6.542
Testfile_2.txt	185.6 MB	61.527	25.015	26.430
Testfile_3.txt	371.2 MB	115.480	35.263	53.048
Testfile_4.txt	748.5 MB	230.381	67.823	101.829
Testfile_5.txt	1.4 GB	434.997	105.216	197.110

The time taken for the execution of different datasets has been noted for all the three tools i.e. Hadoop, Spark, and Flink. Figure 1 shows the graphical representation of the results for the time taken for execution by all the 3 tools on the word count algorithm on different datasets.

Figure 1. Column graph representation of word count execution time



From the above illustrated figure it is evident that as the size of the dataset increases, the difference in the execution time of different tools becomes significant. Spark has proved to be the most efficient batch processing tools among the three. The performance of Flink is also considerable as compared to the Hadoop. However Flink is primarily a stream processing tools which processes the static data (batch data) in the same manner as it does the stream processing. Although Apache Spark and Apache

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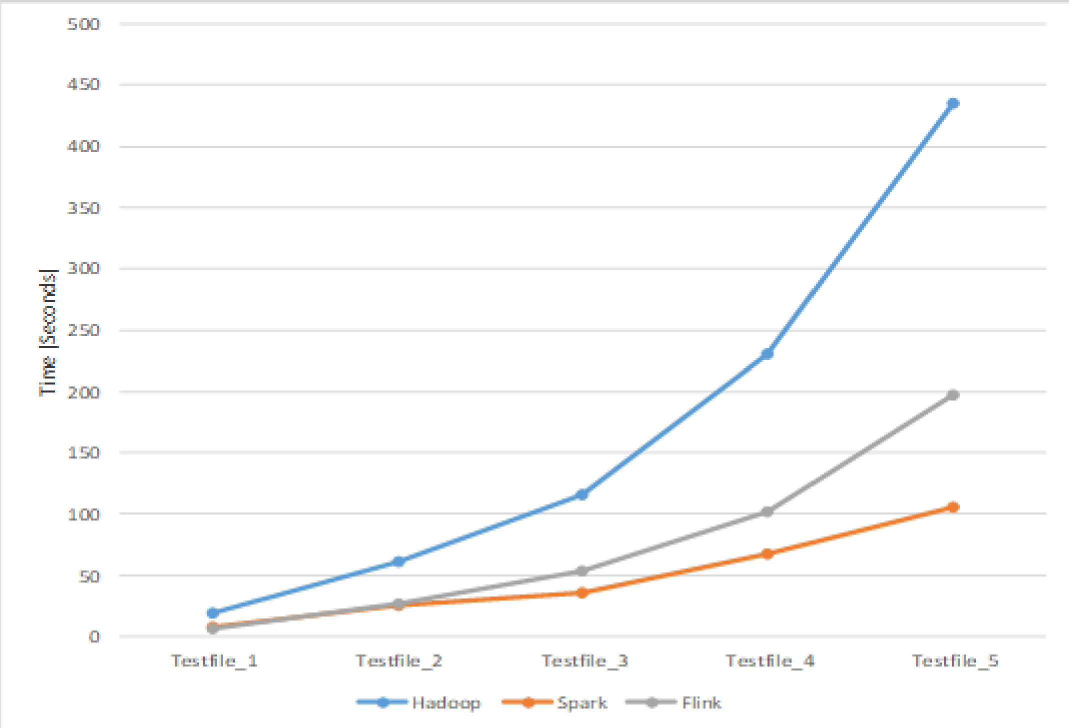
Figure 2. Line graph representation of Word Count execution time



Flink can be setup with different file systems, in this study for the purpose of non-biased comparison they have been used in integration with the Hadoop distributed file system. The performance of these tools in integration with different file systems can a topic for another research.

5. CONCLUSION

This study gives the empirical evidence for the performance of batch data processing using three different tools named Apache Hadoop, Apache Spark, and Apache Flink. A word count algorithm has been used for executing five dataset files of different sizes. From the results it can be concluded that Apache Spark gives the best possible performance for batch processing of text data files. The reason for the better performance of the Spark is the concept of resilient distributed datasets which are data sets stored in distributed and fault tolerant manner. These RDDs are available in read only mode. Spark is able to cache that data in memory rather than read it from disk every time providing it a high performance for tasks that have to repeatedly iterate over same datasets. The reason for the low performance of the Hadoop MapReduce is the working of map and reduce functions. Reduce function requires all values associated with a given key therefore a reduce task can't begin until all map tasks are complete which results in significant delay. Flink is based on Kafka architecture and is primarily a stream processing framework which processes the batch/static data as a special case of stream processing. Flink provides significantly improved performance than Hadoop. Although it is generally claimed that Flink is faster than Spark also but in our findings the Flink execution is slower than the Spark execution of datasets. This may be due to the case that we have used an older version of Flink due to its incompatibility with the integration of newer Hadoop version. Therefore older version of Hadoop had to be used for storing data in Flink.

As the older version of Flink may have been a limitation for a non-biased evaluation of the performance of these tools therefore it can serve as a scope for future investigation into this area. Older Flink versions are available with pre-bundled Hadoop files however integrating newer Hadoop version with the new Flink version is a challenge that we were unable to address in this study. For future work Flink integration with Hadoop version should be considered.

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USE OF MATHEMATICS IN COMMERCE: - A SHORT STUDY

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ABSTRACT
Mathematics is used in most aspects of day to day life. Mathematics plays important role in business, business mathematics and business management.Konwledge of mathematics is essential for understanding basic concept of commerce. Mathematics usually used in commerce includes elementary algebra and arithmetic, probability and statistics. Mathematics most effective by use of advanced mathematics such as fraction,decimal,percentage, matrix algebra, calculus, differential equation, integral calculus, numerical analysis, Linear programming. Mathematics is used by commercial enterprises is also known as Business Mathematics.

Keyword: Business, Mathematics, Application, University, Finance.

INTRODUCTION
Mathematics is, in fact, an independent subject. But subject like physics, chemistry, Computer Science of pure science, Economics and Commerce of social science are widely dependent on Mathematics. With the help of innovation of Mathematician, researchers of pure and social science proceed in their work. For example, the theories of economics and Business like 'Demand is dependent on price,' 'Saving is dependent on income" are dependent on the concept of functional relationship in mathematics. Also the concept of elasticity in economics is associated with the concept differential co-efficient or derivative of differential calculus. Now days, 'Mathematics is important part of commerce because without this subject commerce is not applicable.

It is clear that the use of mathematics tools has been on the increase day by day in Business arena and now a days Business mathematics is a compulsory course in all business related disciplines.

Mathematics scientists ***William L.Schaaf*** state that "*Mathematics is on the artistic side a creation of new rhythms, order, designs, harmonies, is a systematic study of various rhythms, orders.*

Following Universities in curriculum use mathematics paper

(1) NATIONAL UNIVERSITY AND U.S
Subject: - Management (Hons)

Course:-business Management

(2) ASIAN UNIVERSITY OF BANGLADESH
Course: - BBA

(3) EAST –WEST UNIVERSITY
- Basic concept: Concept of numbers system, fraction, exponents, equation, factoring, polynomial, ordered pairs, relation, functions.
- Set Theory
- Logarithm
- Equation System

- Geometry
- Differential calculus
- Integral calculus
- Matrix Algebra
- Mathematics of Finance.
- Elementary mathematics & Stastics

Business management can be made more effective in some cases by use of more advanced mathematics such as calculus, matrix Algebra and linear. Programming, Probability. Another meaning of business mathematics, some times called commercial math or consumer used in commerce and day to day life.

The practical application typically includes checking accounts, price discounts, markup and markdown, payroll calculations, simple and compound interest, consumers and business credit and mortgages. Mathematics provides many important tools for economics and other business field. All transactions within a business have to be recorded in the company accounts and quite often involve very large sum of money. If you work as sales assistant in many stores you now need to have the ability to calculate the cost of goods and change the customers requires without using the till. Understanding business mathematics is important to maintain profitable operation and accurate keeping of record .Mathematics plays a major role in business management because it helps maximize profit by using techniques such as analyzing production cost , determining ideal pricing, discerning sales patterns and projecting futures sales.

Some Mathematical application in Commerce

(1)Exponential & Logarithm function
The concept of exponential & logarithmic functions is very useful in various part of mathematics. We shall look at some very important application of these function here & mathematics of finance. Until forty years ago, student labored with extensive tables of logarithm & exponential values, but today we are fortunate to have these numerical values at our fingertips via the scientific calculator & computer.

Application of Logarithm in business
Problem on compound interest and annuity can be solved by using logarithm. We find there how the use of logarithm helps in solving problem on *compound interest and annuity*

(2) Combination of n thing not all different taken some or all at a time
Consider n thing of which are of one kind, q thing are second kind, r thing are of third kind and all the rest are different. Here $p+q+r \leq n$.

Consider first kind things. The p- things can be dealt in (p+1) ways, for we take 1 things or 2 things or 3 things or……. or p things or none n any selection. Similarly the like thing can be dealt in (q+1) ways and r like thing in (r+1) ways. Since each way of any kind must be associated with the ways of other kind things .the number of ways is (p+1) (q+1)(r+1).

The remaining {n-(p+q+r)} thing is different .So these things can be dealt in $2^{n-p-q-r}$ways . Since every thing is associated to each other the total number of ways

$= (p+1)(q+1)(r+1)2^{n-p-q-r}$

But this number includes the case in which all things are left. Therefore, the total number of combination of n things not all different taken some or all at a time

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$= (p+1)(q+1)(r+1)2^{n-p-q-r}-1$.

(3)Determinant and Matrix

The working knowledge of determinants and Matrices is a basic necessary for the students of mathematics, business mathematics, physics, chemistry, statistics, economics and engineering. In **1683** a Japanese Mathematician Kiowa first devised the idea as well as the notion of determinants and aj.aj.Sylvester was first man who introduced the word "Matrix **in1850.** Gabriel Cramer successfully applied determinants in solving system of linear equation in **1750.** At present matrix is a powerful tool of modern matrix.

(4)Function and equation

A function can be viewed as an input-output device. The significant relationship in mathematically model typically are represented by function. In business application, we sometimes are interested in determining whether there are values of variable, which satisfy several attributes. We will also be concerned with the process used to determine whether there are values variables, which jointly satisfy a set of equations.

(5) Mathematics of finance

Simple interest and the future interest, Bank discount, compound interest effective interest rate.

(6) Differentiation & its application

Differential calculation is the most important parts of mathematics. The word differentiation means the rate of change in one variable with other variables. then there is a dependent variables which gets an impulse for changing in the dependent variables. The differential calculus is concerned with the average rate of changes, whereas integral calculus, by it nature considered the total rate change in variables. It has a large use in business problems.

(7) Integration & its application

Integral calculus is also the most important part of mathematics. There are two types of integration 1. Indefinite 2. Definite Indefinite integration deals with the inverse operation of differentiation. Definite integration is the limit of a special type of addition process of infinite-simal part of region. So it may be expressed as the area enclosed by a set of curves. Integral calculus has a great use in business problems.

(8) Linear Programming

Liner programming is a technique for determing an optimum schedule (such as maximizing profit or minimizing cost) of interdependent a divities in view of the available resource.

The British and American military management invited large of scientists to apply a scientists techniques of resources allocation in a effective manner. All these techniques are known as operations Research techniques .linear programming is one of the most frequently used operation research operation research techaniques.It is used to allocate scarce resources in an optimal way so that the allocator can optimize the results in terms maximization of profit or minimization of cost. The Noble Laureate, *George B. Dantzing* innovated this techniques known as 'Simplex Technique' in 1947 while he was working for U.S Although initially this technique was applied to solve problem relating to assignment and transportation .yet, subsequently the application of this technique was extended to almost every functional area of management ,production planning and control ,personnel management ,advertising etc.

(9) Trigonometry

Trigonometry is the branch of mathematics which deals with the measurement of angles. It is most powerful tool of mathematics. But till now it has no mentiable application in business world.

(10) Assignment problems
A special case of the transportation model is assignment in a situation, which involves the assignment to resources to tasks with minimum cost or maximum profit (e.g. assign n persons to n different task or jobs.) Also in production & human resource management it is very necessary to study assignment problems.

(11) Transportation problems.
It gets its form its application to problems involving transporting product form several origin (factories) to several destinations (market).The two common objectives of such problems either minimize the cost of shipping n units to m destinations or maximize the profit of shipping n units an especial types of liner programming problem.

CONCLUSION
We conclude that knowledge of mathematics should be made compulsory of Commerce and Management as it plays a key role in any business. Mathematical formulae use business to do financial analysis using ratios, percentage, equationsStatistcs uses in presentartion, collection analysis of data to arrive at conclusion. There are jobs around where you can escape from using any mathematics at all refuse collector, builder's, labouer, farm hand etc.

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FACTORS IMPACTING THE PERFORMANCE OF WOMEN ENTREPRENEURS IN MSMEs

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ABSTRACT
The Indian economy is a homogenous mix of variety of segments which ranges across industries. A major contributor to the GDP is MSME segment which is rapidly growing. In today's moment of economic unrest due to the COVID pandemic, Indian government is focusing on the Mantra of AtmaNirbhar Bharat. Given this situation, the role of MSMEs becomes all the more crucial for building a sustainable tomorrow. Amongst these, a very important sub segment are the Women driven MSMEs.

However, the journey of a woman entrepreneur in the MSME segment is not the same as their male counterparts. Needless to say, even today India is a male dominating society and with a set of prejudices and expectations from women. Family and homecare is, till date, considered a women's primary responsibility and therefore career takes the backseat in many cases.

In these circumstances, there are a plethora of factors that come into play when a women entrepreneur's performance is measured. This research has identified 9 such factors through extensive study of available literature. Based on these factors, structured interviews were conducted to get first-hand responses. The focus was on understanding a pattern in the response, to know factors making the most impact on their performances.

The results of the study have given useful insights on how four specific factors, that fall under the common cluster of 'Core Factors' (based on results of Factor analysis), come out as the most impactful cluster. The factors in this cluster are Managerial Skills, Networking, Entrepreneurial Skills and Opportunity Recognition – all four directly impacting the business acumen of the entrepreneur.

However, the result showed another very astonishing fact. Though these factors came as dominant cluster, the most impacting factor was not a part of this cluster, it was a non-business acumen related factor – 'Family Support'.

The research concluded that despite core factors being the most important aspect impacting the performance of women entrepreneur, Family Support was rated of the highest importance. We can therefore safely conclude that even today in Indian society, women entrepreneurs perceive that their family's support is the key for their professional performance.

Keywords: Factors, Family Support, MSME, Performance, Women entrepreneur

1. INTRODUCTION
The year 2020 brought along a new set of challenges for world at large and India in specific, in form of the Covid-19 pandemic. While the pandemic affected health and lives primarily, a major impact is seen on the economic growth. India's response to this situation of unrest was the approach of 'Atma-nirbhar Bharat' (Self- dependent India). Due importance is given to the 'Made in India' initiatives. In this journey, along with large scale industries, a key role will be

played by MSMEs (Micro, Small and Medium Enterprises). With 3.6 crores such enterprises employing over 8 crore people in India, MSMEs contribute to 37.54% of GDP and accounts for 45 % of total industrial production, 40% of total exports. (https://msme.gov.in/)

While these number justifies the role of MSMEs in making India Atma-Nirbhar, it is imperative to understand a sub section of MSME that is Enterprises driven by Women. In India, out of a total of 58.5 million entrepreneurs, 13.76%, i.e., 8.05 million are women. Studies show that 35% of start-ups in India are led by women entrepreneurs. This goes on to show how women are not just contributing to the economic growth of the nation but are also creating employment opportunities for others. As per a survey, around 71% women, employ around 5 or less people in India.(https://www.startupindia.gov.in/)

Though in this patriarchal society, women are gradually and consistently making a deep impact as entrepreneurs, their journey of growth is way different from that of their male counterparts. There are various factors that play a decisive role in the performances of the women entrepreneurs.

This paper predominantly focuses on 9 selected factors and tries to understand their impact on the performances of the women entrepreneurs. The paper also aims to understand the most important factor amongst these and study its relation with the demographic variables of the respondents of this empirical study.

2. LITERATURE REVIEW

According to the Global Entrepreneurship Monitor (2010), women represent more than one-third of all people involved in global entrepreneurial activity. However, the way women conceive their businesses is very different from the way men do. By the virtue of this difference the factors that impact business performances of women are also distinctive. Numerous studies have helped in bringing to life few factors that have irrefutable contribution in the success of women entrepreneurs.

Family Support - Eddleston & Powell (2012) mentioned in their study that family members' moral/emotional support may encourage women to become entrepreneurs or provide psychological help in dealing with business problems. Welsh, Kim, Memili, Kaciak, (2014) have found that in case of Korean female entrepreneurs' family support seems to be directed toward helping female entrepreneurs cope with their personal problems so that the female entrepreneurs can succeed in their ventures and increase firm performance. They also found that family moral support has no significant positive effects on firm performance but it appears that family support is effective in preventing negative effects of personal problems on firm performance. Cetindamar et al., (2012) analysed that for a woman entrepreneur to be able to launch and grow her business venture, family financial support may be valuable and indispensable.

Personal Problems - Welsh, Kim, Memili, Kaciak, (2014) have found that Korean female entrepreneurs' personal problems have negative effects on firm performance.

Financial Capital Assistance - A research by Omwenga, Mukulu & Kanali (2013) have found that the financial and capital assistance, networking, education, training and counselling are the determinants of performance of women-owned small and medium enterprises in Kenya. Mamun & Isidore (1996) examined the effects of education, entrepreneurial competencies and access to credit on microenterprise performance.

Education - Omwenga, Mukulu & Kanali (2013) have found that the financial and capital assistance, networking, education, training and counselling are the determinants of performance of women-owned small and medium enterprises in Kenya. Mamun & Isidore (1996) examined the effects of education, entrepreneurial competencies and access to credit on microenterprise performance.

Training - Omwenga, Mukulu & Kanali (2013) have found that the financial and capital assistance, networking, education, training and counselling are the determinants of performance of women-owned small and medium enterprises in Kenya.

Networking - Boyd, (2005) said that networks have long been hailed as essential to the survival of female-run establishments. Carter et al., (2006) mentioned in their study that network is a critical element for entrepreneurs in gaining access to capital/loans, advice and information needed for initiating and operating a new venture easily. A research by Omwenga, Mukulu & Kanali (2013) have found that the financial and capital assistance, networking, education, training and counselling are the determinants of performance of women-owned small and medium enterprises in Kenya. Hisrich & Brush (1987) suggested that support systems, mentors, and advisors; business associates and friends; participation in trade associations and women's groups are the significant networks which are positively associated with business performance.

Opportunity recognition - Hasan & Almubarak, (2016) identified factors influencing women entrepreneurs' performance and corresponding challenges in SMEs in Bahrain. They also examined the opportunity recognition as a mediator between influencing factors and performance

Entrepreneurial Skills - Krishnan & Kamalanabhan, (2013) showed a significant direct relationship between entrepreneurial competencies like conceptual skill, strategic skill and learning leading to entrepreneurial success. Mamun & Isidore (1996) examined the effects of education, entrepreneurial competencies and access to credit on microenterprise performance.

Managerial Skills - According to Lerner and Hisrich (1997) conducted a study on Israeli women entrepreneurs and categorised the factors that affect their performance into five perspectives, that is, motivations and goals; social learning theory (entrepreneurial socialization) ; network affiliation (contacts and membership in organizations); human capital (level of education, business skills) ; and environmental influences (location, sectoral participation, and socio-political variables). (Birley & Norburn, 1987; Brush & Hisrich, 1991; Hisrich & Brush, 1984; Hoad & Rosko, 1964) have identified that managerial skills and particular strengths in generating ideas and dealing with people were important for a woman entrepreneur in establishing a business

Against this background, the researchers now turn to investigate the impact of the above-mentioned factors on the performance of women entrepreneurs in Gujarat.

3. RESEARCH OBJECTIVES

- To find out the most impacting cluster of factors affecting the performance of women entrepreneurs in MSMEs
- To understand the most important factor and study its relation with the demographic variables

4. RESEARCH METHODOLOGY

A survey of women entrepreneurs was conducted to understand the impact of factors affecting their performances. The area of the survey was Gujarat, covering the cites - Ahmedabad & Gandhinagar, Vadodara, Rajkot, Mehsana, Patan and Gandhidham. The respondents were women entrepreneurs from varied industries like Bakery & Fast food, Tiffin services, Health and Wellness, Boutique, Beauty parlour & Salon, Jewellery, Pre-school and Day care, Educationist, Toy rental services. Food blogger, Builder and Customised wooden gift articles manufacturer. The sample size of respondent was 100 and were selected using judgement sampling.

Primary data was collected by using structured personal interview. The questionnaire used in the interview focused on list of factors which were derived using literature review of existing theoretical and empirical research. The questions were designed to fetch responses based on the perceptions and experiences of the respondents. The factors affecting the performance of women entrepreneurs were measured with a 5 point Likert scale. The choice ranged from, for respective factor, least affecting to most affecting their performances.

Factor analysis was conducted in order to identify clusters of factors affecting the performance of women entrepreneurs that loaded onto each group. Descriptive Statistics was used to find the cluster, which most impacts the performance of the women entrepreneur. Also, the most impactful factor was found and its impact was studied in light of the demographic variables, using cross tabulation.

5. DATA ANALYSIS AND DISCUSSION

The data has been analysed in four sections. The first section presents the demographic profile of the women entrepreneurs which includes age, education, marital status and prior work experience. The second section presents the business profile of the women entrepreneurs. The third section discuss the factor impacting the performance of the women entrepreneurs. The fourth section presents the discussion of the data analysis.

5.1 Demographic Profile of Women Entrepreneurs

Table 1: Demographic Variables

Demographic Variable: Age			
Age	**Frequency**	**Percent**	**Cumulative Percent**
21-25	13	13	13
26-30	9	9	22
31-35	16	16	38
36-40	19	19	57
41-45	25	25	82
46-50	12	12	94
51-55	3	3	97
56-60	3	3	100
Total	**100**	**100**	

Demographic Variable: Educational Qualification			
Educational Qualification	**Frequency**	**Percent**	**Cumulative Percent**
Secondary	4	4	4
Higher Secondary	9	9	13
Graduate	31	31	44
Post Graduate	33	33	77
Technical/Professional	23	23	100
Total	**100**	**100**	

Demographic Variable: Marital Status			
Marital status	**Frequency**	**Percent**	**Cumulative Percent**
Married	75	75	75
Unmarried	20	20	95
Widow	1	1	96
Divorced	4	4	100
Separated	0	0	
Total	**100**	**100**	

Demographic Variable: Prior Work Experience			
Prior Work Experience	**Frequency**	**Percent**	**Cumulative Percent**
No	34	34	34
Yes	66	66	100
Total	**100**	**100**	

From the above table 1, it can be seen that the majority of the women entrepreneurs are in the age group of 41- 45 comprising of 25% of the total respondents, followed by the age group of

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36-40 comprising of 19% of the total respondents. The age of respondents varies from twenties to fifties. The lowest age of the respondent is 22 years whereas the highest age is 58 years.

Looking at the educational qualification of the respondents, it can be clearly stated that most of the women entrepreneurs surveyed are post graduate (33%) followed by graduates (31%) and Technical/professional (23%). Only 4% respondents amongst the sample are having secondary as their educational qualification.

Majority of the respondents participated in the survey are married (75%) followed by unmarried (20%). Remaining 4% and 1% respondents of the survey are divorced and widow respectively.

The maximum respondents (66%) are having prior work experience before starting their own entrepreneurship.

5.2 Business profiles of the Women Entrepreneurs

In the following section, the business-related profiles of the women entrepreneurs have been discussed.

5.2.1 Age of the entrepreneur at inception of the business

The following table 2, shows the age of the women entrepreneur at the time of inception of the business. It can the clearly seen that 37% of the entrepreneurs have started the business in the age group of 20-25 years followed by 20% in 31-35 years.

Table 2: Entrepreneurs age at the inception of business

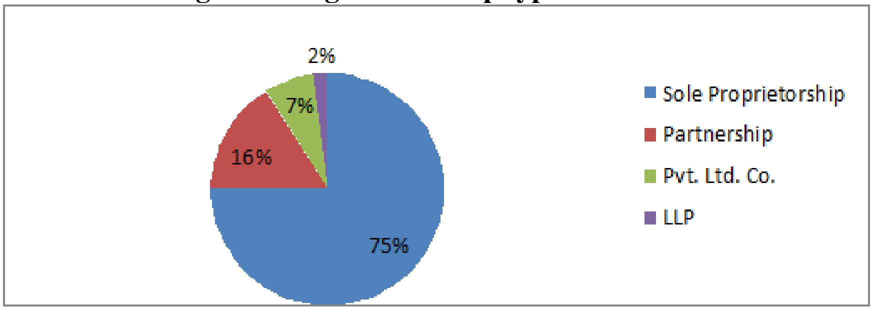
Age	Frequency	Percent	Cumulative Percent
20-25	37	37	37
26-30	19	19	56
31-35	20	20	76
36-40	16	16	92
41-45	6	6	98
46-50	2	2	100
Total	**100**	**100**	

5.2.2 Legal ownership type of business organisation

From the below figure 1, it can be seen that the majority of the women entrepreneurs have the legal ownership of business in form of sole proprietorship (75%) followed by partnership (16%). The other forms are Pvt. Ltd. Co. (7%) and LLP (2%) respectively. One more type of business i.e Public Ltd co. was given in the survey instrument but none of the respondents were in the category.

The major reason for establishing the business under sole proprietorship type were ease in formation and ease in legal formalities as answered by the respondents.

Figure 1: Legal ownership type of business



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5.2.3 Nature of Business

As per, Micro, Small and Medium Enterprises Development Act, 2006) MSMEs are segregated in two types Manufacturing Enterprises and Service Enterprises.

From the below table 3 and 4, it can be seen that out of 100 respondents, 55 business enterprises are service enterprises and 43 are manufacturing. There are 2 enterprises which are manufacturing units and provide customised services as well. Out of the total manufacturing enterprises, 82% enterprises falls under the Micro enterprises category whereas 73.7% enterprises fall under Micro category out of the total service enterprises.

Table 3: Nature of Business

	Frequency	Percent	Cumulative Percent
Manufacturing and Service both	2	2	2
Manufacturing	43	43	45
Service	55	55	100
Total	100	100	

Table 4: Bifurcation within Manufacturing and Service industry

	Manufacturing			Service		
	Frequency	Percent	Cumulative Percent	Frequency	Percent	Cumulative Percent
Micro	37	37.0	82.2	42	42.0	73.7
Small	5	5.0	93.3	12	12.0	94.7
Medium	3	3.0	**100.0**	3	3.0	**100.0**
Total	45	45.0		57	57.0	

5.2.4 Source of Finance of the business

From table 5, it is clear that 46% respondents have used their own funds to commence with the business followed by 20% getting funding from their friends & relatives. This reflects how personal source of finance and savings of women is important compared to formal sources of finance in supporting entrepreneurship in the state. Only 14% of respondents have accessed finance from commercial banks followed by 4% from private money lenders, husband, family and father respectively. The profile of the women entrepreneurs and the discussions in the previous researches shows that women in Gujarat have both their own funds and strong support from the family, friends and relatives. (Myers and Majluf, 1984) indicated that SME owners mostly depend on their savings or funds obtained from their family and friends as initial sources of finance. This was majorly because they have limited resources and their income from operations is not sufficient to repay their debt obligations.

Table 5: Source of Finance

Source	Frequency	Percent
Development Bank	3	3.0
Commercial Bank	14	14.0
Non-Banking Financial Institutions	1	1.0
Private money lenders	4	4.0
Friends & Relatives	20	20.0
Own fund	46	46.0
Father	4	4.0
Husband	4	4.0
Family	4	4.0
Total	100	100.0

5.3 Factors affecting the performance of women entrepreneurs

Table 6: Survey Responses of women entrepreneurs regarding factors affecting their performance

Factors	Least Affecting(%)	Not Affecting(%)	Neutral (%)	Affecting (%)	Most Affecting(%)
Family Support	9	5	12	29	**45**
Personal Problems	14	18	22	**41**	5
Financial Capital Assistance	10	15	23	**37**	15
Education	20	18	**24**	21	17
Training	8	18	20	**36**	18
Networking	7	4	15	**48**	26
Opportunity Recognition	6	8	14	**48**	24
Entrepreneurial Skills	7	5	24	27	**37**
Managerial Skills	7	6	15	**38**	34

There are various factors which affect the performance of women entrepreneurs in the MSME sector. To understand the impact of the same, a factor analysis of the 9 factors impacting the performance of women entrepreneurs was conducted. The “best fit” factor analysis accounts for 39.16 percent of the variance and was obtained by using principal component factor analysis with a Varimax with Kaiser Normalization rotation method. As recommended by Hair et al. (2006), all factor loadings are greater than 0.40, and all communalities exceed 0.50.

The Cronbach’s alpha model was used and values over 0.50 were considered. The Cronbach’s alpha of the entire instrument came as 0.775. The Cronbach’s alpha-values for all the 9 factors impacting the performance of women entrepreneurs ranged from 0.719 to 0.797 indicating that the scale was internally consistent and reliable (Cronbach, 1951; Nunnally, 1978).

The table 7 of communalities which shows how much of the variance in the variables has been accounted for by the extracted factors. The top four variables are 80% of the variance in managerial skills, 78% in opportunity recognition and 73% in entrepreneurial skills and education is accounted for.

Table 7: Cronbach’s alpha-value and Communalities

Factors	Cronbach's Alpha values	Communalities
Family Support	.763	.439
Personal Problems	.797	.721
Financial Capital Assistance	.770	.551
Education	.759	.738
Training	.750	.704
Networking	.740	.681
Opportunity Recognition	.733	.778
Entrepreneurial Skills	.740	.739
Managerial Skills	.719	.799

5.3.1. Descriptive Statistics

The descriptive statistics for all the variables under investigation are calculated below in table 8. The mean, standard deviation and number of respondents (N) who participated in the survey are given. Looking at the mean, one can conclude that family support is the most important variable affecting the firm's performance of women led businesses. It has the highest mean of 3.96.

Table 8: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Family Support	100	1	5	**3.96**	1.263
Personal Problems	100	1	5	3.05	1.167
Financial Capital Assistance	100	1	5	3.32	1.197
Education	100	1	5	2.97	1.374
Training	100	1	5	3.38	1.204
Networking	100	1	5	3.82	1.086
Opportunity Recognition	100	1	5	3.76	1.093
Entrepreneurial Skills	100	1	5	3.82	1.192
Managerial Skills	100	1	5	3.86	1.164
Valid N (listwise)	100				

5.3.2. Kaiser-Meyer-Olkin: The KMO measures the sampling adequacy which should be greater than 0.5 for a satisfactory factor analysis to proceed. A common rule suggests that a researcher has at least 10-15 participants per variable. Kaiser (1974) recommend 0.5 as minimum (barely accepted), values between 0.7-0.8 acceptable, and values above 0.9 are superb. Here the KMO as per table 8comes out to be 0.755; hence we can go ahead to process with factor analysis

5.3.3 Bartlett's test: (Bartlett, 1954) is indication of the strength of the relationship among variables. This tests the null hypothesis that the correlation matrix is an identity matrix. An identity matrix is matrix in which all of the diagonal elements are 1 and all off diagonal elements are 0.We can see from the table 9 that, Bartlett's test of sphericity is significant. That is, its associated probability is less than 0.05. In fact, it is actually 0.00, that is significance level is small enough to reject the null hypothesis and accept the alternate hypothesis.

Table 9: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.755
	Approx. Chi-Square	314.825
Bartlett's Test of Sphericity	Df	36
	Sig.	.000

5.3.4 Factor analysis

Factor analysis is a statistical data reduction and analysis technique that strives to explain correlations among multiple outcomes as the result of one or more underlying explanations, or factors. The technique involves data reduction, as it attempts to represent a set of variables by a smaller number. Factor structures for the study were identified on the basis of significance and clarity of the factor loadings and the interpretability and meaningfulness of the factors within the theoretical framework. The final framework comprised three clusters with 9factors. The factor loadings are mentioned in the below table 10.

Table10: Results of Factor analysis

		Factors		
		1	2	3
6	Networking	**0.776**	0.252	-0.126
7	Opportunity Recognition	**0.875**	0.104	0.034
8	Entrepreneurial Skills	**0.856**	0.027	0.074
9	Managerial Skills	**0.834**	0.125	0.296
3	Financial Capital Assistance	0.01	**0.661**	0.338
4	Education	0.085	**0.846**	0.12

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5	Training	0.307	**0.767**	-0.147
1	Family Support	0.363	0.161	**0.531**
2	Personal Problems	-0.061	0.055	**0.845**

5.3.5 Factor Interpretation

The first cluster have been grouped as **"Core factors"** as they includes:

- Networking
- Opportunity Recognition
- Entrepreneurial Skills
- Managerial Skills

The second cluster have been grouped as **"Know-how factors"** as they include:

- Financial Capital Assistance
- Education
- Training

The third cluster have been grouped **as "Human factors"** as they include:

- Family Support
- Personal Problems

5.4 Discussion

The results of the factor analysis indicate that the means of the variables under the first cluster 'Core factors' comprising of Managerial Skills (3.86) Networking (3.82), Entrepreneurial Skills (3.82)and Opportunity Recognition(3.76) got the second, third and fourth rank respectively. So, the researchers come to the conclusion that this is the most important cluster that impact the performance of women entrepreneurs in the MSME sector.

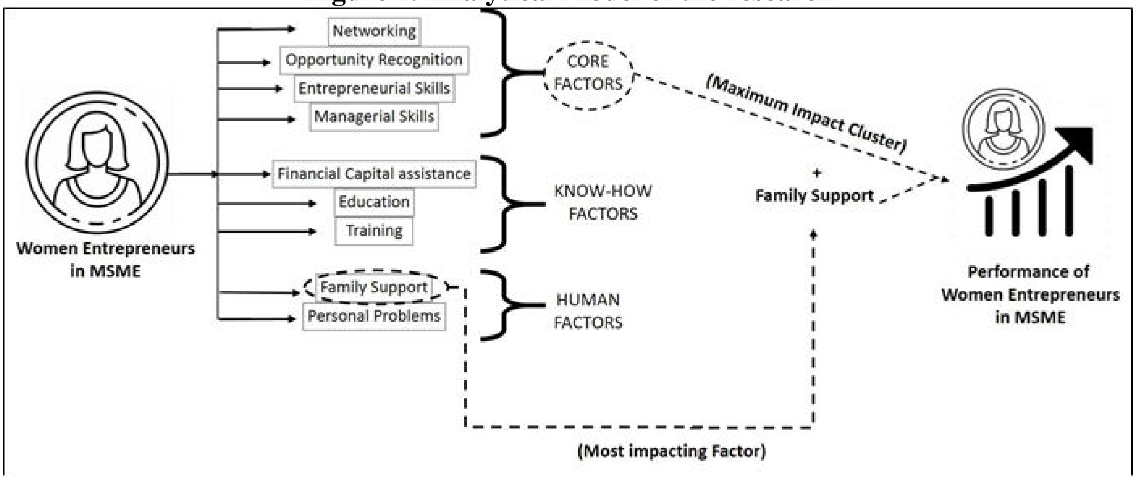
Such outcomes were also found in other studies. (Birley &Norburn, 1987; Brush & Hisrich, 1991; Hisrich & Brush, 1984; Hoad & Rosko, 1964) identified that managerial skills and particular strengths in generating ideas and dealing with people were important for a woman entrepreneur in establishing a business. Boyd, 2005 said that networks have long been hailed as essential to the survival of female-run establishments. (Carter et al., 2006) mentioned in their study that network is a critical element for entrepreneurs in gaining access to capital/loans, advice and information needed for initiating and operating a new venture easily. Hisrich & Brush (1987) suggested that support systems, mentors, and advisors; business associates and friends; participation in trade associations and women’s groups are the significant networks which are positively associated with business performance. Krishnan & Kamalanabhan, (2013) showed a significant direct relationship between entrepreneurial competencies like conceptual skill, strategic skill and learning leading to entrepreneurial success. Hasan & Almubarak, (2016) identified factors influencing women entrepreneurs’ performance and corresponding challenges in SMEs in Bahrain. They also examined the opportunity recognition as a mediator between influencing factors and performance.

Having said that, researchers also analysed that the 'Family support' having the highest mean of 3.96 under 'Human factor' is the most crucial variable which impact the performance of women entrepreneurs. Indian society in general is a male dominated society and it is still believed that the responsibility of managing home and taking care of children is the sole responsibility of the women of the house. In this situation if there is not ample support from all family members, it becomes difficult for the woman to manage house and work.

Thus, it is found that the family moral support is inevitable for the performance of women entrepreneurs. Family members' moral/emotional support may encourage women to become entrepreneurs or provide psychological help in dealing with business problems (Eddleston & Powell, 2012). Family moral support gives a woman entrepreneur confidence that she can manage her family-work responsibilities, thereby increasing the chances of business growth. Along with Moral support, Financial support from the family is equally important for starting the business and sustaining it. This has a positive impact on the performance of women entrepreneurs. For a woman entrepreneur to be able to launch and grow her business venture, family financial support may be valuable and indispensable (Cetindamar et al., 2012). If a women is secured financially with support from the family, then she can concentrate better on the managing and developing the business. We can see from the survey responses that 46% entrepreneurs in our study has used own fund for financing the business followed by 32% entrepreneurs started the business by takings fund from friends and family.

With this analysis, the researchers have developed an Analytical Model that depicts how the 'Core factors' along with the variable 'Family support' from the cluster of 'Human factors' impacts the performances of the women entrepreneurs. The model is depicted in the below figure 2.

Figure 2. Analytical Model of the research



The analytical model in figure 2, shows that the factors which impact the performance of women entrepreneurs can be clustered in three groups namely 'Core factors', 'know-how factors and 'Human factors', The factors under the cluster 'Core factors' have the maximum impact on the performance of the women entrepreneurs as they have the means ranking between 2 to 5. But interestingly 'family support' is the factor which have the highest mean, doesn't fall under the 'Core factors' cluster. Rather, it falls under the 'Human factors'. So, the researchers identified that 'Core factors' along with the factor 'Family support' impacts the performance of the women entrepreneurs in the MSMEs.

Having identified that the top most impacting factor i.e. 'Family Support', for women entrepreneurs' performance doesn't fall under the cluster which is most impacting, the researchers have further tested the importance of this factor by cross tabulating it with all the demographic variables like age, marital status, educational qualification and prior work experience.

Given below is the analysis of the relation between each demographic variable and the factor 'family support'.

Table 11: Demographic Variable: Age

		Family Support					Total
		Least Affecting	Not Affecting	Neutral	Affecting	Most Affecting	
Age	21-25	1	2	2	4	4	13
	26-30	2	0	2	3	2	9
	31-35	0	2	1	6	7	16
	36-40	2	0	3	6	8	19
	41-45	3	0	2	5	15	25
	46-50	1	1	2	4	4	12
	51-55	0	0	0	1	2	3
	56-60	0	0	0	0	3	3
Total		9	5	12	29	45	100

It can be seen from the above results that women across age group has said that family support is the most affecting factor which helps them in their performance.

The majority of our respondents (25%)are in the age group of 41-45 years, of them 80% have stated that family support is affecting / most affecting their performance. Even in the second largest age group, 36-40 years, which comprises of 19% respondents, 73% women have admitted that Family Support impacts their performance. If we further understand these two age groups, these are the women who have the maximum responsibility of managing their homes and children along with their business venture as compared to their younger counterparts. So without family support a work life balance cannot be maintained by them.

Table 12: Demographic Variable: Educational Qualification

		Family Support					Total
		Least Affecting	Not Affecting	Neutral	Affecting	Most Affecting	
Educational Qualification	Secondary	0	0	1	1	2	4
	Higher Secondary	0	0	0	1	8	9
	Graduate	2	1	5	9	14	31
	Post Graduate	5	3	2	11	12	33
	Technical/Professional	2	1	4	7	9	23
Total		9	5	12	29	45	100

From the table 12, it can be seen that out of 100 respondents 64 respondents are atleast graduates and of them 33 are post graduates. Thereby these two groups cumulatively have the maximum (64%) respondents. Out of these, 72 % respondents have agreed that family support is either affecting or most affecting their performance. This shows that despite higher educational background, women entrepreneur need support from families for better performance of their business. Moreover, if we see the groups with least education, it can be seen that 12 out of 13 women agree that Family Support is important and the remaining 1 is neutral about it.

Table 13: Demographic Variable: Marital Status

		Family Support					
		Least Affecting	**Not Affecting**	**Neutral**	**Affecting**	**Most Affecting**	**Total**
Marital status	Married	6	4	9	21	35	75
	Unmarried	3	1	2	7	7	20
	Widow	0	0	0	0	1	1
	Divorced	0	0	1	1	2	4
	Separated	0	0	0	0	0	0
Total		9	5	12	29	45	100

It is evident from the table 13 that 75% of the total respondents are married thereby creating the largest group. Of these 56 respondents (74%)mentioned the importance of their family support on their performance. In our Indian society where marriage is an institution that connects families, this response from married women makes it all the more clear that family support is inevitable for success of women entrepreneurs.

Table 14: Demographic Variable: Prior work experience

		Family Support					
		Least Affecting	**Not Affecting**	**Neutral**	**Affecting**	**Most Affecting**	**Total**
Prior work experience	No	3	3	3	6	19	34
	Yes	6	2	9	23	26	66
Total		9	5	12	29	45	100

The table 14 shows that the respondents having work experience are 66 out of the total 100 respondents. Out of 66 respondents, 49 respondents (74%) mentioned that family support is affecting their performance. Herein we can see that despite the exposure through prior work experience, majority of these respondents agree that family support is very crucial in their professional journey.

6. CONCLUSION

The research showed that the factors were grouped in three clusters namely, Core Factors, Know-how Factors and Human Factors. Core Factors had all 4 factors that impact the business acumen of an entrepreneur directly. The Know-how factor comprised of factors that depicts the Knowledge of entrepreneur. The third cluster, Human factor focused on the human aspects of the entrepreneur.

The research found that the Core factor stands out to be the most impacting cluster as all 4 of its factors are appearing in the top 5 factors derived using descriptive statistics. The four factors in this cluster were:

Managerial Skills – This reflects that it is very important for women entrepreneurs to understand the nuances of business management and thereby handle the various aspects of business.

Networking – Networking is the key especially for startups and businesses which are operating in the MSME segment. A robust network help in variety of aspects such as financial assistance, technological assistance, marketing, business development, logistics and many more. In today's world a good network is one of the most important non-tangible asset that one can possess.

Entrepreneurial Skills – While many of the respondents had prior work experience, the role of an entrepreneur is completely different than that of a professional. Therefore it is very important to not just possess the skill set of an entrepreneur but also the attitude. Especially in case of women entrepreneurs this becomes all the more important as the society at large is still predominantly patriarchal.

Opportunity Recognition – Generally for any business and specifically for MSMEs, opportunities are limited, so as an entrepreneur, one needs to have an eye for sensing the market demand and perform accordingly to grow.

While the above four factors stood out as an impactful cluster, the top most (rank 1) of the factor affecting women entrepreneurs was not a part of this cluster. It came from the cluster – Human Factors. This factor was 'Family Support'. The research shows that even today for a women to perform well in her career, she believes, her family plays a very crucial role. The family support is broadly understood in two sub parts – Financial Support and Moral Support.

With this understanding the researchers conclude that 'even today in Indian society, women entrepreneurs perceive that their family's support is the key for their professional performance however the core business acumen stands a close second.'

7. PRACTICAL IMPLICATIONS

The outcome of this research has brought to light some concrete implications which have the potential to strengthen India's dream of becoming AtmaNirbhar Bharat. Stated below are these practical implications that primarily focuses on two segments of our society- the policy makers and the educational & developmental institutions.

1. Policy Makers

The policy makers can give incentives that motivates the families to encourage aspiring women entrepreneurs take up their ventures. This incentives can be in form of:

- Proving initial financial support to dependent members of the family for a specific time period (1 to 1.5 years depending on the nature of business)
- Ensuring the physical safety of entrepreneurs.
- Reduction of the societal pressure that families face by promoting the importance of entrepreneurship through public interest advertising.

2. Colleges, Universities and Incubation centres

These institutions can play a vital role by identifying interested students and horne their entrepreneurial skills using techniques like seminars, townhalls, workshops, pep-talks by existing entrepreneurs and also vocational trainings. At the same time to ensure family support for these aspiring entrepreneurs in the years to come, these institutions should organise consultation sessions for the family members by subject matter experts.

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A STUDY ON ATTITUDE OF STUDENTS, PARENTS, TOWARDS STUDENT PARTICIPATION ON PHYSICAL EDUCATION AND SPORTS IN GOVERNMENT AND PRIVATE SCHOOLS

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ABSTRACT
The purpose of the present research was to describe and A Study On Attitude Of Students, Parents, Towards Student Participation On Physical Education And Sports In Government And Private Schools The method of the study is descriptive analyses, age group 14 to 17 years school boys and girls total fifty samples representing selected and To collect the data the Students , standardized scale devised by T.S. Sodhi .and parent standardized scale also T.S. Sodhi has administered on the subject who are participating in sports later't' test was applied to assess the significant difference in Students, Parents attitude towards Student Participation on Physical Education and Sports in Government and Private Schools" the conclusion was drawn that Government school have possessed the high comparing to their counterpart, it was rationalized that nature of Private Schools participation develops and cultivates the Students, Parents.

INTRODUCTION
Sports and games in the modern era occupy a very prominent and important place in the life of people and also in every sphere of life. Sport consists of physical activity carried out with a purpose for competition, for self-enjoyment, to attain excellence, for the development of a skill, or more often, some combination of these. Sports differ in their dependence upon a set of individuals or team skills, as well as in the ways in which they have their participants compete. As fitness and sports go hand in glove there is a need to develop the ability in an individual to play the game with good skill and perform consistently well.

The popular adage 'health is wealth' throws light on the need to maintain good health for the overall well-being of individuals and societies. As against this, there is a growing tendency, especially, among the youth to lead a sedentary life devoid of stress and strain. There are enough reasons why they are indifferent to sports, the whole world is on their finger tips, then why waste youthful energy on very ordinary things? Such an attitude bodes well for easy-going people, but not for the genuine practitioners of healthy living. 'All work and no play make Jack a dull boy' is an oft quoted proverb. Here, the emphasis is actually on the need to do regular physical exercise. Our perception of health is so ill-conceived that we tend to go for healthy foods instead of following a strict exercise regimen and good eating habits. No wonder, several people turn obese in their mid-twenties! 'A sound mind in a sound body' is the English translation of a Latin proverb quoted in academic circles everywhere. Our forefathers were ever mindful of the attributes of good health and were practitioners of regular physical activities. It is, therefore, very apt to go deep into the attitude of college students towards physical activity in general.

An attitude is more than a state of mind. It is a generalized tendency to think or act in a certain way in respect to some objects or situations, often accompanied by feeling. It is an enduring predisposition or readiness to behave in a particular way towards a given object or situation.

In this way attitudes are to a great extent responsible for a particular behavior of a person towards an object, idea or a person. But by this it should not be concluded that one‘s behavior is an absolute function of one‘s attitude. Behavior by all means is a function of both characteristics of behaving person and the situations in which he behaves. Hence a person may hold strong attitude and yet under circumstances, may behave in quite contradiction to those attitudes.

Parents’ attitude towards child’s education is important in determining school attendance and academic achievement of the child. Favorable attitude towards schooling and education enhances parents’ involvement in children’s present and future studies .Parent’s attitude towards their children’s education is affected adversely by low Socioeconomic Status of parents; it is assumed that the attitude of parents of tribal children will be unfavorable towards education. Parents’ attitude is a measure or an index of parents’ involvement. A child, brought up with affection and care in the least restrictive environment would be able to cope up better with the sighted world. Therefore, the family shapes the social integration of the child more than a formal school.

PURPOSE OF THE STUDY

The purpose of the study was to find out the “A Study on Attitude of Students, Parents, Towards Student Participation on Physical Education and Sports in Government and Private Schools”

HYPOTHESIS

1. It was hypothesiesied that there may be difference in the attitude of Students, Parents of government and private schools.
2. There would be a significance difference attitude of Students, Parents between of government and private schools.

METHODOLOGY

The purpose of the present research was to describe and A Study on Attitude of Students, Parents, Towards Student Participation on Physical Education and Sports in Government and Private Schools The method of the study is descriptive analyses, age group 14 to 17 years school boys and girls total fifty samples representing selected and To collect the data the standardized scale devised by T.S. Sodhi has administered on the subject who are participating in sports later‘t’ test was applied to assess the significant difference in Teachers attitude towards Student Participation on Physical Education and Sports in Government and Private Schools” the conclusion was drawn that Government school have possessed the high comparing to their counterpart, it was rationalized that nature of Attitude of Students, Parents, Private Schools participation develops and cultivates the Teachers. statistically analyzed by dependent’s’ test which is used to find out the significant improvement on selected criterion variables and Analysis of Covariance (ANCOVA) was used to find out the significant difference between the Government and Private Schools” on each variables separately. All the cases 0.05 level of confidence was fixed as a level of confidence to test the hypotheses.

Table-1: students of government and private schools with attitude scores towards student’s participation in physical education and sports

Schools	Mean	Std. Dev.	Std. Error	t-value	P-value
Government-students	8.53	1.51	0.39	4.5712	0.0001,S
Private-students	5.87	1.68	0.43		

From the results of the above table, it clearly shows that, the calculated value of t test is 4.5712 and the critical value of t with 28 degrees of freedom at 5% level is 2.0480. It indicates that, the calculated value i.e. 4.5712 is greater than 2.0480. It means that, a significant difference was observed between students of government and private schools with attitude scores towards student's participation in physical education and sports. Thus, the null hypothesis (H_0) is rejected and alternative hypothesis (H_1) is accepted. It means that, the students of government schools have significant higher attitude scores towards student's participation in physical education and sports as compared to students of private schools. In another words, the students of government schools are more interested in participation of physical education and sports than their counterparts i.e. students of private schools The mean and SD of attitude scores towards student's participation in physical education and sports is also presented in the figure given below.

Figure-1: students of government and private schools with mean attitude scores towards student's participation in physical education and sports

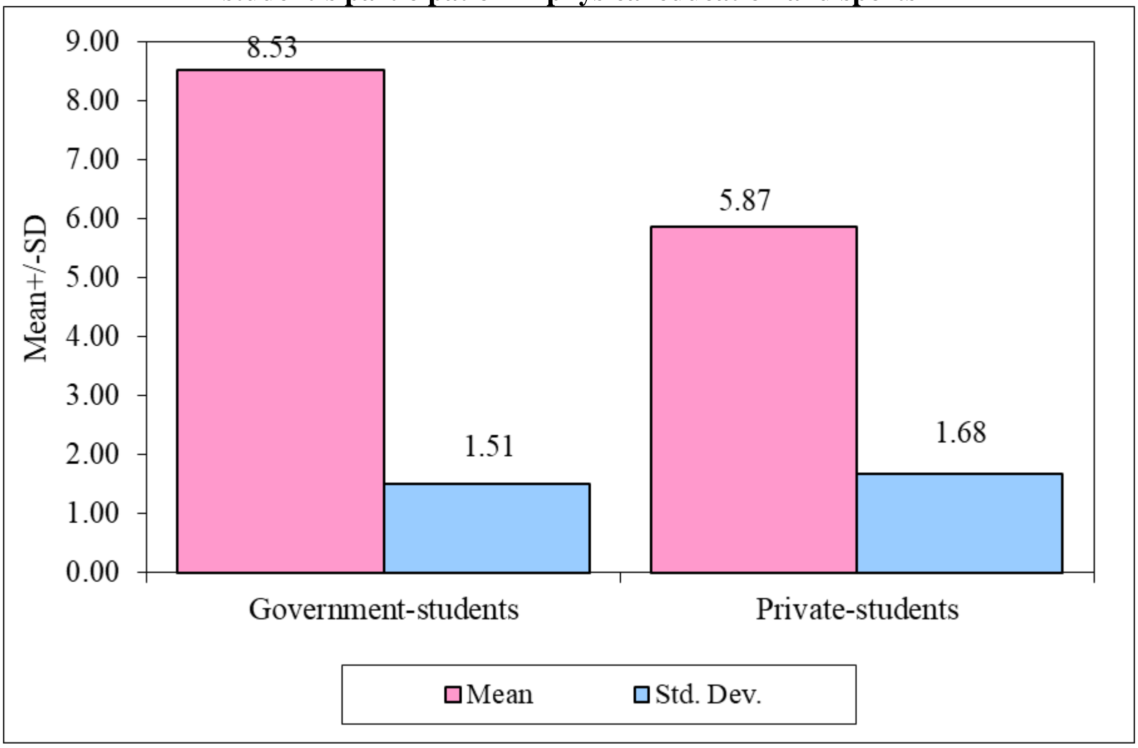
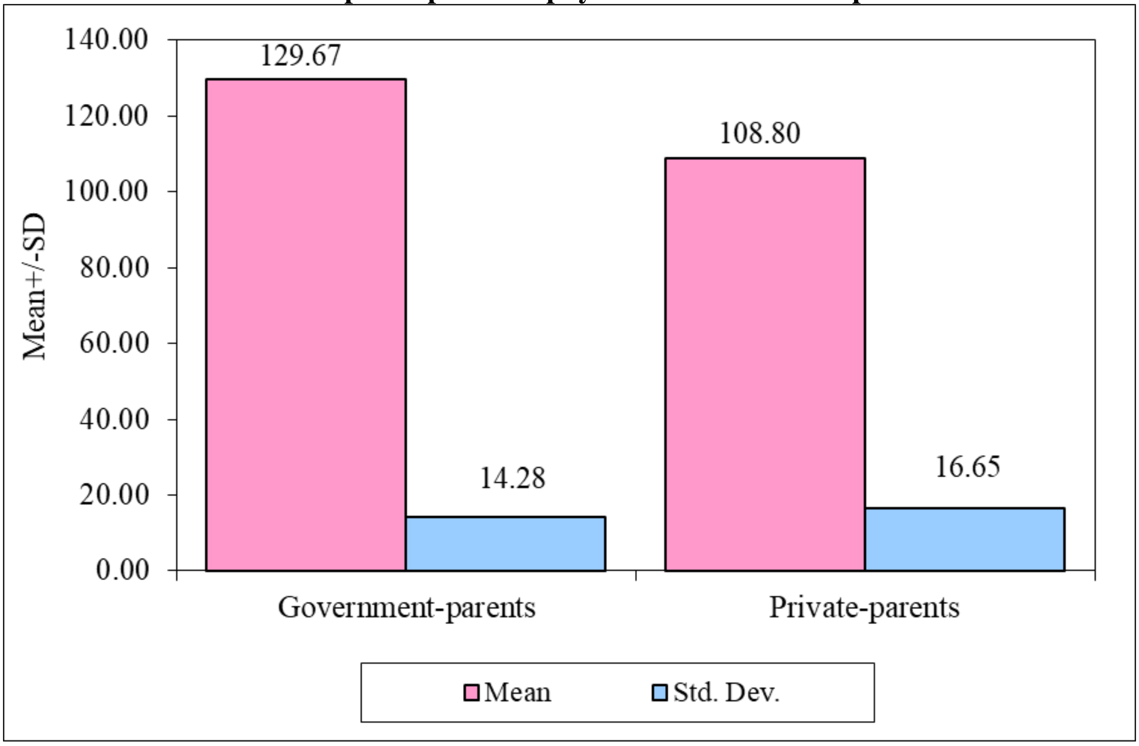


Table-2: parents of government and private schools with attitude scores towards student's participation in physical education and sports

Schools	Mean	Std. Dev.	Std. Error	t-value	P-value
Government-parents	129.67	14.28	3.69	3.6844	0.0010,S
Private-parents	108.80	16.65	4.30		

From the results of the above table, it clearly shows that, the calculated value of t test is 3.6844 and the critical value of t with 28 degrees of freedom at 5% level is 2.0480. It indicates that, the calculated value i.e. 3.6844 is greater than 2.0480. It means that, a significant difference was observed between student parents of government and private schools with attitude scores towards student's participation in physical education and sports. Thus, the null hypothesis (H_0) is rejected and alternative hypothesis (H_1) is accepted. It means that, the student parents of government schools have significant higher attitude scores towards student's participation in physical education and sports as compared to student parents of private schools In another words, the student parents of government schools are more interested in participation of physical education and sports than their counterparts i.e. student parents of private schools The mean and SD of attitude scores towards student's participation in physical education and sports is also presented in the figure given below.

Figure-2: parents of government and private schools with mean attitude scores towards student's participation in physical education and sports



CONCLUSION

The students of government schools have significant higher attitude scores towards student's participation in physical education and sports as compared to students of private schools. In another words, the students of government schools are more interested in participation of physical education and sports than their counterparts i.e. Students of private schools. The parents of government schools have significant higher attitude scores towards student's participation in physical education and sports as compared to student parents of private schools. In another words, the student parents of government schools are more interested in participation of physical education and sports than their counterparts i.e. Student parents of private schools.

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EFFECT OF SPECIFIC TRAINING PROGRAMME ON DRIBBLING PERFORMANCE AMONG UNIVERSITY HOCKEY PLAYERS

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ABSTRACT

The purpose of the study was to find out the effect of specific training on dribbling performance among university hockey players. To achieve this purpose of the study, thirty men hockey players were selected as subjects who were from the Bangalore central university. The selected subjects were aged between 18 to 28 years. They were divided into two equal groups of fifteen each, Group I underwent specific training and Group II acted as control that did not participate in any special training apart from their regular sports and games practices. The subjects were tested on selected criterion variables such as dribbling prior to any immediately after the training period. The selected criterion variable such as dribbling was measuring by w dribble test. The analysis of covariance (ANCOVA) was used to find out the significant differences if any, between the experimental group and control group on selected criterion variable. The 0.05 level of confidence was fixed to test the significance, which was considered as an appropriate. The result of the present study has revealed that there was a significant difference among the experimental and control group on dribbling performance.

Keywords: Specific Training, Dribbling & Hockey.

INTRODUCTION

The primary objective of sports training is to stress various bodily systems to bring about positive adaptation in order to enhance sporting performance. To achieve this objective, coaches and athletes systematically apply a number of training principles including overload, specificity and progression, organized through what is commonly termed per iodization. The application of these principles involves the manipulation of various programme design variables including choice of exercise, order of training activities/exercises, training intensity (load and repetition), rest periods between sets and activities/exercises and training frequency and volume in order to provide periods of stimulus and recovery, with the successful balance of these factors resulting in positive adaptation (1). Sport specific training is simply fitness and performance training designed specifically for athletic performance enhancement. Training programs for athletic performance enhancement could include such areas as strength, speed, power, endurance, flexibility, mobility, agility, mental preparedness (including goal setting), sleep, recovery/regeneration techniques and strategies, nutrition, rehabilitation, pre-habilitation, and injury risk reduction. A general program should include all of these components and a more specific program may only include a few, depending upon the athlete's specific needs (based on strengths, weaknesses and/or imbalances) and the demands of the sport they participate in (2). Every shot in hockey is not just one motion, but a combination of many subtle movements. Every part of your body is working together to generate power, accuracy, lift and control of the puck. If one part of your shot is lacking, or incomplete this will result in less power and accuracy (3). Field Hockey coaches are constantly on the lookout for drills and skills that are going to make their players better. Further, being able to put those drills together with a practice plan to reinforce those skills makes it all the more effective. Repetition of skills is the best way to get your players to perform better. Knowing what to do when the opportunity presents itself is one of the hallmarks of a good player. The more practice, the more inclined your players are to do the right thing at the right time. Skill development in essential to having a good field hockey team.

- Ball Control Drills
- Passing, Shooting and Attacking
- Offensive and Defensive Drills and Tactics

The dribbling drills can be inserted at any time during the practice. "Dribbling"; where the player controls the ball with the stick and moves in various directions with it to elude opponents. To make a pass the ball may be propelled with a pushing stroke, where the player uses their wrists to push the stick head through the ball while the stick head is in contact with it; the "flick" or "scoop", similar to the push but with an additional arm and leg and rotational actions to lift the ball off the ground; and the "hit", where a swing at ball is taken and contact with it is often made very forcefully, causing the ball to be propelled at velocities in excess of 70 mph (110 km/h). In order to produce a powerful hit, usually for travel over long distances or shooting at the goal, the stick is raised higher and swung with maximum power at the ball, a stroke sometimes known as a "drive" (5). While there may be some sense of specificity to a program designed for an athlete of a specific sport, the truth is that there is a limit to the amount of application/carryover of a sports performance exercise to a sports skill. The most sports specific training that can be done is the sport itself. Sports specific skills practiced for the sport are as specific as one can get. The same is true for shooting the puck. However, while there are sports specific skills necessary for each sport, there are also physical skills necessary for each sport. Sports preparation is necessary for the sport specific skills (shooting a basketball, pitching a baseball, etc.) and physical preparation is needed for specific performance enhancement such as foot speed, strength, power, etc.

1. Objectives of the Study

The main objective of the study was to assess the effect of specific training on dribbling which would help to enhance performance of hockey players. The present study was designed to obtain the data on the men players from various faculties of Bangalore central university.

2. Statement of the Problem

The purpose of the study was to determine the effect of specific training programme on dribbling among Bangalore central university hockey players.

3. Delimitations

a. The study was delimited to Bangalore central university.

b. The study was delimited to 30 hockey players; their age was 18 to 28 years.

c. The study was restricted to the dependent variable is dribbling performance and independent variables are specific training.

4. Significance of the Study

a. The findings of the study may be helpful for university hockey players to apply specific training which will help in better performance.

b. The findings of the study would be helpful for the trainers to know the role of dribbling influence their performance.

c. The results of the study may be helpful to fitness trainers, coaches, physical educationist and exercise physiologists to design proper training protocol for other populations.

METHODOLOGY

In the present study all the students studying in various faculties, Bangalore central university were considered as population for the study. A representative sample of 30 hockey players in the age of 18-28 years was chosen as sample for the study. The selected participants were divided into two groups. Group I underwent specific training and group II act as control group. The experimental groups underwent eight weeks of training in their particular workout. For this study dependent variable is shooting.

Test Administration – W Dribble Test

Purpose

The purpose of this test is to measure the dribbling ability of the hockey players.

Equipments and Materials

Hockey stick, balls, cones, stop watch, measuring tape, paper and pencil were used.

Scoring

The score is the elapsed time to the nearest tenth of a second between the starting from A to E and return back from E to A.

Analysis of Data

The data obtained were analyzed by analysis of covariance (ANCOVA). Analysis of covariance was computed for any number of experimental groups, the obtained 'F' ratio compared with critical F value for significance (7)

Results

The statistical analyses of dribbling performance due to specific training have been presented in Table I.

Table – I: Analysis of Covariance on W Dribble Test of Specific Training Group and Control Group

	Experimental Group	Control Group
Mean Pre test	**9.94**	**9.90**
SD	**0.19**	**0.31**
Mean Post test SD	**9.38**	**9.96**
	0.15	**0.23**

Significant at .05 level

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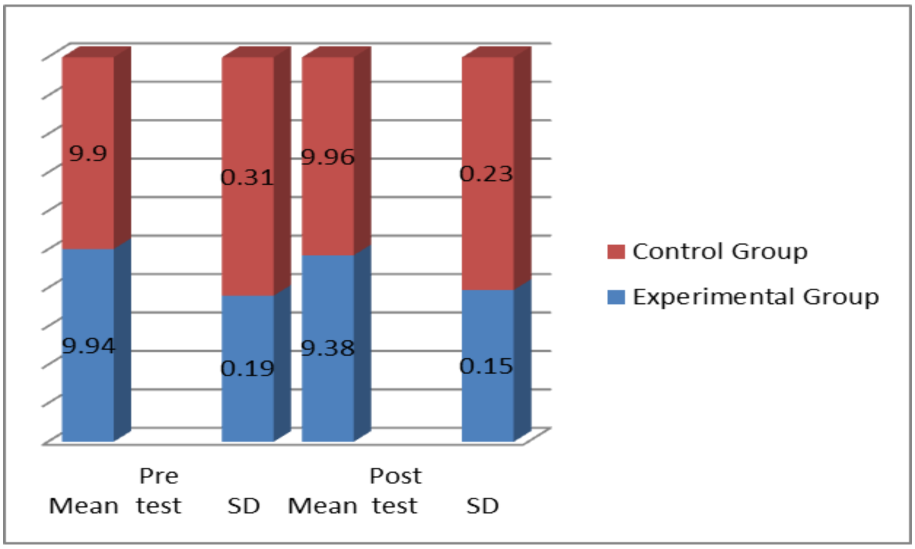
Graph -1: Analysis of Covariance on W Dribble Test of Specific Training Group and Control Group



Showed that the pre-test values of W dribble test for specific exercise training group and control group were 9.94 ± 0.19 and 9.90 ± 0.31 respectively. The obtained 'F' ratio value of 0.14 for pre-test score of specific exercise training group and control group on W dribble test was less than the required table value of 4.20 for significance with df 1 and 28 at .05 level of confidence. The post-test mean values of W dribble test for specific exercise training group and control group were 9.38 ± 0.15 and 9.96 ± 0.23 respectively. The obtained 'F' ratio value of 37.25 for post-test scores of specific training exercise group and control group was more than the required table value of 4.20 for significance with df 1 and 28 at .05 level of confidence. The results of this study showed that there was a significant difference among specific exercise training group and control group on W dribble test.

CONCLUSIONS

The results of the study proved that there were significant differences between control group and specific training group. The eight weeks of experimental treatment significantly influence on dribbling performance in university hockey players.

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UTILITY AND RISK OF SOCIAL MEDIA IN HEALTHCARE AND ITS REGULATORY FRAMEWORK IN INDIA

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ABSTRACT

Social media is increasingly becoming a powerful tool with more and more people and institutions embracing it. Growing usage of social media has created unprecedented impacts, benefits and risks for people in every aspect of life including healthcare. Social media platforms like Facebook, Twitter, YouTube, Instagram, blogs etc. have become the medium of choice for patients, professional and healthcare institutions. The user generated content has its own utility for the stakeholders in health care. Patients get instant information about a disease, its treatment, medical procedures, and medicines. Social media help them to connect with similar patients and various online help groups. This provides them the emotional support. They are able to easily connect to the health providers. They also get an opportunity to share health information, review doctors and hospitals. Patients/people also like to get health and diet tips on social media platforms.

For professionals/ Doctors, social media platforms provide a link to connect with peers and experts. They are able to provide patients education and online consultancy. The relationship of patients and professionals is becoming more equal due to enhance knowledge and connectivity. The health care service providers such as hospitals, pharmaceutical companies, insurance companies get a wider reach and social media help them provide better services at reduce cost.

However, the invasion of social media in daily lives has caused unpleasant experiences and unwanted impacts on physical and mental wellbeing. Many a times inaccurate and incomplete information put the lives of patients in danger. They feel that their privacy and confidentiality is lost. There is lack of security due to possible frauds, cyber bullying and abuse.

For professionals/health providers, social media is a pilferage of time. Undesired breach of patients' confidentiality may bring the risk of legal action, loss of professional image. Unprofessional behavior can even cause them loss of their profession license.

Thus, creating a regulatory framework to mitigate the risks and threats of social media has become a necessity. In India, up till now, there is no one specific legislation governing social media. However, there are varieties of other laws which provide relief. These are-

1. *Indian Constitution confers the right to privacy in India.*
2. *Indian Penal Code: Sections 292-294, 499, 503, 504, 153(A) and 295(A) provide protection against certain crimes.*
3. *Indian Medical Council (Professional Conduct) Etiquette & Ethics) Regulation, 2002 have set the professional standards & it regulates the nature and extends of doctor patients confidentiality.*
4. *Information Technology Act 2000 and 2008 provides safeguard against Technology based data breaches. Important section is 43(A), 72, and 72 A.*

5. *Personal Data Protection Bill 2020. The Ministry of Electronic and Information has introduced a data protection bill in the parliament during December 2019.The bill is applicable to processing of personal data. However ,bill is still with JPC (Joint Parliament Committee) and waiting to be passed*

Keyword: Social Media, Health Care, Utility, Risks, Regulatory Framework

THE USE OF SOCIAL MEDIA AS MARKETING TOOL FOR HOTEL INDUSTRY

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ABSTRACT
The emergences of social media technologies have benefited many service industries in promoting their services locally as well as globally. Hotel industry is also no exception. The importance of social media marketing is gaining popularity for the promotion of brand in Hotel Industry. The online content such as customer experiences, user feedback and product reviews generated by user in various social media websites become the important source of information for both consumers as well as business. This study aims to explore the implementation, challenges, and methods used to measure the role of social media platform in Hotel Industries of India. The study takes on a qualitative approach and the data collection has been done by using a semi structured interviewing technique. Content analysis has been adopted to derive the findings of the research. The findings of the study provide significant insights to the researcher, Hotel management and the consumer. It contributes in understanding the consumer behaviour in social media and the impact on boosting the sales revenue for this specific industry. Also the research work suggests some strategies to effectively design the user content in social media platforms to enhance consumer preferences for service quality and evaluate service performance.

Keywords: Social media marketing, Content analysis, Service quality, User Feedback, Consumer Behaviour

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IMPACT OF YOGASANA AND PRANAYAMA ON PHYSICAL AND MENTAL HEALTH OF SCHOOL STUDENTS

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ABSTRACT
Yoga gives controlled stretch to the muscles and improves the flexibility which is basic need for good physical health of school students. Asana help to relax the body and mind, by controlling the prana one can control the mind. Pranayama helps to gain control over the breathing, anulom and viloma has a soothing effect on the mind. By practicing meditation one can easily concentrate and relax. Present study is focused on finding Impact of Yogasana and Pranayama on physical and mental health of school students

***Keywords**: Physical and mental health, breathing practices, physical fitness.*

INTRODUCTION
The conceptual background of yoga has its origins in ancient Indian philosophy. There are numerous types of yoga, each having its own specific impact regarding the relative content of physical postures and exercises, breathing techniques, deep relaxation, and meditation practices that cultivate awareness and consciousness. The application of yoga as a therapeutic intervention, takes advantage of the various physiological benefits of the practices. The asana increase physical flexibility, coordination of mind and remaining body, strength. The breathing practices and meditation helps to be calm and focus the mind to develop greater awareness and diminish anxiety, and thus result in higher quality of life. Other beneficial effects might involve a reduction of stress, blood pressure, and improvements in resilience, mood, and metabolic regulation.

Yoga controls mental health, prevent depression, fatigue, anxiety, stress, posttraumatic stress disorder. It maintains physical fitness, sympathetic parasympathetic activation, and cardiovascular endurance. Regular practice of Yogasana improves cardio pulmonary conditions, hyper tension, pulmonary functions, metabolic processes, endocrine gland working, glucose regulation, musculoskeletal functions.

OBJECTIVE OF STUDY
- Evaluation of physical and mental health of female school students who don’t practice yoga.
- Evaluation of physical and mental health of female primary school students who practice yoga.

HYPOTHESIS
- There is no significant impact of yoga on physical and mental health of female school students.

METHODOLOGY
Descriptive survey method was adopted for present study. 100 female school students were randomly selected as sample. 2 groups of students i.e., control and experimental group were prepared. Each group consists of 50 female students. Students of experimental group practiced yoga regularly for 40 to 50 minutes. Students of control group didn’t practice yoga. Sample

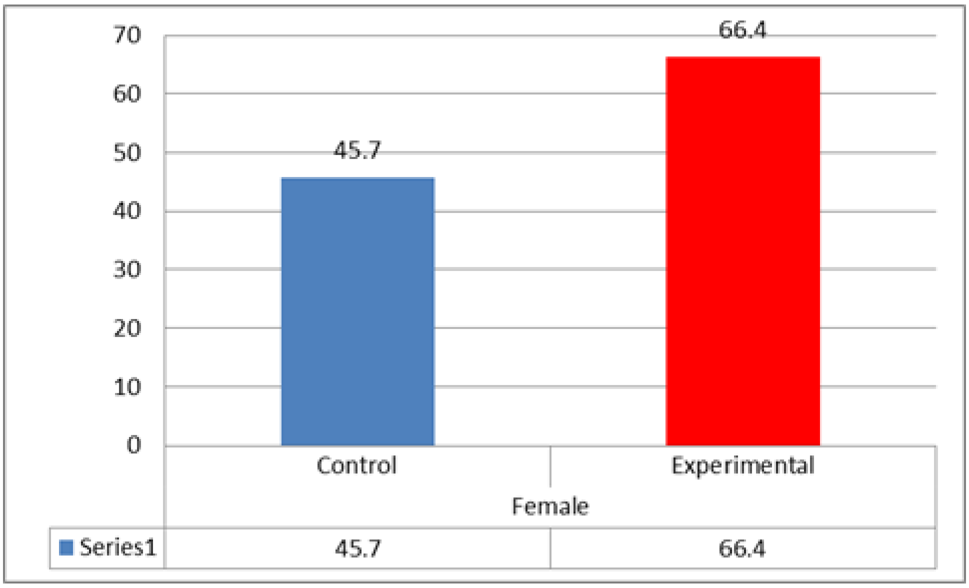
students were evaluated for their physical and mental health using a self prepared test paper. Collected data was tabulated and comparatively analyzed using mean, standard deviation and t value.

FINDING AND ANALYSIS

Table: Impact of Yoga on Physical and Mental Health of Primary School Students.

Gender	Group	Physical and Mental Health Status			
		Mean Value	Standard Deviation	t Value	Significant Level
Female	Control	45.7	1.34	0.78	0.05
	Experimental	66.4	1.0		

Fig: Impact of Yoga on Physical and Mental Health of Primary School Students



Data shows that yoga influence student's physical and mental health status of students. Female students, control group students have mean value 45.7 with standard deviation 1.34 while experimental group students have 66.4 mean values. For experimental group students mean found as 66.4 with standard deviation 1.04. Calculated t value is 0.78 which is significant at 0.05 levels. Hence hypotheses there are no significant impact of yoga on physical and mental health of female school students is rejected.

CONCLUSION

Yoga is helpful to keep better physical and mental health of school level students. The difference of impact on girls is not significant. Yoga increases self-confidence and self-efficacy. Govt. has accepted the importance of yoga that's why specific training sessions are organized for school teachers and students.

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EFFECTS OF FARTLEK AND PLYOMETRIC TRAINING ON SPEED PERFORMANCE OF FOOT BALL PLAYERS VIJAYAPURA

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ABSTRACT

The purpose of the study was effects of fartlek and plyometric training on speed performances of Foot Ball players Vijayapura. 45 from various schools. The selected subjects were of age group ranging from 14 to 16 years. The subjects were randomly divided into three groups and each group consisted of 15 subjects. Group-I underwent isolated fartlek training, Group-II was isolated plyometric training, and group-III act as control group was not given any special treatment. The experimental period was 12 weeks. Pre-test and posttest were taken before and after the training programme. The selected physical variables were Speed. During the intervention phase, a modified training program was offered by a well-trained to the experimental group under the supervision of the researcher at a school in Vijayapura. All participants were encouraged to continue their standard physical activities and routine procedures. The intervention phase 12 weeks and included morning 60 minutes and evening 60 minutes for alternative days in a week. To find out the significant Effects of fartlek and plyometric training on selected physical variable. The ANCOVA statistical technique was used to find the mean difference between the groups on physical variables. The results of the study revealed a significant group × test interaction ($p < 0.05$). Follow-up analyses indicated that while no group differences in physical variables existed between the four groups of the pre-test. In posttest all the experimental groups were found to have significantly ($p < 0.05$) better performance on the physical variables than the control group. The findings of the present study suggest that plyometric training improved the physical variables in school.

INTRODUCTION

Sports are integral part of the system of education. Training is a system of process in which Foot Ball players improve their fitness to meet the demands of their sport. Training uses both general and specific exercises to develop the Foot Ball players for their sport. Fartlek training refers to the training that uses some kind of fartlek to the contraction of a muscular force. In this training, the effort is normally performed more efficiently operating the Foot Ball players. Plyometric training involving repeated running to increase Speed. The plyometric training system can provide great amounts of energy but this system fatigues quickly. People participating in speed or power events like, football very familiar with this form of energy production.

METHODOLOGY

To achieve the purpose of the present study, 45 football players were selected from Vijayapur school, who had participated in the inter-school level tournaments. They were selected at random as subjects. All the subjects were of Vijayapura they had a similar academic work and regular activities in accordance with the requirements of their college curriculum. The selected subjects were of age group ranged from 14 to 16 years. The subjects were randomly divided into three groups and each group consisted of 15 subjects. Group-I underwent isolated fartlek training, Group-II was isolated plyometric training, and group-III act as control group was not given any special treatment. The study was conducted 12 weeks training schedule.Speed was selected as a dependent variable and it was tested through 50 meters run test. Pre test-post test-random group-research design was followed in this study. To find out the significant effects of aerobic and anaerobic training on selected Speed, analysis of covariance (ANCOVA) was computed (Clarke and Clarke, 1972) for the data collected aerobic, anaerobic, combined and control groups during pretest and posttest separately for each variable

Further to state, since four groups were involved, whenever the F ratio was significant, Scheffe's post hoc test was used determine which of the paired mean differed significance 0.05 was fixed.

RESULTS AND DISCUSSION

The statistical analysis comparing the initial and final means of agility due to effect of fartlek and plyometric training on selected physical fitness variable namely, Speed among Foot Ball players is presented in Table I.

Table –I Computation Of Analysis Of Covariance Of Agility.

	Faertlek training	**Polymetric training**	**control**	**Source of varience sum of squares**	**Sum of squares**	**df**	**Mean squares obtained F**	**obtained**
Pre test	**13.05**	**12.96**	**12.9**	**between**	**0.36**	**3**	**0.12**	**1.68**
				within	**5.45**	**76**	**0.07**	
Post test mean	**12.80**	**12.76**	**12.9**	**between**	**0.53**	**3**	**0.18**	**2.96**
				within	**4.73**	**76**	**0.06**	
Adjustmented post test mean	**12.83**	**12.77**	**13.9**	**between**	**0.87**	**3**	**0.29**	**17.79***
				within	**1.23**	**76**	**0.02**	
Mean Diff	**-0.16**	**-0.20**	**0.01**					

Table F-ratio at 0.05 level of confidence for 3 and 76 (df) =2.73, 3 and 75(df) =2.73 .*Significant

As shown in Table I, obtained F ratio of 1.68 on pre test means of the groups is not significant at 0.05 levels. This shows that there is no significant difference among the means of the groups at the initial stage and hence the random assignment of the groups is successful. The obtained F ratio on post test means is 2.86, and is significant at 0.05 level, being greater than the required F value of 2.73 to be significant at 0.05 level. Taking into consideration the pre test means and post test means, adjusted post test means are determined and analysis of covariance is done and the obtained F value 17.75 is greater than the required value of 2.73 and hence it is accepted. This shows that there are significant differences among the adjusted means on the Foot Ball players. Since significant improvements were recorded, the results were subjected to post hoc analysis using Scheffe's Confidence Interval test. The results are presented in Table II.

Table II Schaffer's Confidence Interval Test Scores on Speed

Fartlek training	**Polymetric training**	**Control group**	**Mean diff**	**C.l**
12,03	12.77		0.16*	0.12
12.83		12.96	0.13*	0.12
	12.77	12.96	0.29*	0.12

* Significant at 0.05 level.

The post hoc analysis of obtained ordered adjusted means prove that (1) there are significant differences between fartlek training and plyometric training groups (2) fartlek and control group (3) plyometric and control group and . It is found that (1) there was no significant difference between fartlek and plyometric group .The ordered adjusted means are presented through bar diagram for better understanding of the results of this study.

Discussions On Findings As shown in Table I, the obtained F value on the scores of pre test means (1.68) is less than the required F value, which proves that the random assignment of the subjects were successful and their scores in Speed before the training were equal and there were no significant differences. Taking into consideration the pre test means and post test means, adjusted post test means are determined and analysis of covariance is done and the obtained F value 17.75 is greater than the required value of 2.73 and hence it is accepted. This shows that the interventional programmes significantly improve Speed of the Football players. The post hoc analysis of obtained ordered adjusted means prove that there are significant differences between (1) fartlek group and control group (2) plyometric group and control group. Comparing between the treatment groups, it is found that (1) there are significant differences between fartlek group and plyometric group .Thus, it is proved that while fartlek group and plyometric group improve Speed of the Football players compared to control group, plyometric group is better than improving Speed of the Football players the differences are significant at 0.05 levels. Bames Schilling and Falvo (2007) found large magnitude of differences on Speed performance among different categories of athletes and Speed covers 34% of the variance of performance. Under the twelve weeks fartlek and plyometric training the subjects were induced to exert more energy and training themselves. The findings proved that the twelve weeks fartlek and plyometric training had significant influence in improving Speed of the Football players. The finding of this study is in agreement with the findings of Bames Schilling and Falvo (2007) who found significant improvement in run time, a Speed improved performance due to frequent training protocol

CONCLUSIONS

1. It is concluded that effects of fartlek and plyometric training significantly improve Speed of the Foot ball Players.
2. The comparing among the treatment groups, the plyometric training would be better than fartlek training group and control Speed of the Foot ball Players. .

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A SURVEY ON THE PERCEIVED IMPACTS OF PRIVATIZATION OF PUBLIC SECTOR UNDERTAKINGS

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ABSTRACT
Human resource management as a discipline has developed over the years and now it mainly focuses on training of individuals, providing opportunities to learn new skills, distributing beneficial resources besides concentrating on other development activities. India is expected to add about 250 million to its labor pool by the end of this year and the structure of domestic labor market has huge ramifications on labor outsourced by any nation with India being no exception. Privatization of public sector undertakings has been rampant in India since the 90s and the trends have increased in recent times. Under this backdrop, the present paper makes an honest attempt to assess the perceived impact of privatization of public sector undertakings on the society from a survey conducted on the general population on this issue. The results show that privatization of loss making public sectors are welcomed by the masses as they presume that it would enhance accountability, reduce negligence, give importance to customer service and satisfaction, and improve customer relationships.

Keywords: *customer, efficiency, employment, privatization, satisfaction.*

INTRODUCTION
Economist John R Commons first coined humans as resources in 1893 and the concept has grown since then. The main aspects of hiring, evaluating and compensating employees have taken a backseat today and full satisfaction of human resources is the present day mantra for sustainable development of nations. Human resource management as a discipline has developed over the years and now it mainly focuses on training of individuals, providing opportunities to learn new skills, distributing beneficial resources accordingly and concentrates on other development activities. It also ensures a match between the needs of an organization and that of an individual.

Human resource management is extremely crucial for India as she is one of the global hubs for labor outsourcing. India is expected to add about 250 million to its labor pool by the end of this year with additions at the rate of about 80 million a year, which is more than the entire labor force of the many countries. The structure of the domestic labor market has huge ramifications on labor outsourced by any nation and India is no exception. Migration also depends on various other factors like work pressure, job security, growth opportunities and incremental benefits besides the prime indicator named remuneration.

Privatization, described as the transfer of state-owned enterprises to private owners, is a common economic policy tool in the world. Privatization is not new to the government, although the government has always been vigilant about private sector participation in public enterprises. It has been argued that privatization of public sectors improves efficiency, curtails red tapes, reduces unnecessary costs and enhances accountability. On the other hand, it has been observed that human workforce productivity has improved under privatization but only when there are more job opportunities, the human resources can be provided with adequate rewards. Privatization of public sectors forces the companies to be efficient, or at least find some way to make profit in order to revive the loss making public sector but, it has also led to less transparency and inflexibility.

However, the transformation of public sector units to private sector has a questionable effect on human resources. It is argued that the government should have clear and transparent regulations regarding numerous issues that can create problems to employees due to privatization such as the management structure, concerns about labor performance and dealing with financial crisis. There shouldn't be any hidden policy and the undertaking must be approached separately so that the performance level improves.

REVIEW OF LITERATURE

According to Ojta (2013), there can't be universal rules for all countries. One standardized method may not be appropriate for some countries. Therefore, one should correspond to privatization based on local conditions. There should be transparency in implementing the sale process; otherwise, fraud and corruption charges can't be stopped in society. According to their study, Gooderham et al (2018) showed that human resource development has progressed a lot as an educational discipline and people understand much more than they did four decades ago. However, to move forward, they suggested, HRM needs to adopt a theoretically well-established approach to HRM in multilevel reference, such as, serving multiple stakeholders and recognizing the importance of time. The comparative contextual framework gives us the rationale that future HRM research agendas will need to put special emphasis on external references which is considered institutionally as the best theory. Earl and Shapak (2019) stated that although economic analysis of privatization has largely focused on a more controversial question, it often impacts a firm and its employee's performances. Both policy makers and scholars feel that employment and wage effects are negative and activists around the world react to the possibility of privatization with protest and attacks, especially when foreign bosses are involved. Rachman and Sari (2019) showed that in terms of human resources, improvement in public service development has a growing impact with future-oriented training and team building methods, motivation and performance of all existing personnel, improvement in pattern of services rendered and increase the ability of knowledge, skills and attitudes in providing services to community. Public service reforms in the perspective of strengthening organizational culture changed the mindset and cultural setup of each personnel, based on value, integrity, professionalism and government ethics. So, a service culture that is high accountable is established which is service oriented to the interests of the community.

Jerset (2012) conveyed through his study that there were neutral effects of the process of privatization on the performance of employees and their salaries. There was no statistically significant difference due to the effect of privatization process. Employees' performance just accounted for their demographic variables. Philippovic (2005) stated that privatization, with appropriate structural reforms, creates incentives for improving economic efficiency, increasing investment and adopting new technologies. In addition, personalization plays an important role in creating ways to implement, paves the way for the right incentives and proper economic restructuring. It is necessary to note that the success of privatization largely depends on the government's commitment towards regulatory reforms.

Moynihan and Pandey (2007) found that recognizing the impact of public sector management means identifying a simultaneous set of organizational responsibilities. One of the alleged practical benefits of public sector management is that it helps to recruit individuals in the public sector and strengthens employee relations, provides a foundation for loyalty, motivation and commitment, which is more effective than monetary incentives. Public organizations should be aware of the impact on management systems and other organizational institutions. According to

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them, reducing and improving regulations that clarifies the goals and employees can have a positive impact on public sector management.

OBJECTIVES OF THE STUDY

Privatization is considered as one of the issues which attract lots of attention in the economic sphere. The aim of the present study is to assess how privatizations affect human resources and also examine if transformation of the public sectors would have far reaching consequences on labor, social security and employment relationship (as per the perceptions of the masses). In this backdrop, the present paper makes an honest attempt to assess the under mentioned issues through surveys conducted on sample of different ages about their perspectives on the subject.

1) The prevailing perceptions about the public sector and private sector undertakings.

2) Impact on human resources due to privatization of public sectors.

3) Perceptual impact on society due to privatization of public sector.

DATA AND METHODOLOGY

For the purpose of the study, a close ended questionnaire was designed by the researchers. It contained questions related to privatization of public sector and its impact on the human resource, economy, market and customers. 80 people residing in Bengal were chosen through purposive sampling technique as samples for study. The sample consisted of people belonging to various professions and having an employable age (ranging from 20-50 years). The sample has equal representations of both genders. The respondents were personally interviewed and their responses were tabulated in excel. The data so obtained were summarized and meaningful inferences were drawn.

FINDINGS FROM THE SURVEY

		Female N=40	Male N=40
Age	• Below 25 • 25-40 • Above 40	50% 42.5% 7.5%	42.5% 55% 2.5%
Occupation	• Service • Business • Self Employed • Others	27.5% 7.5% 15% 50%	42.5% 2.5% 20% 35%
Which Sector will you prefer to work for?	• Public/ Govt. Sector • Private Sector	62.5% 37.5%	65% 35%
Do you think Privatization of public sector will revive the loss making public sector?	• Yes • No • Maybe	35% 20% 45%	45% 32.5% 22.5%
According to you, which of the following sector should not be privatized?	• Education • Defense • Railways • Oil and Natural gas • Health Care • Insurance • Private security • Others	20% 37.5% 20% 2.5% 15% 2.5% 2.5% 0%	7.5% 37.5% 25% 7.5% 7.5% 0% 5% 15%

As per the results from the survey, it is observed that more number of females and males surveyed prefer to work for public sector over private sector. Thus, employees till date wish public sector for employment. It is seen that both genders do not want few sectors to be privatized, primary among them being the defense sector, followed by education and railways. However, the sample had mixed views on the issue of privatization of public sectors for revival of losses.

Human Resource:

According to you, which sector focuses on talent for promotion?	• Public Sector • Private Sector • Both	17.5% 40% 42.5%	7.5% 62.5% 30%
According to you, what is the main cause for the underperformance of public sector?	• Lack of accountability • Lack of skilled labor • Too much job security • Unequal distribution of responsibility • Lack of proper training and guidance • Irresponsible consumer behavior • Others	10% 17.5% 30% 15% 17.5% 10% 0%	20% 7.5% 37.5% 7.5% 15% 7.5% 5%
Do you think privatization of public sector will create more job opportunities?	• Yes • No • Maybe	30% 30% 40%	37.5% 30% 32.5%
Do you think privatization of public sector will provide better and efficient training to the employees?	• Yes • No • Maybe	52.5% 15% 32.5%	65% 12.5% 22.5%
Do you think privatization of public sector will increase the efficiency and work ethics?	• Yes • No • Maybe	62.5% 15% 22.5%	67.5% 17.5% 15%
Do you think privatization of public sector will bring positive changes to the top level management?	• Yes • No • Maybe	50% 15% 35%	52.5% 17.5% 30%
Do you think in-house politics is more in private sector than public sector?	• Yes • No • Maybe	52.5% 17.5% 30%	45% 32.5% 22.5%

The result shows that private sector acknowledges talent more than the public sector. Thus, reward for efficiency in the form of promotion is more in the private sectors. It has been found that both the genders have the same perceptions regarding the cause of inefficiency of public sector. They feel that too much job security is the main factor for underperformance of public sector. Lack of skilled labor and lack of accountability are also deemed important factors in this regard.

The sample has mixed responses regarding creation of job opportunities due to privatization. The sample is confident that privatization of public sector will provide better and efficient training to the employees and also increase the efficiency and work ethics. Although most in the sample feel that in-house politics is more in private sector than public sector but still, they think that privatization of public sector will bring positive changes to the top level management.

Economy:

Do you think Privatization of public sector will contribute more to the economy?	• Yes • No • Maybe	25% 40% 35%	40% 40% 20%
Do you think privatization of public sector will help reducing the public finance crisis?	• Yes • No • Maybe	17.5% 35% 47.5%	35% 45% 20%
Do you think Privatization of public sector will increase the inflow of Foreign Direct Investment (FDI)?	• Yes • No • Maybe	50% 15% 35%	60% 17.5% 22.5%

The sample is indecisive about the contribution towards economy after privatization of public sectors. Thus from the nation's perspective, the sample is undecided about the gains. The sample is also not sure if privatization of public sector will help reducing the public finance crisis. But, the sample feels that inflow of Foreign Direct Investment (FDI) would increase due to privatization, as half of the total percentage of female and above 50% of the total percentage of male agreed on positive inflow of FDI after the privatization process.

Market

Do you think privatization of public sector will run the business more efficiently due to the profit motive?	• Yes • No • Maybe	65% 25% 10%	65% 12.5% 22.5%
Do you think privatization of public sector will lead open market economy?	• Yes • No • Maybe	47.5% 12.5% 40%	50% 32.5% 17.5%
Do you think privatization of public sector will encourage the shareholders to invest more?	• Yes • No • Maybe	45% 17.5% 37.5%	55% 25% 20%
Do you think privatization of public sector will reduce the cost of production?	• Yes • No • Maybe	50% 15% 35%	30% 52.5% 17.5%

Both the genders are optimistic that after privatization of public sector, the working efficiency would be enhanced. This view is shared by 65% of the sample. On the question leading to open market economy due to privatization of public sector, 47.5% of female and 50% of male acknowledged on it. 45% of female and 55% of male agreed that privatization of public sector will encourage the shareholders to invest more. In spite of the above benefits, the sample is indecisive whether privatization of public sector will reduce the cost of production.

Customers:

Do you think privatization of public sector will give more importance to customer service and satisfaction?	• Yes • No • Maybe	65% 5% 30%	67.5% 12.5% 20%
Do you think privatization of public sector will reduce the customer negligence towards the property?	• Yes • No	60% 15%	52.5% 30%

	• Maybe	25%	17.5%
Do you think privatization of public sector will improve customer relationship?	• Yes • No • Maybe	70% 7.5% 22.5%	57.5% 17.5% 25%

The customers are regarded as god by modern marketers and privatization seems to have positive effect on their satisfaction. Both genders share the same beliefs on the issue that the customers will get better service and satisfaction after the privatization of public sector. More than half of the total sample believes that pragmatic and beneficial effect will come after privatization of public sector regarding negligence of customers towards the public property. A high percentage of respondents (70% and 57.5% of female and male respectively) agreed that privatization of public sector would lead to improvement of customer relationship.

CONCLUSION

Privatization of public sectors has been a topic of discussion in every economic forum. One school of thought strongly argues for it and another against it. A survey among general employable masses residing in Bengal show that privatization of loss making public sectors are welcomed by the masses as they presume that it would enhance accountability, reduce negligence, give importance to customer service and satisfaction, and improve customer relationship. The sample also believes that there would be better management of assets and enhanced inflow of FDI due to privatization. Interestingly, the sample is not so sure about reduction in the cost of production, investment by general public in the newly transformed company, creation of newer jobs and reduction of public finance burden.

As regards to human resources, the sample is of the opinion that privatization would increase work efficiency, improve methods of performance through training and development of employees, improve overall work culture and create stimulus for institutional growth. However, the sample has strong opinions against privatization of few important sectors like defense, education, railways, health, etc. It is believed that privatization of these sectors would be injurious to the society in the long run. The prime cause of inefficiency and underperformance of public sector, according to the sample, are job security of employees, lack of accountability, lack of adequate skills or training etc. Interestingly, when personally enquired, the sample would prefer to work in the public sector in spite of these hindrances at workplace. It can thus be comprehended that privatization is welcomed by the general masses in public sectors (barring few sectors) but the general employees till date prefer to work in the public sector undertakings.

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A STUDY ON CUSTOMER'S INVESTMENT PATTERN IN INSURANCE SECTOR WITH SPECIAL REFERENCE TO LIFE INSURANCE

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ABSTRACT
Investors now have more options than ever before because to the diversification of the financial services industry. In order to make well-informed selections, investors must put in substantial time and effort into research and due diligence. In order to improve the probability of making sound financial decisions, investors should take steps to better comprehend their risk tolerance, conduct thorough research, diversify their holdings, and rebalance their portfolio on a regular basis. There are several alternatives to investing personal money, including bank accounts, fixed-deposit accounts, government and corporate bonds, insurance, property, commodities, stocks and mutual funds, chit funds, precious metals, etc. Insurance plays a vital role in the economy by channelling savings into loans for economic development and employment creation. The expansion of the insurance sector is being fuelled by government programs, democratic forces, a supportive regulatory framework, partnerships, product innovations, and active distribution channels. This research aims to understand the customer's investment pattern in the life insurance sector and to study the choice of insurance company for investment.

INTRODUCTION
Nowadays, it's not enough to just make a living wage; you need to invest that money in order to grow it. To be able to lead a life that is not just pleasant but also secure financially, one must not only toil away at one's career in order to accumulate wealth but also to devise strategies to maximise the value of that wealth. And this is how investments come to play a significant role in the life of an individual. In modern times, the financial services industry has grown more diverse, providing investors with a wide variety of opportunities to invest their money Anuradha & Anju (2015). However, with this increased diversity comes increased complexity, and investors must be diligent in their research and due diligence to ensure they are making informed decisions. The financial services industry continues to evolve and innovate, providing investors with more options than ever before. As long as individuals remain informed and cautious in their investment decisions, there is great potential for growth and success in this dynamic field. There are several alternatives to investing personal money, including bank accounts for savings and checking, fixed-deposit accounts, government and corporate bonds, insurance, property, commodities, stocks and mutual funds, chit funds, precious metals, etc. All investors, regardless of their comfort with risk, should invest the extra funds in the aforementioned assets Parimalakanthi & Kumar (2015). Individuals rely heavily on investment funds to help them save for long-term goals like retirement and large purchases. Insurance plays a vital role in the economy because it facilitates the channelling of individual and institutional savings into loans for economic development and employment creation European Commission (2013). The expansion of the insurance sector is being fuelled by numerous factors, including significant government programs, robust democratic forces, a supportive regulatory framework, an increased number of partnerships, product innovations, and active distribution channels. Additionally, the growing awareness of the importance of insurance among consumers and businesses is also contributing to the sector's growth. Another factor is the rise of digital technologies, which are enabling insurers to reach more customers and offer more personalized products and services IBEF (2018). In India, just a small percentage (10%) of the population actually has insurance. Although there is sufficient discretionary income to subscribe to the

insurance plans, for most people this is not a high priority. As a result, there is a long-standing debate that people should be required to adopt healthy insurance behaviours rather than given the choice. This not only protects the insured's life but also teaches them how to budget and save, which can lead to a substantial nest egg Tati & Baltazar (2018). The purpose of this research was to better understand what drives individuals to get life insurance by understanding their investment patterns in life insurance.

As per IRDAI Annual Report (2019-20), here are some numbers and facts regarding the life insurance Investment pattern of Indian consumers in 2019.

- India has the world's thirteenth-largest market for life insurance.
- In 2019, the overall premium income from the Indian life insurance market was 11.6 trillion (about $150 billion). This means that in 2019, Indians paid a total of 11.6 trillion Indian rupees in life insurance premiums. This is equivalent to about $150 billion in US dollars.
- The Life Insurance Corporation of India (LIC), New India Assurance, Oriental Insurance Company, and United India Insurance Company are the four largest insurance providers in the country.
- Although private insurers' market share is now quite low, it is expected to rise in the near future.
- In 2019, term insurance accounted for 60% of all new life insurance plans sold in India.
- In 2019, the typical death benefit paid out by an Indian life insurance policy was Rs. 2 million (about $25,000).
- The majority of Indians buy life insurance so that their loved ones will be taken care of monetarily in the case of their death.
- The typical Indian life insurance customer is 35 years old.
- In India, people may expect to live an average of 69.7 years.

Life insurance is highly valued in India, as seen by the size of the country's life insurance industry. Indians can provide financial security for their families in the event of their death by purchasing life insurance. It's also a chance for Indians to put money aside for things like retirement and education.

It is anticipated that the Indian life insurance industry will expand further in the coming years. The rising purchasing power of India's middle class, greater public recognition of the need for life insurance, and official government encouragement have all contributed to this development.

FACTORS INFLUENCING INDIAN CONSUMERS' SPENDING ON LIFE INSURANCE

- **Income:** Those in a better financial position are more likely to invest in life insurance.
- **Age:** Elderly are more inclined to invest in life protection.
- Those with larger families are more inclined to invest in a life insurance policy.

- ❖ A person's likelihood to get life insurance is increased if they are in generally good health.
- ❖ **Occupation:** Those with hazardous jobs are more inclined to invest in life protection.
- ❖ Individuals who are saving for something definite in the future, like retirement or their children's higher learning, are more inclined to buy life insurance.

BENEFITS OF LIFE INSURANCE

- ❖ Risk Coverage
- ❖ Tax-Deferred Growth
- ❖ Accelerated Benefits
- ❖ Death Benefits
- ❖ Cover for Health Expenses
- ❖ Guaranteed Income
- ❖ Loan Facility

REVIEW OF LITERATURE

In the research of **Rohatgi, Kavidayal & Singh, (2019)** Due to their lack of financial knowledge, small investors rely primarily on their friends and family for investment advice. They need additional resources to learn the fundamentals and become capable of making sound financial decisions on their own.

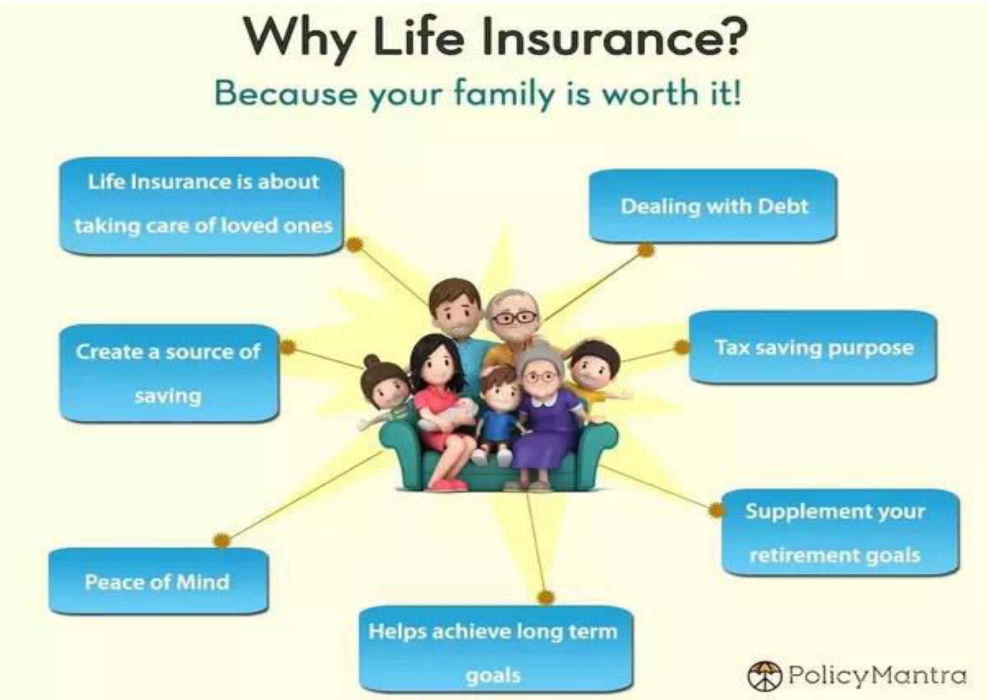
As per **Swadia (2017)** People save mostly for their children' college fund, but they also put money down for retirement, a house, a wedding, and other life events. Low risk, high rewards, and a short maturity term would all be important, but the security of the underlying premise would be the most important consideration. Investment, future spending, future tax savings, and the building of wealth are all motivated by returns. It is challenging for any investor to choose the optimal investment strategy.

According to **PWC (2019)** In order to make insurance more widely available, several companies now provide coverage for many hazards under a single umbrella policy. These policies are more cost-effective than buying separate policies, and they provide you more leeway in choosing which risks to insure. These plans can be rather comprehensive, covering not only the insured person's financial needs in the case of his or her untimely death but also those of his or her dependents.

According to **Vijayalakshmi & Ramasamy, (2018)** Individual and institutional investors face the same difficulty when attempting to make investments that maximise expected return while minimising risk. To make sound investments, private or institutional investors need to do thorough analyses of the financial markets. Policyholders' lives are insured by Life Insurance Corporation (LIC), which receives its funding from premium payments.

CREATING AWARENESS

Marketing plays an important role in creating awareness and informing customers about the importance of life insurance. Modern marketers start with customers rather than products or services. They are more interested in building a sustainable relationship than in ensuring a single transaction, which basically grows their customer base for life insurance. When it comes to successfully marketing life insurance services, having a promotional strategy that has been carefully thought out and designed is of the utmost importance. In order to effectively market life insurance services, it is essential to understand the target audience and their needs, as the marketing of insurance places a strong emphasis on the interests and preferences of the target audience. Conducting market research can provide valuable insights into what potential customers are looking for in a life insurance policy. Once this information has been gathered, it is important to develop a clear and concise message that highlights the benefits of the service being offered. Utilizing various marketing channels such as social media, email marketing, and targeted advertising can help reach a wider audience and increase the chances of converting leads into customers. It is also crucial to regularly review and adjust marketing strategies based on customer feedback and market trends to ensure continued success in the competitive life insurance industry.



Source: https://wflinsurance.com/blog/article.php?id=111

RESEARCH GAP

Numerous studies have been done on the insurance sector and the elements affecting policyholders' decision-making. However, no research has yet revealed the investment patterns of life insurance customers. This research has the potential to pave the way for more in-depth analyses of life insurance customers' investment patterns.

OBJECTIVES OF THE STUDY

❖ To understand the customer's investment pattern in life insurance sector

❖ To study the choice of insurance company for investment.

NEED OF THE STUDY

There is no way to predict or control nature. A person's life is similarly fraught with peril and mystery in this unpredictable environment. Injuries and even fatalities can result from the smallest of misfortunes. Since money has never, and probably never will, be able to buy a person's health or life, insurance is the best way to ensure that loved ones are taken care of financially after we are dead. and gone. Insurance policies can provide a sense of security and peace of mind, knowing that unexpected expenses and debts will not fall on the shoulders of grieving family members. Additionally, life insurance can also serve as an investment tool, allowing policyholders to accumulate cash value over time that can be used for future expenses or even as a source of retirement income.

RESEARCH METHODOLOGY

This research is descriptive in nature and relies on an examination of secondary data that has been made publicly available online. For the last three years, relevant data has been gathered primarily from the reports of the Insurance Regularity and Development Authority (IRDA), journals published on the subject, books published, and annual reports of various life insurance providers in order to study the current scenario of customers' investment patterns in life insurance and to explore the choice of insurance company for investment.

Indian Customers Investments Pattern 2012-2018 for Life Insurance

Year	Bank Deposits	Life Insurance Funds
2012-13	5751	1799
2013-14	6393	2044
2014-15	6027	2992
2015-16	6220	2660
2016-17	9418	3491
2017-18	4753	3272

Source: Indian Household Investments, Savings & Liabilities Data 2019 (relakhs.com)

The above table presents the investment pattern of the Indian customers in life insurance, as the table represents the decreasing trends of investment in bank deposits from 2012 to 2018, from 5751 to 4753, whereas the investment pattern in life insurance funds from 2012 to 2018 was 1799 to 3272, showing an increasing trend. Therefore, people are now more aware of the investment in life insurance, as it provides several benefits to customers. This shift in investment patterns can be attributed to a number of factors. Firstly, the low interest rates offered by banks on deposits have made them less attractive to investors. In contrast, life insurance funds offer higher returns and a wider range of investment options. Additionally, the increasing awareness among consumers about the benefits of life insurance has led to a surge in demand for these products. Life insurance policies not only provide financial security to the policyholder's family in case of an unfortunate event but also offer tax benefits and long-term savings options. As a result, more and more people are now opting for life insurance as a preferred investment option over traditional bank deposits. This trend is likely to continue in the future as consumers become increasingly savvy about their investment choices and seek out products that offer greater value and flexibility.

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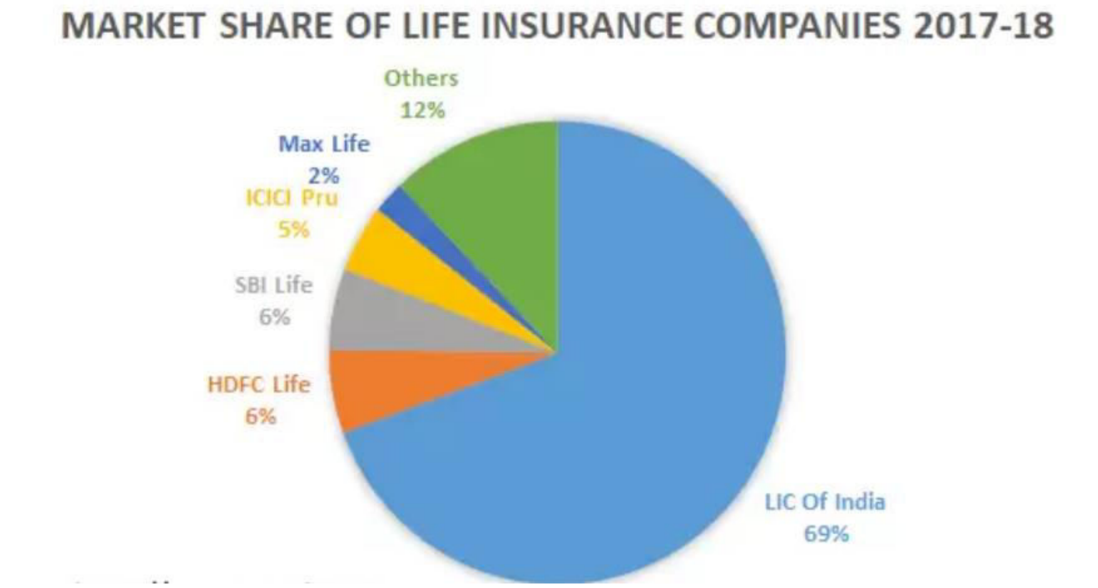
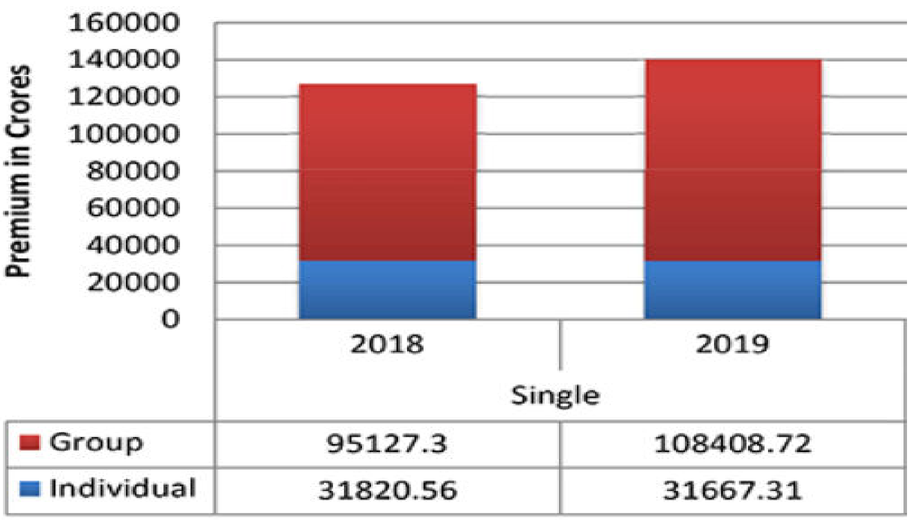


Source: Life Insurance Investment Plans India| Moneyexcel

The above table presents the market share of life insurance companies to analyse the customer's choice of insurance company for investment, and the survey conducted by MoneyExcel indicates that the majority of the customers (69%) are interested in public companies as compared to other private companies. This preference for public companies may be due to the perceived stability and trustworthiness of government-backed institutions. However, it is important to note that private companies can also offer competitive rates and personalised services tailored to individual needs. Ultimately, the choice of insurance company should be based on a thorough analysis of factors such as financial strength, customer service, and product offerings. It is also recommended to consult with a financial advisor or insurance agent to ensure that the chosen policy aligns with one's long-term financial goals and risk tolerance. By taking these steps, customers can make informed decisions about their insurance investments and secure their financial future.



Source: Indian Life Insurance Industry Analysis - 2018-19 - Insurance Funda

According to the above table the researcher focuses on another aspect of the investment pattern in life insurance, as customers prefer group policies over individual ones. This trend could be attributed to several factors, such as the lower premiums associated with group policies and the perceived sense of security that comes with being part of a larger pool. Additionally, group policies may offer more comprehensive coverage and benefits compared to individual policies. However, it is important to note that group policies may not always be the best option for everyone, as individual circumstances and needs vary. It is crucial for individuals to carefully evaluate their options and choose a policy that aligns with their specific financial goals and priorities. Overall, understanding investment patterns in life insurance can help individuals make informed decisions about their financial future and ensure that they are adequately protected in the event of unforeseen circumstances.

FINDINGS	SUGGESTIONS
The table demonstrates a transition in investing preferences from bank savings to life insurance proceeds in India. Reasons for this trend include rising consumer knowledge of the value of life insurance, low interest rates offered by banks, and the higher returns and greater variety of investment possibilities provided by life insurance funds.	Life insurance policies can also be customized to meet the specific needs of an individual and their family. This flexibility allows policyholders to choose the coverage amount, premium payment frequency, and policy duration that best suits their financial goals and budget.
The majority of the customers (69%) are interested in public companies as compared to other private companies.	The choice of insurance company should be based on a thorough analysis of factors such as financial strength, customer service, and product offerings. It is also recommended to consult with a financial advisor or insurance agent to ensure that the chosen policy aligns with one's long-term financial goals and risk tolerance.
Customers preferred group policies over individual ones	It is important for individuals to understand the different types of life insurance policies available to them.

CONCLUSION

Investing in life insurance can be a complex process, but understanding the patterns and trends of the industry can help individuals make informed decisions about their financial future. By analysing data on policyholder demographics, investment strategies, and risk management techniques, investors can gain a better understanding of how to maximise their returns while minimising their exposure to potential losses. Additionally, investors should consider factors such as policy fees, tax implications, and other costs associated with investing in life insurance. By carefully evaluating these factors and staying up-to-date on industry trends and developments, individuals can make smart investment decisions that will help them achieve their long-term financial goals.

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WOMEN ENTREPRENEURSHIP IN INDIA: OPPORTUNITIES AND CHALLENGES

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ABSTRACT
Women constitute around half of the total world population. So is in India also. They are therefore, regarded as the better half of the society. In traditional societies they were confined to the four walls of houses performing house hold activities. In modern society they have come out of the four walls to participate in all sort of activities. The Indian women are no more treated as beautiful showpieces. They are also enjoying the fruit of globalization marking an influence on the domestic and international sphere. . Woman constitutes the family, which leads to society and Nation. Social and economic development of women is necessary for overall economic development of any society or a country. Entrepreneurship is the state of mind which every woman has in her but has not been capitalized in India in way in which it should be. Due to change in environment, now people are more comfortable to accept leading role of women in our society, thought there are some exceptions. She has competed with man and successfully stood up with him in every walk of life and business is no exception for this. These women leaders are assertive, persuasive and willing to take risks. They managed to survive and succeed in this cut throat competition with their hard work, diligence and perseverance. Our increasing dependency on service sector has created many entrepreneurial opportunities especially for women where they can excel their skills with maintaining balance in their life. Propose of this empirical study is intended to find out various motivating and de-motivating internal and external factors of women entrepreneurship It will also suggest the way of eliminating and reducing hurdles of the women entrepreneurship development in Indian Context.

INTRODUCTION
Entrepreneurship refers to the act of setting up a new business or reviving an existing business so as to take advantages from new opportunities. Thus, entrepreneurs shape the economy by reating new wealth and new jobs and by inventing new products and services. However, an insight study reveals that it is not about making money, having the greatest ideas, knowing the best sales pitch, applying the best marketing strategy. It is in reality an attitude to create something new and an activity which creates value in the entire social eco-system. It is the psyche makeup of a person. It is a state of mind, which develops naturally, based on his/ her surrounding and experiences, which makes him/ her think about life and career in a given way. The women have achieved immense development in their state of mind. With increase in dependency on service sector, many entrepreneurial opportunities especially for women have been created where they can excel their skills with maintaining balance in their life. Accordingly, during the last two decades, increasing numbers of Indian women have entered the field of entrepreneurship and also they are gradually changing the face of business of today, both literally and figuratively. But still they have not capitalized their potential in India the way it should be. The first part of this paper deals with the ideas why to boost the women entrepreneurship and what are the reasons that propel women to undertake such profession. This part also depicts the factors of hindrance of women entrepreneurship and also the likely measures to be taken for removing such obstacles that are affecting women entrepreneurship. The second part deals with a review of various research studies done on women entrepreneurship along with study on their impact on various economies. The third part deals with objectives and research methodologies. The fourth part concentrates on analysis of data

collected through questionnaires to establish motivating and de-motivating internal and external factors of women entrepreneurship. The attempt has been made to rank these factors in regard to their severity of impact on women entrepreneurship. The last part of this study includes the suggestive measures for eliminating and reducing the hurdles for the women entrepreneurship development in Indian context.

Concept of Women Entrepreneurs:

Women Entrepreneurs may be defined as the women or a group of women who initiate, organize and operate a business enterprise. The Government of India has defined women entrepreneurs as ―an enterprise owned and controlled by women having a minimum financial interest of 51 per cent of the capital and giving at least 51 per cent of the employment generated in the enterprise to women‖. Women entrepreneurs engaged in business due to push and pull factors which encourage women to have an independent occupation and stands on their on legs. A sense towards independent decision-making on their life and career is the motivational factor behind this urge. Saddled with household chores and domestic responsibilities women want to get independence. Under the influence of these factors the women entrepreneurs choose a profession as a challenge and as an urge to do some thing new. Such a situation is described as pull factors. While in push factors women engaged in business activities due to family compulsion and the responsibility is thrust upon them.

Objectives

• To identify the reasons for women for involving themselves in entrepreneurial activities

• To identify the factors of hindrance for women entrepreneurship

Reasons for Women Opting for Entrepreneurship

The glass ceilings are shattered and women are found indulged in every line of business. The entry of women into business in India is traced out as an extension of their kitchen activities, mainly 3P‘s, Pickle, Powder and Pappad. But with the spread of education and passage of time women started shifting from 3P‘s to modern 3E‘s i.e., Energy, Electronics and Engineering. Skill, knowledge and adaptability in business are the main reasons for women to emerge into business ventures. Women Entrepreneur‘ is a person who accepts challenging role to meet her personal needs and become economically independent. Self determination, expectation for recognition, self esteem and career goal are the key drivers for taking up entrepreneurship by women (Moore & Buttner, 1997). Sometimes, women chose such career path for discovering their inner potential, caliber in order to achieve self satisfaction. It can also provide a mean to make best use of their leisure hours. However, dismal economic conditions of the women arising out of unemployment in the family and divorce can compel women into entrepreneurial activities

Obstacles for Women Entrepreneurship:

The entrepreneurial process is same for men and women. Successful men and women entrepreneurs undergo similar motivations and thus achieve success in largely same way under similar challenges. They are also found to have access to fund from the same sources. The same condition both men and women can be successful entrepreneurs. (Cohoon et.al. 2010). However, in practice most of the upcoming women entrepreneurs face problems that are of different dimensions and magnitudes than that faced by their male counterparts. These problems, generally, prevent these women entrepreneurs from realizing their potential as entrepreneurs. The major hurdles that the women face during starting and running a company generally come from financing and balancing of life. The balancing of life is caused due to lack of family support for the women. The other hindering external factors include gender discrimination, inaccessibility to information, training opportunities, infrastructure etc. Some internal factors like risk aversion by women, lack of confidence, lack of vision of strategic leader ,etc. can also create obstacles for the women entrepreneurship development.

METHODOLOGY

The research is based on secondary data. The secondary data is collected from review of past researches and other reports. The factors have been identified then classified into three categories factors responsible for hindrance, reasons for starting the business & reasons for success in women entrepreneurship.

Measures to Remove the Obstacles

The elimination of obstacles for women entrepreneurship requires a major change in traditional attitudes and mindsets of people in society rather than being limited to only creation of opportunities for women. Hence, it is imperative to design programmes that will address to attitudinal changes, training, supportive services. The basic requirement in development of women entrepreneurship is to make aware the women regarding her existence, her unique identity and her contribution towards the economic growth and development of country. The basic instinct of entrepreneurship should be tried to be reaped into the minds of the women from their childhood. This could be achieved by carefully designing the curriculum that will impart the basic knowledge along with its practical implication regarding management (financial, legal etc.) of an enterprise. Adopting a structured skill training package can pave the way for development of women entrepreneurship. Such programmes can train, motivate and assist the upcoming women entrepreneurship in achieving their ultimate goals. Various schemes like the World Bank sponsored programmes can be undertaken for such purposes. The course design should focus on imparting input on profitability, marketability and practical management lessons. Besides, there should be consideration in helping the women entrepreneurs in balancing their family life and work life. As a special concern, computer illiterate women can be trained on Information Technology to take the advantage of new technology and automation. The established and successful women entrepreneurs can act as advisors for the upcoming women entrepreneurs. The initiatives taken from these well established entrepreneurs for having interaction with such upcoming women entrepreneurs can be proved to be beneficial in terms of boosting their morale and confidence. It may result in more active involvement of women entrepreneurs in their enterprises. Infrastructure set up plays a vital role for any enterprise. Government can set some priorities for women entrepreneurs for allocation of industrial plots, sheds and other amenities. However, precautionary measures should be undertaken to avoid the misuse of such facility by the men in the name of the women. Even in today’s era of modernization the women entrepreneurs depend on males of their family for marketing activities. This is simply because they lack the skill and confidence for undertaking such activities. Women development corporations should come forward to help the women entrepreneurs in arranging frequent exhibitions and setting up marketing outlets to provide space for the display of products or advertisement about services made by women.

CONCLUSION

The study tried to find out the difference among various set of people of the crucial factors which are concerned with the women entrepreneurial opportunities at large. Issues have been identified through various review of literature. It should be cross checked with the real entrepreneurs. These factors may vary from place to place business to business but women entrepreneurship is necessary for the growth of any economy weather it large or small.

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ROLE OF GRAPHIC DESIGNING IN MEDIA TECHNOLOGY

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ABSTRACT
When we talk about business goals, ambitions and brand image then media becomes vital part of a business to create memorable print or online materials that strengthen business brand. Graphic designing plays an increasingly significant role in media planning focusing traditional media to integrating traditional media and new media. New media -- cable and satellite television, satellite radio, business-to-business e-media, consumer Internet, movie screen advertising ,videogames .

Keywords: Information Design, Branding, Promotional Design, Advertising, Environmental, Ethics

INTRODUCTION:
Graphic design began with written language and over the centuries evolved into a significant element of communication. Using words and pictures to present ideas visually is a creative as well as a technological process. A graphic design is a visual representation of an idea that relies on the creation, selection, and organization of visual elements to create an effective communication .Effective **graphic design** from a marketing point of view should be simplistic in nature in order to accomplish marketing objectives. It is your "silent salesperson" wordlessly promoting your products and services, generating a reaction from potential customers. When graphics are at their finest, they strengthen your brand and entice people to read the content of your print and advertising materials. At one point or another, almost every business encounters problems related to graphic design, advertising, or marketing brand and also the content of printing and advertising materials.

OBJECTIVES:
a) To create a contemporary look, brand recognition and consistency in their graphic product or service marketing or advertising strategies to generate future profit.

b) To make your visual image work as the "silent salesperson" every business needs.

c) To successfully develop your corporate image and brand recognition.

d) To reach the target audience

e) To make effective graphic communication, this can create a consistent, pleasing image of business.

f) To promote products and services that meet customer needs.

g) To make broader career and survive in the market.

Specialized Areas:

a) Information design is highly specialized area of design involves making large amounts of complex information clear and accessible to audiences of one to several hundred thousand.

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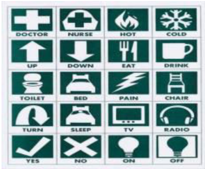


b) Identity design involves the creation of a systematic visual and verbal program intended to establish a consistent and spirit or image for a brand or group .

– Also called corporate identity, brand identity, and corporate design.

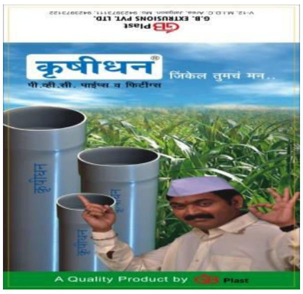
c) **Promotional Design:** Design intended to introduce, sell, or promote brands (products and services), ideas, or events and to introduce or promote groups and social causes.

d) Branding

– The entire development process of creating a brand, brand name, and a brand identity.

- Entails developing an entire brand experience

• Comprehensive strategic, unified, integrated, creative program for a brand including every graphic design and advertising application for that brand with an eye and mind on how consumers and individuals experience the brand or group as each interacts with it.



e) Publication design involves the design of editorial content & also called editorial design.

The publication designer makes content accessible, interprets the content's intention to clearly communicate, enhances the reader's experience, and establishes a voice, character/spirit, and format for the publication

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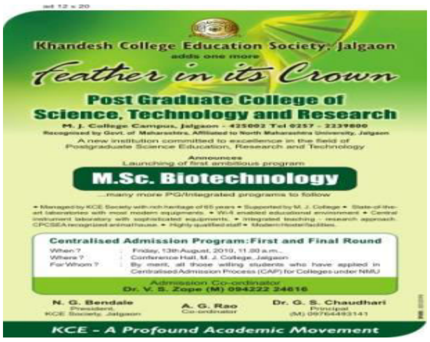
f) Advertising

– Involves generating and creating specific visual/verbal messages constructed to inform, persuade, promote, provoke, or motivate people on behalf of a brand or group

- “group” represents both commercial industry and social cause (non-profit) organizations)
- Can be of newspapers, bus-stop posters, in-store displays, banner ads, television programs, web & internet ads where role of graphic design is different in order to reach your desired audience.



G) Environmental Design

– Solves problems about information or identity communication in constructed or natural environments, defining and marking interior and exterior commercial, cultural, residential, and natural environments

Ethics:

I observed different graphic designs like logo design, business card design, broacher design, letter head design, corporate identity, packaging, web template design, website design, books etc. I found many creation mistakes causes poor quality design. To make quality design my recommendations based my own experience are as follow:

- To give more emphasis on the well written head line.
- Use white background behind sales message .

- Use light patterned background.
- Try to free up some extra white space between tables & photos.
- Avoid color overload
- Use shorter & easier to read line text.
- Use majority of the colors in the graphic header & keep the competing colors off the page that focus on sales message.

What graphic design software do you use to create your design materials?
Graphic designers use a large set of tools to create websites, print designs, corporate identities, brochures, trade show displays and interactive media materials. Some of them items are Adobe Photoshop,Adobe Illustrator ,Adobe Image Ready ,Adobe Flash,Quark Express ,Paint Shop Pro,Freehand ,GIMP .

SUMMARY:

- Graphic design and advertising plays a key role in the appearance of almost all print, film, and digital media forming society's popular visual landscape.
- Graphic Designs can persuade, inform, identify, motivate, enhance, organize, brand, rouse, locate, engage, and carry/convey many levels of meaning.
- Graphic designers and advertising art directors are the creative professionals who, through ethical practice, use a visual language to convey messages to an audience.

As the saying goes, "A picture is worth a thousand words." This is very true in visual communication and graphic design.

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NEED OF KNOWLEDGE MANAGEMENT EDUCATION IN THE CURRICULUM OF LIBRARY & INFORMATION SCIENCE COURSE IN INDIA

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ABSTRACT
Knowledge Management is a fastest growing faculty in each and every sector of business and communication. An Indian Education System always accepts and implements the new and advance concepts of management and technology. The same attitude is expected by adding the subjects of Knowledge Management in the curriculum of Library and Information Science Course. It is not expected that the students of LIS has to perform the role of Librarian or Information Management Professional only. The core intention of LIS course should be to develop the students with strong and skilled Knowledge Management Attitude.

There is wide scope for Knowledge Management Professionals in various sectors of business and communication in India and abroad. This research paper gives information about the need of Knowledge Management Education in the Curriculum of Library & Information Science Course in India.

Keywords: Library, Information Science, Knowledge Management, LIS Curriculum, intellectual asset, KM Education.

INTRODUCTION
Knowledge management as an organizational innovation has been with us for more than a decade. Knowledge Management (KM) is the process of gathering, managing and sharing individual's knowledge capital in each and every sector of business and communication. Knowledge sharing throughout the organisation enhances existing organisational business processes, introduces more efficient and effective business processes and removes redundant processes. It is a discipline that promotes a collaborative and integrated approach to the creation, capture, organisation access and use of an enterprise's knowledge assets.

KM has now become a mainstream priority for each and every type of organizations. Capturing most valuable knowledge asset and distributing it effectively across the enterprise is a business critical issue for many help desk, customer support and IT departments. As a discipline, it has reached a state of maturity where we can now discern the principles, practices, and tools that make it unique. As a discourse, it has engendered new concepts and categories for us to make sense of the many important ways that organizations use knowledge to create value.

Various sectors like education, media, journalism, information centres, KPO, BPO, Research and innovation is running on the base of knowledge management only. Now the IT organizations also realised the importance of Knowledge Management and they are implementing such practices in their organizations to secure their intellectual asset. As the Knowledge Management having such a big importance, there is wide scope and demand for Knowledge Management Professionals. An education system (Universities & Autonomous Institutions) of the country should always be prepare to build such resources by introducing new course curriculum or making necessary changes in existing course curriculum.

Scope and Careers in Knowledge Management
Opportunities for KM in a business commence when a company begins to develop its first product or service. KM processes simply become part of "how knowledge workers conduct their everyday work." As KM permeates the core business processes of the organization, there will be

less and less need to refer to KM as “something completely different” or something that is done apart from and in addition to “real” work. The evolution of KM will continue to integrate more seamlessly with core business processes, and the scope of KM will continue to expand to all types of organizations whether they are for profit or non-profit, regardless of the type of industry. The value of KM will be reaped through the thoughtful application of the knowledge and know-how stemming from the organization’s collective experience. As more and more organizations transform themselves into KM-enabled enterprises, KM will no longer be a shiny new thing to point at or a lofty ideal to strive for—KM will be an essential ingredient of all successful organizations.

There is a wide scope for Knowledge Management practices in India and abroad in various sectors like .....

- Education
- Media
- Journalism
- Information Centres
- KPO Organizations
- BPO Organizations
- Analytics Services providers
- Research and Innovation centres
- Manufacturing Organizations
- IT Organizations

And many more such organizations where knowledge management is the base of business and transactions.

Organizational KM Roles are ....

Managerial
- Chief Learning Officers (CLO)
- Chief Knowledge Officers (CKO)
- Knowledge Managers
- Knowledge Initiative Managers
- Knowledge Management Experts
- Knowledge Transfer Experts
- Knowledge Engineers
- Knowledge Foot Soldiers
- Knowledge Strategist

Technical
- Knowledge Analyst
- Knowledge Mapping Specialists

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- Knowledge Content Creators
- Knowledge-Base Architects and Administrators

Non-Management
- Librarians
- Cybrarians
- Information Brokers

Required Skills for KM Profession

Following are the major skills required for KM Profession :

- Content Analysis and Development
- Data Mining and Data Analysis
- Data Warehousing
- Contents/knowledge System Designing and Modeling
- Knowledge Engineering and Management
- Knowledge Warehouse
- Digital library
- Expertise on Contents/Knowledge Mgmt. Tools

Future of KM

In a global economy, knowledge is a company's greatest competitive advantage and it will be the currency of the new economy. Intellectual capital must be treated properly and shared appropriately with others in the organization. Successful companies of future will be those that do the best job of capturing, storing and leveraging what their employees know and how fast they can know something new. To build an organization for the future, there is a strong need to systematically enhance organization learning and manage the knowledge assets to benefit the company.

Success of knowledge organizations will also depend upon their ability to attract and retain the best knowledge workers for as long a time as possible, in the organizations. Following factors have great scope for development .....

- Freeing KM from the bonds of strategy
- Developing the Enterprise Knowledge Portal
- Developing a comprehensive system of KM Metrics
- Developing the Open Enterprise
- Creating Communities of Inquiry
- Developing Value Theory in KM
- Transcending KM standards development.

Status of KM Education in Indian universities

In most of the foreign universities the LIS course curriculum is designed such a way that the students can work in the capacity of Knowledge Management Professional as well. Along with the foreign universities have introduced various degree level courses with specialization of Knowledge Management. Even they have the KM specialization at research degree level.

In India, the status of KM Education is below average level. Only Kerala University is running a PG Diploma in Knowledge Management and Indian Institute of Management is running executive program on ‘Knowledge Management’. The Mumbai University is running a degree course named ‘Master in Information Management’ having very less KM topics in the curriculum.

The plus thing is that each and every university is running ‘Library and Information Science’ course from certificate to research degree level. The centralised idea of LIS course should be to build the resources with Knowledge Management attitude and not only the librarians who are managing the books and not the knowledge. But the curriculum of LIS course is not compatible to build such resources with such great Knowledge Management attitude.

When the course title includes term ‘Information Science’, then we have the scope to introduce the KM topics along with data and information topics in the curriculum.

Generally the students think that LIS course is prepared only for library jobs. And there is no scope other than. There is a general criticism of LIS professionals that they are not ambitious and have no high expectations. The course curriculum and the lacking of supplementary skills education are responsible for such attitude. Hence, they fail to seize opportunities that are available to engage in KM.

In India arranging Extra Lectures, Workshops, Seminars, and Conferences on Knowledge Management are very rare.

CONCLUSION

It is expected that an education system of the country should always open to make necessary changes in existing course curriculum or otherwise introduce new course which will fill the gap or required skills and fulfil the skilled resource demand. KM educational programs should solidify KM as a field of study, prepare students for careers as KM professionals, and contribute to the evolution of professional KM practices.

In India, where each and every university is running ‘Library and Information Science’ course from certificate to research degree level then we have to take an advantage from that. The Education Systems should reduce or replace previous course topics with new and advance which enable to build Knowledge Management attitude.

The LIS course curriculum should redesigned with understanding of core competencies and skills for KM Professionals which includes ......

- Extracting Data from various sources
- Data Analytics
- Content Analysis, Writing, Development
- Knowledge Engineering

People: Knowledge Creation, Knowledge Sharing & Learning

Management: Capturing Knowledge, Organizing Knowledge

Application: Accessing/Searching/Disseminating Knowledge, Discovering/Using Knowledge

- Content management and Knowledge Management using System

Even the LIS Professionals should have a broad view and go beyond the narrow scope of their profession to successfully engage in Knowledge Management. This will entail an expansion in their roles and responsibilities, including the acquisition of new skills and the ability not only adapt to change, but also prepare for it and shape it. Also, since KM is not owned by any single group, profession or industry, librarians need to understand the multiple perspectives of other players.

This year University Grant Commission has suggested to the Indian universities to review their running courses after every three years. So that they can make necessary and advance changes in the course curriculum as per the business needs.

This is good sign and opportunity to make necessary changes in the course curriculum of Library and Information Science to fill the gap with Knowledge Management topics. Because knowledge is power of innovation and change!

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INFORMATION FROM SEARCH ENGINE IS BOON OR BANE FOR INNOVATION

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INTRODUCTION

The World believes that India is Innovation Hub, there are so many researches, innovations, inventions happened in India, or from the people of India. The World Wide Web (WWW) has become the most accessible source of information. Corporate people, PHD or Research students, Teacher of almost all streams are dependent on Internet through Search Engines instead of going for a Good Text book, Journal, or any other source. Because of its easy accessibility and less time consumption feature, nowadays we all try to get Information from it and most of the times rely upon it also.

But the question is that, is this Information Really Reliable? Is this hampering our Innovation skills; is it making our mind to think less and copy paste more?

My Research Paper gives the light upon these issues and tells us the methods to make the search engine Information Boon, not Bane.

Search Engine:

Search Engine is one of the most popular www applications. A web search is a search system designed to search for information on the World Wide Web. Information may consist of web pages, images, videos, or other type of files. Some search engines also mine data available in databases or open directories. Unlike web directories, which are maintained by human editors, search engines operate algorithmically or are a mixture of algorithmic and human input. [1]

Basic Web Search Engine Architecture:

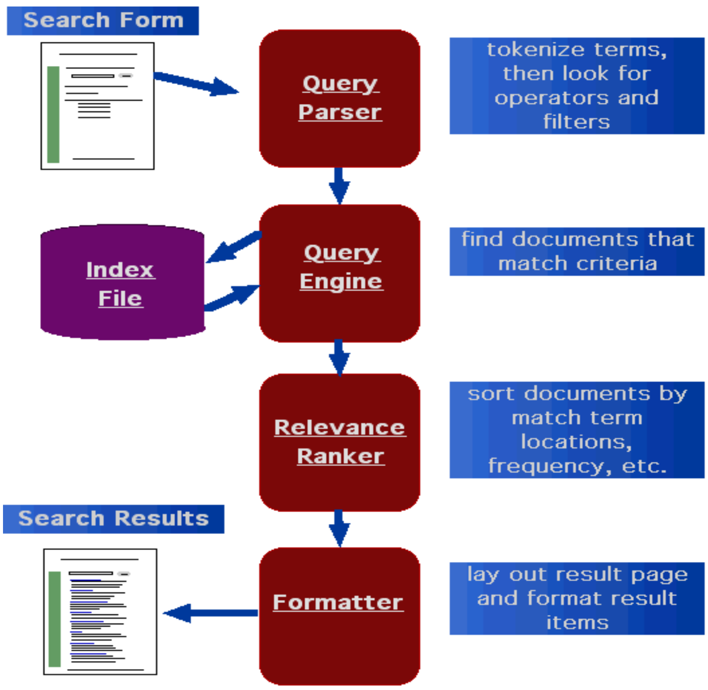

Figure: 1

Importance of Search Engine in our life:
Some people can't think their life without Internet or we can say without Search Engine, if I am not being exaggerated then in most cases I can say Search Engine is a synonym of Internet. When we think about search engine the first thing comes in our mind is Google, yes Google is the most popular search engine and we all know that. With the exponential growth of the World Wide Web, people have to rely upon search engines, such as Google, Yahoo, and MSN search; they have been playing an important role in people's daily life. We are living a very good life with the help of search engine, whole day don't need to go anywhere for any information let it be a news, literature, song, movies, any course related topic, about celebrities , you name it and search engine will make it ready for you, right on your screen.

Here, the issue is more complex than it seems at the first sight. With today´s computers and Internet, the access to information is freer than ever. And Search Engines showed up to organize all that information and serve it on demand.

Our senses, typical for all live organisms, will all be extinguished.

Because an issue arises from all this: why should one study anymore since he finds everything on the Internet? And the problem is, for many people this question doesn´t have an obvious answer.

So there is a big risk that we, or at least our children, will forget how to handwrite (word processors rules!), will forget the multiplication table (Google will do it!), will forget anything related to literature (Literature, why to study it? when the whole encyclopedia of every literature is freely downloadable!), history (there´s wiki), natural sciences and so on.

The problem is, sooner or later we won´t be able to distinguish what is true and what is false, since all our information sources have moved to online, the truth will lay on the first page of the SERPS (search engine results pages). We don't want to stress our mind by memorizing things or don't want to waste our energy by searching it or recalling it from our memory because just one click and it is at your service. And this is how our senses, typical for all live organisms, will all be extinguished.

Innovation:
Innovation is a very heavy word in itself.

According to Merriam-Webster, innovation is:

1: An introduction of something new

2: A new idea, method or device

By David Nordfors

"Innovation is today the most important driver of economic growth. It relies upon a social climate supporting entrepreneurship within a culture of economic and intellectual freedom. Wise policymakers understand the need to encourage this kind of 'innovation ecosystem.' "

- Invention creates something new. **Innovation is more than that: It introduces something new. Innovation is invention plus introduction**. It is not easy to introduce something new. Anybody who has had a bright idea about how to improve his or her workplace will know this. People say they want progress, but they resist change.

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Why Innovation is Important?
Studies have confirmed that innovation is very important for business growth. **Management expert Peter Drucker** said that if an established organization, which in this age necessitating innovation, is not able to innovate, it faces decline and extinction.

Entrepreneurship produces financial gain and keeps the economy afloat, which gives rise to the importance of innovation in entrepreneurship. Entrepreneurs are innovators of the economy. **It is not just the scientist who invents and come up with the solutions.**

All Innovation Begins with Creative Ideas.
- Innovation is a new way of doing something or "new stuff that is made useful". It may refer to incremental and emergent or radical and revolutionary changes in thinking, products, processes, or organizations. [2]

Relation between Innovation and Search Engines:
Innovation begins with new idea and **Search Engines** has information which is not new, information which is used, research which is already done or ideas which are already implemented somewhere.

There are 3 ways to search information on internet:

1) **Direct access:** Directly type a URL on the address bar.
2) **External Links:** Access to a website through a link of another website, through links, advertisement, catalogs etc.
3) **Through Search Engines**

By using the 1st two options one cannot search entire web. Study says that the 1st option is disappearing gradually if we are talking of searching any information on internet.

- For Innovation we need information about the domain and Search Engine is a hub of data, and information is processed data.

That is why there is a close relation between the Search Engine and Innovation.

- Here the research say that for any innovation one need data or collect data and in previous time the data was real data, means people who were doing research they use to do it practically, they use to hunt the market for information, they use to collect the real information from real sources, but now these sources are become search engines, there is no harm in that but the question is the information reliable in search engines, is researcher concern about those sources or he is just relying upon that information blindly?

Search Engine is a Bane for Innovation:
In previous time people were doing research only when they thought that we have some very good thing in their mind or most of them were of touching their age of retirement or at least they had 10-15 years of experience, but nowadays so may PHD holders or pursuers are in the market who are just fresher in their field. Why are they doing PHD or research? Because the market demands it, to remain in their profession they have to do it, or for salary hike they are doing it or sometimes it's a university rule.

Many of the times information which we get from search engines, blogs, etc., our conclusion get biased because of that information.

A vast majority (82%) agree to say that their consumer web experience on how to look for information on the Internet influence their expectations.[3]

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Take a Scenario:

If someone want to find a innovative idea about "How to deal with Terrorism?" and for implementing his idea he is dependent on search engine's information because he can't contact terrorist for knowing their main goal for terrorist attacks, and he is not touch with any of the ATS authority also, so what he feels after getting the information from different search engines he will rely upon it to write his part of innovative idea and paste it into one of the social networking site, now this idea of this person will affect the mentality of many people, and no one is there to decide that it is a good innovation or not but many can implement it and it may be biased data which is written by some community peoples which is pasted on internet in the form of blogs or messages, this data can harm that person, his society, or at the worst his country also.

Person who doesn't have knowledge about the domain also becomes judgmental sometimes because he has loads of information about that topic but the information is not reliable sometimes but he doesn't understand that.

In today's era when the world is going high tech, we are taking help of Data warehouse and Data Mining Technique for Analytical Problems also in place of Experienced Managers. It means that we are relying on Expert Systems but Not on Experts who have made it.

Unlike Human Experts, Expert System does not run on its own, it has always a database from where it is getting the data through some algorithms but a human expert who is an expert in his domain can give you better analyzed data.

We cannot fully rely upon any information which is on Internet say for example we are searching the Hollywood actor on internet then it gives us loads of information it is real or not we don't know but we believe on that.

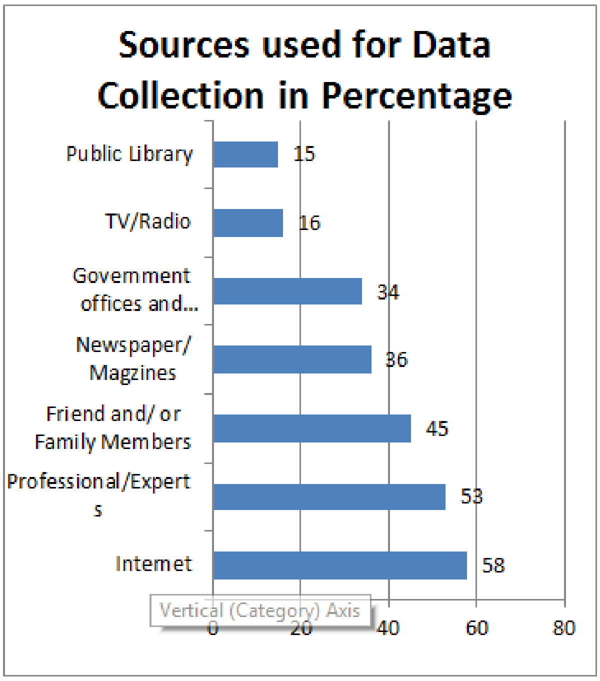

Figure: 2

As per Figure 2 suggests this information is far more valuable if we consider that the World Wide Web is now the largest resource of information.

If that much **Quantity** of data is collected through Internet then the **Quality** of data is a concern.

- **Data Quality Definition:**

"Data has quality **if it satisfies the requirements of its intended use**. It lacks of quality in the extent that it does not satisfy the requirement. In other words, data quality depends as much on the intended use as it does on the data itself. To satisfy the intended use, the data must be accurate, timely, relevant, complete, understood, and trusted."[4]

Accuracy: The quality of being near to the true value. Accuracy is the most important dimension.

Timelessness: Unaffected by time

Relevance: The degree to which search result meet the requirement of expectations implicit in the query.

Complete: Bring to the whole, with all necessary parts or elements.

Understood: Perceive (an idea or situation) mentally.

Trusted: Inclined to believe or confide readily.

These scales can help in innovation in certain extent like if we are talking about marketing we can go with 70% accurate information but if we are talking about accounting then 70% accurate data is not acceptable.

As simple as that if you put into the machine wrong figures, will the right answer come out?" [5]

We can take an example of Wikipedia a famous website:

We can manipulate the data of Wikipedia anytime without login to it simply by clicking on [edit], and many of the times we rely upon Wikipedia for information because it comes on First Rank in almost every search engine's result page.

Getting into little technical we can see how search engine displays the data to us:

How Search Engine Search Data:

Crawling:

Crawling means sucking the contents without processing the results. Crawlers are rather dumb processes that fetch content supplied by Web servers answering (HTTP) requests of requested URIs, delivering those contents to other processes, e.g. crawling caches or directly to indexers. Crawlers get their URIs from a crawling engine that's feeded from different sources, including links extracted from previously crawled Web documents, URI submissions, foreign Web indexes, and whatnot.

Indexing:

Indexing means making sense out of the retrieved contents, storing the processing results in a (more or less complex) document index. [6]

We must look what efforts the website owners takes to their data comes from the internet on your search engine page, and then we can talk about its reliability.

1) META Tags:

In previous times META tags were the key to success, or so we thought. Stick in META tags that were loaded with your keyword phrases, and you were sure to achieve top rankings.

2) Keyword Weight:
Then, we had keyword weight as a ranking factor. We struggled to determine the keyword weight of our competitors' pages, and then duplicate that weight in all of the various areas of our pages.

3) Linking of your URL from other Pages:
Along came link popularity, and with it, the massive link farms and link exchange programs. Web site owners joined as many as they could in an effort to boost the sheer number of incoming links pointing to their sites.

4) Changing the Position of META Tag:
In the midst of these evolving ranking factors one more method came into existence which was put keyword at the beginning of the tag for maximum ranking potential.

5) SEO:
Now the Search Engine Optimization has come as a new method, it is a site ranking algorithm on the basis of algorithms the site will achieve its rank now. It removes the indexing barriers. [5]

Why can't we rely upon the data which has come by these above methods?

Problem with META Tag:
After including keywords in the META tags by the website owner doesn't mean that the page is more relevant for those keywords. That only means that if he has kept that keyword in his META tag which you are searching then it will display you that page on search engine result page regardless what its content says.

Problem with Keyword Weight:
Someone can unnecessarily keep the duplicate word or phrases tags to be on top rank of search engine whether the website has useful data or not, In fact just recently a client of an SEO company had keyword spammed the clients site with over 80 distinct key phrases (not just words) packed into the description, title, and keyword tags and that is how he got the first rank but later Google disqualified that site and banned that.

Problem with Linking of your URL from other Pages:
Just because they have thousands of worthless links pointing to their site doesn't mean that their site is relevant for your keyword phrase. Now, we're in the middle of another "link popularity" or "link reputation" surge. But the rules have changed. Now, we want sites that are related in content to our site, or authoritative, popular sites in our focus area and linking URLs are not the solution for quality data which is required for innovation.

Problem with Changing the Position of META Tag:
Website position changes just because if the website owner changes the position of META tag, after that its rank can improve but the owner is not changing the contents of the website but they are just changing the META tags position.

Problem with SEO:
However SEO is a good idea by seeing it but it is too complex to do. "Content" relevancy and "user popularity" aren't as easy to manipulate as link popularity, link reputation, or even keyword placement, so the search engine results should certainly be more relevant. After all, anyone who is concerned about relevancy in search engine rankings should want the most relevant pages and sites to rise to the top of the rankings. If our pages aren't the most relevant, then search engine fails its promises. If the algorithm is good then the page rank will improve but it doesn't mean that it will improve the quality of the contents.

With all of these Various Ranking Factors, what is the one area that is Sorely Missing?
Quality of data is missing that many at times for increasing their business and getting popularity the website owners concentrates on the ranking with all above mentioned methods but they are lacking of quality data.

And there are some more other areas also where search engine is giving a foul impact:

1) Copyright Act: Many of the researcher just copy paste the contents from so many copy righted sources and to find that out is a tuff job, and This sometimes becomes embarrassing for the researchers when their plagiarism is caught.

2) Piracy: People can search for any movie, songs and search engine will provide the links for the same.

3) Pornography: It is easily accessible through search engine even if people don't know about it.

4) Time wastage: Without any reason people sits on internet and kill time when they can do something creative that time.

How can Search Engine made Boon for Innovation:
Google, Yahoo, MSN, Search, AOL Search etc. these are very good search engines they make our life easy, if the Innovators remember few points then the search engines will become Boon for Innovation:

- Take help from search engine but do not totally rely upon that.
- Do not forget the traditional techniques of data collection.
- Search Engine's basic purpose is to help us in our research work. Rather than sitting for endless hours in front of a PC, we should rather devote that time towards our personal findings. We have better potential than these search engines. Our own efforts are more rewarding than these research works.
- Do mind exercises so that you can improve your innovation skills because the best machine in the world is human mind.
- The people who want to do some innovative work should themselves realize their potentials of working towards their ideas which will not only provide confidence to them but will also make them able to adjust them in this competitive world. These search engines are just like additional tools. If in whole life you implement only one innovative idea it will give you loads of confidence than copying 100 ideas and implement it, and confidence is the real jewel.
- If we see the data then we will come to know that the real and good scientists, researchers, innovators do not collect the data from search engines for their innovations.
- We expect the innovative ideas in films also, if the film makers repeat the stories then they won't be able to entertain us, so for every innovation creativity has an important role and creativity does not come by copying the things.
- We should use advance search options for specific search so that the search engine gives us the better result as per our requirement. For Example: Google advance search.
- If the website owners of SEO programmers write that type of algorithms which are based on the contents of the data, and the search engine ranks is not decided upon the tags but on the contents then these techniques can be good for innovation.

- Link analysis is also good if it is done properly, it is a way to measure URI importance, popularity, trustworthiness and so on. Link analysis is often just a helper within the indexing process, sometimes the end in itself, but traditionally a task of the indexer, not the crawler (high sophisticated crawling engines do use link data to steer their crawlers, but that has nothing to do with link analysis in document indexes).[6]
- If you are doing some research and for that purpose then you need to be specific for your search instead of searching through search engines go for specific websites.

For Example: We have purchased something and we find a best deal in a shop that doesn't mean that we have bought a best product. It may happen that if we go to the direct company then we find the best deal with best quality product and with best guarantee and if you are purchasing it through dealer or mediators then they may promise something which they don't provide later on and you can't blame them because it is someone else's product

Here are some examples of direct websites: [7]

1. If you need to understand the scope of our topic go for Intute (advance search),INFOMINE (advance search), AcademicInfo Subject Guides.
2. If you need to see related topics go for Google, Bing
3. If you need to search controversial issue then go for Hot Topics (Google Custom Search), IDEA Portal, Boolify: All Sides.
4. If you want background of any topic then go for SweetSearch, Wikipedia, Columbia Encyclopedia.
5. If you need quality results and need authoritative sites by an expert researcher INFOMINE, LibGuides, Infotopia
6. If you need personal help from experts Ask an ipl2 Librarian, AllExperts, Ask a Librarian
7. If you need peer reviewed journals or articles go for OpenJ-Gate, Directory of Open Access Journals
8. If you want to do research in a specific discipline, need **science, technology engineering and mathematics** Scirus, National Science Digital Library (NSDL), Intute.

Like this there are so many direct link which you can access for specific information, we should not rely upon search engines totally for every kind of search, if you are going through search engine then also for contents see to the original link for checking the reliability of that information.

CONCLUSION

Search engines have forever changed the way people access and discover knowledge, allowing information about almost any subject to be quickly and easily retrieved within seconds. As increasingly more material becomes available electronically the influence of search engines on our lives will continue to grow. We can make a use of them for gaining good knowledge. If we use search engines with few precautions then it can become Boon for us not Bane.

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A STUDY OF STRATEGIC FOR MANUFACTURING & HUMAN RESOURCES MANAGEMENT: ALIGNING WITH THE MISSION

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ACKNOWLEDGEMENT

The purpose of this study is to check the percentage of growth of GDP for manufacturing activity policy maker's guide for a study of aligning services in GDP in Agricultures, Industries, and human resources for Aligning with the mission. It was prepared as a background paper for the Seminar on National Manufacturing

Competitiveness council in Govt. Of India &Strategic for Human Resources Development in Aligning with the mission, held on March 2006, in India.

INTRODUCTION

Human resources alignment means integrating decisions about people with decisions about the results an organization is trying to obtain. By integrating human resources management (HRM) into the agency planning process, emphasizing human resources (HR) activities that support broad agency mission goals, and building a strong relationship between HR and management, agencies are able to ensure that the management of human resources contributes to mission accomplishment and that managers are held accountable for their HRM decisions. This is especially important in light of the Government Performance and Results Act's (GPRA) push to align all agency activities, including HRM, toward achieving defined agency strategic goals and measuring progress toward those goals. In fiscal year 1999, the U.S. Office of Personnel Management (OPM) embarked on a special study to determine how much progress Federal agencies have made toward aligning HRM with agency strategic goals in support of HRM accountability and agency mission accomplishment. Our key findings and conclusions are summarized as follows. C Many more agencies than expected include HR representatives in the agency planning process and integrate human resources management goals, objectives, and strategies into agency strategic plans. However, most agencies are still struggling in this area. Therefore, agency executives and HR leaders need to work together to fully integrate HRM into the planning process so that it will become a fundamental, contributing factor to agency planning and success. C Although some agency HR offices have begun focusing on organizational activities that assist agency decision-making, most are still emphasizing internal HR office efficiency efforts. While internal issues are important to the success of any HR program, HR offices also need to examine the "big picture" and find ways to impact the success of the agency as a whole. C Most agencies are in some way measuring the efficiency and/or effectiveness of the HR function. These measures, however, are generally output-oriented, focus on internal HR processes and activities, and are used to make improvements to HR-specific policies and procedures. As HR refocuses its activities to broader organizational issues, HRM measures also need to be expanded to gauge the impact HRM has on agency goals and mission. Then, the measurement data can be used to inform agency-level decisions.

The relationship between HR and management is becoming more collaborative. HR executives are beginning to earn a seat at the management table. HR offices are becoming more consultative and involved in day-to-day line management activities. Nevertheless, there is still a long way to go if HR is to become a strategic partner at all levels. To do so, HR needs to build its own internal competencies to deal with organizational issues, educate itself on agency and program missions, and find ways to offer creative and innovative solutions to organization wide issues. Although many National Performance Review (now known as the National Partnership for Reinventing Government) initiatives, such as downsizing, reorganizing, streamlining, and delegating HR authorities, were meant to improve HR's ability to focus on organizational issues, they have not taken hold as quickly or thoroughly as hoped. Therefore, HR is still doing most of the process work, and its ability to focus on alignment has been limited. However, as HR's role in agency planning, activities, and decision-making advances -- and it is advancing -- so too will the alignment of human resources management with agency mission accomplishment.

What is Alignment?

Strategic human resources management...strategic alignment...alignment with mission accomplishment. These are just a few of the terms being used to describe the new, evolving role of Federal human resources management (HRM). What do these terms really mean? If you were to ask agency personnel lists, managers, or employees, you would probably get a wide range of answers. So, it's important to establish from the beginning what we are really talking about. Human resources management alignment means to integrate decisions about people with decisions about the results an organization is trying to obtain. Our research indicates that agencies that successfully align human resources management with agency mission accomplishment do so by integrating HRM into the agency planning process, emphasizing HR activities that support mission goals, and building strong HR/management relationships. In addition to being a vital contributor to agency mission accomplishment, HRM alignment is the ultimate level of HRM accountability, as demonstrated in the *Hierarchy of Accountability*. While HRM accountability must begin with basic legal compliance, it ultimately encompasses all fourlevels of the pyramid, including demonstrating how HRM supports achievement of the agency strategic goals.

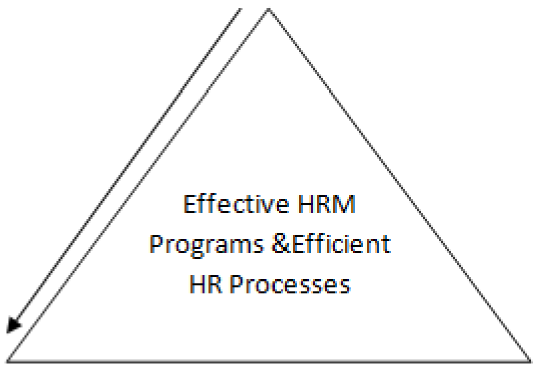


Fig: Hierarchy of Accountability

Why Align?

Why the sudden emphasis on aligning HRM activities with agency mission accomplishment? Basically, it comes down to demonstrating the value of human resources management to the agency. In the past, one of HR's primary roles has been to ensure compliance with laws, rules, and regulations. Although this is still, and will always be, a necessary function, many recent developments have led to a strong emphasis on results. The National Performance Review (NPR)2 took on the task of reinventing government to make it work better, cost less, and get results. NPR mandated many initiatives that changed the focus of HR from just compliance toward results, including downsizing the HR function, delegating HR authorities to line managers, calling for HR to demonstrate its business value, and enhancing customer service. Through these initiatives, management of human resources would become more responsive to mission-related needs because it would take place at the line level, and the HR staff would be able to expend more of its energy on broader organizational issues. The Government Performance and Results Act (GPRA) of 1993 has also played a large part in focusing agencies on results. The purpose of GPRA is to improve Federal program effectiveness, accountability, service delivery, decision-making, and internal management, thereby improving confidence in the Federal Government. This is achieved by demonstrating organizational results through strategic planning and performance measures. Although the primary focus of GPRA is on programmatic functions, agencies are also required to describe how administrative resources, such as HR, are being used to achieve strategic goals. Further, the General Accounting Office (GAO) and the Office of Management and Budget (OMB) have evaluated many of these efforts, and are calling for agencies to improve their discussions of HRM alignment in strategic and annual plans. Therefore, the human resources function is increasingly being aligned to the agency strategic plan, which requires HR to show how it is supporting mission accomplishment. Alignment has already occurred in other key administrative functions. When Congress developed a statutory framework to introduce performance-based management into the Federal government, it initiated financial, information technology, and procurement reforms through such mandates as the Chief Financial Officer Act and Information Technology Management Reform Act. Human resources management is the administrative missing link to this comprehensive package. The private sector has recognized that it is not just financial and technological capital that provide companies with the competitive edge, but people, or human capital. Without attracting and retaining the right people, in the right jobs, with the right skills and training, an organization cannot succeed. Therefore, people have been recognized as companies' most important asset. As the Federal Government moves toward a performance-based management approach, we, too, need to realize the importance of our human resources. A huge percentage of agencies' budgets is spent on human resources -- salaries, benefits, training, work life programs, etc. Nowhere else do you make that substantial an investment and not measure the return. Not only do human resources provide the competitive edge, but several recent studies have confirmed that the quality and innovation of HR practices impact business results.

These studies were able to draw a correlation between increased quality of HR practices and increased business success. Among other benefits, HR alignment with mission accomplishment increases HR's ability to anticipate its customers' needs, increases the agency's ability to implement strategic business goals, and provides decision-makers with critical resource allocation information. Finally, HR alignment is a vital process to advance agency accountability. By defining, maintaining, and assessing HRM goals and measures, communicating them throughout the agency, and using the information to make management decisions, agencies are able to ensure that the management of human resources contributes to mission accomplishment and that managers are held accountable for their HRM decisions in support of mission accomplishment.

The Study:

Once we defined what alignment means and why it is important, we wanted to find out where agencies currently stand in terms of aligning their human resources management with agency mission accomplishment. Therefore, the Office of Personnel Management (OPM) embarked on a special study designed to explore the following objectives:

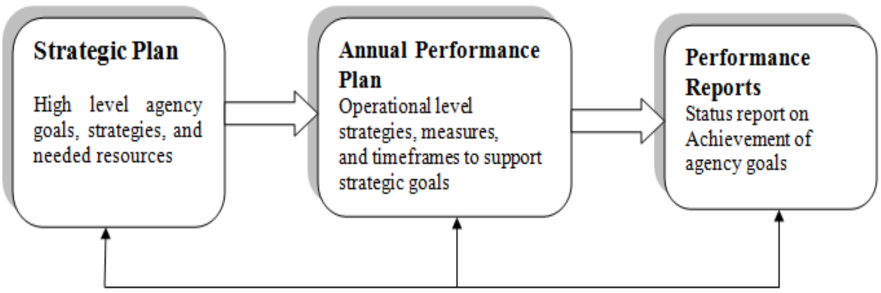
- Assess how well human resources management is linked to agency mission accomplishment;
- Explore the role played by the HR staff in agency strategic planning;

- Determine how the HR service providers work with line managers to carry out agency strategic goals; and
- Identify best practices aligning HRM with the agency strategic plan and goals. In order to obtain information pertaining to these objectives, we did the following:
- Reviewed 31 agency strategic and 28 annual performance plans;
- Conducted an extensive literature and Internet search;
- Gathered information from agency HR professionals, supervisors, and employees at 17 agencies of various size through the fiscal year 1998 and 1999 OPM Oversight reviews; and
- Interviewed nine additional leading agency HR Directors.

You got to be careful if you don't know where you're going, because you might not get there.

- Yogi Berra ***Agency wide Planning:***
To some agencies, strategic planning is a way of life. To others, it's an exercise. To almost all, it's a requirement. As part of GPRA, agencies, unless specifically exempted, follow a continuous, three step strategic planning process:

GPRA Strategic Planning Process – Simplified



Strategic planning allows agencies to map out where they are, where they want to go, and how they plan to get there. Some agencies adopted the idea of strategic planning even before GPRA was enacted, whereas others are just beginning to understand its potential benefits. The results of the fiscal year 1999 Merit System Principles Questionnaire (MSPQ), an OPM Government wide survey of supervisors and employees, show that agencies are beginning to embrace not only the concept, but also the practice, of strategic planning.

MSPQ Results

Sr.No	Description	Percentage
1.	Agree that their agency has a process for developing strategic, long-range plans and updating them periodically.	62%

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2.	Agree that operational goals and objectives are set to help the agency meet strategic, long-range plans.	65%
3.	Agree that progress toward goals is measured.	54%
4.	Agree that information is collected for assessing performance.	61%

The strategic planning process varies from agency to agency. On one end of the spectrum are the agencies which have very collaborative processes involving senior management, line supervisors and employees, and stakeholders throughout the entire process. On the other end are the agencies which develop plans at the top management level with little input from the line or stakeholders or that plan functionally, having each program office submit its own goals and strategies with little to no collaboration among offices. The typical strategic planning process is a mixture of these

1.1 Manufacturing has been recognized as the main engine for economic growth and creation of wealth and accordingly, emphasis was placed on growth of industry in most of our Five Year Plans. However the share of manufacturing has been stagnating at a low level of 17% of GDP for over two decades. One of the major reasons for the reduced level of contribution by Manufacturing has been the inability of the country to build and maintain competitiveness needed to meet the global challenges as well as to develop a larger domestic market through low cost production. The negative impact of protection given to Indian industry through the aegis of licensing until 1991 has not yet worn off.

1.2 The average annual growth of the GDP was 5.8% during 1980s and it went up to a little more than 6% during the 1990s. While the contribution of agriculture to the GDP decreased from 31.3% in 1991 to 22.1% in 2003, the contribution of services increased from 41.9% in 1991 to 51% in 2003. The contribution from Industry had, however, remained stagnant around 27% of GDP between 1991 and 2003 which included the manufacturing component of about 17 percent. Refer Figure-1.

1991	
1992	
Name of Organizer	Percentage
Industry	26.70%
Agriculture	31.30%
Services	41.90%

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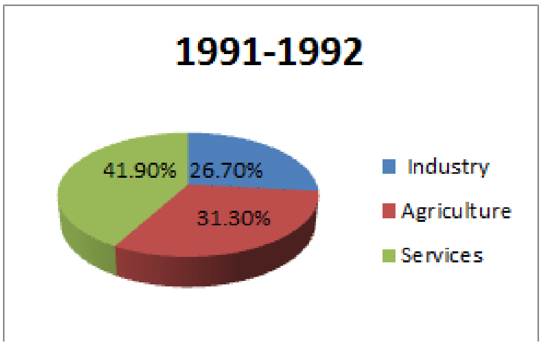

2003	
2004	
Name of Organiser	Percentage
Industry	26.80%
Agriculture	22.10%
Services	51.10%

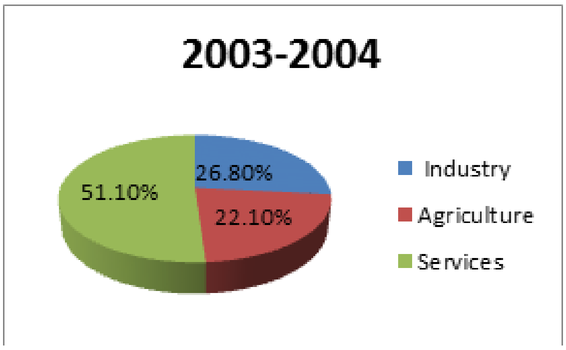

Figure -1: Share of Agriculture, Industry and Services in GDP

The share of manufacturing sector within the industry sector has shown only a marginal improvement from 15.8% in 1991 to 17% in 2003. In comparison some of the East Asian economies have recorded a share of manufacturing ranging from 25% to 35% of their GDP as evident from Figure - 2.

Name of Country	Percent
Malaysia (2002)	31.00%
Thailand (2002)	34.00%
China (2002)	35.00%
Maxico(2002)	19.00%
India (2003)	17.00%

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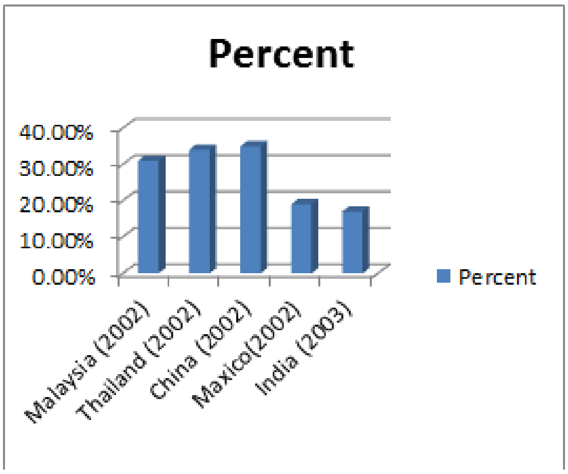

Source: 2004 World Development Indicators
Figure -2: Share of manufacturing in GDP

1.3 India's share in the global trade is less than 1%, which is much below the potential. Manufactured goods form three-fourths of all exports from India. Five manufacturing sectors viz., Gems and Jewellery, Textiles and Garments, Engineering Goods, Chemicals, Leather and Leather Goods account for over 75% of India's manufacturing exports. The two trading blocks, US and EU, receive more than 50% of exports from India.

1.4 Manufacturing is crucial to the Indian economy. The effect of improvement in manufacturing sector goes far beyond the goods provided by it. Manufacturing sells goods to other sectors and in turn buys materials and services from them for its growth and development. Manufacturing spurs demand for everything from raw materials to intermediate components. It impinges on software to financial, health, accounting, transportation, and other services in the course of doing business.

1.5 Needless to say that manufacturing sector has to carry the major burden of increasing employment opportunities in the coming decades directly or indirectly. This is particularly valid for the unemployed coming from rural and agricultural sectors. Growth of manufacturing sector lends greater support to Agriculture through more intensive efforts on agro-based Industries. It also creates strong multiplier effects in the services sector in areas like traditional trading, financial services, transport etc. Therefore, the overall employment effect of manufacturing would have to include the indirect generation of employment in the services sector. Besides, within the service sector those of the sub-sectors that are linked to the manufacturing directly need to be concentrated upon as they provide substantial job opportunities. It is, therefore, necessary that robust growth of the manufacturing sector is ensured for creating overall growth and employment possibilities in the economy

1.6 The backlog of unemployment is estimated to be more than 34 million in 2005. It is expected that over the next twenty years, the total proportion of workforce involved in agriculture is likely to decline from 56 per cent to about 40 per cent, and this would call for finding substantial non-farm employment opportunities. While service sector would provide high quality employment opportunities which are, indeed essential in the growth process, it is likely to benefit only a fraction of the job seekers entering the market. From the year 1990 or so the employment intensity of the growth process of the Indian economy as well as of manufacturing has been declining. The employment elasticity for manufacturing which was at 0.59 between 1983 to 1987 had fallen to 0.38 between 1983 to 1993 and further to 0.33 in the period 1993 to 1999. Increases in capital intensity as well as increase in labour productivity are the important causes for this phenomenon1

1.7 For over twenty years, powerful developments globally as well as within the country have impacted on Indian manufacturing sector. First is the substantial reduction in trade barriers across the globe and in India, particularly in respect of manufactured goods. Second is the technology revolution that is taking place impacting on productivity and lowering of costs and the third is the emergence of low cost manufacturing hubs - China and other South East Asian countries. All these meant that the Indian economy and the manufacturing sector in particular, have to necessarily adjust to these challenges. Economic reforms introduced in India particularly since 1991 are aimed at making the Indian economy and Indian industry more efficient and competitive. The Indian economy continues to be progressively liberalized leading to its greater Integration into the global economy. Liberalization and globalization have provided unprecedented opportunity for the growth and expansion of the industry in general and the manufacturing sector in particular. At the same time the Indian industry is also faced with stiff competition from imports due to progressive tariff reduction.

1.8 The manufacturing sector in India, for all these reasons, grew annually only at an average of 6.3% during 1991 to 2003 as against over 12% in China. The low levels of manufacturing growth in the above period had its adverse impact on the balanced growth of the economy and on employment generation. Given the background, improving competitiveness alone will enable the Indian Industry to take full advantage of globalization and grow at a healthy rate.

1.9 There is no denying that India possesses a comparative advantage in many respects. With its experienced work force, large pool of scientists, engineers and managers, reasonable endowment of natural resources and a large domestic market India has the potential to emerge as a major manufacturing hub for the global market. This can materialize quickly only with improvement in the competitiveness of its Industry. Rising productivity is the key to maintaining and improving competitiveness of manufacturing. Innovation is the driver of productivity. Productivity gains in turn ensure economic growth as well as higher standard of living. Rising productivity would help provide goods at lower costs, improve the purchasing power of the common man, and thus accelerate the domestic demand. Thus, competitiveness is central to robust growth of the manufacturing sector; In turn the Manufacturing sector is crucial for the overall growth of the economy as well as for providing jobs to the large work force entering the job market every year,

Particularly from the Rural Areas.

1.10 The challenges faced by Indian manufacturers raise important questions for both industry and government. While industry has to grapple with problems within the Industry to maintain a competitive edge in a global environment, the government will have to create conditions that foster a healthy and competitive manufacturing sector. This would involve among others improved infrastructure and substantial additional investments for creating capacities to meet the growing needs and for the modernization of the Industry. Meeting the enormous challenges faced by Manufacturing sector calls for a 'breakthrough' and bold thinking on the part of all stakeholders. Only bold aspirations can enable India to benefit from the emerging opportunities in the manufacturing sector.

1.11 The National Manufacturing Competitiveness Council (NMCC) will facilitate this process by functioning as an inter-disciplinary autonomous body to serve as a policy forum for credible and coherent policy initiatives. The NMCC will provide a continuing forum for policy dialogue and to energize and sustain the growth of manufacturing industries. The NMCC is expected to suggest various ways and means for enhancing the competitiveness of manufacturing sector including identification of manufacturing sub-sectors which have the potential for global competitiveness. It will take into account the current strengths and constraints of identified sectors, and recommend National / sector / industry level specific policy initiatives as may be required for augmenting the growth of the manufacturing sector. The Council is also expected to help in the implementation of the strategy.

1.12 The NMCC realizes that the issues confronting the manufacturing sector are varied and cover a vast area. They, in fact, span the entire gamut of the Indian economy. In order to attain competitive edge in manufacturing the constraints being faced by the sector have to be mitigated. The generic issues such as lack of proper infrastructure, higher transaction costs, higher interest rates, inadequate power and other disabilities and regulatory issues, among others, are being addressed in document 'The National Strategy for Manufacturing'. Detailed further studies in respect of the generic issues would be undertaken as necessary.

1.13 Simultaneously, sub-sectors of manufacturing such as Leather and Leather goods, Textiles and Garments, Capital Goods, Auto Components, Handicrafts, Gems and Jewellery etc., are being addressed by the National Manufacturing Competitiveness Council and action plans for implementation would be prepared. The NMCC would also prioritize the recommendations for implementation into short term, medium and long term time horizon based on their potential to yield results and also follow up with the concerned on their implementation in a time bound manner.

1.14 'The National Strategy for Manufacturing' attempts to identify the areas of policy and outlines the strategic directions that need to be pursued in order to realize higher levels of growth and employment. Section 2 of the paper details the manufacturing growth perspective. The challenges faced by the Indian manufacturing sector along with strategy prescriptions are enumerated in Section 3. Section 4 lays out the way forward which include the key recommendations. The steps recommended in this paper are only the start of the process and not the end.

The management of agency human resources is an integral part of how an agency is going to achieve its mission goals. Without people, there is no one to do the work. Therefore, integrating HRM into the agency strategic plan is the first step in aligning it with the mission. Even though GAO and OMB are pushing for improvement of HRM alignment discussions in strategic and annual plans, GPRA's primary focus is still on agency programs, rather than corporate functions. Therefore, we assumed at the beginning of this study that not many agency strategic plans would have addressed HRM's role in mission accomplishment. We were pleasantly surprised. Out of the 31 strategic plans reviewed, 87 percent had addressed HRM in some way. Below is a breakdown of how integration between HRM and the agency plan is achieved, a count of how many strategic plans have integrated HRM in a particular way, and some examples of actual agency approaches. Although some agencies are clearly ahead of the pack, integration of HRM in agency plans is still evolving. When looking at the actual placement of strategic plan HRM discussions, they are generally segregated from the programmatic goals, objectives, and strategies. Considering that an agency's mission cannot be achieved without its people, this is an important point. Could this be an indication that human resources management is not yet recognized as a critical contributor to agency mission accomplishment? In any case, it is clear that though there are some exceptions -- as evidenced by some of the examples above -- full HRM integration into agency strategic plans has not yet been realized.

The human resources issues addressed in agency plans provide insight into what aspects of human resources management are most important to agency management. In reviewing the plans, or even just by looking at the examples above, it is clear that diversity, recruitment, retention, employee development, and workforce quality are the major areas of interest. Although these could be looked at as process or output programs, when they are designed and implemented well, they lead to the ultimate result: the right people, with the right skills, in the right positions to carry out the agency mission.

STRATEGIC RELATIONSHIPS

All men are caught in an inescapable network of mutuality.

-Martin Luther King, Jr.

The lynchpin that holds all of this planning and implementation together is the relationship between HR executives and staffs and agency management. In the past, there was often much contention between the two groups because of HR's role as "gatekeeper," enforcing the laws, rules, and regulations. Now, with the role of the human resources staff shifting toward achieving organizational results, HR and management need to work together to further HRM's ability to have an impact on agency decisions and achievement of goals. So, let's take a look at how well these relationships have been fostered thus far.

Corporate HR and Top Agency Management

The relationship between corporate HR and top agency management varies greatly by agency. A few agencies, like SSA, NASA, Air Force, and GSA, have been able to develop strong working relationships with management in which HR is a full member of the agency decision-making body. Most other agency HR executives have not been so fortunate. They are generally brought into the agency decision-making process during the implementation phase rather than being consulted in the beginning on how decisions may impact agency human resources or vice versa. For some agencies, it has been a hard road "getting to the table." For others, it has been more of a natural transition. In exploring how to elevate HR's role to management partner, agencies where this has been achieved attribute their success to a combination of the following factors:

Reporting Relationships - In agencies where there is a direct reporting relationship between the head of HR and the head of the agency, HR generally has a more visible role in agency decision-making.

Management Advocates - In agencies where there is a strong HR advocate in senior management, HR enjoys more involvement in the agency decision-making.

Credibility - HR representatives who are formerly program managers tend to earn more credibility from the other managers. This type of individual knows, first hand, what the program concerns are and how HR decisions will impact the program, and can speak the same programmatic language.

Culture - In some agencies, the recognition that its people are its most important asset has

Accountability:

With the developing relationship between HR and management, both at the top and line levels, along with NPR and GPRA mandates, accountability should become a shared responsibility. Managers are making more and more HRM decisions while the HR staff is becoming more involved in broader organizational issues. This means that both the HR staff and managers are ultimately accountable for effective, legally compliant HRM. Is this shared accountability occurring in Federal agencies? Approximately half of the responding agencies agree that HRM accountability is shared between the HR staff and managers. Managers are accountable for the business results achieved through good human resources management, the HR staff is accountable for HR compliance, and both are accountable for the overall effectiveness of the agency HRM program. However, the other half still feels that the ultimate accountability falls on the HR staff. They are the ones responsible if actions are found noncompliant and little attention is given to whether managers' HRM decisions are an effective use of resources. OPM's

HRM Accountability System Development Guide goes into quite a bit of detail on shared accountability and can assist agencies in understanding the concept, determining who is accountable for what, and devising strategies for how to hold them accountable.

Even if you're on the right track, you'll get run over if you just sit there.

-Will Rogers

Strategic alignment of human resources management has come farther than we expected to find when we embarked on this study. There is definitely a trend toward integrating HR into the business planning process, measuring aspects of human resources management and its contribution to the organizational bottom line, and establishing a collaborative working environment between HR and management. Nevertheless, there are several indications that human resources management is not yet recognized as a critical contributor to agency mission accomplishment. HRM alignment is still evolving, and there are several steps agencies can take to help it along.

Fully Integrate Human Resources Management into the Business Planning Process.

Although many more agencies than expected include HR representatives in the agency planning process and integrate human resources goals, objectives, and strategies into agency strategic plans, most are still struggling in this area. Agency executives need to recognize the value that HR can impart to discussions about agency activities, priorities, and goals. In turn, HR leaders need to understand agency mission needs and be able to contribute substantive, creative solutions to meet these needs. Once these realizations occur, HR will no longer be segregated out as a support function but will become an integral, contributing factor to agency planning and success.

Focus on Organizational Activities that Assist in Agency Decision-Making.

Because of NPR mandates to downsize, streamline, and improve customer service, HR's recent improvement efforts have focused on the efficiency and effectiveness of traditional HR programs and processes. These are important endeavors. However, in response to GPRA's call to measure performance and demonstrate value, it is time to start concentrating efforts outside of the traditional realm of HR and on to broader organizational issues. When HR demonstrates that it can have an impact on agency direction, then it will gain credibility with agency executives and earn a seat at the table. To generate that type of impact, HR needs to develop strategies based on actual business needs, which will require involving management in the planning process. In addition, it must address Government wide concerns about the workforce capabilities of the future, such as workforce planning, succession planning, training needs assessments, skill gap analyses, etc

HR's role is evolving. Therefore, HRM measures need to evolve as well. As HR becomes more involved in broader organizational activities, HRM measures should evaluate the impact these activities have on the organization as a whole. At this point, measures typically focus on outputs and processes and are generally internalized to the HR function or office. The data are usedmostly to make improvements to HR-specific policies and procedures. While this kind ofmeasurement is important, measures should also focus on organizational outcomes. Informationfrom these measures should then be used to inform agency wide decisions and find solutions toagency wide concerns.

Advance the Collaborative Working Environment Between HR and Management.

To facilitate all of the changes recommended above, HR has to have a strong, collaborative working relationship with top agency and line management. Since there is no tradition in most agencies of HR as strategic partner, much depends on personal relationships established by HR officials with top managers and key line managers. Meanwhile, HR and agency management need each other more than ever. Authorities are being delegated to line managers, HR staffs are being downsized, and top agency management is being asked to show how its resources are being used to support mission accomplishment. HR must be able to make the case that everyone in the agency, from the agency leader down to the HR function, must share accountability for ensuring that the use of human resources not only complies with Federal laws, rules, and regulations, but adds to the success of the agency. This shared accountability is beginning to occur. HR management is beginning to earn a seat at the table. HR line offices are becoming more consultative and involved in day to day management activities. Nevertheless, there is still a long way to go in becoming strategic partners. First, HR needs to build its own internal competencies to deal with organizational issues, change, and strategizing. Further, it needs to educate itself on agency and program missions in order to understand what is important to those organizations and be able to offer creative and innovative alternatives and solutions to organization wide issues. Finally, it must continually assert the absolute criticality of effective HRM to organizational success.

Creating a Monitoring Mechanism & Measuring Performance:

- It is essential that the implementation mechanisms as well as institutions are properly designed and created immediately. The strategy will have to be implemented by synergistic action by all stakeholders from the government, industry and others. The existing way of handling manufacturing sub-sectors requires a change. There is no focus or continuity in terms of goals and implementation. The Mission mode of implementation or a similar Mechanism that will improve efficiency in implementation would be the appropriate mode to begin with in respect of some sectors such as Leather & Leather Products, Textiles & Garments and Food Processing industries. (Para 3.16.1, 3.16.2) 4.5.2 The National Manufacturing Competitiveness Council has an overarching role of not only preparing a National strategy for manufacturing in a medium to long-term perspective, but also coordinate the efforts of various Ministries dealing with manufacturing for a synergic growth of the sector. Further, a continuous dialogue would be maintained with State Governments for working together towards the implementation of the reforms in the manufacturing sector with proper and regular interface with the implementing agencies.

- The key component of any strategy is a means of measuring progress towards a defined goal. For monitoring to be effective, a set of key performance indicators would be identified/developed by the NMCC which would allow a quantitative and qualitative assessment of the progress of manufacturing sector. These indicators shall allow periodicmonitoring of performance andeffectiveness of initiatives/ reforms/actions by the government, industryand other stakeholders ofmanufacturing. The NMCC wouldalso review periodically theimplementation of the variousrecommendations and theelaborations in the sub-sectorengagements. The measures to bereviewed would includeaction taken by the Centre and theState Governments in theirrespective domain. Themonitoring mechanism should alsoinclude surveys of business climatebased on the opinion of the decisionmakers/leaders on various macroenvironmental factors ofcompetitiveness. This would serve asan important feedback mechanism inthe implementation of manufacturingreforms.

- Government has been stressing that the robust growth of manufacturing is essential for achievement of overall growth rates of the economy. Government should announce implementation of the National Strategy for Manufacturing as a National manufacturing initiative with a ten year horizon. In order to ensure that due focus is given in implementation of the manufacturing strategy it is essential that the issues as well as the progress are periodically reviewed by Government at the highest level. For this reason, a High level committee will need to be constituted on the pattern of Trade and Economic Relations Committee (TERC) chaired by the Prime Minister and having Ministers from the various Ministries relating to manufacturing called "Committee on Growth and Competitiveness of Manufacturing". The Committee would deal with policy level issues arising in the implementation of the National Strategy for Manufacturing as well as in the implementation of the medium term growth plans of each sub-sector.

CONCLUSION

This all looks so easy on paper. Do this, does that, and you will be aligned with the mission and able to demonstrate your contribution toward it. Obviously, it is not that easy. Private sector, public sector, and some Federal entities have been struggling with this issue even before GPRA was enacted -- and that works to our advantage. There is a wealth of information out there that can help -- hundreds of articles, books, and studies have been written, numerous tools have been created, and many organizations have already tested a number of approaches. We can learn from all of these successes and failures. But the only way to begin is to begin. To help start you on this path, we have included a rather extensive, though certainly not all-inclusive, bibliography in the appendix of this report. In support of its program to foster development of agency accountability systems, OPM will also offer assistance to individual agencies in developing strategies for strategic alignment and has created a Government wide clearinghouse that will provide information on additional real life, successful approaches that agencies are employing (currently available on the OPM web page). It is in all of our interests to ensure that Government establishes and maintains a highly skilled workforce that can handle the demands of the 21st century. To achieve this goal, we must all work together.

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ONLINE SHOPPING: PROBLEMS AND BEYOND

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INTRODUCTION

Online shopping is a growing area of technology. It is a form of electronic commerce (e-commerce) whereby consumers directly buy goods or services from a seller over the Internet without an intermediary service. The process whereby consumers purchase products or services over the internet, also called as Interactive Shopping and Internet Shopping. Since the emergence of the World Wide Web, merchants have sought to sell their products to people who surf the Internet. Shoppers can visit web stores from the comfort of their homes and shop as they sit in front of the computer. Establishing a store on the Internet, allows for retailers to expand their market and reach out to consumers who may not otherwise visit the physical store. The convenience of online shopping is the main attraction for the consumers.

Consumers buy a variety of items from online stores. In fact, people can purchase just about anything from companies that provide their products online. Books, clothing, household appliances, toys, hardware, software and health insurance are just some of the hundreds of products consumers can buy from an online store.

ONLINE SHOPPING

An online shop or store is called as an e-shop or e-store, whereby goods can be bought without wasting time or roaming about in the markets or shopping malls. This is the type of shopping where consumers find the product of their own interest by exploring the web site of the product directly or by searching the item using shopping search engines. Using shopping search engines, different vendors can be found out and hence amount of money varies from vendor to vendor. In this way, the consumer can also find out the price of the product along with the characteristics of the specific products.

A company that wants to market their items online can establish an online store by developing a website. These stores usually consist of several department areas with the merchandize organized accordingly. The consumer may view the products' picture, item details, materials, sizing, etc. In order to shop online, the consumer must be relatively familiar with computers and how to navigate the Internet. Internet retail stores target a specific age group. Many physical retail stores have expanded their market by using the Internet. By having both a virtual store and a physical store, companies get the best of both worlds. Stores that are marketing their products in both areas can take advantage of the high demand for online shopping availability. The ability to shop for products online gives consumers the option to purchase goods off of the Internet with the convenience of not even leaving his or her home. Others; however, still enjoy and prefer to go into a physical store to make purchases.

OBJECTIVES OF THE STUDY

The present study is based on the following research objectives:

- To understand what Online shopping is all about
- To study the reasons why people prefer online shopping over conventional shopping
- To understand the problems faced by online shoppers
- To evaluate the future of Online shopping in India

REASONS FOR SHOPPING ONLINE

Internet has revolutionized the way we do our Shopping. Because of the numerous Advantages and Benefits of Shopping Online more and more people these days prefer Online Shopping over conventional shopping. There are many reasons why people think buying on the internet is the best option too.

Convenience:

The convenience of this method of shopping is the very first reason. One does not have to wait in a line or wait till the shop assistant is ready to help you with your purchases. One can do your shopping in minutes even if you are busy apart from saving time and avoiding crowds. Online shops gives the opportunity to shop 24 x 7

Variety:

The choices one can get for products are amazing. One can get several brands and products from different sellers at one place. One can get in on the latest international trends without spending money on airfare. When you shop online, you can shop from retailers in other parts of the country or even the world without being limited by geographic area. These stores offer a far greater selection of colors and sizes than you will find locally.

Send Gifts:

Online Shopping makes sending gifts to relatives and friends easy, no matter where ever they stay. Now there is no need of making distance an excuse for not sending a gift on occasions like Birthday, Wedding Anniversary, Marriage, Mother’s Day etc.

Comparison of Prices and Better Prices:

Online shops make comparison and research of products and prices possible. Online stores also give you the ability to share information and reviews with other shoppers who have firsthand experience with a product or retailer. Another thing which fascinates is the cheap deals and better prices one gets from online stores because products come to you direct from the manufacturer or seller without middlemen involved. Many online shops offer discount coupons and rebates.

Crowds:

One would like to avoid the crowds when one do the shopping. Especially during Festivals and Special events the crowds can really give a head ache. Crowds force you to do a hurried shopping most of the time.

Compulsive Shopping:

Many times when one go out on Shopping one end up buying things which one do not require because of the shop keepers up selling skills. Sometimes you may even compromise on your choices because of the lack of choices in those shops.

DISADVANTAGES ONLINE SHOPPING

Although online shopping as many advantages, there are also problems which may occur from time to time. Ordering the wrong product, receiving the wrong item and the need to return a purchase can often be significant enough to make a potential online shopper reconsider the decision to purchase again.

Despite the convenience of online shopping, not everyone chooses to purchase items and services online. Some people like the idea of physically going to a store and experiencing the shopping process. They like to touch the merchandise, try on clothing, and be around other people. Online shopping doesn't permit shoppers to touch products or have any social interaction. It also doesn't allow them to take the merchandise home the same day they buy it.

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Another reason some consumers avoid shopping online is the fact that they worry that the products they purchase are not accurately portrayed in the website's picture. They worry that the picture of the item may appear one way, but the actual item may look completely different — perhaps of lesser quality. It's also impossible to try on apparel when conducting online shopping.

A consumer has to rely on body measurements in order to make sure the clothing will fit properly. If the clothing arrives in the mail and it's too small, the consumer has to return the item. This is a potential inconvenience that some shoppers may not wish to face.

POTENTIAL PROBLEMS:

It is important for consumers to use caution when visiting online shopping websites regularly. The convenience of online shopping could pose a potential threat to those with addictive personalities. Because of the easy accessibility and simple click of a button to purchase goods, shopping addictions could be a serious danger of online shopping. This habit can lead to financial and domestic problems in the household.

Retailers need to study the differences between online consumer behaviors versus in-store consumer behaviors. It is important for the online retail companies to learn about consumer behavior so that they can make changes accordingly to increase productivity.

Ordering the Wrong Item

When shopping in traditional brick and mortar stores, it is quite difficult to accidentally purchase the wrong item because the sales process typically involves you physically carrying the item up to the sales counter and paying for it. In online shopping, where the consumer never physically handles the item before the process is complete and the item delivered, it is certainly possible to purchase the wrong product.

The Wrong Product Was Delivered

Even when online shoppers do not make mistakes during the ordering process, it is still possible for the consumer to receive the wrong product. This often occurs when the orders are filled by hand and a mistake is made in the online retailer's warehouse. A warehouse worker may ship the wrong item completely or may ship the correct item in the wrong size or color.

Again the consumer will likely not know a mistake was made until the product arrives. Usually, the online retailer will likely take responsibility for returning the incorrect item and will ship the correct item as soon as possible. Make sure to shop at reputable merchants who have proven customer service and your chances of being a satisfied Online customer are very good.

Although these problems are some of the most common online shopping glitches, they do not happen frequently. However, when these problems do occur they can cause a great deal of stress and frustration for the online shopper.

CONCLUSION

The biggest opportunity of online shopping is lack of infrastructure in India. There are about 5000 cities with about 2000 cities having transportable roads. Beyond that these roads do not exist, but the internet does. The internet penetration, smart phones and television penetration are the catalyst which are driving virtual retail. So, e-commerce is here to stay, e-commerce is to grow multifold year-on-year.

Online shopping will not take over physical retail but it will drive retail and consumption. The internet penetration is growing about30-35% year-on-year. E-commerce is growing at about 75 % year-on-year, which is twice the rate of the internet penetration. This is just the beginning. By 2015, India will have 265 million internet connections. The opportunity is huge in this market.

The entire business model is based on innovation. There was no virtual distribution model in the country. So, the entire thing is innovation.

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NEED OF VALUE ADDED SERVICES IN THE TELECOM SECTOR

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ABSTRACT

Mobile phones today have moved beyond their fundamental role of communications and have graduated to become an extension of the persona of the user. We are witnessing an era when users buy mobile phones not just to be in touch, but to express themselves, their attitude, feelings & interests. Customers continuously want more from their phone. They use their cellular phones to play games, read news headlines, surf the Internet, keep a tab on astrology, and listen to music, make others listen to their music, or check their bank balance. Thus, there exists a vast world beyond voice that needs to be explored and tapped and the entire cellular industry is heading towards it to provide innovative options to their customers. Spoilt by choice, the mobile phone subscribers are beginning to choose their operators on the basis of the value added services they offer. The increased importance of VAS has also made content developers burn the midnight oil to come up with better and newer concepts and services.

ACCORDING TO industry experts, who congregated at seventh VAS INDIA 2010, the Indian value added services (VAS) industry is expected to touch a turnover of over Rs 21,000 crore by the year 2013.

Keywords: VAS, Cellular industry.

INTRODUCTION

Mobile Value added services (VAS) are fast becoming a major part of the revenue mix for telecom and media companies around the world. Mobile data is now typically between 25 and 40 percent of revenues in mature markets and by far the fastest growing service. To date, this has been driven by SMS and ringtones but other services like mobile email and mobile broadband have grown significantly over the last few years. The success of Apple's IPhone App Store – with more than 1.5 billion applications downloaded within the first 12 months of operation that allows users to download a vast array of different applications to their IPhone – only serves to emphasize that when the experience is right, mobile users are looking for ways to add to their device – and are in many cases prepared to pay to get what they want. And while a new single 'killer application' has yet to emerge that rivals the impact of SMS, the continued advancement of devices and networks are driving the growth of new service offerings that address a broad range of customer needs and demands, producing an almost infinite array of applications, from games to productivity tools. As well as driving revenues directly, value added services can enhance performance in other ways. Critically, in a competitive market, they help to build stronger relationships with customers, as customer data can be mined to create customized services that increase loyalty and enhance stickiness.

India: A VAS Vacuum:

India is one of the most exciting telecoms markets in the world. It is already the second largest with almost 450 million subscribers and still one of the fastest growing. Indians seem to be in love with their mobiles, with one of the highest mobile Minutes of Use in the world. There are vibrant software and media industries and a strong tradition of entrepreneurship that have already created a rich community of VAS developers building applications in use around the world.

Yet despite this, Mobile VAS in India appears to lag most other countries, even when compared with other developing markets, leading to a "VAS Vacuum".

We observe three main reasons for this. First, the mobile operators have to date focused on acquiring customers in the urban areas where VAS has not been needed or used as a differentiator. Secondly, SMS usage in India is much lower than in other developing markets, perhaps a function of low literacy rates, and certainly inversely correlated with high voice usage. Finally, the later release of 3G spectrum and licenses may also mean that operators have not yet devoted the resources to develop VAS applications, which typically happens when at least one player starts actively to push its 3G network .But as the Indian market enters its next phase of growth, with new players, new spectrum, intensified urban market competition and expansion into rural areas, VAS may become an important part of the operators' product mix.

NEED OF VAS:

1. Revenue Growth -

Value added Services open up new ways to generate new revenue. These can be in the form of new services ranging from mobile broadband, applications, entertainment, location-based services and productivity tools to name a few. In addition, VAS can create new revenue streams for example from advertising or machine-to-machine services, helping to expand the overall market

2. Customer Acquisition

VAS also provides an opportunity to acquire customers through unique, differentiated offerings. These can be aimed at capturing additional higher-end customer segments or targeted with innovative new services tailored to the needs of previously underserved or overlooked customer segments. In addition, selected "headline grabbing" services can help operators enhance their brand as an innovative player, to help with overall market positioning

3. Customer Retention

As the Indian market matures, including the advent of mobile number portability, churn will become an increasing problem. Experience in other countries indicates that the more services a customer uses, the lower their propensity to churn. Hence VAS can be used to increase customer loyalty, particularly if services are priced to encourage usage and if they involve some "time investment" from the customer such as backing up personal data or creating personalized content. Building a successful VAS strategy So what steps might be required to address and fill the VAS Vacuum in India? There is some evidence from the Indian market showing that there is an appetite for certain types of VAS offerings to consumers, with ringtones proving particularly popular. Services such as voice activated song requests that can be turned into ringtones, or social networking services in their infancy all point to the potential in the Indian market. However, uptake of services tends to peak following marketing campaigns and declines rapidly once marketing activity subsides. But implementing a successful strategy for VAS will depend less on finding the elusive 'killer application' than it will on defining and implementing a killer approach. While there is no single prescription for a VAS strategy, we do see five common key elements for success.

1. Integrate the Ingredients

The customer experience is essential for the success of any new service, and the mobile VAS experience is dictated by how well you integrate what we call the "4 P's" of the Digital Mix: The Pipe (network), The Pod (device), The Panel(user interface) and The Programs (content & applications). It is the blend of all of these ingredients that makes a successful experience. Often heavy investment in a "cool UI" is let down by another part of the mix leading to a poor end customer experience.

2. Embrace the Ecosystem

With several large global players and hundreds of small local innovators, the odds are heavily stacked against a single company having all of the expertise in house to provide and sustain the innovations needed to deliver a portfolio of VAS services. Cooperation between content providers, device makers, application developers and operators is vital to create the most effective business models. Operators can play a potentially central role in this ecosystem through leveraging their own unique capabilities and providing leadership on key issues such as pricing and payment transparency, security of copyright and content.

3. Think Segment, not Product

Rather than focus on a search for a single blockbuster product, we think a better approach is to look at the needs of specific segments and assemble a portfolio of VAS products, internal and from third parties, which meet those needs. Deep insight into the subsegments is key, blending data-driven analysis, local market knowledge and creative thinking from within and outside the company.

4. Get Sticky

VAS can provide the opportunity and means for differentiation. Sticky services help to lock in customers by helping them manage their lives through services such as address book storage, SMS back up, and a range of personalized content and social networking tools. Operators can mine customer data to generate insight about the types of service bundles that would suit specific customer segments and use these to help drive retention.

5. Start Simply

The development of VAS should start with simple, reliably delivered services. The most successful experiences give customers a "story", progressively building in new functions and features over time and focusing on the "Pareto of Life": 80 per cent of customers just want 20 per cent of the functions… so do those few things very well and don't over-complicate the range of options.

Opportunities beyond the Urban Consumer

Mobile users are growing very quickly in rural India. Approximately 70 percent of the Indian population lives in rural areas, with a subscriber base for mobile operators of close to 100 million. With the rural population expected to reach more than 830 million in 2010, it is estimated that 100 million new rural subscribers will be added by then. Addressing that market is likely to require a new way of developing and delivering services and content, and in particular working with the not-for-profit sector to build the use of data services to help rural populations manage their lives more effectively. In addition, services outside the urban areas will have to be created in a number of languages and provide locally relevant content such as agricultural commodity prices, weather information and access to official services and information. Telcos and others may also take the opportunity to develop their corporate social responsibility work in both rural and urban areas by providing free information services for issues such as healthcare .A major potential – and to date largely untapped – market for VAS is in the provision of services to enterprises. From simple applications such as using SMS for scheduling appointments to streaming product videos to a salesperson's mobile phone, the applications are wide ranging and could offer considerable first-mover advantage for service providers who can address this market quickly. Innovative services, profitable growth and high performance India offers a unique marketplace. It has the simultaneous characteristics of mature and developing markets, with affluent and sophisticated consumers alongside those living in developing rural markets. Creating relevant and appealing VAS that address the needs and desires of those different markets is an exciting opportunity for service providers and media companies looking for ways to create profitable growth and high performance. Innovation of services and the capabilities that underlie them will be critical to making the most of this opportunity. New partnerships and alliances are likely to be a distinct feature of a successful approach to a market that is only just beginning to reveal its potential.

CONCLUSION

We believe that while the mobile VAS space is all set to grow rapidly, all the stakeholders will have to work together and create a self-sustaining ecosystem for this growth to sustain. Similarly it would take a joint effort of all concerned to address the significant roadblocks and thus unlock the true potential of Mobile VAS in India. The key addressable barriers would be to ensure greater rationality in revenue sharing between Telcos & content developers; ensure copyright protection, develop higher quality content which goes beyond Bollywood and cricket and also to have a focused WAP strategy. We also believe that while pure entertainment service would continue to appeal to the younger consumers, the overall focus for Mobile VAS would shift to utility based services like location information & mobile transactions; as security concerns are addressed mobile transactions will also have a good potential in India.

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ROLE OF DIGITAL WATERMARKING IN DIGITAL CONTENT FOR PRIVACY PROTECTION

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ABSTRACT
Digital watermarking Technology is popular as a copyright protection and safety certification, also powerful tool that has been given lot of attention and development. Digital watermarks are one of the tools which help to make the distribution of digital material more secure. In this paper we have discussed a secure watermarking protocol using cryptographic technologies for use in real-life internet retail market of digital contents, to address the problem of tracing unauthorized distribution of sensitive intelligence documents. The privacy of watermark pattern is maintained while the digital rights of the contents provider are also protected. This is achieved by allowing the customer to choose a secret pattern of watermark combination unknown to the content provider. Consequently the quality of the watermarked digital contents can be guaranteed.

Keywords: Digital watermarking, Digital content, Document distribution protocol, Intelligence user certificate

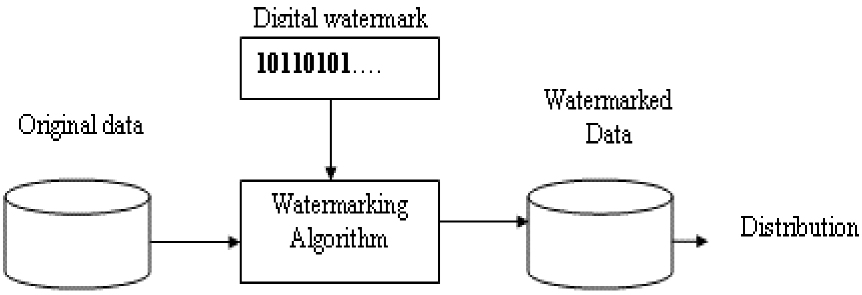
1. INTRODUCTION
Continuous growth in the retails market of digital contents over the internet has been reported. However, the availability of digital copies facilitates unauthorized duplication of digital contents over the internet. This prompts the importance of studying the issues of digital rights protection and piracy detection.

Digital watermarking is an important means for digital rights protection and piracy detection employed by many Digital Rights Management (DRM). It is the process that embeds data called a watermark, tag or label into a multimedia object such that watermark can be detected or extracted later to make an assertion about the object (text, image, audio or video). A digital watermark usually includes rights information such as the owner’s identity, transaction date, transaction serial number etc. Watermarks can be embedded into digital contents without noticeable distortion of the quality of the latter. In addition to the rights information, a watermark identifying a customer can be embedded into a piece of digital contents before it is sold to the customer. When a suspected pirated copy of the digital contents is found, the origin of this copy can be traced by recovering the associated embedded watermark. Illegal acts such as unauthorized distribution of digital contents are thus discouraged.

In this paper, we propose the implementation of a new watermarking protocol using cryptography technologies. This protocol maintains the privacy as well as quality of the watermarked content.

This paper is organized as follows. Section 2 gives an overview of Principles of watermarking schemes; section 3 gives an overview of document distribution infrastructure.

2. Principles of Watermarking Schemes: A Brief Overview
Watermarking Schemes refer to the use of signal processing techniques to process watermarking signals in a piece of digital documents. Existing watermarking schemes generally involve two stages watermark insertion and watermark detection as shown in figure 1.



Suppose we have a digital document X, a watermark W, and a permutation function σ. A watermark insertion scheme I inserts a watermark W to the document X where:

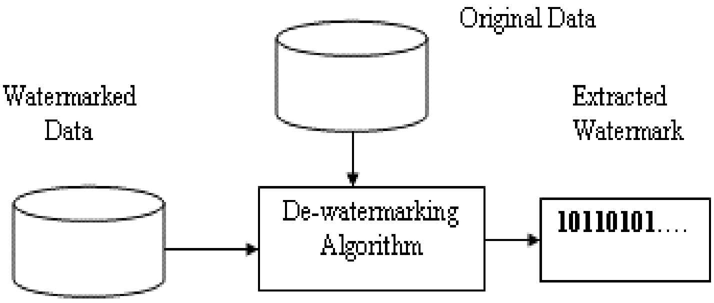
X'= I (X, W, σ)

Where according to spread-spectrum technique (i) the document is a vector of "feature", i.e. X={x_1, x_2,….., x_n}, (ii) the watermark signal is a vector of "watermark elements" i.e. W{w_1, w_2,…..w_n} with n>= m, (iii) permutation function σ is a bijection that shuffles the watermark elements before inserting them to the document X. The shuffled watermark is a vector of σ(W)= {w1',w2',…..,wm'}, where wi' = σ(wj) with i, j =<m, which are then inserted to the document X by means of a insertion operation +. In other words, the watermarked piece of digital content X' is given by

X'= I (X, W, σ) = {x1+w1', x2+w2',……, xm+wm', xn}

Corresponding to the watermark insertion function I, there is a watermark detection function D, defined as follows:

{ D(X, X', W, σ)= true if W exist in X'
D(X, X', W, σ)= false if W does not exist in X'



A watermarking technique is said to be *non-blind watermarking* when its detection function D requires the knowledge of the original contents X. Otherwise, the scheme is *oblivious*.

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3. Intelligence Document Distribution Infrastructure

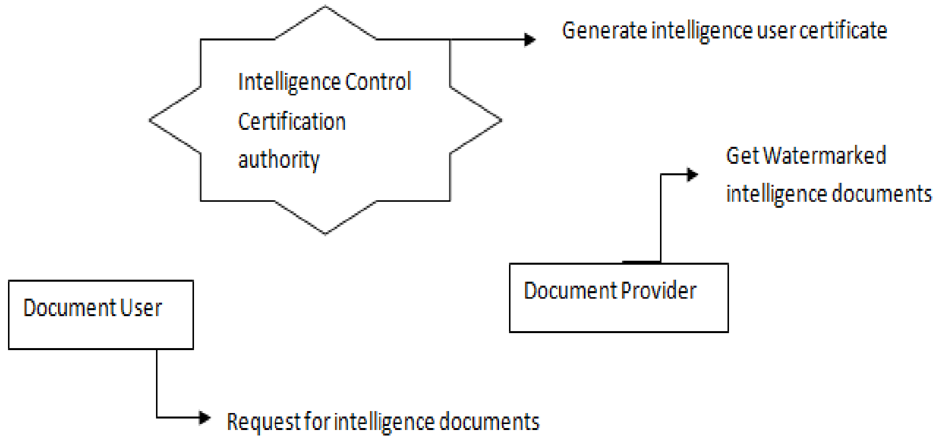

Figure 2: Overview of intelligence document distribution infrastructure

A watermarking infrastructure usually distinguishes three different roles namely, Document user, Document provider and intelligence control certification authority, as shown in figure 2. Document users are the ones who want to acquire some intelligence documents. Each copy of the intelligence document can be individually watermarked to identify its authorized users. Document providers are producers of theses intelligence documents. Document providers employ their own, possibly proprietary, watermarking techniques to encode watermarks into intelligence documents before distributing them to document users. Intelligence control certification authorities are trusted parties that generate intelligence user certificate identifying document users.

4. Protocol for Privacy Protection Of Watermark In Digital Contents

In this section, we propose a practical scheme for protecting the privacy of the watermark in the transactions of digital contents by employing the blind RSA decryption. In our scheme, there are three generic parties called *customer, content provider and intelligence authority*. The procedure of our scheme can be divided into three steps. Firstly, the customer and content provider form an interactive protocol to generate a privately watermarked digital content. Then, the customer sends encapsulated data back to the content provider as the non-repudiation evidence for solving the possible disputes. Finally, in case of finding unauthorized copies of a piece of watermarked content, the Intelligence authority decided who is guilty by checking the non-repudiation evidence submitted by content provider. This can be understood as follows by applying 1024-bit RSA parameters:

Let p and q be two large prime numbers and n_{cp}=p.q, where n_{cp} is 1024 bit in length. Assume that the public key of content provider is e_{cp} ($1< e_{cp} <ø(n_{cp})$) which is randomly selected, such that e and $ø(n_{cp})$ are relatively prime, where $ø(n_{cp})=(p-1)(q-1)$. The private key of content provider then can be calculated such that $e_{cp.}\ d_{cp}=1 \pmod{ø(n_{cp})}$. Finally, ($n_{cp,}\ e_{cp}$) are announced as the publiv key of content provider and d_{cp} is kept secret as the private key of content provider.

[RSA Example (general):

1. Select primes: p=17 & q=11
2. Compute $n = pq$ =17×11=187
3. Compute $ø(n)=(p–1)(q-1)$=16×10=160

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4. Select e *:* gcd(e,160)=1; choose *e*=7
5. Determine d*: de*=1 mod 160 and *d* < 160 Value is d=23 since 23×7=161= 10×160+1
6. Publish public key KU={7,187}
7. Keep secret private key KR={23,17,11}
8. sample RSA encryption/decryption is:
9. given message M = 88 (nb. 88<187)
10. encryption:
11. C = 88^7 mod 187 = 11
12. decryption:
13. M = 11^{23} mod 187 = 88]

Now suppose that customer owns two different watermarks Wc(1) and Wc(2). To purchase the digital contents over internet, the customer firstly sends a request message of buying the content M to Content provider. On receiving the payment and the watermarks Wc(1) and Wc(2) from customer, the content provider generates two identical copies of M i.e (M(1) and M(2)), each of which is split into ζ frames i.e

M(i) = {m(i,1), m(i,2),…..,m(i, ζ)} where i=1,2 ____________________(1)

Then the content provider embeds Wc(1) into each of the ζ frames of M(1) and Wc(2) into each of the ζ frames of M(2), effectively producing two pieces of different watermarked contents M(1) and M(2) respectively. That is :

Mc(i)={ {m_c(i,1), m_c (i,2),….., m_c (i, ζ)}, where

m_c(i,j)= m(i,j)+Wc(i), i={1,2) and j=(1, 2,….., ζ)_____________________(2)

The Content provider then encrypts the 2 ζ frames m_c(i,j) using his public key and generates two encrypted digital contents vector C1 and C2 as follows:

{-----------------____________________(3)

C1=(c(1,1), c(1,2),…,c(1, ζ)) ,

C2=(c(2,1), c(2,2),…,c(2, ζ))

The Content provider sends C

When the Customer receives … C' = (c'1, c'2, …..,c' ζ) by arbitrarily choosing c'i from … omer first arbitrarily chooses a ζ-bit integer Kc, which is denoted as a bit pattern {k1, k2,…..,kζ} where k_jЄ{0,1} and constructs C' = (c'1, c'2, …..,c' ζ) by

c'j=c(1,j) k_j=0

c'j=c(2,j) k_j=1 _________________(4)

After generating C', customer C blinds the C' with ζ arbitrarily chosen 1023-bit number $r_{i,}$ 1=<i<=ζ to get an blinded vector D={d1, d2, ….,d ζ}

Then the customer C sends the blinded vector D back to the contenet provider, who decrypts vector D using his private key d_{cp} and get the vector U, U=(u1,u2,….uζ} where

$u_i = (d_i)^{d}{}_{cp} \bmod n_{CP}$

$= (c'_i . (r_i)^{e}{}_{cp})^{dcp} \bmod n_{cp}$ ________________________ (5)

$= (c'i)^{d}cp \cdot r_i \bmod n_{cp}$

$= (m_C^{(ki ++1,i)}). r_i \bmod n_{CP}$

After the decryption, the content provider sends U to C. Note that the CP does not know from which of $M^{(1)}{}_C$ and $M^{(2)}{}_C$ the C chooses each frames, as the vector D is blinded with r_i which is unknown to the CP.

The customer C now obtains from U all ζ frames of watermarked contents $m_C^{(ki +1,i)}$ by un-blinding each u_i in vector U as $m_C^{(ki +1,i)} = (u_i / r_i) \bmod n_{CP}$. As a result, the customer C gets a complete piece of watermarked contents M_C by assembling these frames in sequence, i.e.

$M_c = \{m_c^{(k1+1,i),}\ m_c^{(k2+1,2)},..., m_c^{(k \zeta + 1, \zeta)}\}$.

4.1 Non-Repudiation Evidence Generation

To generate an evidence for solving the possible piracy disputes in the future, the customer *C* is requested to send an encapsulated data $B_C= E_{PKPA}(K_C, H(M_C))$, with a signature on B_C, to the *CP* after receiving the watermarked content for record purpose, where K_C is the ζ-bit integer chosen by the *C* to computer *C′*, $H(M_C)$ is a cryptographic hash function value on M_C, $E_{PKPA}()$ is the encryption function using the *PA*'s public keys. The *Content Provider* keeps B_C and returns a self-signed copy of B_C to Customer as a receipt. The Content keeps records of all transactions in his database, where each transaction is summarized as a five- order tuple <TN, ID_C, $W_C(1)$, $W_C(2)$, B_C > where TN is the transaction number refer to which digital contents M is sold in the transaction, IDC is the identity information of customer, $W_C(1)$ and $W_C(2)$ are the two watermarks of the C.

4.2 Solving the Dispute on Unauthorized Distributions

When unauthorized copies of a piece of watermarked contents, denoted by M_C' are detected. The *Content Provider* may accuse the customer *C* for pirating behavior by submitting the non repudiation evidences to the *Intelligence Control*. As we discussed in previous section the *Content Provider* should maintains a record list *L*: <TN, ID_C, $W_C(1)$, $W_C(2)$, B_C > of each transaction. From the record list *L*, the *Content Provider* can recover $M_C^{(i)}$, i={1,2} and K_C , the *Intelligence Control* can assemble the watermarked contents M_C obtained by customer *C* in the transaction, as equation (4). By verifying that whether $M_{C=}$ M'$_C$, the *Intelligence Control* may determine who is guilty. That is, if $M_{C=}$ M'$_C$ then *Customer* must be guilty for pirating; if M_C is not equal M'$_C$ then the *CP* made the unauthorized distribution himself.

5. DISCUSSIONS

It should be noted that there are still some other issues to consider when the scheme is put into real-life applications. We discuss these issues in the section. The first issue concerns the authentication of the trading parties. Basically, authentication is a common consideration in security related applications. In a commercial application, traders usually need to authenticate the identities of each others before the transaction. Similarly, authentication is also necessary in our scheme. For example, the customer *C* needs to authenticate the identity of the *CP* before the payment, and *CP* also needs to authenticate that *C* is a customer who has made the payment. Therefore, it is reasonable to require that both *C* and *CP* to be authenticated by a public authority *before* the protocol starts. The most common form of authentication is to require both parties to obtain a public/private key pair and a corresponding certificate issued by the certification authority (*CA*) and thus the public key authentication solution is applicable in our scheme.

How to ensure the proposed watermarking protocol can be performed completely is another related issue. In practice, either party could terminate the protocol before completion. For example, *CP* could refuse to continue the protocol as soon as it receives the payment and the customer could stop the protocol after obtaining the watermarked contents without submitting the non-repudiation evidence. Another important issue is that we have to achieve non-repudiation of the messages sent since it is possible that *C* or *CP* is dishonest sometimes during the transaction. To facilitate the *PA* to judge who is cheating, we require both *C* and *CP* to digitally sign on the messages they send.

6. CONCLUSION

In this paper, we have presented a detailed implementation of a secure watermarking protocol for use in real life trading scenario of digital contents. The privacy of watermark pattern is maintained, while the digital rights of the contents provider are protected. This is achieved by allowing the customer to choose a secret pattern of watermark combination unknown to the *CP*. Consequently, the quality of the watermarked digital contents can be guaranteed. We show that the protocol is secure against any possible attacks from the customer and the *CP*. Moreover, the dispute resolution process becomes mechanical.

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IMPACT OF GLOBALIZATION REPLACES TRADITIONAL RECRUITMENT SOURCES

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ABSTRACT

With the high rate of technological evolution and its fast penetration and accelerating globalization, organizations have had to change and new trends have set even in the management of human resources. The traditional approach – developing a resume, submitting it to various companies, and hoping to receive a call from them – is now passé. It is important to remember that successful people tend to associate with other successful people, who make employee referral an important source of recruitment. Job portals are also one of the convenient recruitment sources, it saves effort and time, and are more efficient than any other job search medium.

Keywords: Attrition, Recruitment sources, Job portals, Employee Referral, Recruitment Management System

INTRODUCTION

The major challenges being faced by the ITES industry in India can be classified shortage of competent skills and the high attrition rates. Attrition means not only loss of talent, but also includes the cost of training the new recruits. The attrition rate in the industry has been hovering around 35%, which is quite high for any industry. An average Indian call center employee works with a company for 11 months, whereas an average UK call center employee stays in a company for 3 years. Now a days, firms are aiming to strengthen the companies reach out towards its efficient sources of recruitment along with the quality of hire that is mainly the new joins which helps to increase the productivity of company. It is said that 'quality of hire can be improved by choosing proper recruitment source.

OBJECTIVES OF THE RESEARCH

- To study the various sources of recruitment followed in ITES Firms.
- To find the percentage of employees selected from each sources.
- To analyze the quality of candidate referred by the sources.

RESEARCH METHODOLOGY

The study was conducted in one of the ITES firm located in Pune City. Primary data was collected from Recruitment Management System to understand percentage of employees selected from each sources along with the quality of that employee. The secondary data was collected from the reference books and internet was also studied to understand the meaning and theoretical aspect of the subject.

LITERATURE REVIEW

Recruitment is a "linking function" joining together those with jobs to fill and those seeking jobs. Recruiting makes it possible to acquire the number and types of people necessary to ensure the continued operation of the organization. Recruiting is discovering potential applicants for actual or anticipated organizational vacancies. In simple terms, recruitment applies to the process of attracting potential employees to the organization or company.

Recruitment is a process consisting of various activities through which search of prospective personnel – both in quantity and quality as indicated by human resource planning and Job Description and Job Specification is made.

Importance of Sources of Recruitment:
After the finalization of recruitment, candidates must be attracted to offer themselves for consideration to their employment. This necessitates the identification of sources from which these candidates can be attracted. Basically there are two sources of recruitment Internal and External.

Internal Source: They include those who are already on the pay roll of the organization and those who served the organization in the past (but quit voluntary or due to retrenchment) and would like to return if the organization likes to re-hire. There is merit in looking for internal resources since they provide opportunities for better deployment and utilization of existing human resources through planned placements and transfers or to motivate people through planned promotion and career development where vacancies exist in higher grades.

External Source: Organizations may look for people outside it. Entry level jobs are usually filled by new entrants from outside. Also in the following circumstances organizations may resort to outside sources a) when suitably qualified people are not available b) when organization feels it is necessary to inject new blood into it for fresh ideas, initiatives, etc c) when it is diversifying into new avenues and d) when it is merging with another organization.

Following are some of the Internal and External sources:

Internal:
- Promotion and Transfers.
- Job posting.
- Employee Referrals.

External:
- Campus recruitments.
- Advertisements.
- Employers trade association.
- Private employment agencies.
- State or public employment agencies Consultancies.
- Job Portals
- Social Media

Quality of Hire
Gauging the Quality of new hires means to find the quality of competencies hired which reflect the performance of the recruitment team. When gauging the quality of new hire it is important to be consistent and maintain a record of all new hires in each department.

It is very important to measure the quality of hire. There is lot of time, energy, money involved in hiring a new candidate. Hiring cost, Training cost, Retention cost etc.

Before hiring an associate, hiring manager has some pre hiring requirements and expectations from the new associate. After the recruitment, these expectations may be or may not be fulfilled.

Measuring quality of hire amounts to measuring how the candidate varies from the pre hire requirements and expectation.

Pre hire requirement $\longleftrightarrow$ New hires actual performance
Quality of Hire

Data Analysis and Finding

It was found that the **recruitment sources** are the key success factor in the recruitment process. The company has to analyze the recruitment process, and it has to choose the best performing recruitment sources for job vacancies. The company has to find the right balance to optimize costs, time and quality of the recruitment process.

The organization has to choose the right recruitment sources. The ITES firm usually use *web based recruitment sources*. not the traditional newspaper advertising.

The recruitment sources drive the quality of the recruitment process. The candidates of a high quality are rare. They do not look for the job advertisement. The job vacancy has to find them. It is not easy to make them apply for a job vacancy in the organization.

The recruitment sources are not just external. The internal recruitment sources are extremely powerful, as well. The employees are an excellent recruitment source. The internal recruitment should not be ignored. The organization should utilize the full potential of employees. They have to move to new, challenging job positions. The internal recruitment is the best HR tool to maximize the flow of employees in the organization. Employees can recommend their friends. Employees proud of their employer can recommend job vacancies to their friend.

Most of the respondent specified sourcing as most challenging step in the entire recruitment and selection process. On the basis of time consumed it was found that the percentage of time taken in requirement design (workforce planning, job design, job description) is 20%, sourcing is 60%, evaluation (tests and Interviews) is 15% and closure (Fitment, offer and joining) is 5%. Therefore it was concluded that sourcing of right people is most challenging step in recruitment and selection procedure.

While selecting the source of recruitment firm consider all three parameters Quality of Hire, Time to fill the requirement and Cost per hire. Out of which Quality of Hire is the most important parameter which is considered.

After the analysis it was found that the among internal sources employee referral and among external sources job portal and social media is preferred.

Most importantly, when we rate the average performance of employees/candidates recruited from different sources, it was found that average performance of candidate recruited from Job Portal and Employee Referrals is excellent and the average performance of candidates from social media and placement consultant is good.

CONCLUSION

Now a day's recruitment in firms considers shifting efforts away from job fairs and newspaper ads towards job portal, social media and employee referral.

They have Centralize Common Recruiting Processes for Better Utilization. Firm conduct hiring in multiple locations, determines what processes can be centralized to reduce costs and allow for local resources to be more flexible. Firm conduct Recruitment Sourcing Analysis every quarterly along with the performance appraisal. Hiring teams that maximize their quality of hire relentlessly focus on linking recruiting sources to new hire performance data so that they can optimize their recruitment spend.

The research study gave me an opportunity to understand not only Recruitment and selection at Firms but also how recruitment sources play a vital role in analyzing the quality of hire, thus fulfilling my research objectives.

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MARKETING STRATEGIES FOR FIRMS IN EMERGING MARKETS

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ABSTRACT

In the last twenty years, there has been a sea change in the nature of the triangular relationship between companies, the state and the society. No longer can firms continue to act as independent entities regardless of the interest of the general public. The evolution of the relationship between companies and society has been one of slow transformation from a philanthropic coexistence to one where the mutual interest of all the stakeholders is gaining paramount importance. Companies are beginning to realize the fact that in order to gain strategic initiative and to ensure continued existence, business practices may have to be moulded from the normal practice of solely focusing on profits to factor in public goodwill and responsible business etiquettes(Reynard and Forstater, 2002.

The business environment has undergone vast changes in the recent years in terms of both the nature of competition and the wave of globalization that has been sweeping across markets. Companies are expanding their boundaries from the country of their origin to the evolving markets in the developing countries which have been sometimes referred to as emerging markets. The current trend of globalization has brought a realisation among the firms that in order to compete effectively in a competitive environment; they need clearly defined business practises with a sound focus on the public interest in the markets (Gray, 2001). The increase in competition among the multinational companies to gain first mover advantage in various developing countries by establishing goodwill relationships with both the state and the civil society is ample testimony to this transformation.

INTRODUCTION

It has been observed that consumers consider switching to another company's products and services, speak out against the company to family/friends, refuse to invest in that company's stock, refuse to work at the company and boycott the company's products and services in case of negative corporate citizenship behaviours.

Last but not the least, firms all over the world are beginning to grasp the importance of intangible assets, be it brand name or employee morale. Only firms that have gained the goodwill of the general public and are ideal corporate citizens will be to develop these intangible assets into strategic advantages. The cumulative contribution of all above mentions factors can be summarized by following Figure 1.

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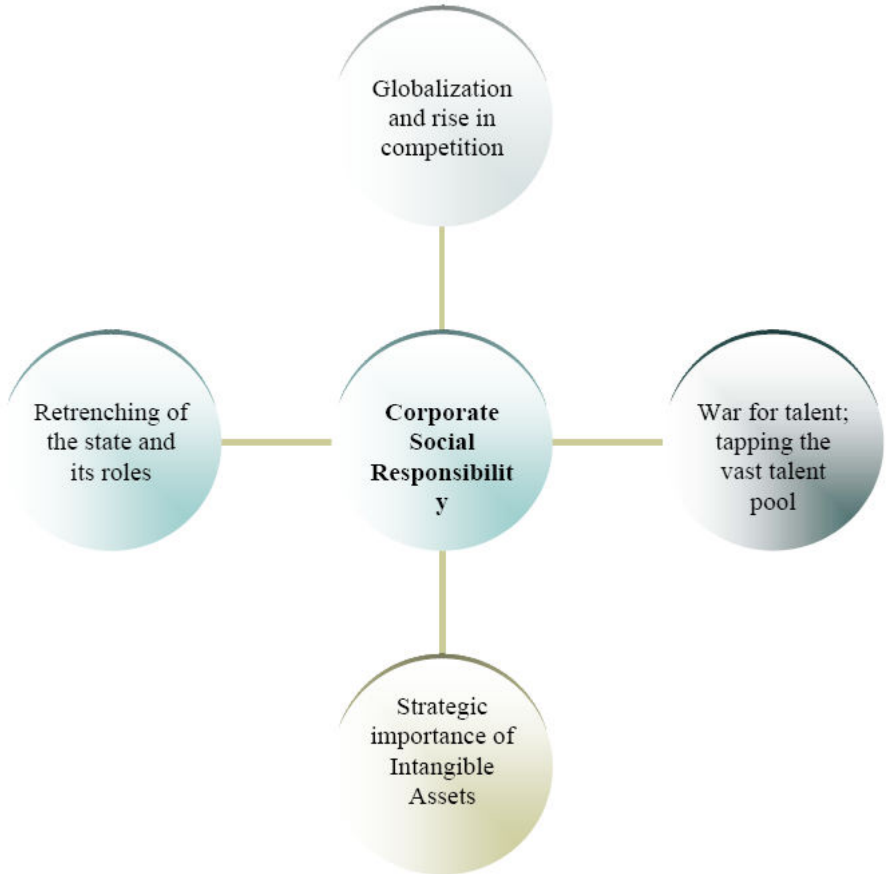
Defining Corporate Social Responsibility

Figure 1



World Business Council for Sustainable Development defines Corporate Social Responsibility (CSR) as "The continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large. "The European Commission advocates CSR as "Being socially responsible means not only fulfilling legal expectations, but also going beyond compliance and investing more into human capital, the environment and relations with stakeholders." Globalization and rise in competition Thus CSR exhorts firms to diverge from their sole aim of maximising profits and to lay more importance on improving the economic and social standards of the community in their countries of operation. CSR can be thus be simply defined as the additional commitment by businesses to improve the social and economic status of various.

Emerging Markets

The term 'emerging market' was originally coined by IFC to describe a fairly narrow list of middle-to-higher income economies among the developing countries, with stock markets in which foreigners could buy securities. The term's meaning has since been expanded to include more or less all developing countries. World Bank (2002) says that developing countries are those with a Gross National Income (GNI) per capita of $9,265 or less. The World Bank also classifies economies as low-income (GNI $755 or less), middle-income (GNI $756–9,265) and high-income (GNI $9,266 or more). Low-income and middle-income economies are sometimes referred to as developing countries. The evolution of CSR in these developing economies shows widely varying results. Chambers, Chapple, Moon and Sullivan (2003) evaluate the extent of CSR penetration in seven Asian countries (India, Indonesia, Malaysia, the Philippines, Singapore, South Korea and Thailand). Many researchers have hypothesised that CSR in emerging economies is still in a very nascent stage and suitable mechanisms do not exist to ensure that companies practise CSR with anything other than a charitable outlook. Kemp(2001) states "There are numerous obstacles to achieving corporate responsibility, particularly in many developing countries where the institutions, standards and appeals system, which give life to CSR in North America and Europe, are relatively weak." However, there are exceptions to the mean scores. India for example had an average CSR penetration of 72% compared to Indonesia's 24%. The concept of CSR as visualized in the emerging markets and the developed countries have very different understanding.

Methods of CSR Reporting

Moon (2002) distinguishes three types of CSR reporting 'community involvement', 'socially responsible production processes' and 'socially responsible employee relations'. During the initial stages of development of CSR in emerging economies, the community involvement is more along the lines of a philanthropic involvement with company involvement limited to developing minimal or rather the absolutely necessary amount of communal goodwill necessary to operate in the business environment. As compared with the developed countries like US, CSR in developing countries is seen as part of corporate philanthropy where corporations augment the social development to support the initiatives of the government. However in the US it is seen as a strategic tool which helps the organizations to have a legitimate existence in the society. CSR is considered inbuilt in the business existence of the traditional firms in the emerging markets like India (Mohan, 2001). However, trends in this regard are heartening with companies trying to establish strategic alliances with the state and the civil society thus establishing the presence of CSR as an institution in these markets.

The remaining parameters are internal to the firm involving the moulding of their business activities while incorporating CSR practices. As companies start to embrace CSR practices to a greater extent, it leads to changes in production processes so that all environmental and societal norms are also satisfied even thought they may not contribute to the profit maximising objective of the firm. This will mean that

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human rights agreements are also upheld taking into account the rights of the local communities

Dimensions of CSR and Relevance for Emerging Markets

The Green Paper (2001) by the Commission of the European Communities identifies two main dimensions of CSR, an internal dimension relating to practices internal to the company and an external dimension involving the external stakeholders.

Internal Dimension

This relates to practices internal to the company which need to be modified to incorporate CSR practices. The various components of the internal dimension of CSR are shown in Figure 2.

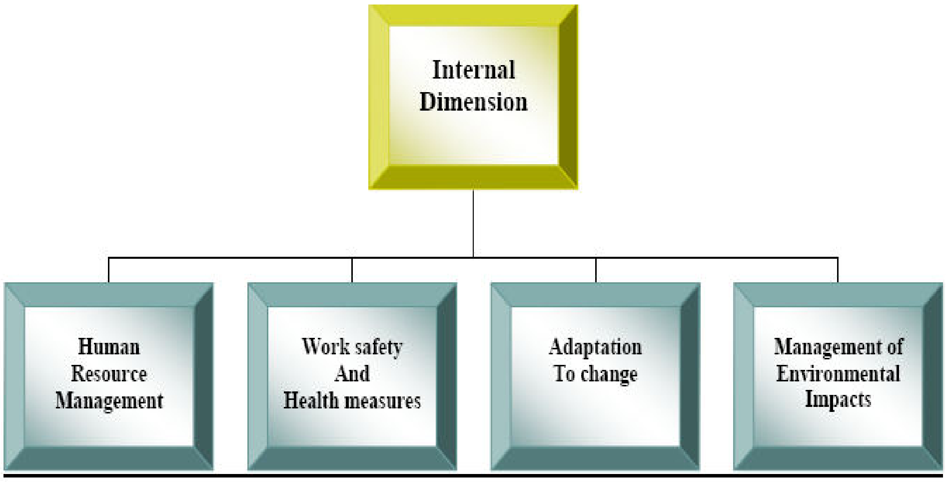


Figure 2

a. Human Resources Management

CSR can be successfully implemented in an organization through precise management of its own work force. The internal dimension of CSR includes elements like providing an environment for life long learning for employees, employee empowerment, better information flow, improving the balance between work, family, and leisure, diversified work force, profit sharing and share ownership schemes, concern for employability as well as job security among others. Active follow up and management of employees who are off work due to disabilities or injuries have also been shown to result in cost savings for the companies. Moulding of recruitment policies to include people from ethnic minorities, older workers, women and the long-term unemployed would be a significant step forward to incorporating CSR practices in Human Resources Management. In the context of emerging markets, the availability of cheap labour is an encouraging factor for companies. Developed markets have clearly moved towards heavily capital-intensive distribution with the introduction of electronic data interchanges, mechanized movement and monitoring of goods, and vending machines that replace salespeople. By contrast labour-intensive distribution remains economical in emerging markets.

b. Work Safety and Health Measures

Worker safety and labour health have been documented to be having a direct impact on productivity of the labour force. Although legal measures exist in most nations on maintaining standards for ensuring worker safety and providing health benefits, recent trends have made it imperative for companies to adopt a proactive approach to this issue. In emerging markets having significant cost advantages in labour, outsourcing of labour and processes have led to the situation where companies not only need to maintain high safety levels in their own premises but also ensure that their suppliers and other connected parties comply with these principles.

The increased focus on safety standards and employee welfare has led to the development of standards across industries.

c. Adaptation to change:

A recent trend in the global business scenario has been the wide spread use of mergers and acquisitions for business expansion. Also downsizing has been used, often ineffectively, as a cost cutting measure by firms in their relentless push for profits. According to the Green Paper (2001) by the Commission of the European Communities "Restructuring in a socially responsible manner means to balance and take into consideration the interests and concerns of all those who are affected by the changes and decisions. In practice the process is often as important as the substance to the success of restructuring. In particular this involves seeking the participation and involvement of those affected through open information and consultation. Furthermore, restructuring needs to be well prepared by identifying major risks, calculating all the costs, direct and indirect, associated with alternative strategies and policies, and evaluating all of the alternatives which would reduce the need for redundancies

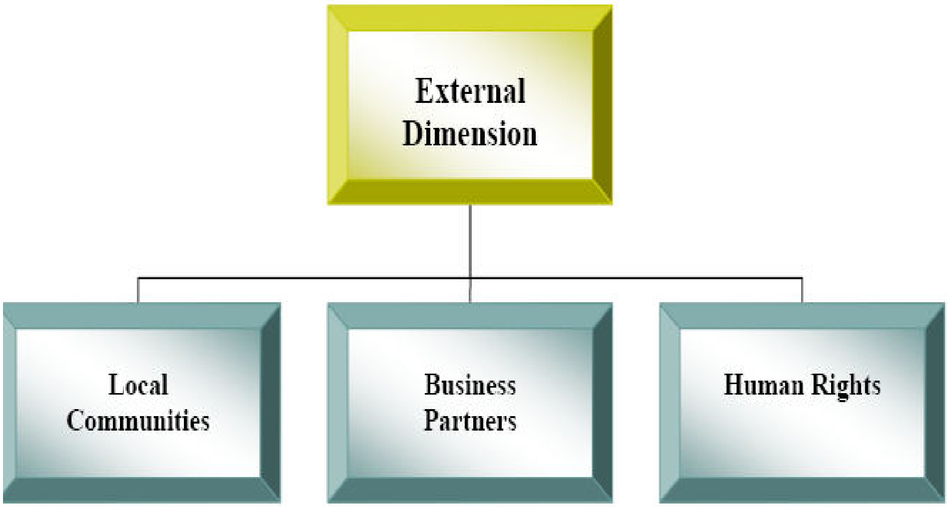
d. Management of Environmental impacts

The importance of this aspect of CSR cannot be overemphasised. Optimization of resource utilization and reducing environmentally damaging effluents can reduce the environmental impact. This will also enable the firms to affect significant cost savings in energy bills and pollution costs. Many firms in emerging markets have had to face serious repercussions from the state and society for over exploitation of natural resources and disregard for environmental safety measures. Studies by Consultancy and Research for Environmental Management on practises of Dutch multinational companies in India (2004) highlight the importance attached by the companies to maintenance of environmental standards. Many multinational companies are realising to their cost that early compliance with accepted standards will provide strategic advantages in the long run even though cost inefficient in the near future.

External Dimension

This dimension relates to practices concerning external stakeholders. The significance of this dimension of CSR has come to the forefront with the advent of globalization leading to the development of international standards for business practices.

Figure 3



a. Local Communities

The development of positive relations with the local community and thereby the accumulation of social capital is particularly relevant for non-local companies. These relations are being increasingly used by multinational companies to support the integration of their subsidiaries into various markets in which they are present. Deep understanding of the local community and social customs is an asset which can be utilized by the companies to gain strategic advantage.

In emerging markets, this is more relevant than ever because of the availability of cheaper labour from the local communities. Companies would find it in their interest to substitute capital substitution with labour and reap the cost benefits. For example, Dawar and Chattopadhyay (2000) point out the instance of Whirlpool. "Whirlpool discovered that it was unable to sell its high priced, fully automatic machines in the emerging markets. It was only after it introduced twin-tub machines that were cheaper and utilized the consumers' labour rather than electronics to complete the entire washing cycle that sales took off. Interestingly, due to the fact that these machines had long disappeared in the developed markets, Whirlpool had to acquire the 'obsolete' technology from Korea."

b. Business Partners

Building long term relationships of sound ethical foundation with suppliers, customers (and even competitors in rare occasions) will enable companies to meet customer expectations better while reducing complexity and costs. Companies should realise their CSR practices will be judged taking into account the practices of their partners and suppliers throughout the supply chain. The effect of corporate social responsibility activities will not remain limited to the company itself, but will also touch upon their economic partners. Companies in emerging markets actually take on additional CSR responsibilities because of the existence of outsourcing opportunities in the form of suppliers and outsourcing agents. Also as part of their social responsibility companies are expected to provide high quality products and services, which meet customer expectations in a manner reflecting the company's concern for the environment and the local conditions. Thus in emerging markets, consumer based business strategies would enable companies to build long lasting relationships with consumers based on trust.

c. Human Rights

According to Robbins (2000), "Companies operating in countries where human rights are regularly violated may experience a climate of civil instability and corruption that makes for uneasy relations with government officials, employees, local communities and shareholders." Amnesty International states:" Companies have a direct responsibility to ensure the protection of human rights in their own operations. They also have a responsibility to use their influence to mitigate the violation of human rights by governments, the forces of law and order or opposition groups in the countries in which they operate." The Caux Round Table Principles state that companies have a responsibility to respect human rights and democratic institutions; and promote them wherever practical.

In the context of emerging markets, operations of companies should not impinge on the land rights of the local community. In particular, the company needs to make sure that people are not forcibly removed from their homes and their livelihoods are not endangered.

Redesigning Marketing Paradigms for Emerging Markets

The last decade has seen a mad rush amongst multinational companies to gain first mover advantages in emerging markets by establishing operations and subsidiaries. However most of the firms have found out to their cost that local competition was not as easy to overcome as they had thought with matters made being worse by cutthroat competition amongst the multinationals themselves. Most multinationals are beginning to realise that loss making operations cannot be continued year after year under the pretext of investment for future expectation of profits. It is high time that the local subsidiaries start to deliver profits of their rather than continuing to act as sinks of the firm's global resources. According to Dawar and Chattopadhyay (2000) "Local operations now realize that the three to five percent of consumers in emerging markets who have global preferences and purchasing power no longer suffice as the only target market. Instead, they must delve deeper into the local consumer base in order to deliver on the promise of tapping into billion-consumer markets".

a. Customer Segmentation and Consumer behaviour

There is an urgent need for modifying currently existing customer segmentation techniques. While segmentation based on finer product features may have been successful in the industrially advanced nations, such fine distinctions may not strike a cord with consumers in the emerging markets. This is amply demonstrated in the case of consumer products like toilet soaps where market segmentation techniques in the developed nations are based on value provided by products, like fragrance, anti-aging etc. However the mass market in emerging economies with lesser sophisticated consumers may not be compliant to such fine segmentation. Segmentation techniques will need more careful analysis of consumer behaviour with significant input from demographic data.

b. Distribution

Emerging markets, especially those in Asia have posed significant distribution challenges to multinational companies. Often companies have had to abandon distribution systems tried and tested in developed nations and start developing a customized distribution mechanism specific to the country of operation. Dawar and Chattopadhyay (2000) estimate that that there are 9 million small independently owned grocery shops in China that have limited working capital and, typically, occupy fewer than 300 square feet. Multi layered distribution systems have to be used although this increases the distance between the manufacturers and consumers. Yet in order to achieve volume levels necessary to overcome the thin margins prevalent in emerging markets, this is sometimes absolutely necessary. CSR is instrumental in relationship building with retailers. Building relationships in a fragmented retail environment requires an understanding of retailers' interests. Successful manufacturers creatively develop new revenue activities for the retailer.

CONCLUSION

Emerging markets like India have drawn the attention of large MNCs for the potential of market growth. These markets are untapped and give entirely new domain for operations. However many MNCs also take the markets for granted and exploit the laxity in the norms of operations to their advantage. The lack of concern for the local community, the consumers and the environment by these corporations has created large scale public debate and action. It is important in this context to understand that the sustainable business growth is associated with care for the community and markets the corporations operate in. The negative publicity caused by the actions of MNCs has led to suspicion about their operations in the general public in these markets. The case of Coca Cola also proves without doubt that irresponsible corporate behaviour can have repercussion throughout their global markets.

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A STUDY ON COURSES OF SKILL DEVELOPMENT IN MANAGEMENT EDUCATION

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ABSTRACT

In today's changing world regarding industry and the job market, there is now an intense need for skilled workers. Over recent years, the definition of 'skill' in India, and the world in general, has changed.

The youth population in India is being added around 28 million every year. More than 50 per cent of its population is below the age of 25 and more than 65 per cent are aged below 35. In 2020, the average age of an Indian will be expectedly 29 years. There are also alternative terms in use, such as competencies, abilities or capabilities, there are some attributes which overlap between all of these and other attributes, such as knowledge, understanding, and aspects of personality. It is the quality of education that decides the quality of human resources of the country. The Indian education system provides various courses and curriculum within courses for skill development of students, specially management students as it in the name, but the curriculum aims only on point grades evaluation not on holistic development of the student. This paper attempts to analyze in brief certain courses available for skills development in management education.

Keywords: skills development, personality development, credits, concurrent evaluation.

INTRODUCTION

Soon, in future India will be facing a serious manpower shortage. The growth of the Indian economy has witnessed in the last decade driven by the growth in the service sector and particularly fueled by industries such as IT Services, ITeS, Retail, Travel, Financial Services and Hospitality which is now been threatened because the growth of India's talent pool and effectiveness has been seriously constrained due to a deepening crisis of soft skills. As year by year the employee base gets larger, the number of new hires required to sustain this growth rate has increased sharply, further worsening the situation. Skill development acts as a tool which empowers an individual to work more efficiently and improves the overall effectiveness. Through the existence of more skilled human potential, the economy becomes more productive, innovative and competitive. Increasing pace of technological changes and globalization provide both challenges and growing opportunities for job creation and economic expansion. Countries with higher and better levels of skills adjust more effectively to the opportunities and challenges of globalization.

OBJECTIVES OF THE STUDY

1. To study the techniques available under management education system in India for skill development.
2. To give a brief analysis about the above technique in light of management education.

DEFINITION OF SKILL DEVELOPMENT

It is a process of identifying your skill gaps and developing and horning them. It is important because your skills determine your ability to execute your plans with success. In goal achievement, your skills are your tools.

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RESEARCH PURPOSE

This research which focused on the management education scenario in Pune is based on secondary data available in books, websites and journals.

In a recently organized CII event in Kolkata, President Pranab Mukherjee said that "We often boast about India's demographic dividend. But the question that arises is what we do with this if we cannot skill them, if we cannot educate them and cannot enhance their employability."

India Today spoke to experts to create the future ideal employees in the 21st century on the importance of skill development from a young age and how it should evolve according to the student's age. They also explained the differences in skill training in international countries and India and options a student can vouch for if they haven't been skill-trained.

The existing economic environment is highly competitive and hence strives for sustainability.

One of the key factors, a quality human capital is towards the economic sustainability. Without compromising the ability to meet their own needs there is a requirement of a good and quality human resource who can develop this present need of environment. Current business world require people who can face the modern world challenges and can provide the initial amount and direction to the business towards excellence. Today's business need good managers and industry leaders who can give best results through their leadership skills, research skills, communication skills, analytical skills, teamwork skills, management skills, managerial soft skills and achievement oriented personality. Personality plays important role in the growth and success of a person. As personality is a combination of inner psychological characteristics like attitude , emotions, mindset and thinking which finds and reflect how a person responds to his/her environment therefore it is a corporeal characteristics and makes every human different and unique. Since personality is developed right from childhood but has to be a continuous process which keeps on improving through the entire life of a human. The importance of soft skills is increasingly being recognized in many areas of today's highly competitive market place. Research in many sectors such as engineering, information technology ,sales and marketing and law, has shown that to be successful in the workplace, knowledge alone is not enough. Soft skills are needed to deal with the outside world and to work in a mutual manner with one's colleagues.

The purpose of the study is to brief under management education system in India the techniques of skill development and to give a brief analysis about them.

Curriculum Framework of Management Education

Management education plays a vital role in the personality enhancement and assures that the student get an opportunity to meet the corporate challenges and refine their inner self skills for developing modern outlook and a global mindset. The focus is on developing a wide range of managerial knowledge and abilities. More emphasis is given to the performance of the student on the job which requires a set of skills that should match the job. In addition to subject-specific job, students are required to hone their communication skills and team building. Management colleges, follow skill based, industry and job like real-life case studies, role-plays, team projects, , personality development workshops, concurrent evaluation, discussions audio-visual clippings and field project works which enrich skills and knowledge of the students to furnish the demand of the professional world. Students also have various industrial visits to have a true learning of the real corporate world. The University organizes various academic seminars, colloquium, workshops and symposium in the field of marketing, finance and human resource, information technology, manufacturing which gives an opportunity to interact with renowned personalities from academia and industry.

The University of Pune offers certain management courses, to name a few are MBA (Masters in Business Administration), MBA-IT (Masters in Business Administration in Information Technology), and MBA-HRD (Masters in Business Administration in Human Resource Development). The University follows credit pattern for evaluation of the students. The credit pattern is based on concurrent evaluation. Recently the University has started with skills development programme in the curriculum of these courses. These include skill based, industry and job oriented pedagogical methods like real-life case studies, role-plays, team projects, discussions, personality development workshops, audio-visual clippings and field project works.

The objective of these programs is

- To understand the dynamics and exciting environment of Human resource management and complex decision that all mangers must make when managing employees
- To facilitate learning modern concepts, techniques and practices in the management of human resource to enhance the effectiveness.
- To impart know-how which will be applied further in the fields of HR by using skills and competencies to conceptual, managerial and operational functions?
- To provide to the country a steady stream of competent young men and women with the necessary knowledge, skills and foundations for acquiring a wide range of rewarding

Analysis of the Above Programs

The following are certain observations for the skill based programme included in the management courses

Positive Aspects

- It has been observed that the Pune University which follows credit pattern for these management courses, the faculty members are conducting the skill based programmes for the students.
- The students attend the different pedagogical methods of skill based programmes, such as Information security/ Cyber security, Soft skills, CSR, , Human Rights.
- The students are also groomed well in the skill based programme inside classrooms
- The students are evaluated and they get grades for the same which is through theory.
- The students gain on training knowledge from this programme, there is a positive change in their personality.
- Their communication skills also improve, they become aware of the responsibilities towards the society, and also get briefed up with certain basic laws in Human rights.

NEGATIVE ASPECT

- It has been found that students overall evaluation and final grades in this course does not include the points evaluated based on these skill based programme.
- The seriousness of theses courses are further unprovoked when students lose interest as a matter of passing grades only.
- Though being an important aspect of the management curriculum theses courses still witness a back as the education system focuses more on theoretical knowledge of subject domain without focusing on its allied facets like Personality development, skill enhancement, intellectual and emotional intelligence.

CONCLUSION

It is the quality of education that decides the value of human resources of the country. Government, industry leaders are constantly from time to time starting new skill development initiatives but somehow it is not developing the students in the required corporate world. Stakeholders have realized that none of them can work in seclusion. They will need to work together as the risk involved is huge. Mandatory Monitoring on a continuous basis and Quality Certifications should be in place which will ensure high standards training programs with prime focus on enhancing their skills. With reference to management education, the above courses are fruitful but desired outcome cannot be achieved. Because of the negative points mentioned in the paper. The future managers of India need certain skills outsmarting them in comparison to the globe in every aspects of the management. Hence any University along with the corporate personnel collaboratively should design a curriculum focusing on current government initiatives like Skill India, Startup India and Digital India

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IMPACT OF GST

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ABSTRACT
With the introduction of GST, India has entered in the international market in the field of indirect tax reforms. This paper highlights the importance and the impact created by implementing GST on the overall economy of the country. It also highlights the features, merits and demerits of GST.

INTRODUCTION
The implementation of GST from 1st July, 2017 was a revolutionary step in the field of indirect tax system of India. It has led to the amalgamation of large number of central and state taxes into one single tax.

GST is a comprehensive, multi-stage destination based consumption tax levied at every stage of value addition in the lifecycle of a product. It has brought in a unified taxation system across the country which will ensure that there is no more arbitrariness in tax rates. GST is levied at each stage in the supply chain, where a transaction takes place. Unlike the current indirect taxes, GST will be collected at the point of consumption. The taxing authority with appropriate jurisdiction in the place where the goods/services are finally consumed will collect the tax.

A Goods and Services Tax Council was constituted comprising the Union Finance Minister, the Minister of State (Revenue) and the State Finance Ministers to recommend on the GST rate, exemption and thresholds, taxes to be subsumed and other features.

The GST Council has introduced four tax rates namely 5%, 12%, 18% and 28%. Besides, some goods and services are under the list of exempt items. Rate for precious metals is an exception to 'four-tax slab-rule' and the same has been fixed at 3%. In addition, unworked diamonds, precious stones, etc attracts a rate of 0.25%. A cess over the peak rate of 28% on certain specified luxury and demerit goods like tobacco and tobacco products, pan masala, aerated waters, motor vehicles, would be imposed for a period of five years to compensate States for any revenue loss on account of implementation of GST. The GST Council has set upfive laws namely CGST Law, UTGST Law, IGST Law, SGST Law and GST Compensation Law. It has also provided rules for National Anti-Profiteering Authority. The National Anti-Profiteering Authority has been constituted having Chairman and four technical Members.

Features of GST:-
The salient features of GST are as under:

(1) GST would be applicable on "supply" of goods or services as against the present concept of tax on manufacture of goods or on sale of goods or onprovision of services.

(2) GST would be based on the principle of destination based consumption taxation as against the present principle of origin-based taxation.

(3) It would be a dual GST with the Centre and the States simultaneously levying it on a common base. The GST to be levied by the Centre would be called Central GST (central tax- CGST) and that to be levied by the States [including Union territories with legislature] would be called State GST (state tax- SGST). Union territories without legislature would levyUnion territory GST (union territory tax- UTGST).

(4) An Integrated GST (integrated tax- IGST) would be levied on inter-State supply (including stock transfers) of goods or services. This would be collected by the Centre so that the credit chain is not disrupted.

(5) Import of goods would be treated as inter-State supplies and would be subject to IGST in addition to the applicable customs duties.

(6) Import of services would be treated as inter-State supplies and would be subject to IGST.

(vii) CGST, SGST /UTGST & IGST would be levied at rates to be mutually agreed upon by the Centre and the States under the aegis of the GSTC.

(7) GST would apply to all goods and services except Alcohol for human consumption.

(8) GST on five specified petroleum products (Crude, Petrol, Diesel, ATF&Natural gas) would be applicable from a date to be recommended by the GSTC.

(9) Tobacco and tobacco products would be subject to GST. In addition, theCentre would continue to levy Central Excise duty.

(10) Credit of CGST paid on inputs may be used only for paying CGST on the output and the credit of SGST/UTGST paid on inputs may be used only for paying SGST/UTGST. In other words, the two streams of input tax credit (ITC) cannot be cross utilized, except in specified circumstances of inter-State supplies for payment of IGST. The credit would be permitted to be utilized in the following manner:

a) ITC of CGST allowed for payment of CGST & IGST in that order

b) ITC of SGST allowed for payment of SGST & IGST in that order

c) ITC of UTGST allowed for payment of UTGST & IGST in that order

d) ITC of IGST allowed for payment of IGST, CGST &SGST/UTGST in that order

ITC of CGST cannot be used for payment of SGST/UTGST and vice versa

Taxes GST would replace which are currently collected by the Centre and States:-

GST would replace the following taxes currently levied and collected by the Centre:

a) Central Excise Duty

b) Duties of Excise (Medicinal and Toilet Preparations)

c) Additional Duties of Excise (Goods of Special Importance)

d) Additional Duties of Excise (Textiles and Textile Products)

e) Additional Duties of Customs (commonly known as CVD)

f) Special Additional Duty of Customs (SAD)

g) Service Tax

State taxes that would be subsumed within the GST are:

a) State VAT

b) Central Sales Tax

c) Purchase Tax

d) Luxury Tax

e) Entry Tax (All forms)

f) Entertainment Tax (except those levied by the local bodies)

g) Taxes on advertisements

h) Taxes on lotteries, betting and gambling.

Benefits of GST:-

Creation of unified national market:-
GST aims to make India a common market with common tax rates and procedures and remove the economic barriers thus paving the way for an integrated economy at the national level.

Boost to 'Make in India' Initiative:-
GST will give a major boost to the 'Make in India' initiative of the Government of India by making goods and services produced in India competitive in the national as well as international market.

Elimination of Multiple Taxes and Double Taxation:-
GST will subsume majority of existing indirect tax levies both at Central and State level into one tax i.e GST will be leviable uniformly on goods and services. This will make doing business easier and will also tackle the highly disputed issues relating to double taxation of a transaction.

Buoyancy to the Government Revenue:-
GST is expected to bring buoyancy to the Government revenue by widening the tax base and improving the taxpayer compliance.

Mitigation of ill Effects of Cascading:-
By subsuming most of the Central and State taxes into a single tax and by allowing a set-off of prior-stage taxes for the transactions across the entire value chain, it would mitigate the ill effects and improve the liquidity of the business.

Drawbacks of GST:-

- Goods such as refrigerators and washing machines are treated as luxurious and hence are kept in highest tax slab. But actually speaking these goods have become a necessity now-a-days and therefore must be taxed at a lower rate.
- The objective of 'ease of doing business' could not be achieved because of the increase in the number of compliances and procedures.
- According to experts, GST will create a negative impact on the real estate market.
- The concept of "One Nation, One Tax" seem to be unattainable because of the prevalent GST structure.

CONCLUSION

Overall, GST is a win-win situation for the entire country. It brings benefits to all the stake holders of industry, government and the consumer. It will lower the cost of goods and services, give boost to the economy and make the products and services globally competitive.

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EFFECTIVE SALES AND OPERATIONS PLANNING (S&OP) IN PERFUME INDUSTRY WITH SPECIAL REFERENCE TO LA MISS PERFUMES

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ABSTRACT

The late 19th century was the first real era of perfume. During this period, new scents were created because of advances in organic chemistry knowledge. Synthetic perfume products were used in place of certain hard to find or expensive ingredients. France became a hub for flower and herb growing for the perfume industry. It was only in the 20th Century that scents and designer perfumes were really mass produced. Today in the 21st Century, both men & women have fragrance wardrobes of at least five-six different perfumes, rather than a single signature perfume, keeping special perfumes for special occasions.

Perfume is a mixture of fragrant essential oils or aroma compounds, fixatives and solvents, used to give an agreeable scent. The intensity and longevity of a perfume is based on the concentration, intensity and longevity of the aromatic compounds, or perfume oils, used. As the percentage of aromatic compounds increases, so does the intensity and longevity of the scent. Fragrance companies began to offer lighter, less concentrated interpretations of their existing perfumes, making their products available to a wider range of customers. Guerlain, for example, offered an Eau de Cologne version of its flagship perfume Shalimar. The most practical way to start describing a perfume is according to the elements of the fragrance notes of the scent or the "family" it belongs to, all of which affect the overall impression of a perfume from first application to the last lingering hint of scent. According to industry estimates, the size of the total domestic luxury perfume market is around Rs.600-700 Crore and is growing at a rate of 20-25 % year-on-year. The Indian Fragrance Industry, which is growing at a compounded annual growth rate (CAGR) of 40 per cent, is likely to reach a figure of Rs.10000 Crore by the year 2015. Nearly 60 per cent of the whole fragrance market is dominated by the men's category which is highly fragmented and keeps evolving with change in attitudes and lifestyle.

As per the regulation of the fragrance industry It is estimated that the total global market size of F & F and allied industry is of the order of USD 20 billion (Rs.100000 Crore). Indian share is about 10 % of the globe, which is USD 2000 million (Rs.10000 Crore). Indian population is however 17.8% of the globe which indicates potential growth

The fragrance and perfume industry is regulated by the FDA and GRAS, as well as being self-regulated by internal organizations like the RIFM and IFRA.

The FDA requires that the ingredients of a product be listed on the label, but in the fragrance industry ingredients are trade secrets so it is not required. The FDA does ban the use of about 10 chemicals in the use of cosmetics but that is where their portion of regulations stops.

GRAS stands for "generally recognized as safe" and has been in use since the 1850s. Any substances used after 1958 must meet strict guidelines and testing to be sure that they are safe. GRAS is really an industry regulation and not an FDA regulation. The designation in GRAS shows that the ingredients are safe to use in fragrances.

This paper is intended to understand the methodology of starting up a new venture and the production, design and launch of new products. Strategic and precise objectives were formulated according to the study and a questionnaire was prepared for the customers and *retailers. For the same questionnaires were designed to manifest the current trend and demand for the product in India. Further-more the responses were analyzed and interpreted using percentage analysis and pie diagrams. This explicit research enabled the researcher to perceive the market potential and customer preferences for the product ranges. Hence, it comprehends the essentials of the Planning Process in the production and launch of a profitable product.*

Keywords: *Perfume marketing, regulations in perfume industry, growth strategies, market potential and customer preferences for the product ranges*

INTRODUCTION:

The efficient and effective introduction of new products into the marketplace is a way in which many organizations can gain significant competitive advantage. Product innovation is a mechanism companies use to head off competitors who are also releasing new products into the marketplace, to grow market share or grow the total market, and to obviate the need to compete on price alone. Although various new product development (NPD) methodologies have emerged over time the Stage-Gate model developed by Cooper is arguably the best known and most applied in practice, usually in a customized form to suit the user organization. The model provides a roadmap for new product development based on the common processes followed by companies and project teams that executed NPD well. The basic Stage -Gate model consists of a series of sequential activities called “stages” e.g. stage (i) concept development; stage (ii) building a business case; stage (iii) product development, stage (iv) testing and validation; stage (v) product launch followed by a post launch review.

A promising idea for a new product that enters the NPD process is evaluated at each stage and either allowed to proceed through the gate to the next stage or the gate is closed and the project terminated or shelved. This research examined the role of sales and operations planning (S&OP) in the NPD process. S&OP is concerned with making key decisions related to balancing supply and demand. Key concerns in S&OP are setting production dates and production quantities, establishing inventory policy and responding to deviations from plan. Sound S&OP decisions are critical to NPD success but this is not easy due to the uncertain nature of some of the NPD processes. Demand forecasting for new products is particularly challenging. There are three major issues in introducing new products. [1] First is introducing a product that appeals to the marketplace, second meeting customer expectations on delivery of the products to the market. The third issue being the reduction of the cycle time from conception of the idea to delivery of the product.

According to "India Perfume Market Overview, 2016-2022", the demand for perfume products has been driven by rising personal grooming, brand awareness, increasing disposable income, growing demand from middle class population and affordable range of perfumes. Perfumes see a hike in sales in the festive season, as it is considered a perfect gifting option to friends, family and relatives. The country's fragrance industry business is estimated at Rs.3700 crores. Unorganized sector accounted for nearly 30 per cent of the total fragrance industry business. According to a study, “Domestic Fragrance Industry: The way ahead”, conducted by ASSOCHAM, the fragrance industry consisted of deodorants, perfumes and roll-ons. Indian deodorant and roll-on market is estimated at about Rs.1800 crores and is growing at about 55 per cent annually.

In 2016, the global fragrance market is estimated to be worth about USD 40.1 billion. India fragrance market has showcased a steady growth during the span of last five years (FY’2010-FY’2015). The expanding product lines due to significant technology advancements and growing importance towards personal grooming & appearance coupled with increasing consumer spending on beauty and wellness products has contributed to the growth of the market.

The overall size of the perfume industry of India is currently estimated at Rs.2000 crores, which is projected to grow by 50% to Rs.3000 crores by next 5 years. The current online perfume market is at Rs.148 crores which is projected to grow by approximately 120% to Rs.345 crores. As Indian consumers are increasingly turning to online shopping, the online market share of the perfume category, which is currently 7% of the total perfume market, is set to increase to approximately by 11% by next 5 years. Gujarat contributes to approximately 6% of the total perfume market in India.

NEED OF THE STUDY:

- This study aims to describe the Sales and Operation Planning Process for product development followed by its commercialization. It helps in the decision making regarding the appropriate product design and fragrance selection to be introduced in the niche market that would have a positive response from the consumers.
- Through this study we would we able to determine the current market trends and demand in the fragrance industry, competitors and the type of fragrances to be selected.
- This study was will assist in identifying the fragrance fondness among the consumers and to ascertain the possibilities of encouraging them to use concentrated oils instead of deodorants.

OBJECTIVES OF THE STUDY:

- Identifying the market needs and establishing time frames to develop and implement the products.
- Analyzing the current trends and successful launch of the products in the target market.
- To enumerate the competitors in the market and studying their behavior and pricing strategies.
- To perceive customer preferences and ensuring maximum customer satisfaction.
- Identifying key issues and approaches to overcome the same

Review of literature:

Kotler and Keller (2012) mentioned that Consumers' satisfaction is highly related to their perception of the product value; if it meets their expectations they will be satisfied and perceive high value of the product.

Borgave and Chaudhari (2010), Suggest that the preference and usage of perfumes will have to be placed in accordance with demography, situation, mood and buying motives of the consumer. Although the article focuses on preferences for perfumes of adolescents between 20-25 years, yet discovers that gender difference does not change the buying pattern of this age group.

Murphy, L. (1994) In order to make a successful launch, marketers are emphasizing more on one element of the marketing mix, which is "packaging", to differentiate fragrances and brands for the consumer. In the past consumers had to do choose between different bottle Numbers since the bottles were almost the same.

Breetz (2013) in his study "The impact of product packaging on consumers' value perception" argued that some of the factors in consumer choice that might be communicated by the product packaging in order to influence price include hedonic and sensory elements such as perception of the product's quality, safety, distinction, affordability, convenience, or artistic beauty. That is why it is very important to give the new customer a positive impression about the brand

Tifferet and Herstein's (2012) perceived importance of price varies among income levels when making the purchase decision. In an article published by Marketing Chart (2014) titled "Are Men or Women More Brand-Loyal" it was mentioned that women are more brand loyal than men.

Kunes et al. (2011) investigate perfume users' purchasing behavior from a gender perspective to determine what influences them to purchase or not. Above all, the scent and quality of the perfume (for example, longevity and durability) are the most important factors influencing consumer purchases of perfume - perfume is a scent, and a scent should last longer.

In total, consumers spent more than 1.2 trillion euros on luxury items in 2018. (Bain and Company, 2018). The nine segments that make up the luxury market are: luxury cars, personal luxury items, luxury hospitality, fine wines and spirits, fine food, private jets, designer furniture, yachts, and luxury cruises. (Bain and Company, 2018)

The second-largest industry is personal luxury goods, which generated 260 billion euros in revenue last year. Accessories make up the majority of the market for personal luxury goods, and include things like watches, cosmetics, leather goods, apparel for men, women, and children, as well as men's, women's, and children's scents. The primary subject is the study of fragrances. There are scents available from every premium brand, and each employs them as part of a strategy for brand extension.

(Aaker, 1991; Al-Mutawa et al., 2015; Albrecht et al., 2013; Amatulli and Guido, 2011; Stankeviciute and Hoffmann, 2011).

Shaughnessy (1995, p. 982), "the usage of celebrities tends to promote above average brand awareness but only approximately half of the celebrities have a favorable effect on consumer's buying intention towards the product." Not all celebrity endorsement deals are successful. Some of them work quite well, while other don't at all (Dissanayaka & Ismail, 2015).

RESEARCH METHODOLOGY:

Research methodology is the specific procedures or techniques used to identify, select, process, and analyze information about a topic. The five (5) steps in the research process are Locating and Defining Issues or Problems which focuses on uncovering the nature and boundaries of a situation or question related to marketing strategy or implementation. Designing the Research Project which focuses on creating a research plan or overall approach on how you are going to solve the issue or problem identified. Collecting Data as Primary Data Sources through questionnaires and surveys from the consumers of perfumes and Secondary Data Sources from the internet, reports of previous research done by others, company reports. The Survey has been conducted in Pune City and Simple Random Sampling is used with the sample size of 80 respondents.

Analysis and Interpretation of Data:-

1) How often do you use perfumes?

	No. of Respondents	Percentage
Never	4	13.33%
Occasionally	10	33.33%
Sometimes	9	30%
Daily	7	23.33%
Total	30	100%

Perfume Usage Analysis.

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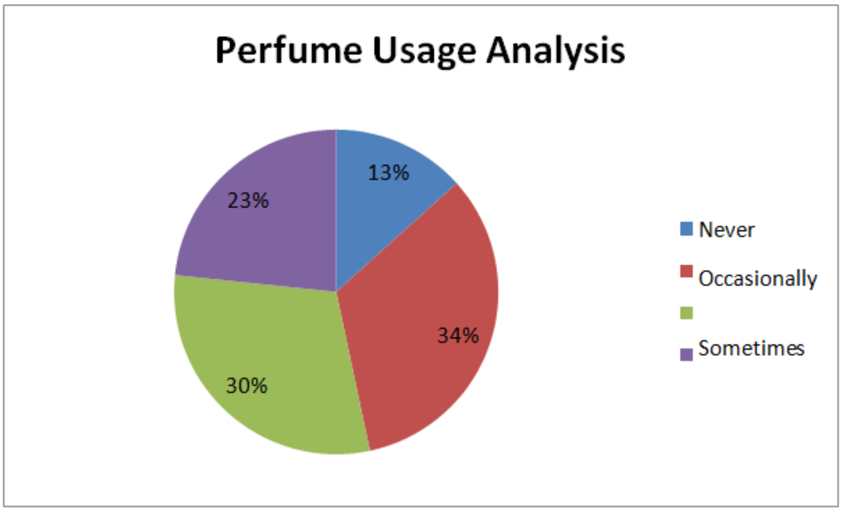


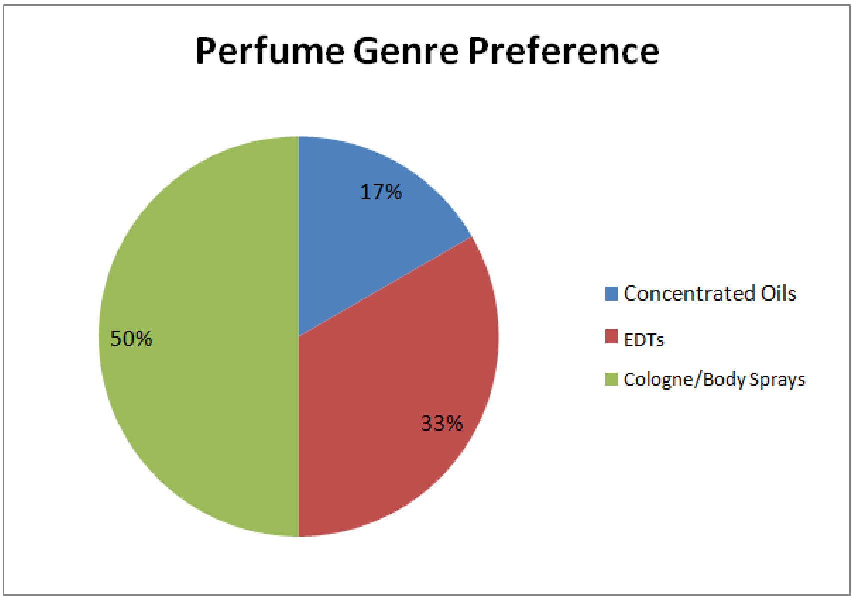
Perfume Usage Analysis Chart

Inferences: People in India are being accustomed to the use of perfumes. Trends have been changing where fragrance has become an essential part of the lifestyle.

2) Which genre of perfumes do you prefer?

	No. of Respondents	**Percentage**
Concentrated Oils	5	16.67%
EDTs	10	33.33%
Cologne/Body Sprays	15	50%
Total	30	100%

Perfume Genre Preference Chart.



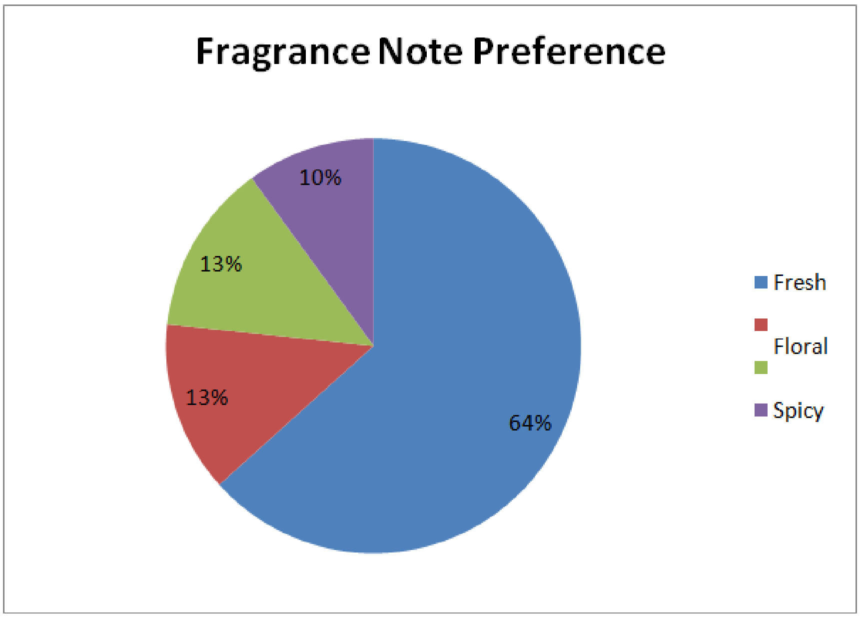
Perfume Genre Preference Chart.

Inferences: Majority of people use body sprays owing to the ease of application. They are henceignorant about the advantages of concentrated oils.

3) What kind of fragrance notes do you like?

	No. of Respondents	Percentage
Fresh	19	63.33%
Floral	4	13.33%
Sweet	4	13.33%
Spicy	3	10%
Total	30	100%

Fragrance Note Preference Chart.



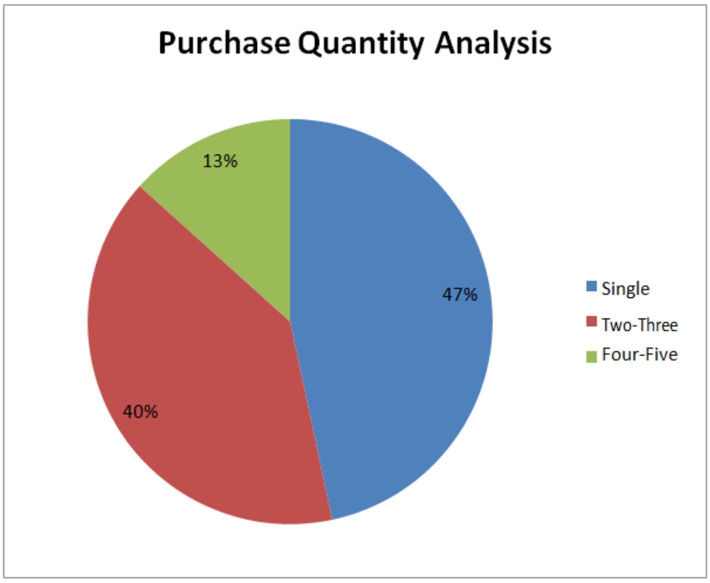
Fragrance Note Preference Chart.

Inferences: Since most of the consumers in India form a part of the working population, the like fresh and cool fragrances, with the female consumers opting for floral fragrances.

4) How many fragrances do you purchase at a time?

	No. of Respondents	Percentage
Single	14	46.67%
Two-Three	12	40%
Four-Five	4	13.33%
Total	30	100%

Purchase Quantity Analysis Chart.



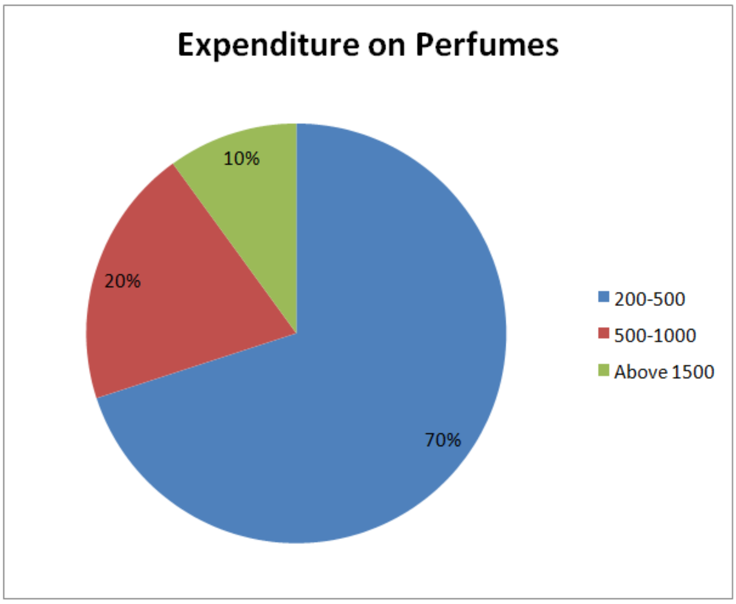
Purchase Quantity Analysis Chart

Inferences: Frequent consumers of perfumes purchase more than two pieces at a time while others mostly are reluctant to purchase more than one at a time.

5) How much do you spend on perfumes on a monthly basis?

	No. of Respondents	Percentage
200-500	21	70%
500-1000	6	20%
Above 1500	3	10%
Total	30	100%

Expenditure on Perfumes.



Expenditure on Perfumes.

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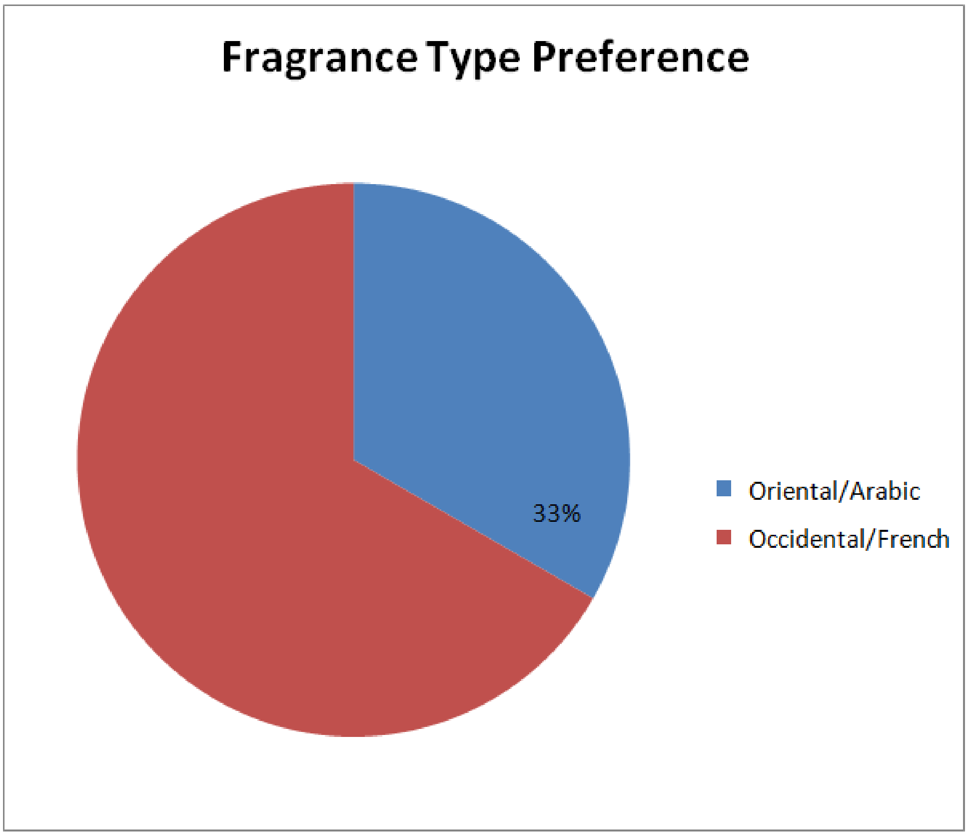
Inferences: The expenditure of an average perfume consumer in India is approximately Rs.200-500. Brand loyal customers are willing to spend more for their specific brand only.

6) Which types of fragrance do you like?

	No. of Respondents	Percentage
Oriental/Arabic	10	33.33%
Occidental/French	20	66.67%
Total	30	100%

Fragrance Type Preference Chart



Fragrance Type Preference Chart

Inferences: Indians are not much exposed to the Arabic fragrances as much as the French fragrances and scents. But there are possibilities for trends to change.

7) On what scale on ten would you rate our fragrances/products?

	No. of Respondents	Percentage
Two-Four	2	6.67%
Five-Seven	3	10%
Eight-Ten	25	83.33%
Total	30	100%

Product Rating Chart.

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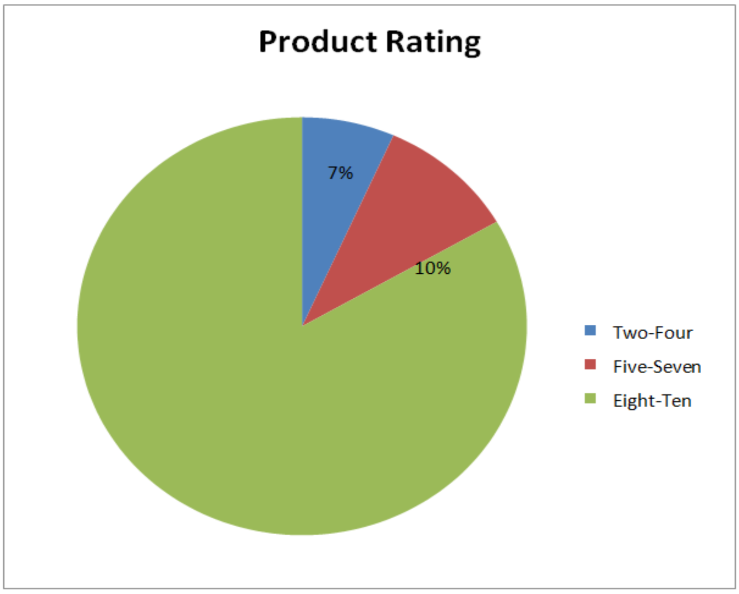


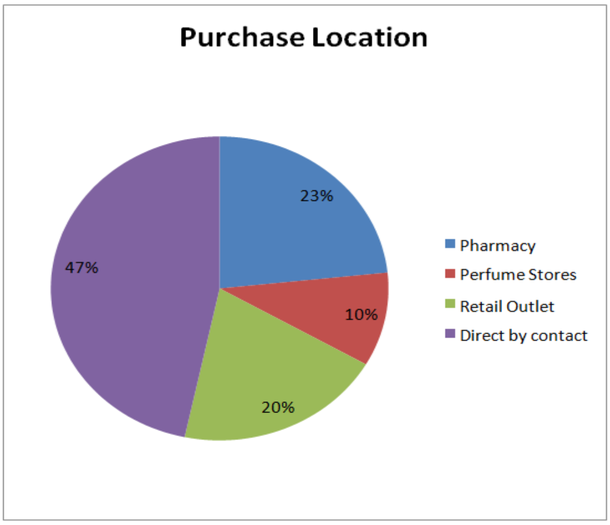
Product Rating Chart.

Inferences: On an average, our product has been rated in the range of 8-10 on a scale of ten. They found the fragrances to be stronger and longer lasting.

8) From where do you purchase our product?

	No. of Respondents	**Percentage**
Pharmacy	7	23.33%
Perfume Stores	3	10%
Retail Outlet	6	20%
Direct by contact	14	46.67
Total	30	100%

Purchase Location Analysis Chart.



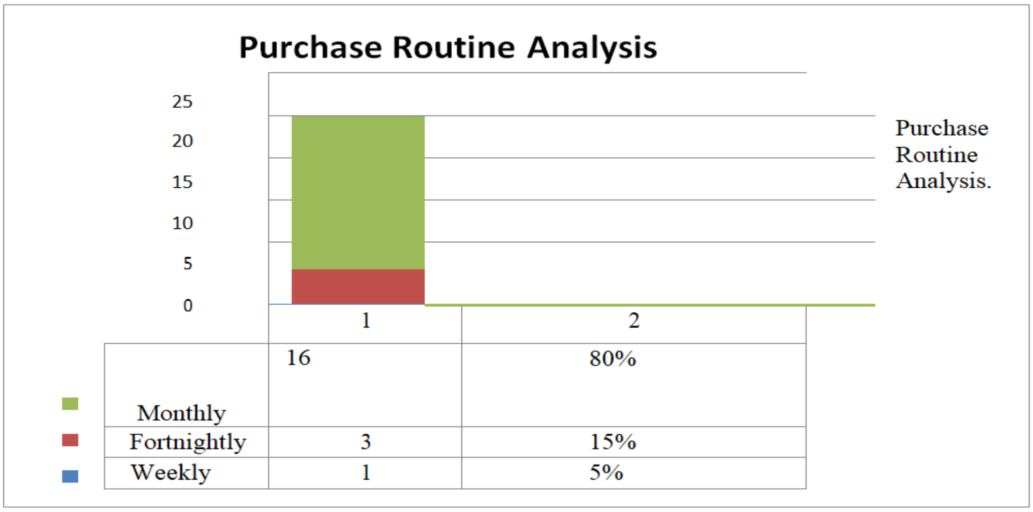
Purchase Location Analysis Chart.

Inferences: Majority of the consumers have approached by direct contact with some reaching out to our retail outlet. Few people purchase from the products displayed at pharmacy and other perfume stores.

9) What is your purchase routine?

	No. of Respondents	Percentage
Weekly	1	5%
Fortnightly	3	15%
Monthly	16	80%
Total	20	100%

Table. 16 Purchase Routine Analysis.



Purchase Routine Analysis.

Inferences: The retailers mostly follow a monthly purchase routine. Occasionally they order weekly or fortnightly depending on the product demands and sales.

RESULTS AND DISCUSSION:

- Recently the fragrance market in India is growing rapidly as compared to the older times.

People in India are now accustomed to western fragrances and perfumes

- Arabic fragrances are becoming more popular and demanding in market nowadays. People now prefer Arabic fragrances because of their exotic, strong piquancy and nature.
- Experiencing skin rashes due to use of body sprays have made people to resort to the use of concentrated perfume oils free from alcohol. They are safe for the skin as well as stronger and long lasting than body sprays.
- Fragrance has become an essential these days and a requirement for working people. Hence there a lot of potential for the perfume industry to grow in the future.
- There are only a few local perfume brands in India. It is thus a good opportunity to introduce and launch new brand products into the local market to begin with.
- This study concisely manifests that for a new product to be successfully launched into the market, consumer tastes, preferences and current market trends along with knowledge of competitor's market is essential.

SUGGESTIONS:

Through this research the researcher is able to imply the following suggestions which would help in the growth

- With the successful launch of our products in the niche market, there is a need to use effective marketing strategies and advertisements for increasing brand awareness and reaching out to larger areas.
- We need to work out on the promotional packs and gift packs to target the festive seasons and other occasions.
- Focus on the event management at educational institutes and other organizations as youngsters are the majority perfume users.

CONCLUSION

The Sales and Operation planning(S&OP) is an imperative process in the development and commercialization of a product. An extensive market research was executed prior to the development plan for effective decision making in order to design an appropriate and exquisite product for the marketplace. The research at this point enabled to come up with new ideas for the company's product positioning and differentiation in the market.

A post launch review/feedback was performed for the consumers as well as the retailers to ascertain the success of the product launch in the market and the acceptance of the company's products. This review implied the strength and weaknesses of the company's products over its competitors. It delineated consumer's openness to new brands offering products in the market. It also depicted a rise in the demand for the use of concentrated oils as compared to body sprays and EDT's. Consumers are thus concerned with the quality of a product rather than the brand name.

An analysis at the managerial level was also conducted to determine the strategies adopted during the sales and marketing process and also to understand the various problems faced during the sales and operation planning process.

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ABOUT THE BOOK

In the new millennium many old theories have now become redundant, and the study of Management, Social Sciences and Technology is now faced with new challenges. This book is an attempt to capture this transformation not just in practice but also in research. It tries to answer the challenges faced by the practitioners of management, social sciences and technology in their everyday lives by attempting to bring together both academics and practitioners together. This book presents a holistic view of the emerging trends in Management, Social Sciences and Technology on consumer behavior, financial ecosystem, human resources, quality management and international business in the global economy. This book not only highlights the issues hampering growth but also provides relevant solutions to foster economic growth and development.

We believe that this book will contribute to the colossal interest of scholars, researchers, policy makers, management practitioners, administrators and academicians in augmenting their intellectual growth and facilitate future research in the field of Advances in Management, Social Sciences and Technology.

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