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CONTENTS

Sr. No.	TITLE & NAME OF THE AUTHOR (S)	Page No.
1.	INPUT-OUTPUT COEFFICIENTS IN A NORTH-WESTERN HIMALAYAN REGION AND ITS IMPLICATION TO FINANCIAL RESOURCES <i>AMAR S. GULERIA</i>	1
2.	EFFICIENCY ANALYSIS OF SCHEDULED URBAN CO-OPERATIVE BANKS BY DEA APPROACH <i>SUCHITA GUPTA & DR. MANMEET SINGH</i>	8
3.	THE IMPACT OF FINANCIAL DERIVATIVES MARKET ON THE UNDERLYING CASH MARKET IN NSE <i>DR. N. MOSES & B. PHANISWARA RAJU</i>	12
4.	A STUDY ON EMPLOYEE WELFARE FACILITIES AND ITS IMPACT ON EMPLOYEES SATISFACTION WITH REFERENCE TO INDIAN CEMENT INDUSTRY AT SATNA DISTRICT <i>SHANKAR KUMAR JHA & DR. A. K. PANDEY</i>	17
5.	APPLICATION OF FIREFLY ALGORITHM FOR OPTIMIZING BEVEL GEAR DESIGN PROBLEMS IN NON LUBRICATED CONDITION <i>S. K. RAJESH KANNA & A. D. JAISREE</i>	26
6.	CORRELATION BETWEEN ORGANIZATION STRATEGIES AND EMPLOYEE COMPETENCY MAPPING PRACTICES <i>NIDHI DIXIT & DR. POONAM MADAN</i>	30
7.	CONSUMER AWARENESS ON CONSUMER RIGHTS AND DUTIES: AN ANALYTICAL STUDY WITH REFERENCE TO COIMBATORE CITY <i>DR. V. RANGANATHAN & K. MANGAIYARKKARASI</i>	33
8.	TECHNOLOGY, APPLICATION AND LEGISLATION OF PUBLIC KEY INFRASTRUCTURE FOR SECURE e-GOVERNANCE APPLICATIONS <i>DR. ROHTASH KUMAR GARG & NEHA SOLANKI</i>	38
9.	TO STUDY THE PERCEPTION OF MALE EMPLOYEES ABOUT THEIR FEMALE COUNTERPARTS IN STAR HOTELS <i>ANURADHA KARMARKAR & JYOTI PESHAVE</i>	41
10.	COMPARATIVE STUDY OF MEMORY AND ACHIEVEMENT MOTIVATION OF SENIOR SECONDARY SCHOOL STUDENTS IN RELATION TO RESIDENTIAL BACKGROUND <i>SUSHMA ADHIKARI & DR. P. C. JENA</i>	46
11.	A STUDY ON SOCIAL VALUES, INDIVIDUAL ATTRIBUTES AND PHASES OF ENTREPRENEURIAL ACTIVITY: INDIA Vs. OTHER GEOGRAPHICAL REGIONS <i>M. SUVARCHALA RANI</i>	52
12.	SECURITY PROBLEMS AND STRATEGY IN CLOUD COMPUTING <i>LOCHAN .B</i>	56
13.	SCHEDULED CASTE IN INDIA: PROBLEMS AND PROSPECTS <i>DR. BADSHAH GHOSH</i>	58
14.	IMPACT OF EMPLOYEE ENGAGEMENT ON TALENT RETENTION WITH REFERENCE TO ACADEMICIANS IN GWALIOR REGION <i>VIDHI TYAGI</i>	60
15.	GREEN HRM PRACTICES: A NEW OUT LOOK TO SUSTAINABILITY <i>ALEENA JOY</i>	63
16.	LEARNING & GROWTH ANALYSIS: SIGNIFICANT FOR PERFORMANCE MEASUREMENT <i>SHIKHA BATRA & DR. AMBIKA BHATIA</i>	66
17.	PRIVATE AUDIT FIRMS IN ETHIOPIA: CHALLENGES AND OPPORTUNITIES <i>MUHAMMED ARAGIE & GEBEREAMLAK YITBAREK</i>	70
18.	DETERMINANTS OF FOOTBALL FANS STADIUM ATTENDANCE: PERSPECTIVES FROM GHANA <i>SHANI BASHIRU</i>	79
19.	HEALTH CONSCIOUSNESS AND OPINION LEADERSHIP OF SCHOOL TEACHERS: RESULTS OF A SURVEY FROM THE CITY OF MUMBAI <i>SHATABDI S DAS</i>	86
20.	THE ROLE OF OMBUDSMAN TO CONTROL THE ADMINISTRATIVE ACTIONS IN INDIA <i>RAJESH KUMAR</i>	92
	REQUEST FOR FEEDBACK & DISCLAIMER	97

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INPUT-OUTPUT COEFFICIENTS IN A NORTH-WESTERN HIMALAYAN REGION AND ITS IMPLICATION TO FINANCIAL RESOURCES

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ABSTRACT

Development depends upon availability and utilization of resources like men, material, capital, entrepreneurial ability. Availability and utilization of these resources by economic system and its organization in public and private sector transform the economy. Indian economy witnessed unprecedented demographic changes which substantially increased human labour in the country. The working population (15-59 years of age) in India likely to increase from 585 in 2001 to over 64 percent by 2021. This is a challenge as well as opportunity to effectively use and improve the productivity of public and private sector enterprises. Rural and urban linkages have been studied in the context of capital formation, labour migration, flow of input output, sectoral growth and its relative importance. Therefore, the magnitude of existence and persistence of dualism in the economy changes with the level of its growth and development. The planning era witnessed stress on development of industries and linkages between the two sectors weaken during 1980s compared to pre-green revolution period. An attempt has been made in this paper to estimate and study the inter-sectoral linkages of human and non human resources in rural and urban areas in the state of Himachal Pradesh. Our analysis suggests effective men- power planning and relevant policy implication for growth, development and social justice in an economy. However, use of proper prices and realistic inter-sectoral coefficients would not only enhance the manufacturing sectors growth with poverty eradication, but it would sustain it beyond 14 percent per annum which would account for over 35 percent share in the national income. Allocation and investment priorities in selected sectors of the economy till today seems to have been made arbitrarily. Similarly, the percent share of investment under each sector of the economy has been analyze. It is noted that the size of the First Five Year Plan (1951-56) in this hilly region of Himalayas was of the order of Rs. 0.53 Crore. Its highest priority was given to Industrial sector (46.3 per cent), while agriculture stood second highest (14 per cent) in the plan investment at that beginning era of Indian Planning. Today, the size of the Plan (12th-2012-17) in this Himalayan region has substantially increased to Rs. 2.5 thousand Crore. But, highest priority investment changed in favour of social service (30.9 per cent) and service sector (18.9 per cent). Therefore, agriculture and industry linkages were not only ignored, but thrown out of priorities. Resultantly, food insecurity, hunger, poverty, unemployment and social unrest will further grow especially in the Himalayan region. It would not only cause serious threat to the geography and topography of Himalayan region, but also disturb ecology, climate and environment.

KEYWORDS

financial resources, development, economic system, Indian economy.

1. INTRODUCTION

In nature and structure of Indian economy has shown that the magnitude of transformation is affected by growth strategy without giving due emphasis to saving, investment and resource mobilization. Moreover, fluctuation and gap between the required and actual growth objectives was largely explained by the inefficiency of capital and capital output ratio. Therefore, ownership of factors of production by mixed capitalistic and socialistic system accounted for the slow growth, inequalities and social injustice. It also accounted for the national and the macro policy distortions. Agriculture largely influenced by the World Trading Organizations and it also reveal the terms of trade and macroeconomic policy against the Indian production consumption, saving and investment. However, in the absence of capital accumulation and excess supply of money to promote and stabilize growth, it seems important to enhance efficiency of investment and promote high rate of saving and capital formation. The scope of saving, capital efficiency rests on the contribution of industry, service and other sub-sectors of the economy. This paper is, therefore, considered important to view the inter-sectoral linkages. The amount of capital and investment requirement to accomplish a desired level of growth and development is mainly determined by the input- output co-efficient and elasticity. An attempt is made .in this paper to establish input-output relation and estimate the elasticity across the sectors of a selected North-Western Himalayan Region. Further, agriculture-industry linkages over the years have been studied by analyzing the use of purchased inputs by the farm sector, consumption of consumer durables in rural areas and the demand for agro-based urban consumption items. Similarly, the influence of GDP from agriculture and service sector on real GDP from manufacturing sector was also analysed. In this, coefficient of GDP from manufacturing sector with respect to the GDP from agriculture was considerably higher in the green revolution period compared to the post-green revolution period. Therefore, modernization efforts of the traditional and subsistence sectors in under-developed region and developing countries would promote industrialization, urbanization, commercialization and competition. At the same time, agriculture-industry linkages at micro and macro levels have been studied with the help of Social Accounting Matrix (SAM) and Linear Programming model. This would not only minimize the requirement of financial resources, but also account for perspective planning for inclusive and sustainable growth and development.

2. PERFECT AND IMPERFECT ECONOMIES

Under-developed and planned economies are characterized by several imperfections, inequalities, poverty, unemployment and unbalanced growth. These economies are, thus, demand excess, industrial bias, and in dis-equilibrium. It also undervalue or overvalue its resources by using artificial and controlled prices which are far from realities in the imperfect economies as compared to real prices prevailing in the competitive and perfect market economies. Consequently, economies cannot properly quantify, value its inter-sector flows, and linkages which amounts to its vicious circle of poverty, inequality, social injustice and imbalanced growth. However, some studies have arbitrarily used sub-equilibrium prices as real and market prices for measuring rural-urban, inter-sectoral, inter-regional and inter-sector trade and flows linkages (Ishikawa, 1967; Millar, 1970; Macrace, 1979; Xingwei, 1980; Duhui, 1983; Sheng, 1993; and Deaton 2015). It is essential to institute new infrastructure investments, along with labour and tax reforms, to promote manufacturing and employment sectors. New investments in all these areas can be enhanced by encouraging enterprise and creativity by reforming the public sector and enabling private-public partnerships. It requires modifications to the rural-urban, sectoral, labour policies, social welfare legislation and assessing new markets through globalization and competition. Even growth of rural sector and modernization of Indian villages alone would solve the socio-economic problems of the masses and will promote India's economic growth. These efforts would result into sustainable economic growth and development with safe and conducive environment. However, use of proper prices and realistic inter-sectoral coefficients would not only enhance the manufacturing sector's growth with poverty eradication, but it would sustain it beyond 14 percent per annum which would account for over 35 percent share in the national income. Our study also revealed that the increased share of investment in manufacturing and service sectors by 35 to 45 percent of the national income at the constant efficient rate of the capital output ratio at 2:14 to 1:75 would register over 20 percent growth in these leading sectors of the economy. Our study at this level of capital efficiency revealed that rural sector at 20 percent share of total investment would account for 10 percent relative share of the national income and it may register a annual growth rate of only 4 percent as compared to 20 percent growth in manufacturing and 21 percent growth in service sector during the same period. The sectoral balance and efficient linkages with sustainable benefit and development can be achieved at the incremental capital-output (ICOR) of 2.99: 1 or 3:1.

3. BHARAT NIRMAN

At national level, India has to moot a specific financing window. To restructure and built the rural sector, an ambitious plan of 'Bharat Nirman' is suggested which aimed at giving new deal to rural India and bridging divides for balanced and sustained growth. In this gigantic task, all local institutions involving Panchayats and Private Sector as partners at micro level resource base and watershed unit could be most viable, feasible and socially acceptable. At the same time, domestic research and development capital stock would promote higher international technological spillovers. The benefits of International technological progress in the era of globalization are conditional to a public policy that enhance domestic innovation capabilities and provides a congenial economic environment for international technological spillovers. Government of India estimated a sum of Rs. 1, 74,000 crores for Bharat Nirman will be raised from internal and external financial institutions both in the public and private sector to realize the growth potential in rural India and to bridge the rural-urban divide. Under these circumstances, the government, the industry, and the agricultural sector should work together for mutual benefits. The corporate sector can help in extending better seeds, inputs, and manufacturing facilities to the farmers. Federation of Indian Chambers of Commerce and Industry emphasized that for every 10 percent rise in agricultural production, there is a direct increase of industrial production by 2.5 percent and indirect by 4.5 percent which adds to over 7 percent. Transforming rural and agricultural sector, manufacturing, industrial and urban sectors also contribute significantly by way of managing its input, output, processing storage, marketing, technological, infrastructural and contract farming. It is estimated that factor inputs in the manufacturing sector accounts for 36 percent, and remaining 64 percent of the total value of output is attributed to non-factor inputs. In this, dependence of manufacturing sector for input supplies from farm/rural sector varied from 34 to 92 percent given the type of industry. At the same time, studies have also confirmed that sectoral linkages have strong correspondence with the entire economic growth and development. Industrial Development is influenced by import substitution and foreign sector. While slackening of industrial growth was due to inadequacy of demand and hence improvement of agricultural income plays an important role. There has been significant improvement in agricultural production during plan period especially after green revolution. Rural economy has been transformed due to these technical and genetic engineering.

4. MACRO ESTIMATES OF AGRICULTURE- INDUSTRY LINKAGES

Few studies analyzed rural-urban linkage in terms of capital formation and role played by each sector. It analyzed rural-urban investment linkage, pattern of contribution to capital formation in farm and non-farm sectors by rural and urban households. Contribution of rural households in the capital formation in the non-farm sector was higher than the contribution of urban households to the agricultural sector. Per capita income had positive impact on private capital formation in the agricultural sector, which did not subsequently affect private capital formation in the non-farm sector. However, non-farm workers in the rural areas had significantly influenced the capital formation in the non-agricultural sector. At the same time, average capital investment by the rural households in non-farm business in the State was as high as Rs. 600 as compared to Rs. 2000 in farm business cultivating households in most agriculturally prosperous state of Punjab. Further, agriculture-industry linkages over the years have been studied by analyzing the use of purchased inputs by the farm sector, consumption of consumer durables in rural areas and the demand for agro-based urban consumption items. Similarly, the influence of GDP from agriculture and service sector on real GDP from manufacturing sector was also analysed. In this, coefficient of GDP from manufacturing sector with respect to the GDP from agriculture was considerably higher in the green revolution period compared to the post-green revolution period. Therefore, modernization efforts of the traditional and subsistence sectors in under-developed region and developing countries would promote industrialization, urbanization, commercialization and competition. At the same time, agriculture-industry linkages at micro and macro levels have been studied with the help of Social Accounting Matrix (SAM) and Linear Programming model. The output multiplier linkage coefficients for sugar industry, Sago and Starch, Trade, Service, Agro-industries and other industries were 0.56, 0.39, 0.51, 0.31, 0.58 and 0.50 respectively. This implied that the level of rural-rural and rural-urban interaction of endogenous sectors were significantly of high order. Further, optimization attempts revealed that reduction in levy sugar would generate greater employment opportunities than reduction in tax for Sago and Starch. Thus, government policies have significant impact on agro-industries for creation of employment in the rural and urban areas. Moreover, no policies in isolation for any single sector can promote economic transformation and sustainable development. Studies at micro level have also analyzed sectoral linkages for increasing employment potential with the help of input-output model.

Recent censuses and rural-based force surveys show a dramatic structural change in favour of non-farm sector activities. But rural industries form a small part of the rural non-farm activities. Similarly, operation of other rural enterprises is either negligible and inadequate or not assessed. Therefore, efforts and strategic measures are required to promote non-farm activities : such as self-employment in cottage industries, mechanics, wage employment in rural business enterprises, transport operations and construction; human capital based occupations, such as salaried service in public and private sector institutions, teachers, leaders, lawyers, doctors, barbers and other several personal services; and physical and capital inter activities, such as agro processing, shop-keeping, peddling, trading, medium and contractor services. ("Rural Non-Farm Economy: Evidence from Household Surveys", by Mahabub Hussain, Economic and Political Weekly, Vol. 39 (36): 4053 – B). Non-farm Sector in many developing countries provides 20 to 45 percent employment and 36 to 54 percent income to rural households. Besides manufacturing, the service sector activities have vast political to provide relatively full time employment and income growth centers and rural towns and cities. Therefore, it is challenge to policy-makers to harness the potential and facilitate the distribution of non-farm employment to ensure sustainable development. (See "Farm-Non-Farm Linkage in Rural Sub-Saharan Africa", by S.P. Hazell Haggblade and J. Brown, World Development, Report Vol. 17(8) : 1173-1201; The New Economics of Growth : A Strategy for India and Developing World, Cornell University Press, Ithaca, 1976, New York).

5. MICRO ESTIMATES OF INTER-SECTORAL ELASTICITIES

For want of data and several constraints, a case of Himachal Pradesh economy is purposely selected to work out the elasticities across the sectors of economy. An output of the producing sectors is consumed by itself in the form of input and surplus left over consumption is disposed in the form of input to other related sectors as intermediate consumption. Thus, the total output available is utilized for the expansion and structural transformation of the economy. The linkages effect could be termed as backward and forward linkages. Its expansion depends on elasticities, due to which the economy grows horizontally and vertically. The integration of the economy would not only attain higher and sustainable growth, but also minimize the requirement of saving and financial investments.

5.1 CASE OF A NORTH-WESTERN HIMALAYAN REGION: HIMANCHAL PRADESH

Himachal Pradesh continued as a part 'C' State of the Indian Union till 1956. It continued to exist as a Union Territory till the conferment of statehood on 25th January, 1971. Himachal Pradesh is situated between 30° 22' 40// to 33° 12' 20// north latitudes and 75° 45' 55// to 79° 04' 20// east longitudes. Himachal Pradesh is wholly mountainous region in the lap of Himalayas and it ranges from 350 meters to 6975 metres above mean sea level. It is surrounded by Jammu and Kashmir in the north, Tibet on north east, Uttaranchal in the east/south east, Haryana in the south and Punjab in south - west/west. The state has a three tier Panchayati Raj structure comprising of 12 Zila Parishads, 75 Panchayat Samitis and 3070 Gram Panchayats. Panchayat is the smallest unit for development in rural areas. At the same time, there are 57 urban local bodies consisting of one Nagar Nigam, 20 Municipal Councils, 32 Nagar Panchayats, Seven Cantonment areas, and one census town. Out of the total geographical area of 55.67 lakh hectares, forests accounts for nearby 40 percent, whereas agricultural operation holding land is only around 17 percent (9.9 lakh hectare) which is being operated by 8.6 lakh farmers having 1.2 hectare of average holdings. 85 percent of the total land holdings are small and marginal. Agriculture is the main occupation which provides direct employment to our 70 percent of the total workers.

5.2 PRIORITY INVESTMENT IN DIFFERENT SECTORS

Absolute amount of investment made under priority sectors in Himachal Pradesh since its inception may be examined form Table 1. Allocation and investment priorities in selected sectors of the economy till today seems to have been made arbitrarily. Similarly, the percent share of investment under each sector of the economy may be viewed from the table under reference. It may be noted that size of the First Five Year Plan (1951-56) in this hilly region of Himalayas was of the order of Rs. 0.53 Crore. Its highest priority was given to Industrial sector (46.3 per cent), while agriculture stood second highest (14 per cent) in the plan investment at that beginning era of Indian Planning. Today, the size of the Plan (12th-2012-17) in this Himalayan region has substantially increased to Rs. 2.5 thousand Crore. But, highest priority investment changed in favour of social service (30.9 per cent) and service sector (18.9 per cent). Therefore, agriculture and industry linkages were not only ignored, but thrown out of priorities. Resultantly, food insecurity, hunger, poverty, unemployment and social unrest will further grow especially in

the Himalayan region. It would not only cause serious threat to the geography and topography of Himalayan region, but also disturb ecology, climate and environment.

TABLE 1: SECTORAL SHARE OF INVESTMENT UNDER DIFFERENT FIVE – YEAR PLANS IN HIMACHAL PRADESH: 1951 TO 2015 (Rs. In Lakhs)

Sr. No.	Heads/Sub.-Heads	Ist Plan (1951-56)	2 nd Plan (1956-61)	3 rd Plan (1961-66)	Annual plan (1966-67)
A.	Economic Services:	NA	NA	NA	NA
I.	Agriculture and Allied Activities:	73.81	251.27	769.15	155.38
1.1	Crop Husbandry	NA	NA	NA	NA
1.2	Agriculture (including Res.& Edu.)	NA	NA	NA	NA
1.3	Horticulture (including Res.& Edu.)	74.13	238.27	350.45	51.82
1.4	Cooperation	NA	NA	NA	NA
II.	Rural Development:	NA	NA	NA	NA
2.1	Special Programmes for Rural-Development (IRDP, IREP, Antodya)	NA	NA	NA	NA
2.2	National Rural Employment (NREP,JRY, other Special Employment Schemes)	NA	NA	NA	NA
III	Special Area Programmes	21.59	150.69	240.14	295.04
IV	Irrigation and Flood Control	NA	NA	NA	NA
V	Energy :	NA	NA	NA	NA
5.1	Power	8.88	39.50	84.16	26.94
VI	Industries & Minerals	243.54	595.22	1191.10	301.60
VII	Transport	NA	NA	NA	NA
IX	Science, Technology, and Environment-Pollution	NA	NA	NA	NA
X	General Economic Services	104.85	308.36	716.27	112.22
B	SOCIAL SERVICES	0.32	19.29	33.20	3.05
C	MISC./ GENERAL SERVICES	NA	NA	NA	NA
ALL GRAND TOTAL (A+B+C):		526.49	1602.60	3384.47	946.05

Sr. No.	Annual plan (1967-68)	Annual plan (1968-69)	IVth Plan (1969-74)	Vth Plan (1974-78)	Annl.Plan (1978-79)	Annl.Plan (1979-80)
1	305.16	278.87	9267.82	13146.37	5204.34	6097.27
2	NA	NA	2310.64	3453.88	1349.62	1646.40
3	NA	NA	1188.4	1313.73	507.29	587.52
4	NA	NA	822.69	885.85	350	427.12
5	71.71	56.07	356.82	588.71	218.29	244.86
6	NA	NA	132.37	176.62	107.15	148.36
7	NA	NA	289.18	288.1	114.9	266.40
8	NA	NA	NA	NA	NA	NA
9	396.52	420.08	289.18	153.09	56.47	197.40
10	NA	NA	NA	NA	NA	NA
11	NA	NA	8.14	911.76	584.00	669.68
12	NA	NA	2450.03	4053.89	1248.54	1550.00
13	39.29	60.20	2450.03	4053.89	1248.54	1550.00
14	470.46	578.94	414.46	539.15	233.72	260.23
15	NA	NA	3200.16	3637.83	1589	1616.96
16	NA	NA	NA	NA	NA	NA
17	157.33	190.12	97.84	237.76	78.56	84.60
18	3.47	3.91	2042.49	2709.78	1477.09	1654.91
19	NA	NA	32.66	357.95	128.74	193.18
20	1443.94	1588.19	11342.97	16214.10	6810.17	7945.36

Sr. No.	VIIth Plan (1980-85)	VIIIth Plan (1985-90)	Annl. Plan (1990-91)	Annl. Plan (1991-92)	VIIIth Plan (1992-97)	IXth Plan (1997-2002)
1	49454.50	99549.65	25247.19	27176.00	220172.06	348855.28
2	10509.95	26000.17	6960.94	8495.00	48810.88	84280.00
3	3109.15	4791.02	1521.51	2136.00	10566.18	15280.00
4	2807.36	5809.59	1580.18	2025.41	9488.06	14900.00
5	1352.82	6401.05	1453.33	1818.00	7646.18	13970.00
6	720.96	893.28	402.08	264.00	1708.81	2200.00
7	3095.96	4918.92	1305.23	1548.00	11645.53	24018.00
8	NA	NA	264.75	222.00	2152.72	2575.00
9	882.99	1196.14	301.74	207.00	2174.20	5800.00
10	50	NA	NA	NA	NA	NA
11	3879.66	7141.90	2475.27	2587.00	14728.59	25885.00
12	17924.95	35175.76	6811.58	5230.00	66122.26	105210.00
13	17889.25	34747.61	6721.58	5131.00	65229.63	101965.00
14	2048.74	4262.01	1106.61	1407.00	8654.33	15000.00
15	11838.34	19577.45	4998.50	6050.00	43766.76	61350.00
16	19	91.43	36.00	85.00	474.10	708.76
17	80.41	2382.01	1501.28	1786.00	25770.85	32283.52
18	14920.19	30100.36	11729.69	12546.00	121364.64	210643.41
19	2096.73	2825.74	786.05	761.00	8343.35	10501.31
20	66471.42	132475.75	37762.93	40483.00	349880.05	570000.00

Sr.no	Annl.Plan (1998-99)	Annl.Plan (1999-2k)	Annl.Plan (2k-2k1)	Xth Plan 2002-07	XI Plan 2007-12	XII Plan 2012-17
1	94710.59	95899.13	98345.22	53217.90	701045.00	49879.70
2	18787.16	20203.80	18286.72	120169.00	149377.00	290679.00
3	3371.95	4174.50	4203.42	29293.80	11667.00	15677.00
4	3476.69	3966.10	3931.30	11685.90	35885.00	3441.50
5	4464.21	3366.40	2889.22	3405.00	789.80	898.00
6	358.34	449.64	434.57	1990.20	779.00	889.70
7	6101.95	6870.81	6827.90	41549.00	36135.00	127673.00
8	778.13	803.00	813.00	41548.50	6235.00	5568.00
9	895.72	1663.50	1504.50	1606.00	1403.00	1507.50
10	400.00	400.00	400.00	2080.30	2080.00	15575.00
11	6061.47	8015.03	6950.54	45317.00	124029.00	197237.00
12	26368.41	25214.50	33514.50	125768.42	114022.00	280559.00
13	25599.11	24569.00	33037.00	123500.50	111344.00	124305.70
14	2561.35	3023.79	2465.73	10473.00	18054.00	22442.00
15	19297.53	23042.01	24627.95	163805.00	217680.00	470988.00
16	196.70	160.00	158.00	642.00	14351.00	10492.00
17	14926.52	8937.19	5081.88	22374.00	67092.00	59659.00
18	56055.95	61572.47	71012.98	489348.00	615794.00	767422.00
19	3199.38	2528.40	2641.80	10555.00	59805.00	37274.00
20	153965.92	160000.00	172000.00	1298328.50	1638757.60	2482168.20

Note-Agriculture includes Dry Land Farming, Soil and Water Conservation, Agriculture, Research and Education, Agricultural Financial Institutions, Marketing & Quality Control and Loans to cultivators. Similarly, Horticulture includes Research and Education. However, investment on Land Reforms, RID, Panchayats have been added to the Rural Development Head. Further, expenditure on Minor Irrigation (PWD & RIDD), Medium Irrigation and flood control has been kept under the head of Irrigation and Flood Control. Tourism forms a part of General Economic Services, while Telecommunication is listed as a separate head of expenditure. Details under Social and Community Services have been adjusted against the Social Services head of Plan Investments. However, reorganization of data in the present context does not affect the overall figures of plan investments as provided by the State Government.

5.3 STRUCTURAL TRANSFORMATION

State economy comprised of primary, secondary and tertiary sectors. Efforts made to transform the structure of state economy under various five year plan period may be viewed from the data presented in Table 1. It may be noted that total investment in all sectors of the economy increased from Rs. 5.27 crores in 1st Plan Period (1951-56) to Rs. 1600 crores in 2013-14. Sectoral priorities revealed that the agriculture or rural sector, on which over 70 percent people depends, could attract only around 10 percent of the total plan outlays. At the same time, industry and non-farm sectors investments stood around one percent over the period. Thus, economic general services, energy, transport, sewerage, housing and urban development attained over 70 percent of the total investment in the state.

5.4 GROWTH AND PRODUCTIVITY OF EMPLOYMENT

Annual Productivity per worker varied from Rs. 4.7 thousand in unorganized sector to Rs. 79.8 thousand in the organized sector during 2k. Moreover, the productivity of labour in agro-based activities stood at Rs. 3.8 thousands as compared to Rs. 7.0 thousand in non-agro based activities within the unorganized sector. Labour productivity in the organized sector varied for Rs. 44.0 thousand in the agro-based activities to Rs. 143.1 thousands in non-agro based activities. However, the growth of income per worker in the organized sector stood at 2.4 percent in agro-based activities and 5.27 percent in non-agro based activities during nineties over eighties, while the corresponding figures under unorganized sectors stood at 5.24 percent and 4.99 percent per annum. Thus, growth of employment productivity in non-farm sector was higher in the unorganized sector as compared to the organized sector in urban based activities during the period under reference. However, employment growth in Himachal Pradesh declined from 10-10 percent to 4.98 percent under construction activities. Growth of employment under different sectors in Himachal Pradesh as compared to the country as a whole may be evident from Table 3.

TABLE 2: COMPARATIVE GROWTH OF H.P. AND NATIONAL ECONOMY DURING FIVE YEAR PLANS

Plan Period	Per Capita Investment (Rs.)	Per Capita Income (Rs.)	H.P.	India
1951-56	4	240	1.6	3.6
1956-61	11	286	4.4	4.1
1961-66	22	398	3.0	2.4
1966-69	40	440	3.0	4.1
1969-74	61	532	3.0	3.4
1974-78	100	576	4.6	5.2
1978-80	176	586	-3.6	0.2
1980-85	288	1020	3.0	5.3
1985-90	545	1249	8.8	6.0
1990-91	705	4910	3.9	5.4
1991-92	765	5691	0.4	0.8
1992-97	6312	11960	6.3	6.2
1997-02	13194	21570	6.4	5.6
2002-03	2122	22670	4.5	4.0
2003-04	2226	24903	8.1	8.5
2002-07	2465	10750	7.9	7.7
2007-12	2278	83899	9.0	8.0
2011-12	4753	74694	6.9	5.1
2012-13	5261	122660	4.8	3.2
2013-14	5756	92300	6.8	5.4

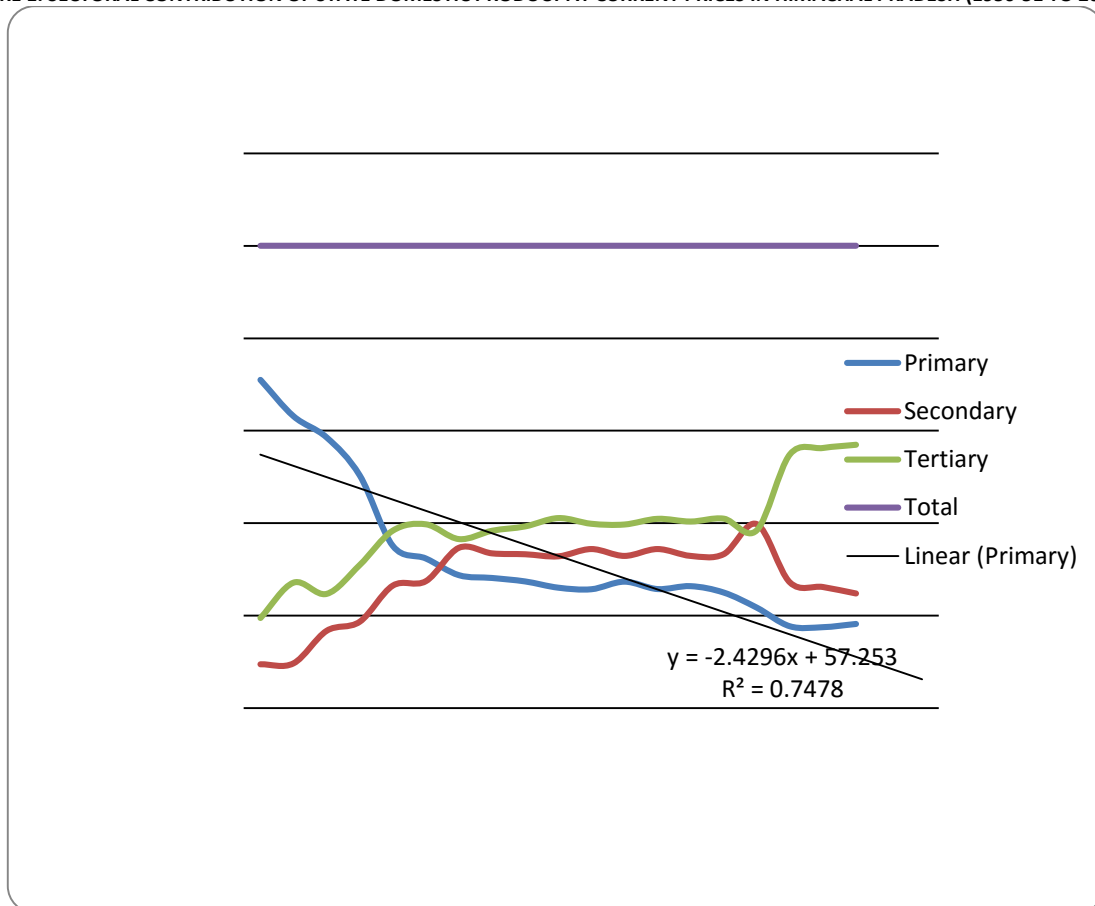
Source : 1. Annual Plan : 2005-06, Planning Department, Govt. of Himachal Pradesh, Shimla (Various Pages), 2005.
2. Annual Plan : 2014-15, Planning Department, Govt. of Himachal Pradesh, Shimla (Various Pages), 2005.

TABLE 3: SECTORAL CONTRIBUTION OF STATE DOMESTIC PRODUCT AT CURRENT PRICES IN HIMACHAL PRADESH (1950-51 TO 2014-15)

Years	Sector			Total
	Primary	Secondary	Tertiary	
1950-51	71.01	9.50	19.49	100.00
1960-61	63.14	9.71	27.15	100.00
1970-71	58.56	16.73	24.71	100.00
1980-81	50.35	18.69	30.96	100.00
1990-91	35.10	26.50	38.40	100.00
1993-94	32.36	27.46	39.78	100.00
1996-97	28.75	34.68	36.57	100.00
1997-98	28.15	33.47	38.38	100.00
1998-99	27.40	33.28	39.32	100.00
1999-00	26.05	32.83	41.12	100.00
2000-01	25.71	34.40	39.89	100.00
2001-02	27.35	32.92	39.73	100.00
2002-03	25.75	34.40	40.96	100.00
2003-04	26.38	32.92	40.38	100.00
2004-05	25.00	33.29	41.00	100.00
2010-11	21.73	39.79	38.48	100.00
2011-12	17.70	27.20	54.90	100.00
2012-13	17.50	26.20	56.30	100.00
2013-14	18.20	24.80	57.00	100.00

Source: Annual Plan : 2014-2015, Planning Department, Govt. of Himachal Pradesh, Shimla, 2015, pp.10-11.

FIGURE 1: SECTORAL CONTRIBUTION OF STATE DOMESTIC PRODUCT AT CURRENT PRICES IN HIMACHAL PRADESH (1950-51 TO 2014-15)



5.5 ESTIMATION OF BACKWARD AND FORWARD LINKAGES

On the whole, wide range of non-farm and manufacturing activities are the most thrust areas. As a short-term strategy, the state must strive to strengthen the land based activities by reversing the recent trend and pay due considerations to the priority sectors. Besides forestry, tourism, electricity, hydel and other manufacturing and processing sub-sectors have vast potential for employment absorption in Himachal Pradesh. Agriculture, horticulture and tourism sectors may be promoted through implementation of many welfare schemes and strengthening the economy of farmers. Currently however, state government planned to implement market integration scheme (MIS) for apple, mango and other citrus fruits, for ensuring remunerative prices to the farmers, subsidies on all packing material, transport and other inputs and equipments; national crop insurance scheme changing cropping pattern, incouring off-season vegetables and floriculture. Similarly, infrastructure and non-farm sectors call for special attention. Similarly, state economy has high sectoral linkage potential in tourism activities in rural and urban areas of the state. At the same time, these sub-sectors need to be made self-sustained and competitive with environmentally friendly economic growth and development. Growth of employment (especially in Assam, Haryana, Himachal Pradesh, Tamil Nadu and Utter Pradesh) in agriculture went down from positive during pre-reform period to negative during the post-reform period. The labour absorptive capacity of agriculture declined due to low land-man ratio increasing marginalization of holdings, labour-saving cropping pattern adjustments, increasing mechanization of field crop operations, low employment elasticity, high cost of production and failure of assess to the competitive markets. More importantly, farming has been viewed largely to retain the ownership of the land without commercializing and exploring this limited resource.

TABLE 4: GROWTH OF EMPLOYMENT IN HIMACHAL PRADESH DURING 1990-2015 OVER THE PRE-REFORM PERIOD (1950-90) (Percent)

Sector	Himachal Pradesh		India	
	Rural	Urban	Rural	Urban
Farming	-1.39	-6.99	0.18	-3.40
Mining & Quarries	-31.02	-	-2.28	-3.71
Manufacturing	4.40	14.76	1.78	1.83
Construction	4.98	6.67	6.43	6.26
Trade	-0.35	5.76	1.18	5.5
Transport	17.35	16.90	7.29	3.91
Social Service	7.30	2.21	3.23	3.54
Non-Farming	4.15	3.15	2.31	2.95
All Sectors	-0.13	1.68	0.66	2.27

Source: Computed from:

- 1) Various Volumes of Sarvekshana, issued by Govt. of India.
- 2) G.K. Chadha, "Rural Non-Farm issued Employment in India", in the Indian Income of Labour Economics, Vol. 45(4): 663-94.

TABLE 5: RANK CORRELATION OF LINKAGE INDICATES OF CLOSED STATE ECONOMY 10 X 10 SECTORS

Linkage on Matrix Multiplier	Backward Linkages Based on				Forward Linkages Based on			
	Z ¹	N ₂	N ₂ ¹	Y ¹	Z ¹	N ₂	N ₂ ¹	Y ¹
Z ¹	1.00	-	-	-	1.00	-	-	-
N ₂	0.60	1.00	-	-	0.71	1.00	-	-
N ₂ ¹	0.63	0.91	1.00	-	0.51	0.80	1.00	-
Y ¹	0.71	0.69	0.74	1.00	0.80	0.79	0.60	1.00

TABLE 6: RANK CORRELATION OF LINKAGE INDICATES OF STATE CLOSED ECONOMY WITH 10 X 10 MODEL

Linkage on Matrix Multiplier	Backward Linkages Based on				Forward Linkages Based on			
	Z	N ₁	N ₁ ¹	Y	Z	N ₁	N ₁ ¹	Y
Z	1.00	-	-	-	1.00	-	-	-
N ₁	0.30	1.00	-	-	0.43	1.00	-	-
N ₁ ¹	0.42	0.71	1.00	-	0.41	0.72	1.00	-
Y	0.34	0.32	0.45	1.00	0.72	0.76	0.49	1.00

It may be seen that the sectors for the four types of multipliers. Sectors having high backward linkages shown by the output multipliers do not correlate with those showing high employment, income and wages multiplier nor it show high employment multiplier with income multiplier. Similarly, forward linkages show greater correlation between the four multiplier indices. Backward linkage refer to where industry gets its inputs from and forward linkage refer to where an industry's output goes. The backward linkages to any Jth Sector (Source: "H.P. Govt. to Promote Agriculture, Horticulture, Tourism", in the Times of India, January 5, 2015, p.5). (LB_j) can be measured as the ratio of purchased intermediate inputs to the total value of production, that is :

$$LB_j = \frac{\sum_i X_{ij}}{X_i} = \sum_j a_{ij}$$

The forward linkages of any ith sector (L_F_i) can be measured as the ratio of inter-industry demand to total demand,

$$\text{That is: } L_{F_i} = \frac{\sum_j X_{ij}}{X_i}$$

Where X_i is the sum of inter-industry (ΣX_{ij}) and final Y_i demand for industry i.e. Industries can be ranked according to their backward or forward linkages, or their sum. Both give a measure of stimulus that are industry may give to shares. Thus analysis provide a set of consistent projections for an economy indicating broadly the structure of the economy that might emerge out of the development strategy. This also explore alternative development strategies. Further, it shows the structural changes that must occur in the process of growth. Lastly, inter-industry, rural-urban consistency through input-output analysis provides structural information as a desegregation basis which is relevant for formulation of sectoral development plans. Efforts were also made in the past to measure the backward and forward linkages by using Rasmussen's method. Source "Backward and Forward Linkages of the Plantation Sector vis-à-vis the other sectors in Kerala's economy, 1973-74", by S. Uma Devi, Indian Journal of Agricultural Economics, Vol. XLIII(I) : 44-45.

6. SUMMARY

Development depends upon availability and utilization of resources like men, material, capital, entrepreneurial ability. Availability and utilization of these resources by economic system and its organization in public and private sector transform the economy. Indian economy witnessed unprecedented demographic changes which substantially increased human labour in the country. The working population (15-59 years of age) in India is likely to increase from 58.5 percent in 2001 to over 64 percent by 2021. This is a challenge as well as opportunity to effectively use and improve the productivity of public and private sector enterprises. Rural and urban linkages have been studied in the context of capital formation, labour migration, flow of input output, sectoral growth and its relative importance. Therefore, the magnitude of existence and persistence of dualism in the economy changes with the level of its growth and development. The planning era witnessed stress on development of industries and linkages between the two sectors weaken during 1980s compared to pre-green revolution period (Bhattacharya and Rao, 1986; Staysail and Vishwanathan, 1999). An attempt has been made in this paper to estimate and study the inter-sectoral linkages of human and non human resources in rural and urban areas in the state of Himachal Pradesh. Our analysis suggests effective men power planning and relevant policy implication for growth, development and social justice in an economy. However, use of proper prices and realistic inter-sectoral coefficients would not only enhance the manufacturing sectors growth with poverty eradication, but it would sustain it beyond 14 percent per annum which would account for over 35 percent share in the national income. Allocation and investment priorities in selected sectors of the economy till today seems to have been made arbitrarily. Similarly the percent share of investment under each sector of the economy may be viewed from the table under reference. It may be noted that size of the First Five Year Plan (1951-56) in this hilly region of Himalayas was of the order of Rs. 0.53 Crore. Its highest priority was given to Industrial sector (46.3 per cent), while agriculture stood second highest (14 per cent) in the plan investment at that beginning era of Indian Planning. Today, the size of the Plan (12th-2012-17) in this Himalayan region has substantially increased to Rs. 2.5 thousand Crore. But, highest priority investment changed in favour of social service (30.9 per cent) and service sector (18.9 per cent). Therefore, agriculture and industry linkages were not only ignored, but thrown out of priorities. Resultantly, food insecurity, hunger, poverty, unemployment and social unrest will further grow especially in the Himalayan region. It would not only cause serious threat to the geography and topography of Himalayan region, but also disturb ecology, climate and environment.

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EFFICIENCY ANALYSIS OF SCHEDULED URBAN CO-OPERATIVE BANKS BY DEA APPROACH

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ABSTRACT

Co-operative Banks are important component of Indian banking industry. Commercial banks are unable to serve the need of all people in our country specially poor people therefore Co-operative banks came into existence to fulfill their need. The role of Co-operative banks is significant because their main objective is to serve deprived people instead of making profit unlike commercial banks. Performance measurement is essential for co-operative banks because it helps to identify the financial health of banks, to identify the best practice bank in the group and also to notice whether the banks are able to discharge its services for which it is meant for. The present study is designed to measure the performance of Scheduled Urban Cooperative Banks (SUCBS) by a Data envelopment Analysis (DEA) approach. DEA is a nonparametric frontier approach used to measure relative performance of homogeneous set of units, operating in similar condition. The study evaluates the performance in terms of efficiency of 25 SUCBS for six years that is from 2008-09 to 2012-13.

KEYWORDS

scheduled urban cooperative banks (SUCBs), data envelopment analysis (DEA), efficiency, performance.

INTRODUCTION

Economic condition of a country is judged by the efficiency and soundness of its financial sector. Indian financial sector comprises of banking and non banking financial institutions. Indian financial sector is dominated by banking sector hence performance evaluation of banking sector is the focus area of researchers. Indian banking sector consist of commercial banks and cooperative banks. The existence of Co-operative banks in our country is more than 100 years ago, these banks came into existence with the enactment of co-operative credit societies act, 1904. The Co-operative banks provide banking services to agricultural and allied activities, small scale industries and self employed workers. The cooperative structure in India is divided into Urban Cooperative Banks (UCBs) and rural cooperatives. Cooperative banks are spread in all parts of our country to serve the country at gross root level. Commercial banks are the backbone of Indian financial system while the cooperative banks serve the nation at rural level. The role of Cooperative banks is significant because their main objective is to serve deprived people instead of making profit unlike commercial banks. Performance measurement of commercial banks is the routine task by the regulators and policy makers but cooperative banks are overlooked many times. The present study is significant from many aspects; firstly it measure the individual efficiency score of SUCBs which help to identify the best and least performing bank, secondly it applied a frontier approach to measure efficiency in spite of traditional ratio approach. Finally it explores efficiency of SUCBs on the basis of scale of operation and managerial performance. Efficiency is a major yardstick to measure bank performance. Performance has been traditionally evaluated on the basis of financial ratios, but with due course of time many new technique has been emerged, Data envelopment Analysis (DEA) is one of such technique. The presents study uses DEA technique for performance evaluation of Scheduled Urban Cooperative banks. Data envelopment Analysis is a nonparametric linear programming technique in the area of Operations Research and helps to identify the best performing unit in a group of several units. It evaluates the relative efficiency of homogeneous set of units known as decision making unit (DMU) on the basis of multiple inputs and multiple outputs. The ratio of weighted inputs and outputs produce a single measure of productivity called relative efficiency. DMU for which efficiency score is 1 known as efficient unit, all such efficient DMUs forms a frontier known as efficiency frontier or envelop. Efficiency of all other units is measured in reference to the efficient DMU. Efficiency measured by DEA technique under constant return to scale (CRS) assumption known as overall technical efficiency and under the assumption of variable return to scale measures known as pure technical efficiency (PTE). Overall technical efficiency is composite of pure technical efficiency and scale efficiency.

LITERATURE REVIEW

Mittal and Dingra (2007) used DEA to measures the impact of computerisation on productivity and performance of Indian Banks. To measure productivity the staff expense to operating expense was taken as input and business per employee, total income per branch and operating profit per branch was taken as output similarly the input parameter for profitability are staff expenses to operating expenses and corresponding outputs used are net profit to deposits, operating profit to average working funds, return on assets and profit margins. The CCR output-oriented model (output maximization) was used to evaluate the data. **Das, Nag and Ray (2005)** also estimates and analyses various efficiency scores of Indian banks during 1997-2003 using data envelopment analysis (DEA). They observed that Indian banks are not differentiated in terms of revenue and cost efficiency but they differ in terms of revenue and profit efficiency. They also found that Bank size, ownership, and being listed on the stock exchange are some of the factors that have a positive impact on average profit efficiency, and to some extent, revenue efficiency scores. **Ahmed and Ahmad (2008)** has applied input oriented Data Envelopment Analysis and developed two specifications. In first specification, profit is considered as output of the commercial bank while advances, investments and lending to financial institutions (intermediate outputs) are considered as its inputs. In second specification, again profit is considered as output while number of employees, bills payable, borrowing from financial institutions and deposits and other accounts are considered as inputs of the commercial banks. After the estimation of technical efficiency from non-parametric DEA, double log regression model between technical efficiency scores and inputs used in second specification is developed to show the marginal effect of inputs on the technical efficiency scores. **Chakrabarti and Chawla (2005)** has applied DEA model to evaluate the efficiency of Indian banks during 1990-2002. They used two models for measuring efficiency, first model uses interest expenses and operating expense as inputs and advances, investments and deposits as outputs. In using deposits as an output variable, this model uses the "production" view of banking. They discussed issue here is that bank management may not always explicitly consider deposits as an output as it is a source of expense rather than revenue. However, given that a bank's ability to lend and invest is restricted by its level of deposits, the approach is not wholly without merit. The second model is closer to measuring financial performance in its approach. It uses interest and non-interest expenses as inputs and studies interest income and non-interest income as outputs. Thus the first model takes more of a "quantity" approach to performance measurement while the second looks more at "value created". **Ketkar, Noulas and Agrawal (2003)** has examined a relative efficiency of state controlled, nationalized, private and

foreign banks from 1990-1995 using the Data Envelopment Analysis. The study measured technical efficiency and productive growth of all commercial banks during the period. The study considers the bank as financial intermediaries, hence used input oriented intermediation approach of data envelopment analysis considering investment and advances as output and deposit, labor and physical capital as input. The study also examined the effect of size (measured by total deposit) and bank branches on pure technical efficiency through a regression analysis and found that total deposit is positively related to pure technical efficiency, while no of branches are negatively related. **Sanjeev M (2009)** assessed the efficiency of 27 public sector banks through DEA approach for the time frame 2002-03 to 2006-07. The intermediation approach is used in the study considering interest income and fee, commission and brokerage as outputs. Against these, the inputs taken are the interest expense and non-interest expense. As the interest expense constitutes the largest proportion of the expenses in banks, it is being considered as one of the inputs. The other input, the operating expenses (rentals and salaries), of the banks is also quite significant. **Vardi et al (2006)** has measured the efficiency of 93 commercial banks of India by DEA technique. The efficiency has been measured through four indicators: profitability, financial management and asset quality along with productivity for the period 1999-2000 to 2002-03. The study used intermediation approach, for measuring productivity establishment expense to operating expense as input and business per branch, business per employee and operating profit per employee are taken as output. For profitability net profit to spread, establishment expense to operating expense as input and return on asset, return on equity, net interest income to %change to asset and net profit to deposits are taken as output. For Financial Management spread to total advances, NPA TO NET advances as input and average yield on asset, average yield on advances, average yield on investment, capital adequacy ratio as output. For Asset quality Gross NPA to Gross Advances, net NPA to net advances as input and Gross NPA to total asset, net NPA to total asset as output. **Trehan and Soni (2003)** has measured the operating efficiency and its relationship with profitability for the public sector banks of India. The efficiency has been measured using the DEA technique. The intermediation approach has been used for modeling input and output variable, the input variable labor, capital and borrowed fund and out variable investment and advances are considered for measurement of efficiency. The Banks whose efficiency score is 1 is considered efficient and efficiency score less than 1 are considered inefficient. Besides discriminating banks on efficiency score the study also determines the relationship between profitability and efficiency using regression analysis, considering efficiency as dependent variable and ROA, profit per employee, operating profit as percentage of working fund and net profit as percentage to working funds as independent variable. **Reddy A. Amarendra (2004)** has assessed the competitiveness of 74 Indian commercial banks in the deregulated period 1996-2002. The author has applied value added approach (production approach) of DEA considering fixed asset, interest expended and wages as input variable while total income, liquid assets, total advances, total deposit as output variable. He decomposes the overall efficiency in the pure technical efficiency and scale efficiency and hence analysed the bank on the basis of each efficiency measure. The mix of input and outputs were selected by considering the broader objectives such as profitability (total income given fixed assets, interest expended and wages), low cost and service provision (maximization of advances and deposits). He concluded that financial sector liberalization and deregulation of interest rates have greater impact on banking sector as a whole, as evidenced from increased profits, reduction in interest margins of all banks in general and public sector banks in particular. In terms of prudential norms in respect of capital adequacy norms and non-performing assets also, Indian banks improved a lot, but still there are large gaps to be filled in non-performing assets. **Sathey (2003)** analyzed using DEA the efficiency of Indian banking sector in the year 1997-98 using both the financial and operational models of the intermediation approach. **Kumar and Gulati (2008)** has first time measure the efficiency and effectiveness simultaneously for 26 public sector bank using the two stage DEA model. In the first stage they measure efficiency and at second stage they measure effectiveness and disused that both efficiency and effectiveness together contributes performance of the bank. **Sahoo, Sengupta and Mandal (2007)** measured the productive performance of Indian commercial banks through efficiency and scale economics for the period 1997-98 to 2004-05. The DEA method is applied here considering three output variable investment, performing loan assets and non interest income and three inputs borrowed funds, labor and fixed asset. **Eltivia Nurafni (2013)** has applied all the three approaches of DEA to measure efficiency of Indonesian banks. The study considers deposits, labour, and capital as inputs for producing loans and investments under intermediation approach. Under the value added approach, labour, capital, and interest expenses are used as inputs producing outputs like deposits, loans, and investments and Under the operating approach, three types of inputs are considered namely, interest expenses, labour, and other operating expenses excluding employee expenses and outputs are interest income and non-interest income emanating mostly from commission, exchange, brokerage, etc. **Fernando and Nimal (2014)** give preference to DEA technique as compared to traditional measures to evaluate bank performance. The study uses total deposits Number of employees and fixed assets as input variable and Non-Interest income, total loan and Total investments as output variable. The study also measures the impact of ownership and size of banks. **Rehman and Raof (2010)** made a comparison of efficiency among the public, private and foreign banks of Pakistan from 1997-2007, through DEA approach. The study measured overall technical efficiency, allocative, efficiency and cost efficiency considering capital and deposit as input and loan and advances as output. The study concluded that public and private banks are close competitor while foreign banks were far behind. **Sufian Fadzlan (2006)** measured bank performance of Malaysian Islamic banking sector by DEA approach. The study applied two models of DEA, in model I deposit is taken as input and total loan and investment is taken as output variables, in second model one more input variable loan loss provisions is added to previous model to gauge the impact of risk on efficiency. The study also applied various parametric and non parametric test to the efficiency difference among the banks of different ownership. **Tahir, Bakar and Haron (2009)** has assessed the overall technical efficiency, pure technical efficiency and scale efficiency of Malaysian commercial banks applying DEA technique. The study applied intermediation approach of DEA considering total deposits and overhead expenses as input and total earning asset as output. The results are explicitly discussed in terms of overall technical efficiency along with pure technical efficiency and scale efficiency. **Oberholzer et al. (2010)** compared the internal performance measures and external performance measure of listed banks of South Africa. The two internal measures of bank performance used are ROA as a profitability measure and DEA models as a efficiency estimate. The operating efficiency and investment efficiency models are used to measure efficiency in DEA. Operating efficiency is based on income statement data while investment efficiency model is based on balance sheet data. Thus staff, operating costs and deposit are taken as input and non interest income and interest income are taken as output variable in operating efficiency models. In Investment efficiency model deposit and loan are taken as output and equity, fixed asset are taken as input variable. The market ratios are taken as external measures of bank performance. The study also attempted the correlation analysis to find the association between internal and external ratios.

OBJECTIVES OF THE STUDY

1. To study the efficiency of SUCBs banks by DEA approach.
2. To analyse the banks on the basis of Overall Technical efficiency, Pure Technical efficiency and Scale efficiency.

RESEARCH DESIGN

- Population – All co-operative banks of India
- Sample – Scheduled Urban Cooperative banks (SUCBs).
- Sample Size – 25 SUCBS
- Data Source – Secondary Data has been collected from the “Performance highlights of Urban Cooperative banks” published by Indian Banks’ Association.
- Tool used for data analysis – input oriented DEA technique.
- Period of study- 2007-08 to 2012-13

FRAMEWORK OF THE STUDY

Present study evaluates the efficiency of 25 SUCBs by DEA approach. Deposit & Borrowing, capital and operating expenses are taken as input variable while advances & investment as output variables. The study measures the overall technical efficiency (OTE), technical efficiency (PTE) and Scale efficiency (SE).

Overall technical efficiency = Pure technical efficiency * Scale Efficiency

Under the assumption of constant return to scale overall technical efficiency is measured while under the assumption of variable return to scale pure technical efficiency is measured.

DATA ANALYSIS

TABLE 1: OVERALL TECHNICAL EFFICIENCY (OTE) SCORE OF SUCBs BY INPUT ORIENTED APPROACH (CRS)

S.No	Bank	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	AVG	Rank
1	A.P. Mahesh	0.976	0.895	0.926	0.961	0.923	0.979	0.944	16
2	Abhyudaya	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1
3	Bassein Catholic	1.000	1.000	1.000	0.979	1.000	1.000	0.997	3
4	Bharat	1.000	1.000	1.000	0.996	0.975	1.000	0.995	5
5	Bombay Mercantile	1.000	1.000	1.000	1.000	0.952	1.000	0.992	6
6	Citizen Credit	0.787	0.908	1.000	1.000	1.000	1.000	0.949	15
7	Dombivli Nagarik Sahakari	1.000	0.996	1.000	0.982	1.000	1.000	0.996	4
8	Greater Bombay	1.000	0.991	0.911	0.955	1.000	0.953	0.968	9
9	Jalgaon Janata Sahakari	0.932	0.877	0.864	0.958	0.904	0.892	0.905	20
10	Janakalyan Sahakari	0.954	0.958	0.872	0.904	0.902	0.917	0.918	19
11	Janalaxmi	0.880	0.924	1.000	NA	1.000	NA	0.951	14
12	Janata Sahakari	1.000	0.997	0.959	1.000	1.000	0.981	0.990	7
13	KAIJSB	NA	0.956	0.957	0.955	1.000	0.914	0.956	12
14	Kapol	0.929	0.885	0.861	0.854	0.865	0.902	0.883	22
15	Karad Urban	0.939	0.932	0.902	0.936	0.927	0.920	0.926	18
16	Mahanagar	0.974	0.949	1.000	1.000	0.993	1.000	0.986	8
17	Nagpur Nagarik Sahakari	0.806	0.857	0.825	0.874	0.972	0.953	0.881	23
18	NKGSB	0.985	0.911	0.910	0.958	0.875	0.937	0.929	17
19	Nutan Nagarik Sahakari	1.000	0.899	0.900	0.957	1.000	1.000	0.959	10
20	Rajkot Nagarik Sahakari	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1
21	Saraswat	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1
22	Shamrao Vithal	0.991	0.982	0.972	0.940	0.907	0.946	0.957	11
23	Surat People's	1.000	1.000	1.000	0.996	1.000	0.999	0.999	2
24	Thane Janata Sahakari	0.987	0.983	0.883	0.943	0.985	0.932	0.952	13
25	Zoroastrian	0.885	0.884	0.823	0.862	0.993	0.976	0.904	21
	Percentage efficient bank	44%	28%	44%	28%	48%	40%		

TABLE 2: PURE TECHNICAL EFFICIENCY SCORE OF SUCBS BY INPUT ORIENTED (VRS)

S.No	Bank	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	AVG	Rank
1	A.P. Mahesh	1.000	0.974	0.981	1.000	0.945	0.981	0.980	5
2	Abhyudaya	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1
3	Bassein Catholic	1.000	1.000	1.000	0.983	1.000	1.000	0.997	2
4	Bharat	1.000	1.000	1.000	1.000	0.981	1.000	0.997	2
5	Bombay Mercantile	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1
6	Citizen Credit	0.832	0.936	1.000	1.000	1.000	1.000	0.961	9
7	Dombivli Nagari Sahakari	1.000	1.000	1.000	0.985	1.000	1.000	0.997	2
8	Greater Bombay	1.000	1.000	0.945	0.945	1.000	0.964	0.976	6
9	Jalgaon Janata Sahakari	1.000	1.000	1.000	1.000	0.965	0.939	0.984	4
10	Janakalyan Sahakari	0.978	0.964	0.891	0.905	0.909	0.928	0.929	14
11	Janalaxmi	1.000	1.000	1.000	NA	1.000	NA	1.000	1
12	Janata Sahakari	1.000	0.998	0.983	1.000	1.000	1.000	0.997	2
13	KAIJSB	NA	1.000	1.000	1.000	1.000	0.950	0.990	3
14	Kapol	1.000	0.960	0.977	0.895	0.883	0.916	0.938	12
15	Karad Urban	0.972	0.958	0.940	0.946	0.954	0.931	0.950	11
16	Mahanagar	1.000	0.987	1.000	1.000	0.994	1.000	0.997	2
17	Nagpur Nagarik Sahakari	0.909	0.951	0.968	0.945	1.000	1.000	0.962	8
18	NKGSB	0.987	0.911	0.918	0.963	0.877	0.942	0.933	13
19	Nutan Nagarik Sahakari	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1
20	Rajkot Nagarik Sahakari	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1
21	Saraswat	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1
22	Shamrao Vithal	1.000	1.000	0.983	0.944	0.907	0.947	0.964	7
23	Surat People's	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1
24	Thane Janata Sahakari	1.000	0.988	0.888	0.946	1.000	0.937	0.960	10
25	Zoroastrian	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1
	Percentage efficient bank	76%	60%	60%	60%	64%	56%		

TABLE 3: SCALE EFFICIENCY FOR SUCBS BY INPUT ORIENTED METHOD

S.No	Bank	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	AVERAGE	RANK
1	A.P. Mahesh	0.976	0.919	0.944	0.962	0.977	0.998	0.963	11
2	Abhyudaya	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1
3	Bassein Catholic	1.000	1.000	1.000	0.997	1.000	1.000	0.999	2
4	Bharat	1.000	1.000	1.000	0.997	0.994	1.000	0.998	3
5	Bombay Mercantile	1.000	1.000	1.000	1.000	0.952	1.000	0.992	6
6	Citizen Credit	0.946	0.970	1.000	1.000	1.000	1.000	0.986	9
7	Dombivli Nagari Sahakari	1.000	0.996	1.000	0.998	1.000	1.000	0.999	2
8	Greater Bombay	1.000	0.991	0.964	1.010	1.000	0.989	0.992	6
4	Jalgaon Janata Sahakari	0.932	0.877	0.864	0.959	0.937	0.950	0.920	14
12	Janakalyan Sahakari	0.975	0.994	0.980	0.999	0.992	0.989	0.988	8
13	Janalaxmi	0.880	0.924	1.000	NA	1.000	NA		
7	Janata Sahakari	1.000	0.999	0.976	1.000	1.000	0.981	0.993	5
7	KAIUSB	NA	0.956	0.957	0.956	1.000	0.963		
5	Kapol	0.929	0.923	0.881	0.955	0.980	0.985	0.942	13
3	Karad Urban	0.967	0.973	0.960	0.989	0.972	0.988	0.975	10
8	Mahanagar	0.974	0.962	1.000	1.000	0.999	1.000	0.989	7
18	Nagpur Nagarik Sahakari	0.886	0.901	0.853	0.925	0.972	0.953	0.915	15
4	NKGSB	0.997	1.000	0.991	0.995	0.998	0.995	0.996	4
20	Nutan Nagarik Sahakari	1.000	0.899	0.900	0.957	1.000	1.000	0.959	12
23	Rajkot Nagarik Sahakari	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1
7	Saraswat	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1
22	Shamrao Vithal	0.991	0.982	0.988	0.997	1.000	0.999	0.993	5
12	Surat People's	1.000	1.000	1.000	0.997	1.000	0.999	0.999	2
24	Thane Janata Sahakari	0.987	0.994	0.994	0.998	0.985	0.995	0.992	6
25	Zoroastrian	0.885	0.884	0.823	0.863	0.993	0.976	0.904	16
	Percentage efficient bank	44%	32%	44%	28%	52%	40%		

DISCUSSION AND CONCLUSION

Indian banking sector consist of commercial banks and cooperative banks. Commercial banks are pillars whereas co-operative banks are foundation of the sector, as together they fulfill the financial need of customers in urban and rural areas of our country. Performance measurement of banks is important to assess economic and financial state of a country. Banks play the role of arbitrator between the depositors and borrowers of funds but how efficiently and effectively they perform the role is matter of concern for stakeholders. Cooperative banks are important segment and serve the country as gross root level, hence present study evaluated performance of scheduled urban co-operative banks (SUCBs) of India.

The result of average efficiency score of six years reveals that, Abhyudaya, Rajkot Nagarik Sahakari and Saraswat are overall technically efficient bank in the period (table1).

Apart from Abhyudaya, Rajkot Nagarik Sahakari and Saraswat ; Janalaxmi , Nutan Nagarik Sahakari , Surat People's and Zoroastrian are also found pure technically efficient (table 2). Banks which are only pure technical efficient are scale inefficient that means they are inefficient due to inappropriate size of operation. Thus Janalaxmi, Nutan Nagarik Sahakari, Surat People's and Zoroastrian are not operating in perfect size. t Apart from Abhyudaya, Rajkot Nagarik Sahakari and Saraswat none other bank found scale efficient thus it can be interpreted that all remaining banks are scale inefficient(table 3).

It can be concluded that only 3 banks are overall efficient in the sample of 25 SUCBs and remaining banks are inefficient due inappropriate size of operation or due to managerial underperformance. Year wise overall technical efficiency score shows that the percentage efficient banks are 44% , 28% , 44% , 28% , 48% and 44% respectively , percentage efficient bank in case of pure technical efficiency score is 76% ,60% ,60% ,60% ,64% and 56% respectively and percentage efficient bank in case of scale efficiency is 44%,32%,44% 28%,52 % and 40% respectively in each year from 2007-08 to 2012-13 .

Overall percentage efficient banks are very less in the sample; sampled banks are found to be more efficient on pure technical efficiency score as compared to scale efficiency score. As discussed earlier overall efficiency is blend of pure technical efficiency and scale efficiency thus to improve efficiency bank's management should properly plan their resources and should operate on optimum scale size .SUCBs need to work more on their size to improve overall efficiency .

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THE IMPACT OF FINANCIAL DERIVATIVES MARKET ON THE UNDERLYING CASH MARKET IN NSE

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ABSTRACT

Integration of economies world over has brought in multiple growths in the volume of international trade and business. This in turn has led to increase in the demand for international money and need for innovative financial instruments both at national and global level. Changes in the interest rates, exchange rates and equity prices in different financial markets led to increase in the volatility and manifold increase in the financial risk to the individual as well as institutional investors. Adverse changes in these variables have even threatened the very survival of the business world. To manage these risks, new financial instruments have been developed in the financial market, which are popularly known as Financial Derivatives. The basic purpose of Financial Derivatives is to provide commitments to prices for future dates for giving protection against adverse movements in the future prices of underlying assets thereby reduce/manage/control the extent of financial risk. Derivative instruments are different from Insurance, in that they cover general risks whereas the latter covers specific risks. Financial Derivatives also provide an opportunity to earn profit for those persons who have higher risk appetite. These instruments indeed facilitate to transfer the risk from those who wish to avoid it to those who are willing to accept the same. The rate of growth of derivatives is so phenomenal all over the world that now it is called as the derivatives revolution. This paper covers the impact of derivative market on the underlying cash market. To bring out the relationship between derivative market and cash market, variables like turnover, traded quantity, and market capitalisation in the cash segment are analysed before and after the introduction of derivatives.

KEYWORDS

financial derivatives, traded quantity, turnover, market capitalisation, options, futures, NSE.

INTRODUCTION

Derivatives markets in India have been in existence in one form or the other for a long time. In the area of commodities, the Bombay Cotton Trade Association started futures trading back in 1875. In 1952, the Government of India banned cash settlement and options trading. Derivatives trading shifted to informal forwards markets. In recent years, government policy has shifted in favour of an increased role of market-based pricing and less suspicious derivatives trading. The first step towards introduction of financial derivatives trading in India was the promulgation of the Securities Laws (Amendment) Ordinance, 1995. It provided for withdrawal of prohibition on options in securities. The last decade, beginning the year 2000, saw lifting of ban on futures trading in many commodities. Around the same period, National Electronic Commodity Exchanges were also set up. Financial Derivatives trading commenced in India in June 2000 after SEBI granted the final approval to this effect in May 2000 on the recommendation of L. C Gupta committee. Securities and Exchange Board of India (SEBI) permitted the derivative segments of two stock exchanges, NSE and BSE and their clearing house/corporation to commence trading and settlement in approved derivative contracts. Initially, SEBI approved trading in Index Futures contracts based on various stock market indices such as, S&P CNX, Nifty and Sensex. Subsequently, index-based trading was permitted in Options as well as individual securities. The trading in BSE Sensex Options commenced on June 4, 2001 and the trading in Options on individual securities commenced in July 2001. Futures contracts on individual stocks were launched in November 2001. The derivatives trading on NSE commenced with S&P CNX Nifty Index Futures on 12th June 2000. The trading in Index Options commenced on 4th June 2001 and trading in Options on individual securities commenced on 2nd July 2001. Single Stock Futures were launched on 9th November 2001. The Index Futures and Options contract on NSE are based on S&P CNX. At the present Futures and options in Stocks are permitted in 143 stocks belonging to 13 industrial sectors as on June 2013. According to an estimate recorded in the NSE Fact Book, the present annual trading volume of derivative market has reached Rs. 5,56,06,453.00 Cr for the year 2014-15.

REVIEW OF LITERATURE

The relationship between Derivatives segment and Cash segment was analysed in the past by many researchers. Several studies have made an attempt to examine the behaviour of cash market after the introduction of derivatives. The conclusions drawn by these studies show mixed evidences on the impact of derivative trading on stock market. **Anand Sharma, Namita Rajput and Anurag Agnihotri**¹ (2011), analysed the impact of launch of financial derivatives on cash segment of Indian stock market in terms of trading turnover and tried to establish a correlation between turnover in derivative segment and cash segment by applying the method of least squares. They concluded that the introduction of financial derivatives resulted in a decrease in trading in cash segment and almost equal to this decline was the turnover of derivative segment. **Thenmozhi**² (2002) reported lower level volatility in cash market after introduction of derivative contracts. **Raju and Karande**³ (2003) reported a decline in volatility of the cash market after the introduction of derivatives in Indian market. **Stewart Mayhew**⁴ (2000) opined that derivative markets are in growth stage so it is difficult to generate any theory of derivatives impact on cash market. **Gupta**⁵ (2002) did find that the overall volatility of underlying market declined after introduction of derivatives contracts on indices. **Satya Swaroop Debasish**⁶ (2008) observed that futures market plays price discovery role in market. Futures market is more efficient than spot market in reflecting new information and spot market follow the same. Indian investors exploit information about future trend from futures market. **Debashis**⁷ (2008) studied the effect of derivatives trading on volatility & operating efficiency of the underlying Indian stock market by using paired sample statistic and found that introduction of financial derivatives trading in India is associated with both reduction in spot price volatility & reduced trading efficiency in underlying stock market.

IMPORTANCE OF THE PROBLEM

'Capital' is the most important scarce resource among all the factors of production. Thus, efficient allocation of capital assumes significance for accelerating the economic growth in a country. Efficient capital allocation is ensured by efficient financial markets, which in turn largely depends upon informational efficiency and the resultant price signals, that induces investors including small, retail, uninformed to actively participate in the stock market. Since the introduction of derivative instruments in Indian capital market in the year 2001, informational efficiency has enhanced which has resulted in increased participation of investors in the stock market. This has led to increase in volumes of trade in the underlying cash market. Empirical evidence shows that derivative segment prices provides additional information over and above that already exists in spot prices and thereby serves as a leading indicator for prices in the underlying cash market. Since the introduction of financial derivatives in India in June 2000, there is a phenomenal growth in Derivatives in terms of both value and volume of traded contracts and the stock markets are becoming informationally efficient. Therefore, the present study an attempt is made to analyse the impact of derivative market on the

underlying cash market. To bring out the relationship between derivative market and cash market, variables like turnover, traded quantity, and market capitalisation in the cash segment are analysed before and after the introduction of derivatives.

OBJECTIVES OF THE STUDY

This study has been undertaken with the following specific objectives:

1. To know the origin and history of Financial Derivatives in India
2. To analyse the relationship between Derivative Market and Cash Market
3. To project the Cash turnover trend after introduction of Financial Derivatives
4. To analyse the impact of Derivative Market on Underlying Cash Market

METHODOLOGY

This study covers twenty one year’s data i.e. from 1994-1995 to 2014-2015 to analyse the relationship between derivative segment and cash segment. This period includes both pre introduction and post introduction of derivatives periods. The relationship is studied in terms of turnover, traded quantity, and market capitalisation in cash segment before and after the introduction of derivatives. The data have been drawn from websites of National Stock Exchange and Securities Exchange Board of India.

Time series method of least squares has been applied to study the effect of launch of derivatives segment on these variables and to forecasting the cash segment turnover

$$Y = a + b_x \dots \dots \dots (1)$$

The correlation between the turnover of cash and derivatives segments have been calculated to find out the strong relationship between these two segments.

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)\sqrt{b^2 - 4ac}}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}} \dots \dots \dots (2)$$

Further, the growth rates for traded quantity and market capitalisation before and after the introduction of Derivatives segment have also been analysed. Year to year growth rate and from base year to current year growth rate have been calculated.

DATA ANALYSIS

IMPACT OF LAUNCH OF DERIVATIVES ON CASH SEGMENT IN NSE

Table-1 presents actual turnover of Cash segment and Derivatives segment. Data relating to turnover in cash segment from 1994-95 (X=1) to 2000-01 (X=7) have been taken as dependent variable (Y) to estimate values for 2001-2002 (X=8) the year of introduction derivatives and project the values up to 2014-2015 (X=21). The calculations based on least squares method relating to the expected turnover from 2001-02 to 2014-15 are presented in Table-2 along with differences between the expected turnover and actual turnover in absolute terms as well as in terms of percentage.

TABLE 1: TURNOVERS IN CASH AND DERIVATIVE SEGMENTS IN NSE

Year	Cash Segment Turnover in ₹ Cr	Derivative Segment Turnover in ₹ Cr	Year	Cash Segment Turnover in ₹ Cr	Derivative Segment Turnover in ₹ Cr
1994-1995	1805	-	2005-2006	15,69,556	48,24,174.00
1995-1996	67,287	-	2006-2007	19,45,285	73,56,242.00
1996-1997	2,94,503	-	2007-2008	35,51,038	1,30,90,477.75
1997-1998	3,70,193	-	2008-2009	27,52,023	1,10,10,482.20
1998-1999	4,14,474	-	2009-2010	41,38,024	1,76,63,664.57
1999-2000	8,39,052	-	2010-2011	35,77,412	2,92,48,221.09
2000-2001	13,39,510	2,365	2011-2012	28,10,893	3,13,49,731.74
2001-2002	5,13,167	1,01,926.00	2012-2013	27,08,279	3,15,33,003.96
2002-2003	6,17,989	4,39,862.00	2013-2014	28,08,488	3,82,11,408.00
2003-2004	10,99,535	21,30,610.00	2014-2015	43,29,655	5,56,06,453.00
2004-2005	11,40,071	25,46,982.00			

Source: www.nseindia.com

It can be observed from Table-2 that actual turnover was around 60 per cent less than the expected turnover as for the trend line in the year 2001-2002 when the derivative trading was launched. Up to 2006-07, the actual turnover was less than the expected turnover. But the percentage gap has been decreasing year after year. Thus, in the initial years of the introduction of derivative instruments a negative effect was observed on the quantum of trade in cash segment. This decline in trade in cash segment however, cannot be totally attributed to introduction of derivatives alone. Other factors like, declining economic growth, bearish stock market, and financial crisis world over also might have resulted in the decline in cash market activities. But from the year 2007-2008 to 2010-2011 actual turnover in cash segment has overtaken the expected turnover. This indicates the positive impact of derivatives on the cash segment apart from other economic factors. But again, in 2011-2012 actual turnover fell short of expected turnover, this trend has continued till 2013-2014. In the present financial year it has shown a positive impact on cash segment.

TABLE 2: PROJECTION OF THE TURNOVER OF CASH SEGMENT AS PER LEAST SQUARES METHOD DURING 2001-02 TO 2014-15

Year	X	Actual turnover in ₹ cr.	Expected turnover in ₹.Cr.	Difference in ₹ Cr.	Difference in %
2001-2002	8	5,13,167	12,86,205.71	7,73,038.71	60.10
2002-2003	9	6,17,989	14,88,909.83	8,70,920.83	58.49
2003-2004	10	10,99,535	16,91,613.97	5,92,078.97	35.00
2004-2005	11	11,40,071	18,94,318.11	7,54,247.11	39.82
2005-2006	12	15,69,556	20,97,022.25	5,27,466.25	25.15
2006-2007	13	19,45,285	22,99,726.39	3,54,441.39	15.41
2007-2008	14	35,51,038	25,02,430.53	-10,48,607.47	-41.90
2008-2009	15	27,52,023	27,05,134.67	-46,888.33	-1.73
2009-2010	16	41,38,024	29,07,838.81	-12,30,185.19	-42.31
2010-2011	17	35,77,412	31,10,542.95	-4,66,869.05	-15.01
2011-2012	18	28,10,893	33,13,247.09	5,02,354.09	15.16
2012-2013	19	27,08,279	35,15,951.23	8,07,672.23	22.97
2013-2014	20	28,08,488	37,18,655.37	9,10,167.37	24.47
2014-2015	21	43,29,655	39,21,359.51	-4,08,295.49	-10.41

Source: calculated from the data from nseindia.com

The Table-3 clearly depicts a rapid increase in the traded quantity in NSE from the 1994-1995 to 2000-2001. In 1994-95, the traded quantity was only ₹.1391 lakh. In the succeeding year, it reached to ₹.39,912 lakh, registering a growth rate of 2,769.30 per cent. This trend continued up to 2000-2001. A sudden decrease was

registered in 2001-2002 the year of introduction of Derivatives. Since then, the growth of traded quantity has recovered and started increasing which continued up to 2007-2008. In 2008-2009 the financial crisis world over, the traded quantity registered a decline over the previous year but sharply recovered in the very next year. The traded quantity in the year 2014-2015 recorded the highest growth rate during the study period. Overall, it could be observed that the introduction of derivatives in NSE stabilized the cash segment and led to improved confidence in the minds of investors. The Compound Annual Growth Rate (CAGR) of traded quantity during 21 years was 61.78 per cent. This indicates the positive impact of derivatives on the cash segment. These results are presented in Graph -1.

TABLE 3: GROWTH IN TRADED QUANTITY OF CASH MARKET IN NSE DURING 1994-95 TO 2014-15

Year	Traded Quantity (lakh)	Change from base year to current year	Growth Rate over the base year in %
1994-1995	1,391	-	-
1995-1996	39,912	38,521	2769.3
1996-1997	1,35,561	1,34,170	9645.58
1997-1998	1,35,685	1,34,294	9654.49
1998-1999	1,65,327	1,63,936	11785.48
1999-2000	2,42,704	2,41,313	17348.17
2000-2001	3,29,536	3,28,145	23590.58
2001-2002	2,78,408	2,77,017	19914.95
2002-2003	3,64,065	3,62,674	26072.9
2003-2004	7,13,301	7,11,910	51179.73
2004-2005	7,97,684	7,96,293	57246.08

Year	Traded Quantity (lakh)	Change from base year to current year	Growth Rate over the base year in %
2005-2006	8,44,486	8,43,095	60610.71
2006-2007	8,55,456	8,54,065	61399.35
2007-2008	14,98,469	14,97,078	107626
2008-2009	14,26,354	14,24,963	102441.6
2009-2010	22,15,530	22,14,139	159176.1
2010-2011	18,24,515	18,23,124	131065.7
2011-2012	16,16,978	16,15,587	116145.7
2012-2013	16,59,158	16,57,767	119178.1
2013-2014	15,33,716	15,32,325	110159.96
2014-2015	23,61,779	23,60,388	169690.01

Source: calculated from www.nseindia.com data

TABLE 4: BUSINESS GROWTH IN THE CASH SEGMENT OF NSE IN TERMS OF TURNOVER ₹ IN Cr

Year	Turnover (₹ in cr)	Change from base year to current year (₹ in Cr)	Growth Rate over the base year in %
1994-1995	1805	-	-
1995-1996	67,287	65,482	3627.81
1996-1997	2,94,503	2,92,698	16215.96
1997-1998	3,70,193	3,68,388	20409.31
1998-1999	4,14,474	4,12,669	22862.55
1999-2000	8,39,052	8,37,247	46384.88
2000-2001	13,39,510	13,37,705	74111.08
2001-2002	5,13,167	5,11,362	28330.3
2002-2003	6,17,989	6,16,184	34137.62
2003-2004	10,99,535	10,97,730	60816.07

Year	Turnover (₹ in cr)	Change from base year to current year (₹ in Cr)	Growth Rate over the base year in %
2005-2006	15,69,556	15,67,751	86856.01
2006-2007	19,45,285	19,43,480	107672.02
2007-2008	35,51,038	35,49,233	196633.41
2008-2009	27,52,023	27,50,218	152366.65
2009-2010	41,38,024	41,36,219	229153.41
2010-2011	35,77,412	35,75,607	198094.57
2011-2012	28,10,893	28,09,088	155628.14
2012-2013	27,08,279	27,06,474	149943.16
2013-2014	28,08,488	28,06,683	155494.9
2014-2015	43,29,655	43,27,850	239770.08

Source: Calculated from NSE India data

Table-4 depicts the changes in the growth rate of turnover of cash segment before and after introduction of derivatives. It could be observed that the turnover of cash segment in NSE has been continuously increasing up to 2000-2001 i.e. before introduction of derivative. But in the very next year, more than 61 per cent of turnover in cash segment declined compared to previous year due to the introduction of derivatives and other factors like economic instability, bearish trend in the stock markets and financial crisis. However, this decline did not continue for long. The growth rate turned positive from the very next year and reached to 82.55 per cent by the year 2007-08. Due to the financial crisis world over, the growth rate in the turnover again registered a negative per cent of 22.5 and continued since then except in 2009-10, 2013-14 and 2014-15. Thus, the introduction of derivatives strengthened the operations in cash segment by infusing more confidence in the minds of the investors. The bearish trend in the stock market caused by heavy withdrawals of FIIs, increasing rate of inflation and overall economic slow-down again led to sluggish activity in the cash segment from 2009-10 onwards except in the year 2009-10. 2013-14 and 2014-15 years have registered a positive growth rate. This indicates that the cash market has stabilised. The results are presented in Graph-2

TABLE 5: GROWTH IN MARKET CAPITALISATION OF THE CASH SEGMENT OF NSE DURING 1994-95 TO 2012-13

Year	Market Capitalisation	Change from base year to current year (₹ in Cr)	Growth Rate over the base year in %
1994-1995	3,63,350	-	-
1995-1996	4,01,459	38,109	10.49
1996-1997	4,19,367	56,017	15.42
1997-1998	4,81,503	1,18,153	32.52
1998-1999	4,91,175	1,27,825	35.18
1999-2000	10,20,426	6,57,076	180.84
2000-2001	6,57,847	2,94,497	81.05
2001-2002	6,36,861	2,73,511	75.27
2002-2003	5,37,133	1,73,783	47.83
2003-2004	11,20,976	7,57,626	208.51
2004-2005	15,85,585	12,22,235	336.38

Year	Market Capitalisation	Change from base year to current year (₹ in Cr)	Growth Rate over the base year in %
2005-2006	28,13,201	24,49,851	674.24
2006-2007	33,67,350	30,04,000	826.75
2007-2008	48,58,122	44,94,772	1237.04
2008-2009	28,96,194	25,32,844	697.08
2009-2010	60,09,173	56,45,823	1553.82
2010-2011	67,02,616	63,39,266	1744.67
2011-2012	60,96,518	57,33,168	1577.86
2012-2013	62,39,035	58,75,685	1617.09
2013-2014	72,77,720	69,14,370	1902.95
2014-2015	99,30,122	95,66,772	2632.94

Source: Calculated from NSE India data

Table-5 depicts the changes in the growth rate of market capitalization of cash segment before and after introduction of derivatives in absolute terms and in percentage terms over the base year as well as over the previous year. Here market capitalisation represents the aggregate market value of all stocks comprising CNX NIFTY. It could be observed from the Table-5 that market capitalisation of cash segment has increased in 1999-2000 with a growth rate of 180.84 per cent over the base year. But, in the year of introduction of derivatives i.e. 2000-01, this has declined to 81.05 per cent, a decrease of about 100 per cent. This decline continued up to 2002-03. Since 2003-04, the growth rate has been increasing except in 2008-09 in which year the growth rate registered a decline of about 41 per cent and in 2011-12 in which the growth declined by 9 per cent. By the year 2012-13, the growth rate registered a peak per cent of 20,622.37 per cent over the base year and 1135.04 per cent over the previous year. As already stated, the impact of financial crisis is clearly reflected in the reduction of growth rate of market capitalisation in 2008-09 and 2011-12. But the Indian stock markets could quickly overcome this financial turmoil, reaching a new milestone in market

capitalisation with ₹.99,30,122 cr in the year 2014-15. In terms of the growth over the base year, it is 2632.94 per cent and in terms of the growth in the previous year, it is 36.45 per cent. These results are presents in the Graph-3.

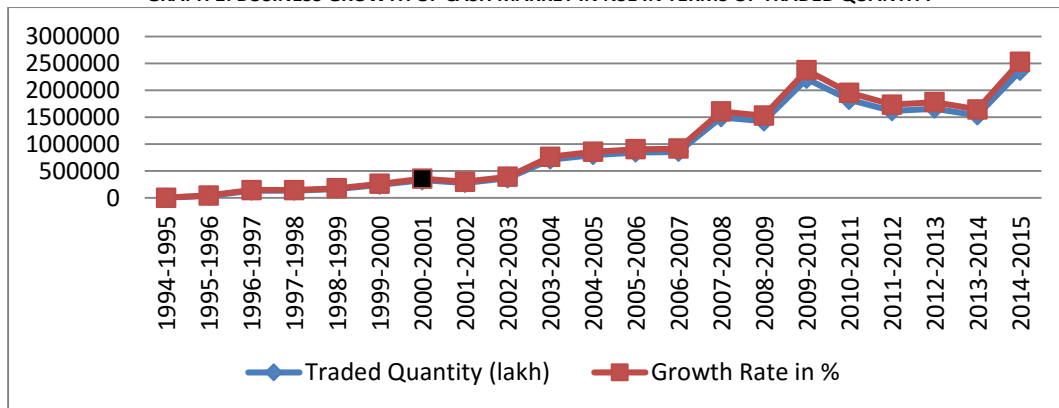
TABLE 6: CORRELATION BETWEEN THE TURNOVERS OF CASH AND DERIVATIVES SEGMENT IN NSE

Year	Cash Segment		Derivatives Segment		Correlation
	Turnover in ₹ Cr	Growth rate %	Turnover in ₹ Cr	Growth rate %	
2000-01	13,39,510	100	2365	100	-
2001-02	5,13,167	38	1,01,926.00	4,310	-1
2002-03	6,17,989	46	4,39,862.00	18,599	-0.585633357
2003-04	10,99,535	82	21,30,610.00	90,089	0.24191104
2004-05	11,40,071	85	25,46,982.00	1,07,695	0.380980117
2005-06	15,69,556	117	48,24,174.00	2,03,982	0.683056938
2006-07	19,45,285	145	73,56,242.00	3,11,046	0.840881871
2007-08	35,51,038	265	1,30,90,477.75	5,53,509	0.952616219
2008-09	27,52,023	205	1,10,10,482.20	4,65,560	0.960142999
2009-10	41,38,024	309	1,76,63,664.57	7,46,878	0.977041469
2010-11	35,77,412	267	2,92,48,221.09	12,36,711	0.882257389
2011-12	22,10,602	165	3,13,49,731.74	13,25,570	0.725245593
2012-13	27,08,279	202	3,15,33,003.96	13,33,319	0.700705569
2013-14	28,08,488	210	3,82,11,408.00	16,15,704	0.676771735
2014-15	43,29,655	323	5,56,06,453.00	23,51,224	0.753941803

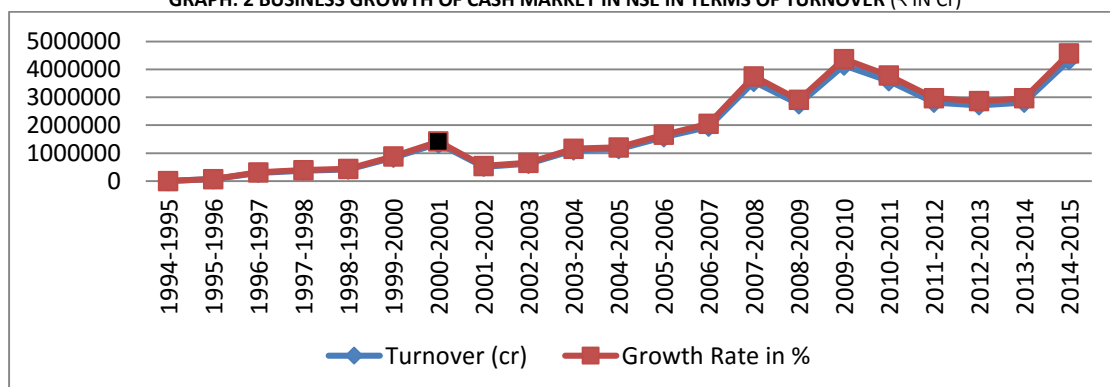
Source: Calculated from NSE India data

Table-6 presents the correlation between the cash and derivatives segment in NSE after introduction of derivatives in absolute terms and in percentage terms over the previous year. From the calculations presented in the Table-6, it is observed that there is high degree of positive correlation between cash and derivatives segments. A high degree of positive correlation after the initial four year of introduction of derivatives indicates that both cash and derivative segments are affected by the same factors and the population of investors is the same for these two segments. From this analysis it is evident that introduction of derivatives has a positive impact on the trading activity in the cash segment. The results are presented in the Graph-4.

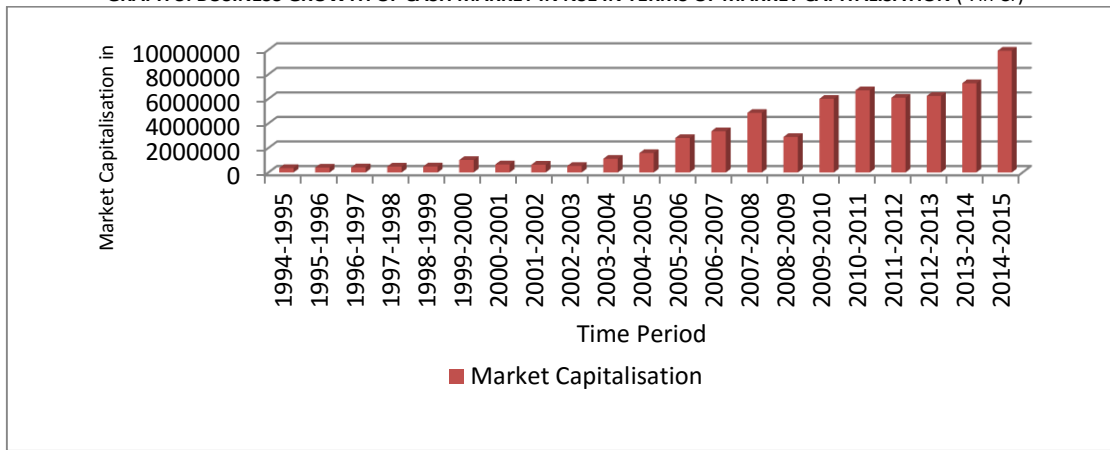
GRAPH 1: BUSINESS GROWTH OF CASH MARKET IN NSE IN TERMS OF TRADED QUANTITY



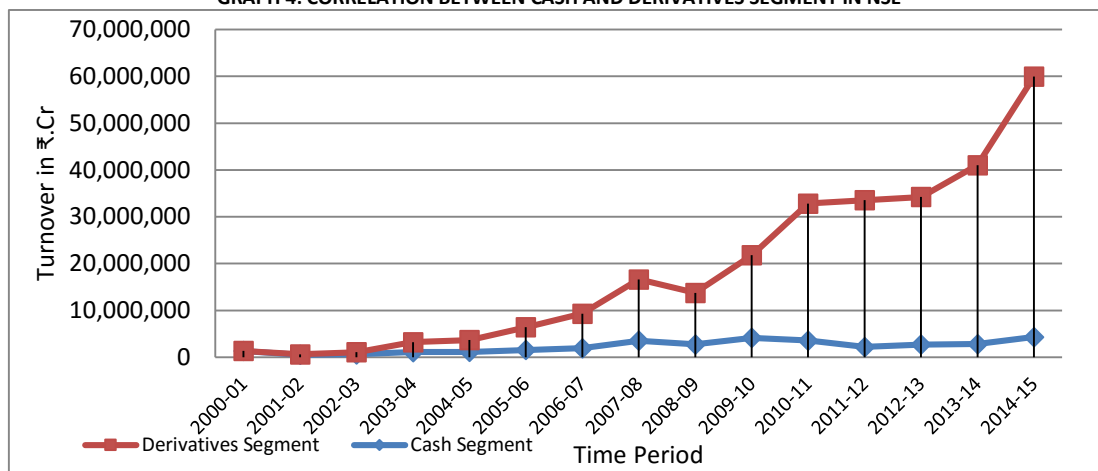
GRAPH: 2 BUSINESS GROWTH OF CASH MARKET IN NSE IN TERMS OF TURNOVER (₹ IN Cr)



GRAPH 3: BUSINESS GROWTH OF CASH MARKET IN NSE IN TERMS OF MARKET CAPITALISATION (₹ in Cr)



GRAPH 4: CORRELATION BETWEEN CASH AND DERIVATIVES SEGMENT IN NSE



THE MAJOR FINDINGS

To test the impact of financial derivatives on underlying cash market, study uses Least Squares, Correlation and Annual growth rate methods. It is observed that actual turnover of cash market has been declined around 60 per cent less than the expected turnover as for the trend line in the year 2001-2002 when the derivative trading was launched. Thus, in the initial years of the introduction of derivative instruments a negative effect was observed on the quantum of trade in cash segment. But from the year 2007-2008 to 2010-2011 and 2014-2015 actual turnovers in cash segment has overtaken the expected turnover. This indicates the positive impact of derivatives on the cash segment apart from other economic factors. The Turnover of cash segment also declined in the initial years after derivatives introduced. This decline cannot be totally attributed to introduction of derivatives. The later years were witnessed that the turnover was uptrend. Thus, the introduction of derivatives strengthened the operations in cash segment by infusing more confidence in the minds of investors. The growth rate of market capitalisation has been registered a peak per cent of 2632.94 over the base year by the year 2014-15. The overall market capitalisation trend of cash segment in the present study is in uptrend, thus, it clearly depicts that introduction of derivatives have increased the confidence in the minds of investors on cash market. There is a high degree of positive correlation between cash and derivatives segments. A high degree of positive correlation after the initial four year of introduction of derivatives indicates that both cash and derivative segments are affected by the same factors and the population of investors is the same for these two segments. From this analysis it is evident that introduction of derivatives has a positive impact on the trading activity in the cash segment.

CONCLUSION

On the basis of above discussion and data analysis, it is clear that the Financial Derivatives are influencing the cash market movement to a greater extent. Further it is evident that the turnover of cash market has increased and stabilised. The overall market capitalisation trend of cash segment in the present study is in uptrend, thus, it clearly depicts that introduction of derivatives have increased the confidence in the minds of investors on cash market. There is a high degree of positive correlation between cash and derivatives segments. A high degree of positive correlation after the initial four year of introduction of derivatives indicates that both cash and derivative segments are affected by the same factors and the population of investors is the same for these two segments.

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A STUDY ON EMPLOYEE WELFARE FACILITIES AND ITS IMPACT ON EMPLOYEES SATISFACTION WITH REFERENCE TO INDIAN CEMENT INDUSTRY AT SATNA DISTRICT

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ABSTRACT

The cement sector notably plays a critical role in the economic growth and is a vital part of its economy, providing employment to more than in million people directly or indirectly of the country and its journey towards conclusive growth. The cement industry is the backbone of Indian infrastructure. It is vital to the construction sector and all infrastructural projects. The construction sector alone constitutes 7 percent of the country's GDP. Employees are the greatest assets of any organization. So, the organization have to take much care in the areas of welfare facilities and the safety, provisions of the organizations. When these provisions are taken care the health of the employees are maintained i.e., both physical and psychological aspects are given importance. Labour/employee welfare has an important, positive and dynamic part to play in the industrial economy in the country. Employee welfare is a comprehensive concept concerned with the development of the total human personality embracing physical, mental, social psychological and spiritual aspects of the employee well being. The provision for suitable employee welfare facilities designed to meet the needs of employees can help them to settle down more easily in their new working and living environment. A proper organization and administration of welfare facilities can play vital role in promoting better working conditions and living standard for industrial workers and also enhancing their productivity and morale. Employee welfare is, thus one of the major determinants of industrial relations. Apart from improved morale and loyalty welfare facilities are of significance to reduce absenteeism and labour turnover in industries. Employee welfare facilities/schemes also serve to enhance an organization's image as a caring employer. This image can be very useful to organizations in recruiting employees. Social advantage of employee welfare is by no means less important than economics ones. In the present study, an attempt has been made to study the employee welfare facilities and its impact on employees satisfaction in two units of Maihar cement industry of different department at Satna district. For the purpose of this study, multi stage sampling method was adopted to carry out the study by the researcher. The study has shown that the employees are satisfied with all the welfare facilities prevailing in the company.

KEYWORDS

employee welfare facilities, employees satisfaction, Indian cement industry, industrial workers, labour, satisfaction level.

INTRODUCTION

The cement industry of India is the second largest producer in the world. India has a lot of potential for development in the infrastructure and construction sector and the cement sector is expected to largely benefit from it. The demand and supply of cement in India has grown up in a fast developing economy. There is always large possibility of expansion of cement industries. Some of the recent major government initiatives such as development of 100 smart cities are expected to provide a major boost the cement sector. This would create a good demand for cement in coming years creating more opportunities for consumption of products of this sector and human resource would be the corner stone for the sustainable growth of the companies though satisfying goals and objectives.

The cement sector is in size, nature of work, nature of an organization, their activities it undertakes and the environment in which it operates is entirely different as compared with any other sectors. So, employee welfare is an important fact of industrial relations. This give satisfaction to the employees and ensures that the welfare facilities help to motivate and retained them. It increased the efficiency of workers/employees and raised their morale to minimize social evils like alcoholism, gambling, drug addiction etc. Also, the welfare facilities encourage the employees happy, cheerful and confident with commitment to raise the productivity and profitability of the organization.

Employee welfare is one of the major determinants of industrial relations. The development of community and society depends only on the development of labours. The importance of employee welfare work is beyond the stage of debate and is recognized as an integral part of industrial tradition in all industrially advanced countries.

Employee welfare is a vital part of business organization and management now-a-days attaches more important to human angle. It increases the productivity as well as productive efficiency of the workers and induces in them a new spirit of self-realization and consciousness. The labour welfare scheme may be regarded as a wise investment.

Employee welfare occupies a significant place in the industrial progress and economy development. It is an extra dimension giving satisfaction to the employees/workers in a way which even a good wage or salary cannot with the growth of industrialization and mechanization, it has acquired added importance. A happy and contented work force is an asset for the industrial prosperity of any nation.

Employee welfare, though it has been proved to contribute to efficiency in production is expensive. Each employer depending on his priorities gives varying degrees of importance to Labour welfare. It is because the government is not sure that all employees are progressive minded will and provide basic welfare measures that it introduces statutory legislation from time to time to bring about some measure of uniformity in the basic amenities available to industrial workers. Obviously, there is some creation and stimulation in the maintenance function just as there is some maintenance in all other operative personnel functions. But the primary emphasis in employee service programme has been on maintaining an employee's favourable attitude towards his work and work environment.

Thus, the employee welfare is assigned a pioneering role in building up an abiding mutual faith between the management and employees and in establishing proper industrial relation firmly based on peace, discipline and devotion to the industry. Therefore, a capitalist (employer) and labour/workers are two wheels for an industry to run, wage and welfare are two wheels on which the employee performance and morale rolls.

TERMINOLOGY

The terms "Labour welfare", "Employee welfare", and "Workers welfare", are used interchangeable to denote various services provided by the employers to the employee in addition to salary.

LITERATURE REVIEW

The main purpose is to provide a brief survey of the available literature related to the issues under study.

Srivastava, S.K. (2002), studied the impact of labour welfare on job satisfaction in public and private sector in Kanpur city results indicate that welfare activities after the worker's attitude towards management and job satisfaction in both the sectors. If labourers are satisfied their attitude are also pro and positive attitudes pays a great role in the development of an organization.

Jacob, K.K. (2002), study examines industrial relation in public sector in Kerala that attention has been paid on exploring the nature and extent of industrial disputes, settlement machinery, working conditions and welfare facilities. He concluded that low wages and bonus, poor working conditions and welfare facilities are the most important factor responsible for industrial disputes.

Joseph, et al (2009), studied in the article points out that the structure of a welfare state rests on its social security fabric. Government, employers and trade unions have done a lot to promote the betterment of worker's conditions.

Mishra, Shobha & Bhagat, Manju (2010), in their "Principles for successful implementation of Labour welfare activities." Stated that Labour absenteeism in Indian industries can be reduced to a great extent by provision of good housing, health and family care, canteen, educational and training facilities and provision of welfare activities.

Krishnan Shivarama G. (2010), in his article on "A study on Labour welfare measures and job satisfaction of employees in Automobile Retail Industries in Coimbatore" revealed the working conditions/ambience, salary, motivation, interpersonal relationship, infrastructure, job security were the major factors that improve job satisfaction and senior officer involvement in problem solving can improve job satisfaction, Quality of work life and work environment.

Ashifa, J.M. & Bany, Vijay, C. (2011), in the article on "A study on Labour welfare measure in public sector transport corporation" this study throw light on welfare measures followed in public sector transport corporation. The study analyses the various dimensions of labour welfare measures that are perceived to the perception and level of Satisfaction of the labours regarding the various welfare measures and the methods to improve the welfare Schemes in public Sector Transport corporation.

Sindhu (2012), stated that employee welfare measures increase the productivity of organization and promote healthy industrial relation there by maintaining industrial peace. Organizations provide welfare facilities to their employees to keep their motivation level high. Business houses provide many such statutory and non-statutory things policies to maintain satisfactory level of their employee.

Pradeep, S. and Krishnan, Sivarama G. (2012), Studied the motivation of employees in plastic industries and identified that notification of the employees could be more improved with such non-monetary measures like good relationship with superior and Subordinates effective implementation of given procedures, Support of supervisory staff of workers and the like besides monetary incentives.

Resma and Basavaraju (2013), stated that the employee welfare is a comprehensive term including various services, benefits and facilities offered to employees of the organization. This study enlightens the concept of welfare measures, it also highlights the employee's perception regarding the various statutory welfare measures provided by the Dolomite Iron ore mine, Bellary.

Nanda and panda (2014), stated that the Rourkela steel plant has adopted a better kind of welfare schemes like medical allowance; death relief fund, insurance, housing and transportation facilities, recreation club etc. are provided by the company to the employees to maintain the industrial relation better one. The premises and the departments are maintained healthy. Also proper safety measures have been adopted in the organization. All matters relating to safety, health and welfare of employees are property implemented.

SIGNIFICANCE AND PURPOSE OF EMPLOYEE WELFARE FACILITIES

The welfare is an important fact, in the process of establishing decent industrial relations in any civilized society. The employees/workers in industry cannot cope himself with the pace of the present day modern life without enjoying minimum amenities. As such, it is essential for the employer to provide appropriate amenities to the workers to improve his living conditions. Needless to say, the welfare facilities provided by the employer are proved to be enhancing the efficiency of workers in production and productivity, by reducing the wastage in the utilization of resources.

Thus, the significance of employees welfare facilities is to reduce the displeasure, absenteeism, labour turnover, labour disputes and grievances among the workers. They lead to create mutual co-operation and job satisfaction among workers and management, providing welfare facilities and amenities by the employer to the workers is to make their work life better, better health and also raise their standard of living and high morale.

Employee welfare work, thus, serve the following purposes:

- Enable workers to have a richer and more satisfying life;
- Raises the standard of living of the workers by indirectly reducing the burden on their pocket. Welfare measures will improve the physical and psychological health of employees, which in turn, will enhance their efficiency and productivity;
- Absorbs the shocks injected by industrialization and urbanization on workers;
- Promote a sense of belonging among workers, preventing them from resorting to unhealthy practices like absenteeism, labour turnover, strike etc.;
- Welfare work makes the service in mills/industry more attractive to workers. It improves the relations between employers and employees;
- Welfare measure promotes a real changes of heart and a change of outlook on the part of both the employers and employees;
- Prevents social evils like drinking, gambling, prostitution, etc. by improving the material, social and cultural conditions of work. Congenial environment as a result of welfare measures will act as a deterrent against such social evils.

Hence, the significance and purpose of employee welfare facilities is to create efficient, healthy, loyal and satisfied labour force for the organization and also for the country. In the industries, the industrial workers get the various benefits of welfare facilities, so the purpose of the employee should provide them better health and life and also to make them happy and efficient. The other equally important purpose of welfare includes such activities as private advice on any type of personal problem, assistance with problems of health or sickness, special responsibilities for young people and elderly and retired staff and the provision of sports and social facilities.

MEANING AND CONCEPT OF EMPLOYEE WELFARE**MEANING**

The term 'welfare' is derived from the French phrase "welfare" which means to fare well. The chambers dictionary defines the term "welfare" as a state characterized by happiness, well being or prosperity". Well-doing or well being in any respect is the enjoyment of health and the common blessings of life, exemption from any evil of calamity, prosperity happiness.

Employee welfare is nothing but the maintenance function of personnel in the sense that it is directed especially to the preservation of employee health and attitudes. In other words, it contributes to the maintenance of employee morale. The welfare services in an industry is improve the living and working conditions of workers and families because the workers well-being cannot be achieved in isolation of his family (The committee on Labour welfare, 1969). According to Arthur James Todd (1933, P-250). "Labour welfare means anything done for the comfort and improvement, intellectual or social, of the employees over and above the wages paid which is not a necessity of the industry."

CONCEPT

Labour welfare is a dynamic concept as new welfare measures are added to the existing ones along with social changes. It is also a comprehensive concept including various services, benefits and facilities offered to employees by the employers. Through such generous fringe benefits the employee makes the employee makes life worth living for employees the employee makes life worth, living for employees. Labour welfare work is work for improving the health, safety and general well being and the industrial efficiency of the workers beyond and minimum standard laid down by labour legislation (Dr. Parandikar).

The word 'labour' means any productive activity. In a broader sense, therefore, the physical, social, psychological and general well being of the working population. The term 'welfare' refers to a state of living of an individual or a group in a desirable relationship with total environment-ecological, economic and social. Thus, Labour welfare is an extension of the term welfare and its application to labour.

The modern concept of Labour welfare entails all those activities of the employers which are directed towards providing the employees with certain facilities and services in addition to wages or salaries (Chopra, K. Rakesh, 1989). Welfare includes anything that is done for the comfort and improve of employees and is provided over and above wages. Welfare helps in keeping the morale and motivation of the employees high so as to retain the employees longer duration. The welfare measures need not be in monetary terms only but in any kinds/forms. Employee welfare includes monitoring of working conditions, creation of industrial harmony through infrastructure for health, industrial relations and insurance against disease accident and unemployment for the workers and their families.

The concept of Labour welfare however is flexible, elastic and differs from time to time, region to region, industry to industry and country to country depending upon the value system, level of education, social customs, degree of industrialization and the general standard of the socio-economic development of people. It originated in the desire for a humanitarian approach to the suffering of the working class. Later, it became a utilization philosophy which worked as a motivating force for labour and for those who were interested in.

The concept of labour welfare has received inspiration from the concepts of democracy and welfare state. Democracy does not simply denote a form of government, it is rather a way of life based on certain values such as equal rights and privileges for all. The operation of welfare services on actual practice brings to bear on it different reflections representing the broad cultural and social conditions.

In short, Labour welfare is the voluntary efforts of the employers to establish within the existing industrial system, working and sometimes living and cultural conditions of the employees beyond what is required by law, the custom of the industry and the conditions of the market (Todd, A.J., 1933). Hence, Labour welfare is a comprehensive concept concerned with the development of the total human personality embracing physical, mental, social, psychological and spiritual aspects of the employee well being. The employers should more emphasized and focused on these rather than enhancing productivity and efficiency of the employees.

NEED OF LABOUR WELFARE MEASURES/FACILITIES

The need for the Labour welfare arises from the very nature of the industrial system, which is characterized by two basic factors:

One, the conditions under which work is carried on are not congenial for health and second, when a labour joins an industry, he has to work in an entirely strange atmosphere, which create problems of adjustments, (Kudchelkar, L.S.1979, P.10) call these factor "the long arm of the job" and "the social invasion of the factory." The approach to this problem or movement differs from country to country according to the degree of development in a particular country. However, the need for labour welfare in some way or the other is realized all over the world because of the socio-economic conditions and problems which the industrial society has thrown up.

It is note worthy that working environment in industries is such as adversely affect the employee's health because of the excessive heat of cold, dust, fumes, noise odours, and lack of inadequate of sanitation and pure air etc. All these lead to occupational hazards. These have therefore to be held in check by providing ameliorative services, Protective devices and compensatory benefits following of accidents or injury or disablement.

FEATURE OF WELFARE MEASURES

- It includes various facilities, services and amenities provided to employees for improving their health, efficiency, economic betterment and social status;
- Welfare measures are in additions to regular wages and other economic benefits available to workers due to legal provisions and collective bargaining;
- Labour welfare measures are flexible and ever changing. New welfare measures are added to the existing ones from time to time.
- Welfare measures may be introduced by the employers, government, employees or by any social or charitable agency; and
- The purpose of labour welfare is to bring about the development of the whole personality of the worker to make him a good worker and a good citizen.

DEFINITIONS

Labour welfare has been defined in various ways, though unfortunately no single definition has found universal acceptance.

- The Oxford dictionary defines labour welfare as "efforts to make life worth living of Worker."
- Another definition implies that welfare is fundamentally an attitude of mind on the part of management influencing the method by which management activities are undertaken (Hopkins, R.R, 1955). This definition emphasis obviously on the "Attitude of mind."
- In a resolution in 1947, the ILO defined Labour welfare as "Such services, facilities and amenities as adequate canteens, rest and recreation facilities, arrangements for travel to and from work and for the accommodation of workers employed at a distance from their houses and such other services amenities and facilities as contribute to improve the conditions under which workers are employed. (ILO, the Report of the committee on Labour welfare, P.8).
- The Encyclopedia of social sciences had defined labour welfare work as: "The voluntary efforts of the employers to establish within the existing industrial system, working and sometimes living and cultural conditions of the employees beyond what is required by law, the custom of the country and the conditions of the market (Todd, AJ 1933).
- The Labour Investigation committee was of the view to include under 'Labour welfare': "Any thing done for the intellectual, physical moral and economic betterment of the workers, whether by employers by government or other agencies over and above what is laid down by law or what is normally expected of the contractual benefits for which workers may have bargained."
- ILO Report refers to labour welfare as "such services facilities and amenities as may be established in or in the vicinity of undertakings to enable the persons employed in them to perform their work in healthy, congenial surroundings and provided with amenities conducive to good health and high morale."

CONSTITUENTS/ELEMENTS OF LABOUR WELFARE

The constituents of labour welfare included working hours, working conditions, safety, industrial health insurance, workmen's compensation, provident funds, gratuity, pensions, protection against indebtedness, industrial housing, rest rooms, canteens, crèches, washing places, toilet/sanitary facilities, lunches, cinemas, theatres, music reading rooms, holiday rooms, worker's education, co-operative stores, excursions, playgrounds, scholarship and other help for education of employee's children.

CLASSIFICATION OF LABOUR WELFARE WORK

The classification of labour welfare is based on dividing industrial welfare measures into three categories:

1. Statutory
 2. Voluntary
 3. Mutual
- **Statutory welfare-** It is the product of the coercive power of the government statutory stipulations compel employers to implement welfare schemes. The government enacts rules in regard to labour welfare in order to enforce the minimum standard of health and safety of the workers. Employers have to observe the rules relating to working conditions, hours of work, hygiene, safety light, ventilation, sanitation etc. Government have increased the statutory control of labour welfare.
 - **Voluntary welfare-** It includes all those activities which employers undertake for their workers on a voluntary basis. There are some social organizations, which also undertake voluntary welfare work.
 - **Mutual welfare-** It is undertaken by the workers themselves. Some trade unions also undertake the responsibility of workers welfare.

Labour welfare is also classified under intra-mural activities and extra-mural activities. The former includes services provided inside the factory premises and the latter includes services and amenities outside the factory.

Intramural and extramural welfare activities has shown in the box.

INTRAMURAL AND EXTRAMURAL WELFARE ACTIVITIES

Intramural	Extramural
• Drinking water	• Housing
• Toilets	• Education facilities
• Creches	• Maternity benefits
• Washing and bathing facilities	• Transportation
• Rest shelters	• Sports facilities
• Uniforms and protecting clothing	• Leave travel
• Recreation facilities	• Vocational training
• Canteens	• Holiday homes
• Subsidized food	• Co-operative stores
• Medical aid	• Fair price shops
	• Social insurance

Source: ILO Publication

BENEFITS OF WELFARE SERVICES

The important benefits of welfare services are given below:

- Welfare facilities provide better physical and mental health to the workers and make them happy;
- Such service facilities like housing scheme, medical benefits, education and recreation facilities for the worker's families help create contented worker's families. This will help them to devote mind towards their work. The gain in terms of productivity and quality of work will be large indeed;
- Employees services serve to maintain some degree of peace with the employee's union in as much as these constitute a considerable part of the bargaining package. The harmony and the good relations that result are the kingpin of higher productivity;
- Employers get stable labour force due to the provision of welfare facilities. Workers take active interest in their jobs and work with a feeling of involvement and satisfaction. they also find their work interesting;
- Employers serve the benefits of high efficiency, cordial industrial relations and low labour absenteeism and turnover;
- Labour welfare measures raise labour productivity and being industrial peace and cordial labour-management relations;
- An employer is able to attract talented workers from the labour market by providing attractive welfare facilities;
- The social evils prevalent in the labour-force such as gambling, drinking etc. are reduced. Welfare activities bring improvement in the health of the workers and keep them cheerful though entertainment facilities;
- Imbibing in the employees a sense of commitment and loyalty towards their organization;
- Improvement in the employees health and morality by motivating them to be away from alcoholism, gambling, prostitution, criminal activities in slums and so on;
- Improvement in the motivation and morale of workers which in turn create a sense of responsibility, sense of belongingness, self-confidence and self-respect in them;
- Promotional and social advantage through higher industrial efficiency, harmony and industrial democracy with a satisfied family life, higher standard of living and good status in the society;
- Motivating employees to remain with the organization as its dependable permanent workforce by reducing labour turnover and absenteeism with enhanced interest in the job;
- Improvement in the workers capacity and efficiency thus leads to higher productivity and reduced wastage and inefficiency in their part; and
- Promotion of sound industrial relation by creating a feeling among employees that they are in no way ignored by the management, so as to increase their co-operation and reduce unrest and conflict which ultimately establish industrial harmony and peace.

STATEMENT OF THE PROBLEM

In cement industry, the employees are easily liable to suffer from an accidents and health hazards. Due to the heavy dust inhalation in the manufacturing process the employees are victim of lungs diseases.

The employees efficiency and productivity will depend on the working environment as well as comfortable work place. The working environment in a industry/mines adversely affects the worker's health due to excessive heat or cold, noise, odours, frames, dust and lack of sanitation and pure air etc. which leads to occupational hazards. Therefore, the employees has to safe guard by providing welfare measures, safety training and equipments and performance appraisal measures to improve the worker's efficiency and productivity which results in their commitment and increase loyalty. Welfare measures are the key components in the success of any organization.

OBJECTIVES OF THE STUDY

The following are the major objective of the study in Maihar Cement industry-

- To understand the various labour welfare measures available in the organization;
- Assessing the labour welfare measures prevailing in the organization;
- To find out the satisfaction levels of employees about labour welfare measures provided by the organization;
- Providing suggestions to improve the standard of employees welfare measures in the organization.

SCOPE OF THE STUDY

The study has been undertaken in the two units of Maihar cement industry covering almost all the departments at Satna district of Madhya Pradesh. It is oldest plant and diversified in various activities. This study concentrates on the Maihar cement industry only. The justification are based on the significant contribution made by this company to the nation's economy in terms of gross domestic products and employment as compared to other organization in Satna district of Madhya Pradesh.

The scope of the study is limited to employee's perceptions, attitudes and sentiments to employees welfare facilities which the company is following within the organization such as employee's awareness and employees satisfaction. The scope of labour welfare can be understood by considering both statutory and voluntary welfare measures undertaken by the employers. Therefore, the scope can not be limited to facilities within or outside the undertaking in cement industry at Satna district.

The scope of labour welfare, however can not be limited to facilities within or near the undertaking nor can it be so comprehensive as embrace the whole range of social welfare or social services." It follows therefore; that all extra-mural and intra-mural welfare undertaken by employers, the government trade unions or

voluntary organization fall within the scope of labour welfare. It brings under its purview all welfare activities and amenities related to canteen, rest and recreation facilities, medical assistance, better health, nutrition and sanitation, travel to and from work, education, housing, holiday facilities and so on. It can also include social security measures which contribute to worker's welfare such as industrial health insurance, provident fund, gratuity, maternity benefits, workmen's compensation, pensions, retirement benefits etc., which are the species of the larger family encompassed by the term "labour welfare" (Pearson, H.S. P-396)

BRIEF PROFILE OF MAIHAR CEMENT LIMITED

Maihar cement is a division of century textiles and industries Limited, a flagship company of B.K. Birla Group. The company is well diversified having interest in cement textiles, rayon, chemicals, pulp and paper. The Maihar cement was established in the year 1980 is located at Satna district and the other Maihar cement Unit No.-2 was established in the year 1995 adjacent to Maihar cement Unit No. -1 having a combined production capacity of 4.20 million tones per annum. The company sells its cement under its premium brand name BIRLA GOLD. Maihar cement is pioneer in producing blended cement i.e. Portland pozzolana cement. The motivation for the production of blended cement has been primarily with the aim of preserving limestone reserves and environment.

MISSION

- To manufacture world-class products of outstanding quality that give our customers a competitive advantage though superior products and value, so we can make every customer smile;
- To encourage people's ownership, empowerment and working under team structure.
- To attain highest level of efficiency, integrity and honesty.

VISION

To manufacture products comparable to international standards to be customer focused and globally competitive though better quality, latest technology and continuous innovation.

VALUES

- Customer's satisfaction and delight.
- Superior quality of performance.
- Concern for the environment and the community.
- Passionate about excellence.
- Fair to all.
- To provide a safe workplace and promote healthy work habits.

RESEARCH METHODOLOGY

This study covers both primary and secondary data. In this connection, 150 employees from the two units of Maihar Cement industry were selected covering almost all the departments out of 300 employees. Primary data was collected by distributing structured questionnaire consists of closed ended questions (i.e. 25 items) using 5 point scale rating from 5 (strongly satisfied) to 1 (strongly dissatisfied). The secondary data have been collected through published sources such as text books, periodicals or magazines, industry association reports & records, articles, Journals, websites, dissertation, unpublished thesis and thesis pertaining to the relevant matter of the subject under study have been surveyed.

RESEARCH DESIGN

The research is descriptive and analytical based on empirical observations and comprehensive survey.

SAMPLE DESIGN

Population: The research was conducted in the geographic regions of Satna district and the researcher was conducted among cement industry at Maihar in Satna district of Madhya Pradesh.

SAMPLING TECHNIQUE

The sample of 150 employees (non-managerial) who are below the management levels of the two units of Maihar cement industry of different departments in Satna district. Multi-stage sampling probability method was used.

RESEARCH INSTRUMENT AND DATA COLLECTION METHODS

The structured questionnaire has been designed and administered to the respondents for collecting primary data by interview method and questionnaire method. The primary data has been directly obtained from the employees and the secondary data indirectly from various sources. The data was collected by the opinion survey method.

ANALYSIS TOOLS

The statistical tools used in the study for the purpose of analysis was simple percentage, ANOVA analysis, correlation and multiple regression.

HYPOTHESIS

Ho: Provision of employee welfare facilities is not positively related to better employee satisfaction.

H1 : Provision of employee welfare facilities is positively related to better employee satisfaction.

DATA ANALYSIS AND RESULT

To conduct analysis the employees welfare facilities and its impact on employees satisfaction at Satna district in Maihar cement industry, the questionnaire was distributed to the employees. The scoring was analysed on five point scale and score was simplified in percentage as per the formula of Rao (1991) i.e.,

Percentage score = (mean score-1) x 25

Five point scale grading were strongly satisfied, satisfied, more than average, average and strongly dissatisfied. The Table 1 and Table 2 shows the item wise mean score and percentage score of 25 items obtained in the study of employees welfare facilities and its impact on employees satisfaction in Maihar cement industry at Satna district. The study of employees welfare facilities and its impact on employees satisfaction in Maihar cement industry at Satna district was satisfied. The average mean score and percentage score of the overall of 25 items has been computed at 3.96 and 74%.

The most important factor contributing strongly satisfied are:(i) Every department has its own clean drinking water facilities (Item No.1); (ii) Employees in the organization enjoy the canteen facilities (item No. 2); (iii) The company provides facilities for children education (item No. 3); (iv) The company provide leave travel concession to you and your family (item No. 5); (v) Necessary measures to taken to prevent the accident (item No. 10); (vi) The company provides transport facilities (item No. 13); (vii)Satisfied with proper ventilation and lighting provided by the company at work place (item No. 15); (viii) Satisfied with sports club and library (item No. 16); (ix) The company have taken insurance coverage against accident on work place (item No. 22); and (x) Primary health care facilities is given to employees (item No. 23).

other important factor resulting satisfied are:

- The company provides housing facilities to their employees (item No. 6)
- The company provides health care facilities (item No. 7)
- The company provides the canteen food at subsidized rate (item No. 12)
- There is a special provision of provident fund and gratuity (item No. 17)
- Satisfied with the settlement of retirement benefits (item No. 18)
- Satisfied with payment, bonus, allowances etc. (item No. 20)
- There is clean sanitary provided by the company (item No. 21)
- Whether the canteen food is hygienic (item No. 24)

The factor resulting more than average score are:

- (i) The company provides uniform and shoes (item No. 4)
- (ii) Satisfied with recreational facilities (item No. 9)
- (iii) The company always welcomes suggestion on the welfare activities (item No. 11)
- (iv) The company provide housing and education loans (item No. 14)
- (v) There is a special medical aid (item No. 19)
- (vi) The company provides separate rest and lunch rooms (item No. 8)
- (vii) Voluntary benefits provided by company (item No. 25)

Table-1 shows item wise mean score, percentage score and responses of employees welfare facilities and its impact on employees satisfaction in Maihar cement industry at Satna district and Table-2 shows categories wise items of employees welfare schemes and its impact on employees satisfaction in Maihar cement industry at Satna district.

TABLE 1: ITEM WISE MEAN SCORE, PERCENTAGE SCORE & RESPONSES OF EMPLOYEE’S WELFARE FACILITIES AND ITS IMPACT ON EMPLOYEE’S SATISFACTION

S. No.	Statements	Mean Score	% Score	Responses
1.	Every department has own clean drinking water facilities.	4.25	81.25	SS
2.	Employees in the organization enjoy the canteen facilities.	4.22	80.5	SS
3.	The company provides facilities for children education.	4.21	80.25	SS
4.	The company provides uniform and shoes	3.46	61.50	MA
5.	The company provides leave travel concession to you and you family	4.28	82	SS
6.	The company provides housing facilities	3.95	73.75	S
7.	The company provides health care facilities	3.98	74.50	S
8.	The company provides separate rest and lunch rooms	3.51	62.75	MA
9.	Satisfied with recreational facilities	3.48	62	MA
10.	Necessary measures to taken to prevent the accident	4.31	82.75	SS
11.	The company always welcomes the suggestion on the welfare facilities	3.50	62.5	MA
12.	The company provides the canteen food at subsidized rate	4.12	78	S
13.	The company provides transport facilities	4.33	63.5	SS
14.	The company provides housing & educational loans	3.54	63.5	MA
15.	Satisfied with proper ventilation and lighting provided by the company at work place	4.38	84.5	SS
16.	Satisfied with sports club and library	4.42	85.5	SS
17.	There is a provision of provident fund and gratuity	3.88	72	S
18.	Satisfied with the settlement of retirement benefits.	4.07	76.75	S
19.	There is special medical aid	3.49	62.25	MA
20.	Satisfied with payment, bonus, allowances etc.	3.82	70.5	S
21.	There is clean sanitary provided by the company	3.80	70	S
22.	The company have taken insurance coverage against accidents on work place	4.38	84.5	SS
23.	Primary health care facilities is given to employees	4.36	84	SS
24.	Whether the canteen food is hygienic	3.90	72.5	S
25.	Voluntary benefits provided by company	3.57	64.25	MA

Source : Primary Data.

Note: Strongly satisfied (SS) Satisfied (S), More than average (MA), Average (A), Strongly dissatisfied (SD)

TABLE 2: CATEGORIES WISE ITEMS OF EMPLOYEE WELFARE FACILITIES AND ITS IMPACT ON EMPLOYEES SATISFACTION

S. No.	Statement	Percentage	Item No.	Total No. of Items
1.	Strongly satisfied	80 and above	1,2,3,5,10,13,15,16,22,23	10
2.	Satisfied	70 and above	6,7,12,17,18,20,21,24	08
3.	More than Average	60 and above	4,8,9,11,14,19,25	07
4.	Average	50 and above	Nil	Nil
5.	Strongly Dissatisfied	Less than 40	Nil	Nil

Source: Primary data.

The hypothesis of the study have provided the basis for analyzing data in a meaningful manner. To test the hypothesis, total score was calculated for each employees welfare facilities variables. Many statistical methods, in particular, the parametic on presumes a (at least, approximate) normal distribution of the variables. That is, for the purpose of using parametic statistics (e.g. Karl Pearson Correlation, ANOVA) and Regression analysis, normal distribution of variables is need in this study.

Multiple regression analysis was used to assess the relationship between one dependent variable and several independent variables. Multiple regression analysis has been done for testing hypothesis with ‘Enter method’ in this study. The adjusted R square give more accurate information about the fitness of the model, share of variation in the dependent variable explained by the variation in the independent variables. In this study, the adjusted R square, F-value and t-values from the SPSS output have been used to interpret the results of regression analysis.

Finally the results of the study was analyzed on the basis of descriptive statistics, correlation and multiple regression analysis. Regression analysis is a statistic technique used to investigate the relationship between a dependent variable and one or more independent variable. Regression analysis is used to check the strength of relationship among variables. In regression analysis, t-test is used to find the level of significant and R square test is used. R square test tells that how much dependent is affected by the independent variables. At the last, the present study employed the t-test to check the overall relationship of the independent variables with dependent variable.

Table 3 demonstrates the correlation coefficient for dependent variable i.e. employee’s satisfaction and independent variable i.e. twenty five dimensions of employees welfare facilities. Pearson Correlation coefficient illustrates that there is positive relationship between most of the independent variables and employee’s satisfaction. Correlation coefficient of seventeen independent variable are significant at 1% significant level. The relationship between employees welfare facilities and employees satisfaction is positive but not significant at significance level of 1% and 5%.

TABLE 3: RESULTS OF PEARSON CORRELATION FOR DIMENSIONS OF EMPLOYEES WELFARE FACILITIES AND EMPLOYEE'S SATISFACTION

S.No.	Independent variable (dimensions of employees welfare facilities)	Dependent variable (employee satisfaction)
1	Clean drinking water facilities	0.380**
2	Enjoying canteen facilities	0.353**
3	Children education facilities	0.208**
4	Supply of uniform and shoes	0.203**
5	Leave travel concession	0.328**
6	Housing facilities	0.289**
7	Health care facilities	0.138*
8	Separate rest and lunch rooms	-0.387**
9	Recreational facilities	0.342**
10	Necessary measure to taken to prevent the accident	0.028
11	Always welcomes suggestion on the welfare activities	0.380**
12	Canteen food at subsidized rate	0.028
13	Transport facilities	0.217**
14	Housing and educational loans	0.186**
15	Proper ventilation & lighting at work place	0.247**
16	Satisfied with sports club and library	0.219**
17	Provision of provident fund and gratuity	0.377**
18	Settlement of retirement benefits	0.361**
19	Special medical aid	0.222**
20	Satisfied with payment, bonus, allowances etc.	0.198**
21	Clean sanitary	0.237**
22	Insurance coverage against accidents on work place	0.201**
23	Primary health care facilities	0.038
24	Whether the canteen food is hygienic	0.296**
25	Voluntary benefits	0.364**

** Significance at the 0.01 level (2-tailed)

* Significance at the 0.05 level (2-tailed)

In connection with hypothesis H₁, regression analysis was conducted with employee's satisfaction as the dependent variable and twenty five dimensions of employee welfare facilities as the independent variables. Results shows that the adjusted R square value in 0.240 and F value is 8.7641 that is significant at P=0.000, these numbers reveal that 24% of total variance in employee's satisfaction is explained by twenty five dimensions of employee welfare facilities (See table-4)

Clean drinking water facilities (t=3.542; p=0.00); canteen facilities (t=4.508; p=0.000); Facilities for children education (t=-2.252; p=.011); Facilities for leave travel concession (t=3.617; p=0.000); Housing facilities (t=1.760; p=0.002); Health care facilities (t=3.068; p=0.003); Necessary measures to taken to prevent the accident (t=2.563; p=0.01); Canteen food at subsidized rate (t=2.940; p=0.004); Transport facilities (t=3.344; p=0.001); Proper ventilation and lightening at work place (t=3.175; p=0.002); Sports club and library facilities (t=2.940; p=0.000); Provident fund and gratuity (t=2.563; p=0.000); Special medical aid (t=3.341; p=0.10); Satisfied with payment, bonus, allowances etc (t=3.068; p=0.000); Insurance coverage against accidents (t=2.872; p=0.01); Clean sanitary facilities (t=3.082; p=0.001) and primary and health care facilities (t=3.175; p=0.003); emerged as the most significant variable in explaining the variance in employee's satisfaction (See table-4).

Results of regression analysis support the hypothesis H₁ that provision of employee welfare facilities is positively related to better employee satisfaction. Thus, null hypothesis H₀ is rejected and its alternative H₁ that provision of employee welfare facilities is positively related to better employee satisfaction is supported by data set.

TABLE 4: REGRESSION MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.0508 ^a	.258	.240	2.8844

ANOVA^b

Model	Sum of Square	DF	Mean	F	Sig.
Regression	0.480	25	0.52		
Residual	1.276	124		8.7641	0.000 ^a
Total	1.756	149	.008		

COEFFICIENTS^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	14.474	1.600	.129	5.887	.000
Every department has own clean drinking water facilities	.415	.236	.122	3.542	.000
Employees in the organization enjoy the canteen facilities	.887	.287	.198	4.508	.000
The company provides facilities for children education	.767	.255	.248	-2.252	.001
The company provides Uniform and shoes	1.041	.312	.268	3.341	.632

COEFFICIENTS^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
The company provides leave travel concession to you and you family	.845	.257	.255	3.617	0.00
The company provides housing facilities	.817	.276	.248	1.760	0.002
The company provides health care facilities	.803	.315	.239	3.068	0.003
The company provides separate rest and lunch rooms	.617	.441	.141	1.399	.165
Satisfied with recreational facilities	.717	.421	.184	1.701	0.91
Necessary measures to taken to prevent the accident	-.274	.247	.091	2.563	.010
The company always welcomes the suggestions on the welfare facilities	.761	.399	.190	-1.907	.080
The company provides the canteen food at subsidized rate	.885	.287	.195	2.940	.004
The company provides the transport facilities	.766	.258	.259	3.344	.001
The company provides housing & educational loans	.761	.399	-.189	-1.904	.060
Satisfied with proper ventilation and lighting provided by the company at work place	1.038	.311	.267	3.175	.002
Satisfied with sports club and library	.835	.250	.255	2.940	.000
There is a provision of provident fund and gratuity	.818	.278	.246	2.563	.000
Satisfied with the settlement of retirement benefits	-.379	.456	-.093	-.825	.411
There is special medical aid	.802	.313	.238	3.341	0.010
Satisfied with payment, bonus, allowances etc.	.747	.246	.259	3.068	.000
There is a clean sanitary provided by the company	.415	.236	.129	3.082	.000
The company have taken insurance coverage against accidents on work place	.617	.316	.340	2.872	.001
Whether the canteen food is hygienic	.710	.421	.183	1.708	.091
Primary health facilities is given to employees	.862	.272	.198	3.175	0.003
Voluntary benefits provided by the company	.604	.442	.147	1.399	.164

FINDINGS AND CONCLUSION

The study of employees welfare facilities and its impact on employees satisfaction in Maihar cement industry at satna district was satisfied. The average mean score and percentage score of the overall of 25 items has been computed at 3.96 and 74. Results shows that the adjusted R square value is 0.240 and F-value is 8.7641 that is significant at P=0.000, these number reveal that 24% of total variance in employees satisfaction is explained by twenty five dimensions of employee welfare facilities. As per the study it was observed that Maihar cement industry at Satna district provided various welfare facilities to their employees and also followed the implementing rules and regulation by the state and central government.

Even today's scientific development of modern techno- production methods, higher productivity depends on employees/workers. If they are rightly directed and provided a good housing, health and family and health care, hygienic canteen facilities, education and safety training facilities etc. enables the employees to live a richer and more satisfactory life and contributes to the productivity of labour efficiency of the company, reduced high rate of labour turnover or absenteeism and helps in maintaining industrial peace. Hence steps need to be taken on a larger scale to improve the quality of life of the employees for providing better welfare facilities in the organization. Employees welfare facilities in an industrialized society has far reaching impact not only on the work-force but also all the facets of human resources. Thus, employee welfare includes all such activities which not only secures existential necessities but also ensures improvement in spiritual and emotional quotient. It comprises of short term and long-term goals towards building human society.

SUGGESTIONS

- The management should improve the quality of the food stuff which is provided in the canteen so it will improve the health of the employees/workers and put their efforts in their day to day activities;
- For the transport services, the management should also provide conveyance facilities timely to the workers, so as to enable them to attend their duties promptly;
- The management should create awareness of all the welfare measures/facilities which are existing in their company;
- The management should provide recreational facilities periodically, so that the workman will show enthusiasm in their duties;
- The management should take initiative to educate its workman, the provision of the factories act, 1948;
- A welfare fund should be constituted by the company leads a helping hand to needy employees at times of financial crisis;
- The governing committee should be constituted consisting of management as well as elected representatives of the workman;
- Apart from financial assistance for treatment of specified diseases retirement benefits, death benefits etc. the fund should be also linked with Group medical insurance through which members and their dependents can avail cashless facility/reimbursement fee impatent treatment;
- A recreation club should be working to boost the creative talents of employees and their children in the field of arts and sports;
- A community hall with a seating capacity of more than 300 should be constructed in the township;
- While making employees welfare policies, employee needs and motivation should be given due importance by the management;
- The employee welfare policies should be guided by idealistic morale and human value;
- Employers should make efforts to give workers some voice on the choice of welfare activities so long as it does not amount to dictation from workers;
- The employer should identify the employees problems and to discover what kind of help is necessary to solve it and when to provide this help are all necessary in planning labour;
- The management should required to provided good welfare facilities to all employees in such way that employees become satisfied about their jobs;
- Regular and routine check-up of medical facilities should be given to all employees for healthy, happy to boost their morale and bring little diversion from their continuous routine work and to retard stress of the employees and minimize the absenteeism and to keep the employees more immunized and fit enough;
- The employer should be more committed to promote welfare facilities as it creates more efficiency, effectiveness and high morale of employees for productivity of the company; and
- The employer should provide better working environment and safety device in the organization.

LIMITATIONS AND FUTURE RESEARCH OF THE STUDY

- The study is only limited to the Maihar cement industry at satna district because it collects data only for employees of two units of Maihar cement industry. So, the results of this study may not be valid for other cement industry in Satna district.
- The employee welfare facilities discussed in the study are very limited in numbers. These welfare facilities are taken from the research work already done by different researchers but at the same time many organization might not be familiar with these practices.

The outcome of the study may help the organization to differentiate the satisfying factors from dissatisfying one's and to take effective steps to improve the employees welfare facilities which in turn will increase the employees efficiency, morale and productivity. The results of the research although valid for the

employees considered for the study and for the type of company, the results may not be fully valid for the country overall. Therefore, it is suggested for further research and improvement.

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APPLICATION OF FIREFLY ALGORITHM FOR OPTIMIZING BEVEL GEAR DESIGN PROBLEMS IN NON LUBRICATED CONDITION

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ABSTRACT

Efficient and reliable power transmission between the intersecting shafts is necessary to meet both the lossless power transmission and to satisfy the current demand of lesser weight gears for computerized machines without lubrication. Also by considering the environmental concerns about the noise generation and pollution due to lubrication, application specific economical bevel gears should be designed. Economical design in less time by satisfying the design, manufacturing and operational constraints can be achieved by computational algorithms. In order to deal with the optimization of these conflicting constraints, that is, minimization of size and weight of the bevel gear pair without affecting the performance and safety can be achieved through meta-heuristic algorithms. This research describes a solution to this problem using a nature-inspired algorithm, called firefly algorithm. The algorithm is described along with case studies by a combined objective function. The results are compared with the traditional design values, to show that it is capable of identifying better optimal solutions with proper selection of firefly control parameters.

KEYWORDS

gear design problems, computerized machines, power transmission, economical design.

1. INTRODUCTION

Recently, Zoology inspired meta-heuristic algorithms have proved to be an efficient way to deal with many NP-hard combinatorial and non-linear conflicting constrained optimization problems. Because by nature, animals are having specific strategy to identify best path and solution to survive in the world by avoiding predators and obstacles [Blum and Sampels, 2004]. These successful mechanisms of a biological phenomenon are mimicked computationally to build the meta-heuristic algorithms to solve the complex optimization problems i.e. identifying the better solution from the available solutions [RAO, 2009]. The mechanism of identifying the shortest path from the nest to the food by the ants is used in Ant colony algorithm [Dorigo and Gambardella, 1997], the breeding of chickens with best properties is used in selective breeding, finding of an optimal solution based on the foraging and storing the maximum amount of flowers' nectar is applied as honey bee's algorithm, identification of its mating pair from the light intensity is utilized in firefly algorithm [Yang, 2010], and so on. Firefly algorithm is one of the emerging nature inspired algorithms, which is based on the flashing light of fireflies. Fireflies are capable of producing the light from its body and can control the intensities based on the requirement through a complex biochemical process. The light emitted from the fireflies is to find its mating pair, protecting themselves from their predators and attracting their potential prey [Yang, 2009]. In the firefly algorithm, objective function of the optimization problem is directly mapped with its flashing light brightness or intensity. As the fireflies are move towards the brighter and more attractive locations, the fitness function also move towards the more optimal solution location in the search space [Lukasik and Zak, 2009].

In this research paper, the firefly algorithm is applied to the bevel gear design problem to identify the optimal gear parameters by satisfying the constraints and in non-lubricated conditions. The application specific gear design optimization problem constitutes one of the key problems in the manufacturing sector and planning in which a direct solution cannot be found. This optimization problem deals with reduction in the size and weight of the gears, improves the efficiency and power transmitting capability of the gear pairs. So the objective function used in the research is called as combined objective function. There are numerous variations of this problem exists and different ways to represent the constraints. Moreover, this research is to implement firefly algorithm with suitable control parameters to identify the best value for the combined objective function by satisfying the constraints and thereby to prove the effectiveness of the firefly algorithm. For the effectiveness and validation of this algorithm, sample bevel gear design problem for different application have been tested.

The remainder of this paper is organized as follows: Section 2 gives a brief description of the multi-objective optimization and problem formulation methodology. In Section 3, briefly describes the firefly algorithm in general and the characteristics of the firefly considered in this research. Section 4 presents the experimental implementation and the control parameter for Matlab simulation. Finally, Section 5 provides some conclusions concerning the solutions obtained by the firefly algorithm and some suggestions and ideas for further research.

2. PROBLEM FORMULATION

In most of the real world problems, multiple conflicting objectives arise naturally and those problems are called as multi-objective combinatorial optimization problems, like bin packing, job shop scheduling, gear design, etc [Kumar et al, 2008]. To solve these problems, researchers developed and proposed several principles and methodologies for over a decade. In the multi-objective optimization problems, as the name implies, the objective function having more than one objective or combination of multiple objectives. The objective may conflict or many not conflict with each other and depend on the applications. The aim of the research is to find a vector of decision variables that satisfies constraints in design, manufacturing and operational functions by optimizing the combined objective function. The combined objective function (COF) developed is a linear combination of the normalized conflicting multiple objective functions and is given in the Equation 1.

$$COF = [f(\eta) + f(\hat{W}) + f(S)] / 3 \quad (1)$$

COF is the normalized function and its value ranges from 0 to 1. The primary goal is to maximize the value of the COF i.e. higher the COF value, better the result and vice-versa. In this research, penalty function has also been used and sometimes COF may results with negative value to indicate the infeasible solution. The first function is the efficiency function and the goal is to maximize the efficiency of the power transmission between the gears. The equation for calculating the efficiency is given in the Equation 2 [Townsend, 1992].

$$\eta = 100 - P_L \quad (2)$$

where, 'P_L' = Power loss between the gear pair and is given in the Equation 3.

$$P_L = \frac{50f}{\cos\Phi} \times \frac{(H_s^2 + H_t^2)}{(H_s + H_t)} \quad (3)$$

'H_s' = Specific sliding velocity at start of approach action
 'H_t' = Specific sliding velocity at end of recess action
 'φ' = Coefficient of friction
 'Φ' = Pressure angle in degrees
 'H_s' and 'H_t' are calculated by the Equations 4 & 5 respectively.

$$H_t = \frac{(i+1)}{i} \times \sqrt{\left(\left[\frac{r_o}{r}\right]^2 - \cos^2 \Phi\right)} - \sin \Phi \tag{4}$$

$$H_s = (i+1) \times \sqrt{\left(\left[\frac{R_o}{R}\right]^2 - \cos^2 \Phi\right)} - \sin \Phi \tag{5}$$

Whereas, 'R' & 'R_o' = Pitch and Outside circle radius of gear in mm.
 'r' & 'r_o' = Pitch and Outside circle radius of pinion in mm
 R_o = R + one addendum

The outside radius of the bevel gear is calculated using the Equation 6 and 7.

$$r_o = r + m = \frac{d_1}{2} + m \tag{6}$$

$$R_o = R + m = \frac{d_2}{2} + m \tag{7}$$

The second term in the COF is the weight function. Due to digital controlled machines, the researchers are trying to reduce the weight of the machine parts and in turn the weight of the gears used without compromising the performance [Thompson et al, 2000]. So the weight function is a minimization function and the minimization function for weight, total weight of the gear should be as minimum as possible [Lin et al, 2009]. The formula for calculating the weight of the gear is given in the Equation 8.

$$\hat{W} = \left\{ \left[4 \times d_1^2 \times b \times \rho \right] + \left[4 \times d_2^2 \times b \times \rho \right] \right\} \tag{8}$$

Where, 'd₁' & 'd₂' = Pitch circle diameter of pinion and gear in mm
 'b' & 'ρ' = Thickness and Density of the material in kg/mm³

The third term in the COF is the size function. Normally the machine tools required smaller sized parts, so the third function is to reduce the size of the gear pair without compromising the performance of the power transmission and safety [Huang et al, 2005]. The minimization function for size is to reduce the cone distance between the gears and thereby the size of the gears can be reduced. The equation for calculating the cone distance is given in Equation 9.

$$\zeta = \frac{(d_1 + d_2)}{2} = \frac{m}{(Z_1 + Z_2)} \tag{9}$$

Where, 'Z₁' and 'Z₂' are the number of teeth in pinion and gear respectively.

The set of bevel gear parameter which produces the higher value for the COF will yield best parameters for the bevel gear pair. But the same set of parameters needs to be satisfied by the constraints involved in the design, manufacturing and operations [Abersek et al, 1996]. Because, obtained solution should be a feasible solution, so that the bevel gear pair can be manufactured and used in the machine tools with less maintenance. This type of multi-objective optimization problem is sometimes called vector minimization problem [Tudose et al, 2010]. In order to identify the optimal solution for the COF, in this research, the emerging meta-heuristic algorithm called firefly algorithm is used.

3. THE FIREFLY ALGORITHM

Firefly Algorithm (FFA) is a meta-heuristic optimization algorithm, inspired by the natural flashing behavior of fireflies for attracting the other fireflies in the summer sky in the tropical temperature regions [Yang, 2008; Lukasik and Zak, 2009; Yang, 2009; Yang, 2010]. The concept of firefly optimization is introduced by Dr. Xin-She Yang at Cambridge University in 2007 [Yang, 2008], and the base for the algorithm is the swarm behavior of the animals such as fish, insects, or bird. Firefly algorithm also has many similarities with other naturally inspired algorithms like Genetic algorithm [Renner and Ekart, 2003], Particle Swarm Optimization [Bauer et al, 1999], Ant colony Algorithm [Bullnheimer et al, 1999], Artificial Bee Colony optimization, etc. [Lukasik and Zak, 2009]. Furthermore, firefly algorithm is very simple and easy for implementation and more efficient algorithm which can outperform other evolutionary algorithms, such as genetic algorithm. In order to explore more search space, the algorithm uses real random numbers for convergence it uses global communication among fireflies. The assumptions to be made in the firefly algorithm are as follows.

1. All fireflies are unisex and any firefly can move towards any other brighter ones regardless their sex.
2. The firefly attractiveness is proportional to its brightness or the light intensity and will decrease with increase in distance. Also the attractiveness decreases with increase in absorption coefficient.
3. Either, if there is not a brighter firefly or all the fireflies having similar brightness, than movement can be at random path.
4. For optimization, the brightness is proportional to the objective function of a given problem.

Thus the major firefly control parameters are the attractiveness, distance between the fireflies and the movement of the fireflies.

3.1 ATTRACTIVENESS

The fireflies are having glowing light in the bodies to attract other fireflies. The attractiveness of the firefly can be evaluated by the Equation 10.

$$\beta = \beta_0 e^{-\gamma r^2} \tag{10}$$

where, r is the distance between ith and jth firefly. β₀ is the initial attractiveness of the fireflies at distance r = 0 and γ is an absorption coefficient which controls the decrease of the light intensity and vary based on the surrounding environment. The attractiveness will vary from distance between the fireflies.

3.2 DISTANCE

The distance between the fireflies is inversely proportional to the intensity of the light. The distance between ith and jth fireflies at x_i and x_j positions and its movement is given in the Equation 11.

$$X_i = X_i + \beta_0 e^{-\gamma r^2} (X_j - X_i) + \alpha \epsilon \tag{11}$$

The existing distance is updated based on the firefly attractiveness and to explore more search space, randomization parameter α is also included and the value should be in the range of 0 and 1. However, this attractiveness is the deciding factor for the movement of fireflies and inversely proportional to the distance between fireflies.

3.3 CONVERGENCE BEHAVIOR

The primary objective of most of the optimization and evolutionary algorithms are to converge the results at global optimal points instead of local optimal points. In order to identify the global optimization points, algorithm should have two properties. The first property is exploring the search space with all possible solutions and the second property is to search the entire search space. In this research, the major parameters which influencing the bevel gear design are considered and the interval selected will be very least, thereby increasing the search space. The convergence of the algorithm at global optimal point is achieved with large number of fireflies and in every trial, 10% of the fireflies will be allowed to move in the random path. Especially in firefly algorithm, the concept of exploration and exploitation will help largely in attaining the global optimal point by avoiding the stagnation at the local optimal points. Also the initial locations of 'n' fireflies are distributed uniformly and randomly in the search space. However, many researchers are trying to bring a formal proof of the convergence of the evolutionary algorithms and assume that the algorithms will attain global optima when $n \rightarrow \infty$.

The experimental results proved that the firefly algorithm converges very quickly in 90 iterations and with 10 fireflies per iteration. Indeed, the appropriate choice of firefly algorithm parameters such as number of iterations, number of fireflies, γ , β , α , and n parameters are highly influencing the convergence and depends on the nature of the given optimization problem. In this research, these parameters are set by conducting the sensitivity analysis, as the parameters vary from application to application and as there is no hard relations exist between them in finding both local and global optima. The computational time and the search are inversely proportional constraints and need to be compromised. As the search space and the number of fireflies increases will lead to better solution and proportionally computational time increases and vice versa. Larger population size becomes the greater the computational time.

3.4 SENSITIVITY ANALYSIS

As the performance of the firefly algorithm depends on the parameters and those should be fixed by conducting sensitivity analysis. The minimum and maximum range of the absorption coefficient ' γ ' is between $\gamma \rightarrow 0$ and $\gamma \rightarrow \infty$. When $\gamma \rightarrow 0$, the sky is assumed to be clear and the attractiveness coefficient ' β ' is constant. The light intensity does not decrease or increase with respect to the distance ' r ' between fireflies. Therefore, light from any firefly can be seen anywhere and the local or global optimum can be easily reached. On the other hand, when $\gamma \rightarrow \infty$, denotes the foggy sky and the attractiveness coefficient uses Dirac delta function. The attractiveness became almost zero in the foggy surrounding as the light intensity is absorbed by the fog. Thus the fireflies cannot see each other, and movement will be completely randomly in a foggy place. Therefore, it improves the search on the entire space for better solution. Thus there exist a tradeoff between them and will be varied from application to application. Similarly most of the firefly parameters are having conflicting ranges and will be decided by conducting sensitivity analysis.

4. EXPERIMENTAL IMPLEMENTATION

Optimization problem having more than one objective functions will have more than a solution and one solution may dominate over the other will be best solution. Bevel gear design problem is a multi-objective optimization problem with conflicting constraints. So the dominating solution should also satisfy the constraints involved. The set of solution which satisfies the constraints are the feasible solution and the best among the feasible solution is the optimal solution for the given problem or the set having no other feasible solution ' Y ' and the condition is given in the Equation 12.

$$f(y) \leq f(x) \text{ for all } i = 1, 2, \dots, k. \text{ and } f(x) \in C. \quad (12)$$

which means that the solution $f(x)$ is no worse than $f(y)$ in all objective functions and constraint satisfaction. As it is very difficult to effectively handle with all the conflicting objective functions and constraints, in this research, objective function had been converted to linear function and several trials with different firefly parameters had done to attain the goal. In the former, the objective function is normalized between 0 and 1 and thereby making the multi-objective problem into single objective problem. The gear data set which violates the constraints will be provided with a negative penalty value to the objective function and eliminate them from the search space. The addition of the penalty value to the objective function will convert the constraints into linear function. In this method, the problem is transformed into a single-objective function problem with penalty value. i.e. the multi objective function and the constraints are converted to a linear problem and that can be solved easily using firefly algorithm. Thus the overall utility function of the problem is defined as in the Equation (13).

$$\text{Maximize } U(x) = F(x) + P(x) \quad (13)$$

The utility function ' $U(x)$ ' is to be maximized by maximizing the fitness function value and nullifying the penalty function value. The basic bevel gear parameter used to identify the maximum or optimal value for the fitness function is given in the Equation 14.

$$B = \{\text{Power, Module, Cone distance}\} \quad (14)$$

The power transmitting capability of the gear pair should be the maximum, the module determines the size of the gear and should be minimum, and the cone distance determines the size and weight of the gear pair and should be minimum [Madhusudan and Vijayasimha, 1987]. The fitness function ' $f(x)$ ' is given in the Equation 1 as combined objective function. To neutralize the penalty value, the identified parameter in the Equation 14 should satisfy the constraints as given in the Equation 15.

$$P(x) = \{0.3 * D(c), 0.3 * M(c), 0.2 * Op(c), 0.2 * nl(c)\} \quad (15)$$

Whereas, $D(c)$, $M(c)$, $Op(c)$ and $nl(c)$ denotes the design, manufacturing, operational and non-lubrication constraints to be satisfied by the gear pair respectively.

In order to apply the firefly algorithm to the bevel gear design problem, it is necessary to effectively deal with the necessary constraints and the firefly algorithm can directly solve only maximum optimization problems, not minimization problems. So the light intensity or firefly brightness at a particular location can be chosen as analogous or equal to utility function value for the parameters at that location. For this reason, to avoid the violation of constraints, which could cause infeasible solutions, the constrained optimization problem have been converted into an unconstrained problem by penalizing infeasible solutions, instead of repairing them. The solution space constructed is consisting of three stages of input parameters given in the Equation 14 with the interval of 0.001 units. Total number of iterations considered for the search is set to 200 and in each iteration, total number of fireflies allowed to search is 25. In end of every iteration, the best path have been stored and the final iteration will be the search only from the best paths identified by the fireflies, so the search starts to identify the best from the better solutions. The algorithm was developed in Matlab 2008 [On-line Matlab Tutorials] and it can run on a portable computer with an Intel Core2 Duo _1.8GHz_ processor, 2GB RAM memory and MS Windows 7 as an operating system. The firefly control parameters obtained from sensitivity analysis are as follows $\alpha = 0.2$, $\gamma = 1.0$, $\beta_0 = 1.0$, and $n = 25$. The main characteristics of the firefly algorithm is the fact that it simulates a parallel independent run strategy, where in every iteration, a swarm of 25 fireflies generated n solutions. Each firefly works almost independently, and as a result the algorithm, will converge very quickly with the fireflies aggregating closely to the optimal solution. The result obtained from the algorithm is at par and the validation also done manually. Thus the performance of the approach found satisfactory both in the computational time and the effectiveness of the result obtained i.e. the algorithm stably converges to the optimal solution very quickly and on average of 100th generation/iteration. This developed algorithm also differs from other approaches in the selection procedure in which each firefly constructs its own solution and 20 % of the fireflies are allowed for the random search to explore more search space apart from initial random search.

From the obtained experimental results, it is observed that the proposed implementation of the firefly algorithm is very fast and predicts accurate results while satisfying conflicting constraints at various levels. It also offers a considerable saving in computer memory and computational time. The algorithm generated the optimal solution in less than 50 seconds. As the best case, the algorithm also identifies the best result in 12 seconds. By comparing the obtained out manually, it is found that the firefly algorithm gives a global optimum in every iteration.

5. CONCLUSIONS AND FUTURE WORK

From the experimental result, it is very clear that the firefly algorithm, developed by Dr. Xin-She Yang, is a very powerful novel population-based method for solving multi-objective constrained optimization problems. As the behavior of fireflies is used to identify the optimal parameters, it is easy to formulate the

objective function. In this research, with the focus of identifying the optimal bevel gear parameter values, firefly algorithm had used and the results obtained are satisfactory. The results are obtained in less computational time and the most of the result obtained are the global optimal solution, thus it validates the effectiveness of the algorithm. The algorithm achieved good results in less time with high success rate.

However, from the simulations, it is found that the proper selection of the firefly parameters such as population size, number of generations, absorption coefficient, etc having paramount importance for the convergence. Also these control parameters heavily depends on the nature of the application and vary from problem to problem. So either sensitivity analysis has to be performed or it might be hybridize with other heuristic search methods for better results.

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CORRELATION BETWEEN ORGANIZATION STRATEGIES AND EMPLOYEE COMPETENCY MAPPING PRACTICES

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ABSTRACT

In the wake of industrialization and globalization, Organizations' are undergoing heavy transformation. To cope up with the same, Human Resource Management practices are getting wider acceptance in the developmental and transformational process. Management is giving more thrust in understanding and developing the competency of employees and make use of competency mapping tool, for the improvement of productivity and in maintaining a positive work culture. Application of competence mapping covers the operational areas of human resource management and is a process of identifying key competencies for a particular position in an organisation, and then using it for job evaluation, recruitment, training and development, performance management, succession planning, etc. The competency mapping works at the enterprise level than outside realms. It is one of the most accurate means in identifying the job and behavioral competencies of an individual in an organization. Competency is a set of knowledge, skills and attitudes required to perform a job effectively and efficiently. A competency is something that describes how a job might be done excellently; a competence only describes what has to be done, not how. Core competency is something which cannot be copied and it is the pillar upon which individual rest. In this paper it is been elucidated existing competencies in the targeted group and gaps between existing competencies and required competencies. The study reveals that mere linkage between employee competencies and business strategies is not enough but the quality of linkages between competencies and business strategies to achieve organisational performance is also required.

KEYWORDS

Competency Mapping, Skill Development, Core Competency, Multi Skill, Need Fulfillment.

INTRODUCTION

Human Resource Management adds value when it helps individuals and organizations do better than their present level of performance. But functional and behavioral competencies have acquired major significance in achieving exemplary job performance within an individual's roles, responsibilities and relationship in an organization and its internal and external environment. Competency model is one around which the process of selection, placement, redeployment, development and separation can be knit. Over the years, highly skilled and knowledge based jobs are increasing, while low skilled jobs are decreasing. This calls for future skill mapping through proper HRM initiatives. Indian organizations are also witnessing a change in systems, management cultures and philosophy due to the global alignment of Indian organizations. There is an increasing need for multi skill development.

Competency is something that describes how a job might be done, excellently; a Competence only describes what has to be done, not how. Competency refers to the intellectual, managerial, social and emotional competency. It is a capacity of an individual that leads to the behavior, which meets the job demands within the parameters of the organizational environment and in turn brings about desired results. Competency is an underlying characteristic of an individual that is related to effective or superior performance in a job or situation. They are derived from specific job families within the organization and are often grouped around categories such as strategy, relationships, innovation, leadership, risk taking, decision making, emotional Intelligence, etc. The competence of the workers is as important as the means of production, the products, the economy and the markets.

COMPETENCY MAPPING

John Flanagan (1954) grounded Critical Incidents Technique as a precursor to the key methodology used in rigorous competency studies. The idea of testing the competencies, required for efficient performance at a position, was proposed by David McClelland in the early 1970's. The term competency has been interpreted by various authors/researchers with their unique way of giving meaning to it. Boyatzis (1982) described competencies as underlying characteristic of an individual, which are causally (change in one variable cause change in another) related to effective job performance. A competency is a set of skills, related knowledge and attributes that allow an individual to successfully perform a task or an activity within a specific function or job (UNIDO (2002).

Competency mapping is a process of identifying key competencies for a particular position in an organization, and then using it for job evaluation, recruitment, training and development, performance management, succession planning, etc. It is an important resource in this environment, and is an addition to knowledge management and learning organization initiatives. It is designed to consistently measure and assess individual and group performance as it relates to the expectations of the organization and its customers. Competency mapping process is designed to consistently measure and assess individual and group performance as it relates to the expectations of the organization and its customers. It is used to identify key attributes (knowledge, skill and behaviour) that are required to perform effectively in a job classification or an identified process. The value of competency mapping and identifying emotional strengths is that many employers now purposefully screen employees to hire people with specific competencies. It generally examines two areas: Emotional Intelligence and strengths of the individual in areas like team structure, leadership and decision making. Large organizations frequently employ some form of competency mapping to understand how to most effectively employ the competencies of strengths of employees. They may also use competency mapping to analyse the combination of strengths in different people to produce the most effective teams and highest quality work.

REVIEW OF LITERATURE

For the purpose of study and for gaining in-depth knowledge of the employee competency mapping in organizations, global leading articles related to the topic has reviewed. Some research gaps have also identified which justified research problem also. The concept employee competency mapping has 52 years of history.

Grown from cellular model to gigantic model, today employee competency mapping has become the crux for success of any organization in the present competitive scenario.

Naqvi, Farah. (2009) has discussed about the performance of companies depends mostly on the quality of their human resource. For obvious economic and business reasons, organizations have always been concerned about the competence of its people. This paper seeks to deliver deeper into the concept of competency, tracing its history and its role in the present context. It explains how the concept has constantly evolved over the years, its applications in human resource management, and development in the present scenario. It also aims to study its future prospects in the light of other emerging areas. Jaideep Kaur & Vikas Kumar (2009) proceeded with the examples of companies, which have successfully integrated competency mapping in talent management practices. Kodwani, Amitabh Deo (2009) has focused on the Performance- is the mantra of today's business organization. People with right abilities are able to perform better.

Competencies are the set of such skills and abilities (technical as well as behavioral) which are required for desired level of performance. Right competencies are the key to superior performance. These days most of the business organizations are dealing with a problem of competency mapping, which is basically attach with the capacity of an individual that leads to behaviour and the organizational/job requirement. According to Rice, James A. (2006) competency-based leadership development does not just drift, however it is intentionally focuses on clear career aspirations. Meanwhile, he stressed that disciplined approach to career growth will enhance the organization's performance. Along with these growths is career planning for health leaders that would set as innovative strategies for development. Smita Nigam, Poonam Pandey, Dhruv Kumar Pandey (2009) in their research paper expounds that employee competency mapping is one such innovative practice that is widely being used by organizations today. Competency mapping is about assessing the value of human capital and its development. Care needs to be taken to ensure the involvement of the entire organization. The need to map and monitor the competence is perceived by most organizations as a tool to Badd value to their key resource areas as observed by the authors. Lucian Cernusca, Cristina Dima (2007) explained the concept of comp etency and how competency is linked to performance and one's career development. The authors also look into some models of competency mapping and appraisal tools for performance management. A business might possess extremely capable human resources, but they might not work on the position that suits them. This is where competency mapping and the appraisal tools come to help the HR experts choose who should work on what position. William J Rothwell and John E Lindholm (2008) addressed employee competency efforts in the USA programmes have evolved from an early focus on distinctions between best-in-class (exemplary) and fully-successful performers to become a link between organizational strategy and organizational and individual performance. Interest in competency-based approaches is growing. Training and development professionals are using competency models to clarify organization-specific competencies to improve human performance and unify individual capabilities with organizational core competencies. Bergenhene, Gouwen (2010) explains the concrete application of a competence-based HRM system in the petro-chemicals industry illustrates the task of linking an organization's core competences to the personal competences of employees by making use of HRM instruments.

RESEARCH OBJECTIVES

This study derives its significance from its potential contribution at two primary levels: theoretical and practical. At the theoretical level, the present study is expected to bridge a gap in the literature for empirical research focusing on relationship between organization's strategies and employee's competencies, in different organisations operating in jalPUR (Hotels). Main objectives of the study are:

1. To analyze the link between competencies, strategies, business performance and results;
2. To examine the competency mapping strategies with jobs and attainment of individual and organization objectives;
3. To analyze the impact of competency mapping in relation to individual corporate objectives.

RESEARCH METHODOLOGY

The research is a descriptive research, as it includes surveying and fact finding. The researcher identified the past and the current employee competency mapping practices adopted by the same companies. The researcher narrates the facts and figures relating to employee competency mapping strategies, its implementation and the consequences in terms of individual and organisational performance. The study quantified the qualitative phenomenal concerning employee competency mapping strategies and their implementation for organisational success. After identifying the present research problem and strategic construction of dependent and independent variables, questionnaire for respondents was constructed. Data was also collected through discussion and records like organizational (Hotels of jaipur) hierarchy chart, job description, job specification etc. Core and functional competencies developed for each position. For analysis of data chi square distribution and five point scale is used ranging from strongly agree to strongly disagree. Sample size for the research discussion is 100 executives from different hotels of jaipur , Rajasthan.

FINDINGS AND ANALYSIS

It has been universally accepted that the individuals' inherent apparent attributes decides the superior on the job performance or otherwise. Competency includes knowledge, attitudes, skills, ability, motive, trait and the like of an individual. When asked about to indicate what constitutes employee competency, the respondent competency management teams, executives and non executives in the sample organisations, 80-85 percent of them conceded to the given statements.

TABLE 1: ALIGNING EMPLOYEE COMPETENCIES WITH BUSINESS STRATEGIES

Linkage Parameters	Response Executives (N-100)				
	SA (%)	A (%)	N (%)	D (%)	SD (%)
Employee Satisfaction	32	28	16	12	12
Department goals and objectives	36	32	12	16	4
Department Growth and Development	36	32	12	12	8
Business Unit goals and Objectives	28	32	12	20	8
Corporate goals and objectives	32	28	16	12	12
Business Performance	32	32	12	16	8
Employee Productivity	36	32	8	16	8
Organization's Profitability	40	36	8	8	8
Business Diversification	4	4	20	36	36
Corporate Expansion	8	12	20	32	28
Interpersonal Relations	20	24	20	24	12
Overall Corporate Growth	32	28	16	12	12
Change Management	8	12	20	32	28

The respondent executives ranging from 75-80% agreed that employee competencies are linked to business strategies, performance and results. The linkage produced positive results in the areas of productivity, profitability and overall growth. The results are minimum and moderate on the variables such as diversification, expansion, interpersonal relations and change management from employee competencies linkages with business strategies. In the sample organisations, it was found that mere link between employee competencies and business strategies is not sufficient, but important is the quality such links between competencies and strategies to achieve predetermined individual and organisational performance. Majority of the sample organisations link competencies with goal achievement.

Mapping of the critical competence in the sample organization involves analyzing the future competence of the workforce required, analyzing the gap between current and future competence, analyzing the rate of development of workers, analyzing the future development of employees.

MAJOR FINDINGS

- After study it was found that over the years most of the sample companies have started using competency management practices at various levels of the organization. Five star and Three star hotels of jaipur have adopted this practice to a great extent in comparison to Other hotels.
- It was also found that in Star hotels, competency is the key behavior factor among the employees' that enables them to show better performance of the organization as a whole;
- 70% of the sample units have competitive edge through developing and sustaining employee competencies in addition to ability to innovate, adopt new technologies and to understand the customer and their needs;
- By competency mapping sample units identified and described most critical competencies and also determined the extent to which an employee possesses various job related competencies;
- Two third of the sample units strategically linked employee competencies with productivity, profitability, business unit goals along with individual objectives and goals;
- Competency mapping is a focal point in the sample organisations for planning, organizing, integrating and improving all aspects of HR systems including recruitment, selection, assessment, coaching, succession planning and career path;
- Competency mapping actually sorted out the problem of HR professionals in sample organisations in choosing who should work on which position. The HR activities are therefore, competency based recruitment, selection, training and development and competency based compensation management. The half of the sample organisations shifted job based pay to competency based pay. In the process two fifth of the sample firms achieved the uniqueness in the competencies;
- All the sample hotels identifies, defines, assesses, monitors the employee competency models, employee competency mapping and employee competency development;
- Two third of sample units achieved level 4 of people capability maturity model stage and one third sample hotels had reached People Competency Maturity Model (PCMM) indicates the optimum level at which, the organisations continuously focus on improving individual competencies and finding ways to improve employees' motivation and capability to become learning organisations.
- Consistently permanent employees were rated by their immediate line supervisors about their performance. The gaps for the need identified are focused by giving appropriate training. The training may vary accordingly, On-the job training & Off-the job training. Training given on need based. Need based fulfillment are done consistently for all direct permanent employees in the organization.

Organisations(Hotels) under study considered Skill development by the competency mapping as one of the most accurate means in identifying the job and behavioral competencies of an individual in an organization. Competency mapping is not only done for confirmed employees but also can also be done for contractual employees or for seeking employment to emphasize the specific skills which would make them valuable to a particular employer.

CONCLUSION

Competency is a set of knowledge, skills and attitudes required to perform a job effectively and efficiently. A Competency is something that describes how a job might be done excellently; a competence only describes what has to be done, not how. Core competency is something which cannot be copied and it is the pillar upon which individual rest.

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CONSUMER AWARENESS ON CONSUMER RIGHTS AND DUTIES: AN ANALYTICAL STUDY WITH REFERENCE TO COIMBATORE CITY

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COIMBATORE

ABSTRACT

The majority of the consumers in advanced countries is well educated, well-informed and are in a position to protect them but our Indian situation is different from the Western where the consumers are exploited by the large number of restrictive and unfair trade practices. It leads to the suspicion whether the consumers are aware of their rights and duties. There is desperate need to all the people to be aware of all the rules, policies, laws and acts to be protected or at least one should be aware of rights and responsibilities of consumer. So there arises a need to study the level of awareness of consumers on Consumer rights and Duties. For this study, the data is collected from 200 respondents in Coimbatore city to study the level of awareness of consumers on consumer rights and duties. Though the majority of the respondents are aware of the existence of Consumer Rights, the most important rights, Right to redressal and Right to Consumer Education is yet to reach them. Most of the people discharge their duties and responsibilities duly while they purchase, which indicates that apart from their alertness they are being exploited by few marketers.

KEYWORDS

consumer rights, consumer awareness, consumer duties.

INTRODUCTION

An individual who buys products or services for personal use and not to manufacture or resale is a Consumer. Consumer awareness is about making the consumer aware of his/her rights. With the immense competition and high technology development there are many products before the consumer but demands technical knowledge. At this situation there is a strong need of consumer education about their rights and responsibilities. When we look at the remote areas and rural areas majority of the people are exploited by unlawful trade practices of the marketers due to poor knowledge and lack of education. In urban areas also educated people are being exploited in many ways. India has the biggest consumer movement today by way of efforts of consumer organizations and the establishment of consumer courts. In spite of rapid economic development in last two centuries, the position of the consumer has not changed much. The exploitation continued and has turned more systematic. Consumers are exploited by the large number of restrictive and unfair trade practices. Even though so many rules, regulations, policies and acts are made to protect the consumer, still the consumer is being exploited. Despite the existence of consumer rights and consumer dispute redressal mechanisms, majority of consumers today is ignorant about typical complaints and scams of today. They are also unaware of, how to take the first step towards dealing with their problems. So the study aims at presenting a view on the extent to which people are aware of consumer rights and duties and remedies to dissolve such ignorance.

OBJECTIVES OF THE STUDY

The study has been taken with a view to attain the following objectives,

1. To analyze the consumer awareness on Consumer Rights and Duties in Coimbatore city.
2. To bring out suggestions to improve the level of awareness of consumers regarding consumer rights and duties.

REVIEW OF LITERATURE

Following are the some of the review of literature to analyse scientific works by other researchers that aims to review the critical points of current knowledge including substantive findings as well as theoretical and methodological contributions.

Rajeev (2009) in his article entitled "Generate Consumer Awareness" says that the success of consumer movement mainly depends upon the level of consumer awareness generated in the country by educating the consumers about their rights and responsibilities coupled with effective functioning of the consumer forums throughout the country where the consumers can ultimately assert their rights in seeking redressal. Where the literacy rate is high and social awareness is greater, the consumers cannot be easily exploited.

PulidindiVenugopal (2012) in his article stressed the role of Educational Institutions in spreading consumer awareness. He says that "We cannot simply say that Educational institutions are unto their best in promoting consumerism or we cannot even say that Educational institutions are just money oriented and are doing nothing for the promotion of consumerism". He also made clear that "IITs, IIMs, IIPA, IIFT, IIPM, VIT, IGNOU are striving and contributing more for promoting consumerism and creating awareness among the people (both rural and urban). But these are the not only educational bodies on the Earth. When 10 universities or schools are in a position to bring such a change and are able to conduct so many campaigns, what if all the schools and, colleges and university bodies come into force? The change will be ultimate. This can become an exploitation free consuming world".

Arabinda Debnath and et al (2015) in his study concluded that it is the social responsibility of every business to work for the wellbeing of society where, consumer is an important part. Although Consumer Associations, Business Associations and Government Legislations are working to safeguard the interest of the consumer but it is the fact that the consumers are cheated regularly by the seller or producer. Therefore consumer awareness are needed the most to make consumer protection movement a success. It can be said that there should have an honest, friendly and brotherly relationship in between businessmen and consumers. Every businessman should realize that they are also the consumer of other business houses. Every customer should have strong determination to avoid such business houses which are found to be doing unfair means of business by violating consumer rights. Both the business houses and consumers should have a motive to build up a welfare society for which they have to discharge some responsibilities.

All the above references which are comprehensive with logical flow serve as an integral and required part of this research proposal. Such references and ideas have brought up the scientific works by other researchers and also form the basis for the present study.

RESEARCH DESIGN

The data for the study has been collected from Coimbatore city on convenience sampling method. Field survey was conducted to collect the primary data from 200 respondents through questionnaire. The primary data for the study was collected during the period April 2014-Feb2015. The secondary data required for the study have been collected from the books and journals. Statistical tools used to analyse the collected data are Chi-Square, F-Test and ANOVA.

ANALYSIS AND INTERPRETATION

TABLE 1 - PERSONAL PROFILE OF THE RESPONDENTS

S.no.	Particulars	No of Respondents	Percentage	
1	Gender	Male	80	40
		Female	120	60
		Total	200	100
2	Age	Below 30 years	111	55.5
		30-40 years	44	22
		41-50 years	17	8.5
		Above 50 years	28	14
		Total	200	100
3	Educational Qualification	School Education	23	11.5
		Collegiate education	166	83
		Illiterate	11	5.5
		Total	200	100
4	Occupational Status	Employee	54	27
		Professional	68	34
		Business	20	10
		Agriculturist	6	3
		Others	52	26
		Total	200	100

Source: Primary data

While analysing the personal profile of the respondents, from the above table it is evident that from the sample size 200, 60% of the respondents are female and 40% of the respondents are male. In relation to the age of respondents 55.5% are in the age group of below 30 years, 22% are in the age group of 30-40 years, 14% in the age group of above 50 years and 8.5% in the age group of 41-50 years. Regarding educational qualification, 83% of the respondents have collegiate education, 11.5% school education and 5.5% illiterate. With regards to occupational status, 34% of the respondents doing profession, 27% are employed, 26% are students and house wives, 10% are doing business and 3% are agriculturist.

It can be inferred that majority (60%) of the respondents are female, majority (55.5%) of the respondents are in the age group of below 30 years, majority (83%) of the respondents are having Collegiate Education and most (34%) of the respondents are doing profession.

TABLE 2 - AWARENESS ABOUT CONSUMER RIGHTS

S.no.	Particulars	Frequency	Percentage
1	Aware	185	92.5
2	Not Aware	15	7.5
	Total	200	100

Source: Primary data

A consumer who is aware of all his own rights and who doesn't hesitate to exercise them in right direction can surely be able to protect him from various exploitations. The table above reveals that majority, 92.5% of the respondents are aware of the existence of consumer rights whereas 7.5% not aware.

TABLE 3 - LEVEL OF AWARENESS ABOUT CONSUMER RIGHTS

S.no	RIGHTS	LEVEL OF AWARENESS					
		Highly Aware	%	Aware	%	Unaware	%
1	Right to Safety	92	49.7	83	44.9	10	5.4
2	Right to Information	77	41.6	92	49.7	16	8.6
3	Rights to choose	92	49.8	85	45.9	8	4.3
4	Right to be heard	50	27	98	53	37	20
5	Right to Redressal	38	20.5	78	42.2	69	37.3
6	Right to Consumer education	54	29.2	88	47.6	43	23.2
	Average		36.3		47.2		16.4

Source: Primary data

The concept of the three levels of awareness are basic consciousness, critical consciousness and creative consciousness. From the table it is highly evident that that 49.7% of the respondents are highly aware of right to safety, 44.9% are just aware and 5.4% are unaware. Regarding the right to information 49.7% of the respondents are just aware, 41.6% are highly aware and 8.7% are unaware. Regarding the right to choose that 49.8% of the respondents are highly aware, 45.9% are just aware and 4.3% are unaware. With regards to the right to be heard 53% of the respondents are just aware, 27% are highly aware and 20% are unaware. In view of the right to redressal 42.2% of the respondents are just aware, 37.3% are unaware and 20.5% are highly aware. Finally in relation to the right to consumer education 47.6% of the respondents are just aware, 29.2% highly aware and 23.2% unaware.

It is inferred from the table that the respondents are highly aware of the rights such as Right to safety (49.7%), Right to Information (41.6%), Right to Choose (49.8%), where the majority of the respondents are unaware of the rights, Right to Redressal (37.3%) and Right to Consumer education (23.2%) and nearly 50% of the respondents are just aware of all the consumer rights. As previous study states, the most of the respondents are highly aware of Right to Choose.

While analysing the overall level of awareness of consumers on consumer rights it is evident from the table that the consumers on an average of 47.2% of respondents are aware of all the rights, 36.3% highly aware of the rights and 16.4% unaware.

TABLE 4 - CONSIDERATION OF BASIC CONSUMER RIGHTS AND DUTIES WHILE PURCHASING PRODUCTS

S.no.	Particulars	Frequency	Percentage
1	Consider	194	97
2	Not Consider	6	3
	Total	200	100

Source: Primary data

Rational Buyers are the buyers who never get compromise of the quality, price and service while purchasing the products/services. It is the basic duty and responsibility of the buyers to be rational while making their purchases. The above table presents that the majority, 97% of the respondents consider the basic consumer rights and duties whereas only 3% of the respondents don't consider any basic rights and duties.

TABLE 5 - RIGHTS AND DUTIES

S.NO	RIGHTS & DUTIES	FREQUENCY OF ACTION			Total	
			Always	Occasional		Never
1	Buy from reputed shops	F	119	75	0	194
		%	61.4	38.6	0	100
2	Check the Quality	F	155	38	1	194
		%	79	20	1	100
3	Read the label carefully	F	130	43	21	194
		%	67	22.2	10.8	100
4	Check the MRP of the products	F	162	26	6	194
		%	83.5	13.4	3.1	100
5	Check the Expiry Date	F	166	22	6	194
		%	85.6	11.3	3.1	100
6	Check the Weights and Measures before getting the products	F	80	89	25	194
		%	41.2	45.8	13	100
7	Check the Standard Marks (BIS, AGMARK, ISI etc) while Purchase	F	79	84	31	194
		%	40.7	43.3	16	100
8	Demand a bill and warranty card(if necessary) for the goods purchased	F	118	60	16	194
		%	60.8	31	23.2	100
9	Check the bill	F	146	39	9	194
		%	75.2	20.1	4.7	100
10	Use the Product as per the manufacturer's instructions	F	96	83	15	194
		%	49.5	42.8	7.7	100

Source: Primary data

Note: F- Frequency

Each and every action has its frequency of occurrence as, Always, Occasional and Never. The above table reveals that 61.4% of the respondents always buy from reputed shops, 38.6% of the respondents occasionally buy from reputed shops and there is no respondent saying that they never buy from reputed shops. 79% of the respondents always check the quality of the products while they purchase, 20% of the respondents check the quality of the products occasionally and only 1% of the respondents never check the quality of the products. 67% of the respondents always read the label carefully, 22.2% of the respondents occasionally read the label carefully and 10.8% of the respondents have never read the label carefully. 83.5% of the respondents always check the MRP of the products, 13.4% of the respondents occasionally check the MRP of the products and 3.1% of the respondents have never checked the MRP of the products while they purchase. 85.6% of the respondents always check the Expiry Date of the products, 11.3% of the respondents occasionally check the Expiry Date of the products and 3.1% of the respondents have never checked the Expiry Date of the products while they purchase. 41.2% of the respondents always check the Weights & Measures before getting the products, 45.8% of the respondents occasionally check the Weights & Measures before getting the products and 13% of the respondents have never checked the Weights & Measures before getting the products. 40.7% of the respondents always check the Standard Marks, 43.3% of the respondents occasionally check the standard marks and 16% of the respondents have never checked the Standard Marks. 60.8% of the respondents always demand bill for the goods purchased, 31% of the respondents occasionally demand bill for the goods purchased and 23.2% of the respondents have never demanded the bill for the goods purchased. 75.2% of the respondents always check the bill, 20.1% of the respondents occasionally check the bill and 4.7% of the respondents have never checked the bill. 49.5% of the respondents always use the products as per manufacturer's instructions, 42.8% of the respondents use the products as per manufacturer's instructions occasionally and 7.7% of the respondents have never used the products as per manufacturer's instructions.

It can be inferred that majority (61.4%) of the respondents always buy from reputed shops. Checking the quality of the products while buying is a wise act. Here majority (79%) of the respondents marked that they always check the quality of the products while they purchase. Reading the product labels, checking the product weights and checking MRP of the products, etc ensures the transition Caveat Emptor to Caveat Vendor. As concerned with it majority (67%) of the respondents always read the label carefully, majority (83.5%) of the respondents always check the MRP of the products while they purchase, majority (85.6%) of the respondents always check the Expiry Date of the products, most (45.8%) of the respondents occasionally check the Weights & Measures before getting the products, most (43.3%) of the respondents occasionally check the standard marks, majority (60.8%) of the respondents always demand bill for the goods purchased. Majority (75.2%) of the respondents always check the bill and most (49.5%) of the respondents always use the products as per manufacturer's instructions.

ASSOCIATION BETWEEN RESPONDENTS' PERSONAL STATUS AND THEIR AWARENESS LEVEL ON CONSUMER RIGHTS

Awareness being a state of healthy consciousness is influenced by various factors. But it is a great deal of question whether one's educational qualification impacts their level of awareness on various consumer rights. Hence it is assumed on the one hand there is an association between respondents' education and their awareness level and on the other hand there is no association between them. The hypothesis is tested by Chi-Square as given below:

CHI-SQUARE

TABLE 6 - EDUCATIONAL QUALIFICATION AND AWARENESS

Awareness	School Education	Collegiate Education	No Formal Education	Total
Aware	19	161	5	185
Unaware	4	5	6	15
Total	23	166	11	200

APPLYING CHI-SQUARE TEST

TABLE 7 - χ^2 - EDUCATIONAL QUALIFICATION AND AWARENESS

χ^2 Value	Degrees of Freedom	Table Value	Significance
43.028	2	5.99	S

Level of significance: 5

Since the calculated value of χ^2 (43.028) is greater than the table value (5.99) the null hypothesis is rejected. Hence there is no association between the respondents' education and their awareness on Consumer rights.

F-TEST

F-test is used to find out whether the two independent estimates of population variance differ significantly or not. Here f-test is applied to know the significant difference between gender of the respondents and their level of awareness on consumer rights. On assuming the null hypothesis that the two groups have the same variance the test is applied.

TABLE 8 - GENDER AND LEVEL OF AWARENESS

Gender	Highly Aware	Aware	Unaware
Male	26	35	14
Female	41	52	17

APPLYING F-TEST

TABLE 9 - F TEST- GENDER AND LEVEL OF AWARENESS

Calculated Value	Degrees of Freedom	Table Value	Significance of Variance
0.94	4	4.6	NS

Level of significance: 5%

From the table above, it is evident that the calculated value(0.94) of F is less than the table value. Hence we accept the hypothesis and conclude that the difference in the variance of two groups is not significant at 5% level.

ANALYSIS OF VARIANCE - TWO-WAY CLASSIFICATION MODEL

Analysis of variance is used to test the effect of independent factors on response variable of interest. Let us take the hypothesis that there is no difference between occupational status of the consumers and their level of awareness on consumer rights.

Applying analysis of variance technique, we get

TABLE 10 - ANOVA TWO -WAY CLASSIFICATION TABLE

Sources of Variation	Sum of Squares	v	Mean Squares	Ratio of F
Between Columns(Occupation)	923.93	4	230.9	0.23
Between Rows(Level of Awareness)	185.8	2	92.9	0.58
Residual	433	6	54.12	
Total	1543	14		

v= degrees of freedom

The table value for $v_1=4$ and $v_2=6$ at 5% level of significance is 4.53. The calculated value of F is less than the table value. Similarly the critical value of F for $v_1=2$ and $v_2=6$ at 5% level of significance is 5.14. Since the calculated value is less than this, the hypothesis is accepted. Thus the test shows that there is no significant difference between occupation of the consumers and their level of awareness.

FINDINGS

It is evident from the analysis that most (92.5%) of the respondents are aware of the existence of the consumer rights. While analysing the level of awareness of consumers on various consumer rights, the respondents are highly aware of the rights such as Right to safety (49.7%), Right to Information (41.6%), Right to Choose (49.8%), where the majority of the respondents are unaware of the rights, Right to Redressal (37.3%) and Right to Consumer education (23.2%) and nearly 50% of the respondents are just aware of all the consumer rights. But still the Right to Redressal and Right to Consumer Education are too far from their awareness. While analysing duties and responsibilities it is clear that people are conscious in and checking the expiry date of the products (85.6%), checking the MRP of the products (83.5%) during purchase, majority (61.4%) of the respondents always buy from reputed shops, majority (79%) of the respondents always check the quality of the products while they purchase, majority (67%) of the respondents always read the label carefully, most (45.8%) of the respondents occasionally check the Weights & Measures before getting the products, majority (60.8%) of the respondents always demand bill for the goods purchased, majority (75.2%) of the respondents always check the bill and most (49.5%) of the respondents always use the products as per manufacturer's instructions. But only the least importance is given to the Standard Marks of the products(43.3%) which ensures the product quality.

Apart from the simple percentage analysis some statistical tools have also been applied to test the relationship between various variables and groups. Chi-Square test revealed that there is no association between the respondents' education and their awareness on consumer rights, F-test revealed that there is no significant difference between gender of the consumers and their level of awareness on consumer rights and the analysis of variance revealed that there is no significant difference between occupation of the consumers and their level of awareness.

SUGGESTIONS

Based on the findings given, it is evident that

- Though the most of the respondents are conscious on consumer rights and duties, still there are consumers who exercise them occasionally and sometimes never, during their purchases. So the various consumer organizations should educate them regarding their basic rights and duties and also should teach them the consequences of not performing their duties at time.
- TV Advertisement has played a significant role in spreading the consumer awareness among the respondents. So government, VCOs and even the manufacturers can use advertisement media to make them aware of various consumer exploitations.
- Most of the respondents suggested that despite of others taking steps to educate the people regarding consumerism, first the consumers should try to make them aware of every happenings regarding consumer awareness. So one must be aware of one's rights and should not hesitate to exercise them in right direction.
- Most of the respondents felt that conducting Consumer Awareness Programs frequently will increase the level of awareness among the general public. So government and Various VCOs should conduct such awareness programs regularly to increase their awareness level.
- Many respondents have opined that the concept of consumer education must be implemented from schools and colleges itself. So the educational institutions can include the add-on courses regarding consumer movements or subjects in their education system.
- Many respondents suggested that spreading consumer awareness through various Social Networks will play a drastic role in educating people regarding consumerism. Hence Facebook, E-mails etc., if used in useful and proper manner can spread the consumer awareness.

CONCLUSION

The Consumer Movement must be strengthened so that the tendency to push up the prices could be curbed and the quality of services and products ensured. Despite everything, the consumer is the person who has the final say. If consumers can be educated, they will be able to display this quality by deciding their priorities on the basis of their needs. This will contribute to eventual emergence of masses of conscious consumers. Every country has to create such consumers whatever their level of development is. Moreover, raising consumers' awareness of consumer protection from elementary education is considered to be a requirement for the implementation of the existing laws and the establishment and maintenance of universally accepted consumer rights. Thus, Government alone could not be blamed or can create wonders in a country with above 100 million populations; it requires support and help from general public and society to make Indians as alert Consumers.

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ANNEXURE

QUESTIONNAIRE

CONSUMER AWARENESS ON CONSUMER RIGHTS AND DUTIES: AN ANALYTICAL STUDY WITH REFERENCE TO COIMBATORE CITY

I. PERSONAL PROFILE

1. Name:

2. Gender:

- a. Male b. Female

3. Age:

- a. Below 30 years b. 30-40 years
 c. 41-50 years d. Above 50 years

4. Educational qualification:

- a. School Education b. Collegiate Education c. Illiterate

5. Mention your Occupation:

- a. Employee b. Professional
 c. Business d. Agriculturist

If others, Please specify _____

II. AWARENESS ON RIGHTS AND DUTIES

6. Are you aware of the Consumer rights?

- a. Yes b. No

7. If yes, mention the level of awareness regarding rights you know from the list given below: (Tick Appropriate Column)

Rights	Highly Aware (v)	Aware (v)	Un Aware (v)
Right to Safety			
Right to Information			
Rights to Choose			
Right to be Heard			
Right to Redressal			
Right to Consumer Education			

8. Do you consider the basic consumer rights and duties while purchasing products?

- a. Yes b. No

9. If Yes, Please Specify your opinion for the following aspects in the appropriate column:

Rights and Duties	Always (v)	Occasional (v)	Never (v)
You will			
Buy from reputed shops			
Check the Quality			
Read the label carefully			
Check the MRP of the products			
Check the Expiry Date			
Check the Weights and Measures before getting the products			
Check the Standard Marks (BIS, AGMARK, ISI etc) while Purchase			
Demand a bill and warranty card(if necessary) for the goods purchased			
Check the bill			
Use the Product as per the manufacturer's instructions			

10). Give your suggestions to improve the level of awareness of consumers about Consumer rights, duties and various aspects of consumerism.

TECHNOLOGY, APPLICATION AND LEGISLATION OF PUBLIC KEY INFRASTRUCTURE FOR SECURE e-GOVERNANCE APPLICATIONS

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ABSTRACT

As concerns for e-governance have been growing in recent years, most of Indian states have implemented or have the planning to develop e-governance programs. Maintaining pace with the global world, the Government is drawing up a comprehensive programme to ensure that the benefit of e-governance reaches all sections of the society and economy. Various IT activities, such as development of software applications packages, creation of e-governance infrastructure, databases, digital/educational content, etc., in e-governance domain, are part of Government's strategy in driving the IT penetration in Government offices. e-governance can provide good opportunities to ensure the efficiency of public services, the transparency of public affairs, citizen engagement, and e-democracy. However, it simultaneously poses risks to security and the lack of public services. Public key infrastructure (PKI) can be considered as a basic component for public service enabler as well as for security and privacy. Although there have been many studies and trials on PKI implementation, digital certificate has not fully been diffused to citizens yet, for its dissemination has been prevented by obstacles, such as immature technology, insufficient recognition of necessity, and the lack of application. This study deals with PKI issues surrounding e-governance and recommends a feasible strategy of PKI establishment for e-governance.

KEYWORDS

e-government, e-governance information infrastructure, privacy, public administration, public key infrastructure, security.

1. INTRODUCTION

As the rapid development of ICT (Information and Communication Technology) has a great effect on the overall society, every government around the world is developing or planning e-government initiatives to meet the new advantage and challenge caused by ICT. Since the emergence of e-government, the direct ways of face to face communication have rapidly been transferred to online transactions on the Internet in providing citizen with public services as well as processing internal administration. (Aljifri and Diego, 2003).

OECD Some recent studies [OECD] indicate that fixing the problems of privacy and security may constitute a basic prerequisite for lowering e-government barriers. U.S. and European countries have already been operating government public key infrastructure (GPKI) to ensure confidentiality, authentication, integrity, non-repudiation since 1999 (Aubeit 2003, EU 2003). Use of PKI will help to establish a national-wide security infrastructure, which enables the government and public sector to conduct transactions with confidentiality and safety on the Internet.

2. PUBLIC KEY INFRASTRUCTURE (PKI) AND INFORMATION SECURITY

The Internet has emerged as the most sought after medium for business transactions. The universally accessible nature of the Internet has thrown open a wide range of security challenges. With an increasingly number of mission critical systems getting onto open unsecured networks, the need for security assumes paramount importance.

Public Key Infrastructure (PKI) has emerged as the most reliable framework for ensuring Security and Trust over the Internet. It is based on the principle of **Asymmetric Cryptography**. In the PKI model:

A Key is a long string of data used to encrypt or decrypt a given piece of information. Every user has a unique key pair – the Public Key and corresponding Private Key. The private key is kept confidential, whereas the public key is made available to the public. Messages encrypted with a Public Key can only be decrypted with the corresponding Private Key, and vice-versa.

The Public Key is predominantly used for encryption and the private key for Digital Signatures.

3. FOUR PILLARS OF TRUST

PKI is the only security and trust framework that fulfills the four vital requirements of e-commerce. These are also known as the Four Pillars of Trust.

3.1 AUTHENTICATION

It is the means of identification employed. For e-Commerce transactions, the absence of face-to face interaction creates the need for a foolproof method of identification. PKI offers the most secure means of authentication available today through **Digital Certificates**.

3.2 CONFIDENTIALITY

Secure transmission of data over open networks and preventing data access by unauthorized entities is of paramount importance. PKI ensures confidentiality through the use of time tested **Encryption Algorithms**.

3.3 INTEGRITY

Data transferred through open networks should not be altered or modified during transit. Integrity of data is ensured through Data Hashing.

3.4 NON-REPUDIATION

It is necessary to ensure that the sender does not disown data sent. There should be a trustworthy means to guarantee the ownership of the electronic document. PKI ensures non repudiation through the use of Digital Signatures.

4. FUNDAMENTAL WORKING OF PKI

Public Key Infrastructure (PKI) has emerged as the most reliable framework for ensuring Security and Trust over the Internet. It is based on the principle of **Asymmetric Cryptography**. The working of PKI is given below:

1. A Key is a long string of data used to encrypt or decrypt a given piece of information.
2. Every user has a unique key pair – the Public Key and corresponding Private Key.
3. The private key is kept confidential, whereas the public key is made available to the public.
4. Messages encrypted with a Public Key can only be decrypted with the corresponding Private Key, and vice-versa.
5. The Public Key is predominantly used for encryption and the private key for Digital Signatures.

4.1 MESSAGE DIGEST

A Message Digest is a hash value, which is the compressed form of the message generated when the message is passed through a Hashing Algorithm.

The main characteristics of a Hashing Algorithm are –

- It is a one-way function i.e. given the Message Digest, the original message cannot be obtained.
- The Message Digest is of a fixed length irrespective of the length of the original message.
- Even a small change in the original document will result in a very large variation in the Message Digest.
- It is not possible for a message to hash to a pre-determined value.

4.2 DIGITAL SIGNATURES

A Digital Signature is obtained when the Digest of the message is encrypted using the sender’s Private Key. The process of digitally signing a message or document is diagrammatically represented below:

The message is first passed through a Hashing Algorithm and a Message Digest obtained. This Message Digest is then encrypted using the sender’s Private Key and this encrypted Message Digest becomes the Digital Signature. This is then appended to the Message and sent to the intended recipients.

The Process of verifying a Digital Signature is represented below:

When the recipient receives the message, he uses the Public Key of the sender to decrypt the encrypted Message Digest. If the decryption is successful, he can be assured that the sender has signed it. This is due to the fact that only the Public Key corresponding to the Private Key used to sign the Message Digest would be able to decrypt the Signature. Integrity of the message can be ensured by passing the message through the same Hashing Algorithm and comparing the resultant Digest with the decrypted Message Digest.

4.3 DIGITAL CERTIFICATES

A digital certificate is the equivalent of a passport. It contains all personal details about the user and carries his public key. A Certification Authority (CA) issues the certificates after a proper verification of the applicant’s credentials by an affiliated Registration Authority. A Digital Certificate can be stored in either of the following methods:

1. On the Browser on the Users Computer
2. On a floppy disk
3. On a Smart Card
4. On other Hardware Tokens

5. BARRIERS FOR e-GOVERNANCE INITIATIVES

There are four main barriers for effective e-governance initiatives:

1) legislative and regulatory barriers; 2) budgetary barriers; 3) technical barriers; 4) the digital divide. There is a need of state survey, to ask ministries to indicate which factors concerning technology and information management had been a challenge or a constraint when implementing e-governance in state. Figure 3 illustrates the relative importance of the ten different ICT challenges. The most important challenge, as identified by 77% of government officials and respondents, concerns problems of security, privacy, authentication of services that will run online and need public key infrastructure. We can design a state citizen identification card which aims to be not a only smart card, but also a PKI implementation, to support authentication transactions.

6. STATE PUBLIC KEY INFRASTRUCTURE (SPKI)

Before E-commerce based transitions in e-governance model in Uttarakhand state, there is a need to insure ‘Digital Certificate Law’ as a facilitator for safe electronic transaction of money and private information. SPKI is a new approach that should be used for e-commerce applications users of government or private sectors, which mainly do electronic commerce typically divided into B2B, G2B, B2G and B2C. In addition, citizens and businesses need to have the digital certificate of SPKI, so that they can have access to state government websites requiring identification. SPKI will be in a hierarchical architecture form, of which the State Information Security will be located in upper status above CAs who will issue the digital certificate to an individual and business person. The e-procurement system can be started using accredited digital certificates. Application services using digital certificates have gradually been extended into internet banking, cyber stock transactions, and e- civil petitions. Also, more various services are expected to be increased in the near future.

7. STATE GOVERNMENT PUBLIC KEY INFRASTRUCTURE (SGPKI)

It is clear that the baseline of PKI must be considered prior to e-government implementation. For example, a government representative portal site named as G4C, can perform various public services such as a civil petition, certificate issuance, and taxes payment should be based on the PKI. The state government should set up a government PKI structure in the shape of a hierarchical architecture, where the government computer center (State NIC) can be in charge of root CA according to e-government act. The government now need defined PKI policy, not only aiming that every civil servant must have a digital signature key and digital certificate, but also involving the detailed planning reflected through the survey of respondents of ministries and municipalities.

There are 200 government organizations who need digital signature system by the end of 2007, 1 thousand the civil servants will use digital signature keys in the beginning of system, and more than 1 thousand digital signatures key will be needed in future to extended this system the end of 2009.

8. PUBLIC SERVICES THAT NEED BOTH SPKI AND SGPKI

As explained earlier, it is very important to establish a PKI which paves the way for e-governance services. There have been many e-governance services embedded in PKI such as sharing information, e-documentation in G2G, e-tax, e-procurement in G2B, and state government portals, e-voting in future (G2C). Also, SPKI is adapted for electronic commerce of B2B or G2B or G2C requiring security.

TABLE 1

SGPKI	G2G	E-Documentation Sharing of Information E-procurement
	G2B	E-Filing

9. STATE e-GOVERNANCE PORTAL (A G4C SITE)

In any state the lack of digital signature in conducting transactions on the Internet made it harder for civil servant to know about the identification of civil persons or the confidentiality of civil applications under the electronic environment. As a digital signature is required for improving cyber-transactions on the Internet, the state government, combined with the accredited CAs built PKI system is purposed. With this system, government can provide online services, which ensure the strengthened confidentiality of personal information in processing civil affairs such as civil petitions and civil applications.

After launching a PKI based state government portal for e-governance applications, all application forms will gradually have transferred to electronic forms and the required information can be found on this website. Citizens with digital signature keys and digital certificates will access this site and get many government certificate documents such as resident registration papers, a certificate of tax payment, and land register, etc. on the Internet, which can be printed from citizen’s PC, by using ICT.

10. SUMMARY

PKI and Digital signature can be used as specific applications of cryptography which involves appending a 'digital personal stamp' to electronic documents or email to ensure authentication, data integrity, and non-repudiation (ITU-T, 1997). At the technological level, there has been much research and testing considering interoperability such as bridge CA and Certificate Trust Database (CTD). Final technological protocols have been established enough to achieve PKI goals such as authentication, confidentiality, data-integrity, and non-repudiation on e-transaction. With the increase of digital signature expectations, PKI architecture has been under study and testing. PKI applications are expected to gradually extend their areas which are enumerated as safe delivery of electronic documents, signatures for electronic approval, and privilege management infrastructure (PMI). These applications help users work in remote places.

Many nations already have established legislation such as electronic signature law, residence registration law, health security law, and e-government laws which relate to PKI. The majority of controversies surrounding laws on PKI arise when it is used as a tool to provide confidentiality on data transmission (Hassan, 2003). Technological implementation alone does not mean the successful establishment of e-governance PKI. Legislation and application can be the same case. Because individual components may be insufficient for e-governance online, there is a need to adapt the integrated approaches. There are important components for PKI, technology, application, and legislation, the applied technologies of PKI are enumerated: smart card, cryptography, KIOSK, RFID, e-cash, and e-payment. There are many applications which need to use PKI, such as e-document, e-health, e-archive, e-procurement, and e-education (Wormer, 2002). However, applications need to be focused on specific purposes in the initial stage, because applications with general purposes are not so easy to develop. Because the applications and technologies based on PKI must necessitate legislation, so the state government with the help of central government should legislate 'Digital Certificate Law' before PKI initiative such as residence register, health insurance, and privacy protection can be started.

As PKI must be an integral part to provide information security in e-governance applications, like in e-commerce, e-business and e-democracy where secure transactions are essential and it is required to perform the transaction between government and private sector. PKI must be a fundamental base for achieving national or state security goals, upholding privacy, which enables citizens to utilize cryptographic technology conveniently. It can be concluded that PKI initiative must be implemented with integrated approach considering the prospect of technology, applications, and legislation. Uttarakhand State Governments need to make the strategy penetrating PKI in order to fix the practical use. On-going education and training for civil servants and citizens is required to aware about information security in the age of internet and in the age of e-governance.

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TO STUDY THE PERCEPTION OF MALE EMPLOYEES ABOUT THEIR FEMALE COUNTERPARTS IN STAR HOTELS

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ABSTRACT

The differences between the male and female employee perceptions, thinking, communication, challenges faced by them at work place and behaviour has been an interest of universal research and a lot of discussions & debate has been carried out on the same. This research is conducted to understand the views of male employees about the female employees working in five star hotels in Pune. The research is significant because it testifies whether the male employees have a pessimistic attitude about female employees working in the same organization. In hospitality industry in Pune, work force has been dominated by male presence than female (approximately 60: 40 ratio of male to female employees). While working together they must be facing several diverge situations or on the contrary absolutely free and congenial work environment. Both conditions either affect or effect the performance of these two genders. This paper highlights the perception of male employees about the strengths and weaknesses, challenges faced and personality traits of female employees. Through the observation and discussion it has been reflected that women usually tend to get some concessions or considerations from the management and peers, which probably the male employees don't get. At the same time the paper also tries to find out how male employees perceive the challenges that women faces at their work place. The study employed a descriptive research design. The sample size was 50 respondents from different hotels and hospitality/service sectors in Pune. A purposive random technique was used to select only male employees who are working in hotels. Questionnaires and interviews were used to collect primary data while secondary data was referred from research articles. The study revealed that majority of the male employees (90.50 %) preferred to work under female managers because of their possession of feminine traits. It is, therefore recommended, that the hospitality industry employees should embrace and integrate female heads in decision making positions.

KEYWORDS

male employees, perception, hotels, challenges.

INTRODUCTION

The differences between the male and female employee perceptions, thinking, communication, challenges faced by them at work place and behaviour has been an interest of universal research and a lot of discussions & debate has been carried out on the same.

The role of women has changed today. The percentage of women educating in hospitality is increasing. The skills possessed by women as being creative, social, effective communication and interpersonal skills are inevitable for hospitality providers. As the hospitality industry is growing the demand for qualified, skilled female personnel is on rise.

In the current set-up in the Indian hospitality industry woman hold more positions of power now, than in the past. But compared to the percentage in population women hold few positions compared to males. A typical Gender Pyramid exists wherein the women get lower level jobs with few career escalation opportunities and the managerial positions are dominated by men. Though India seems to poise as a developing country empowering women, the social status of women still lurks in darkness.

In Pune hospitality industry, work force has a blend of approximately 60:40 ratio of male and female employees (Smita Jatia 2013). While working together they do face several diverge situations or on the contrary absolutely free and congenial work environment. Both conditions either affect or effect the performance of these two genders.

It has been observed that females have underrepresentation in the hospitality sector, especially at the higher position, despite series of discussions, articles and conferences being held that advocate for women empowerment to escalate them at managerial positions in the workplace (Alexander Preko) The perception of male employees about the growth opportunities of female employees in hospitality industry is also discussed in this paper

This article is planned as follows: Firstly some of the research literature on perceptions of male employees about women employees working in their organisation is reviewed. The research methodology is structured and the results are discussed. This research is conducted to understand the views of male employees about the female employees working in five star hotels in Pune. The research carried out is of significance as it testifies whether the male employees have a pessimistic attitude about female employees working in the same organization

LITERTURE REVIEW

Ms Manjula Chaudhary and Megha Gupta (2010) study opines that the women status in the society gets reflected by her role played in family, social or political group. Women hold few managerial positions as compare to male in the industry. The earlier studies have reported that the deeply entrenched beliefs and stereotyped attitude towards women at job is the main barrier in gender equality. The unequal status of its women, constitutes more than half of its demographic.

Rachelle Cortis, Vincent Cassar, (2005) study indicate that no differences between job involvement and work-based self-esteem of male and female managers exists. On the other hand, both male employees and students seem to hold more stereotypical attitudes towards women in management than their female counterparts.

Marko D. Petrović, Tamara Jovanović, Jelica J. Marković, Tanja Armenski & Vladimir Marković, (2014) in their study of why should gender differences in hospitality really matter concludes that that women also perceive organisational support, but not as much as men do. Female employees are more focused on users of hotel services and customer satisfaction is more important to them, as well as good relationship with guests. The job satisfaction of a female hotel employee will increase when she receives good comments and praise from customers and when she can see their satisfaction. Thus, interactions and feedback from customers are very important to them, which is in agreement with the finding of Groves (1992)

Leidner (1993) and Carmeli, (2003) have shown that women are more likely to express empathy, pleasantness and helpfulness to a greater extent than their male colleagues.

Caruso, Mayer, and Salovey (2002) points out that women have a great ability to understand other people's emotions and are closer in communication with others -Economic Research-Ekonomska Istraživanja801Downloaded by [117.223.108.216] at 06:16 14 July 2015.

Krum & Geddes, (2000) there is research that show that women are better at controlling emotions of stress at the workplace. They have a higher frequency of expression of desired emotions, even when they are employed on the same job as their male colleagues.

Samantha C. Paustian-Underdahl, Lisa Slattery Walker David J. Woehr (2014) at the meta-analysis published in the *Journal of Applied Psychology*, looked at data from dozens of studies going back nearly 50 years states that "Women are typically described and expected to be more communal, relations-oriented and nurturing than men, whereas men are believed and expected to be more agentic, assertive and independent than women".

Alexander Preko (2012), relates to the stereotyped attitudes displayed by male subordinates toward female bosses at the work place.

Brownell, Judi (1993) research has documented a variety of issues associated with women in the workforce, including such challenges as the glass ceiling: old boy networks: and sexual harassment." Other concerns such as quality of life issues," equity in pay and promotions, and professional credibility have also been explored.

Lan Li, Roberta Wang Leung, (2001) arrived at the conclusion that female managers in Singapore hotels have let go their family life in order to go ahead in the career. An interesting finding is that the barriers to advancement for female managers are due to neither corporate practices nor policies, but rather seem to be a function of cultural and societal sanctions.

Gregg Joseph B. and Johnson, Paulette M., (1990) In the present research work carried out by them, they desires to identify that the Women in hospitality organizations are getting ahead in their career at a pace significantly outdistancing their colleagues of a few decades ago, but women managers selectively perceive overt and covert discriminatory resistance, from chauvinism to carefully-contrived covert prejudicial treatment constructed to assure a no-win situation. The authors determines that these biased practices against equally well-trained, capable, and experienced hospitality women middle managers do affect their perception of their career growth as compared to male counterparts

Catherine W. Ng and Ray Pine (2003) study reveals that female hotel managers in Hong Kong, like their Western counterparts, are aware of the difficulties women face in a male-dominated hospitality industry. The study also reveals that while both women and men prefer male supervisors, men's preference is more definitive. Male managers also prefer supervising male subordinates.

Powell, G. N. (1990) Empirical study conducted by the author reveals that in Hong Kong female and male managers perceive gender and career development issues differently than their Western counterparts. The study also revealed the fact that that while both women and men prefer male supervisors, men's preference is more definitive. Male managers also prefer supervising male subordinates. The findings suggest that there is room for Hong Kong's hotel industry to review the effect of structural barriers on women's career development.

OBJECTIVES OF THE STUDY

1. To assess whether the male employees prefer to work under female boss/peer.
2. To examine the perception of male employees about the personality traits of female employees
3. To analyze the perception of male employees about the Challenges faced by female employees at the workplace.
4. To ascertain the perception of male employees about the strengths and weaknesses of female employees.
5. To study the perception of male employees about the special considerations given to female employees.

RESEARCH METHODOLOGY

Collection of data: The data required was collected using the following techniques:

- **PERSONAL INTERVIEWS**

The researcher conducted personal interviews with the male employees of the various star hotels to understand their perceptions towards their female colleagues.

- **QUESTIONNAIRE**

A questionnaire was made and circulated to the male employees of the hotels by forwarding the link of the questionnaire to obtain their views.

- **SELECTION OF SAMPLE**

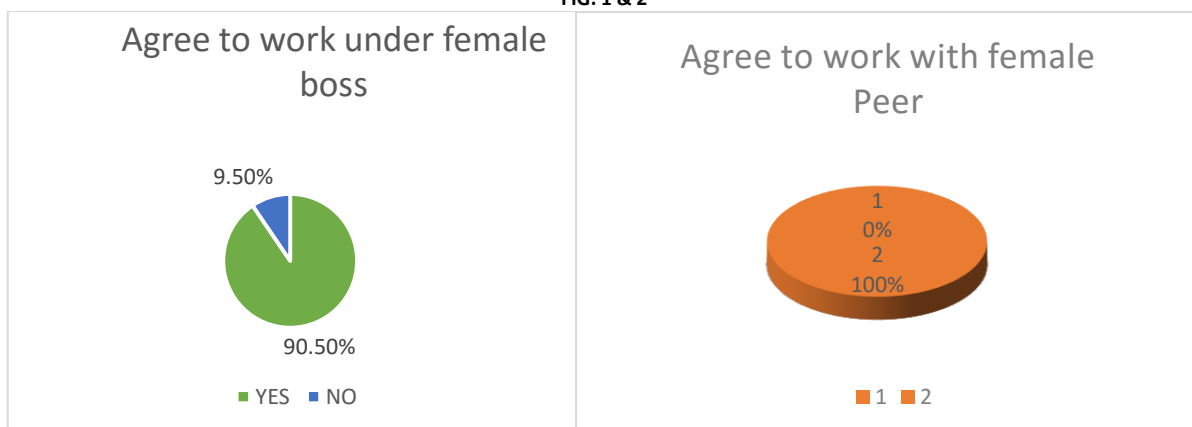
The study has been conducted to identify the perceptions of male employees of their female counterparts in the hotel industry in Pune. A sample of male employees has been selected at random from different five star hotels in Pune city

DATA ANALYSIS

The perception of male employees was judged on several parameters as:

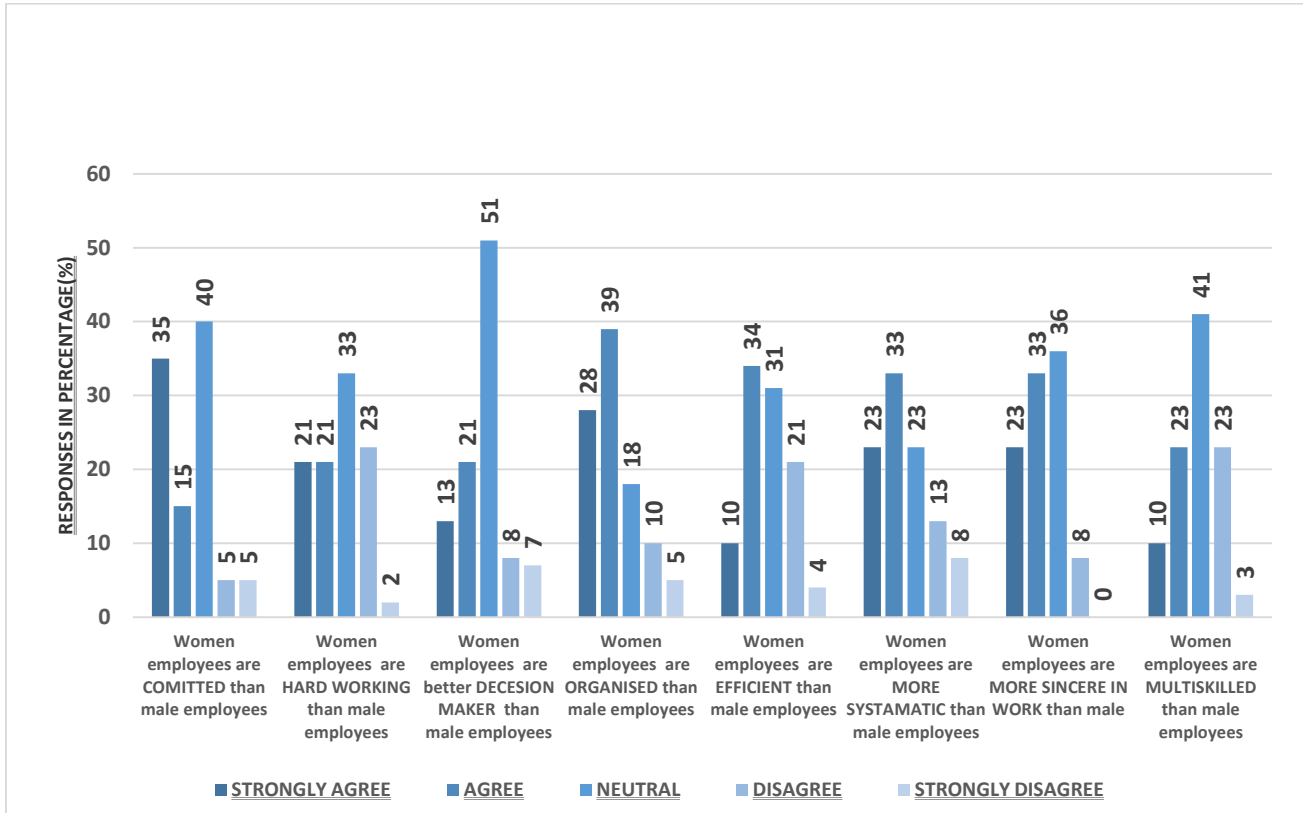
- Personality Traits of the female employee
- Special Consideration given to the women employees
- Strengths and weaknesses of women employees
- Challenges faced by women employees

FIG. 1 & 2



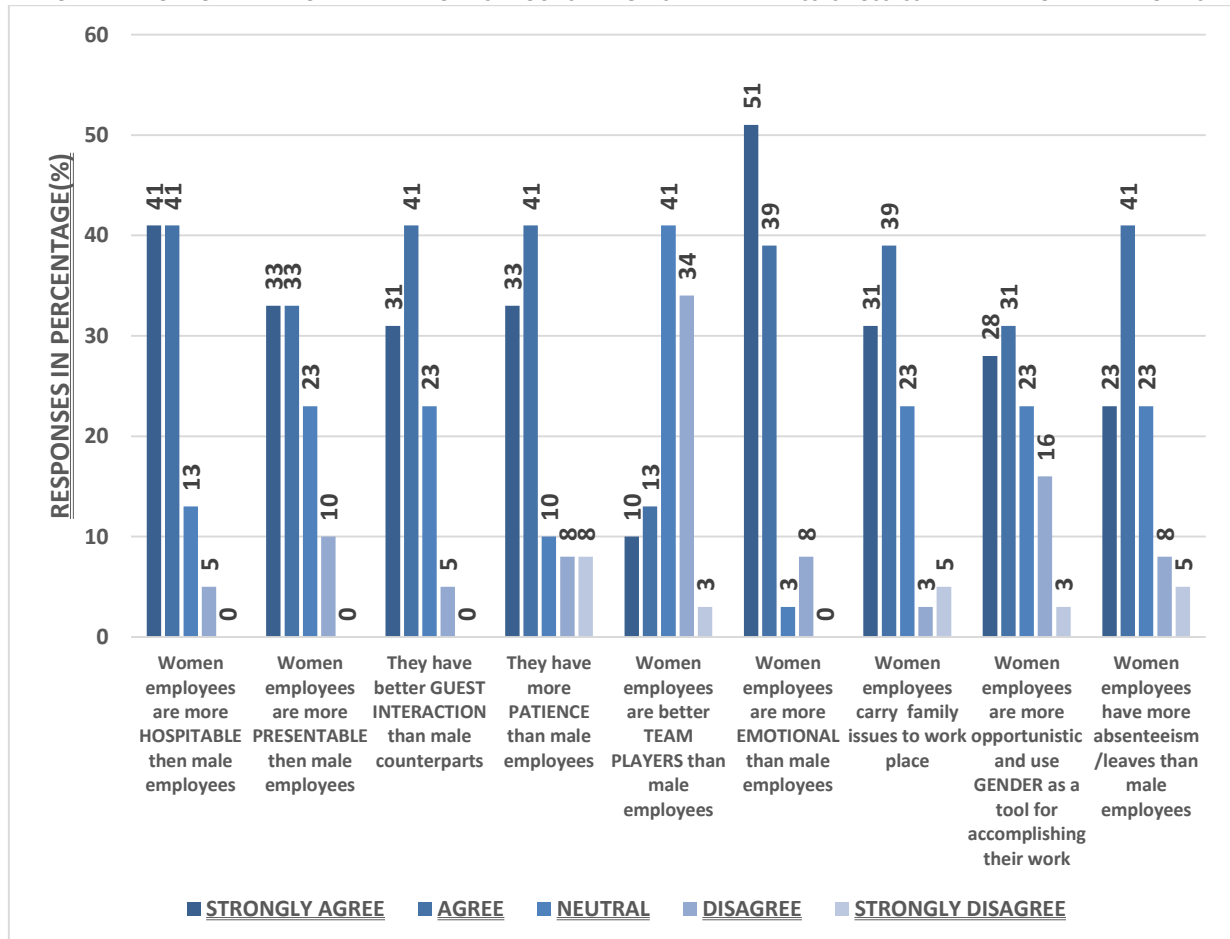
The male employees were asked about their preferences to work with female boss/peers, and as indicated in the graph 91% would like to have a female boss and 100% of men agreed to work with female peers. The reason perceived in both the cases is the professional as well as feminine traits possessed by the female employees.

FIG. 3: LEVEL OF AGREEMENT OF MALE EMPLOYEES ABOUT PROFESSIONAL TRAITS OF WOMEN EMPLOYEES AS COMPARED WITH MALE EMPLOYEES



The data analysed indicates that most of the men have neutral approach towards the personality traits of women, whereas being efficient and committed are the two traits where the level of agreement is highest.

FIG. 4: LEVEL OF AGREEMENT OF MALE EMPLOYEES ABOUT STRENGTHS AND WEAKNESSES POSSESSED BY THE WOMEN EMPLOYEES

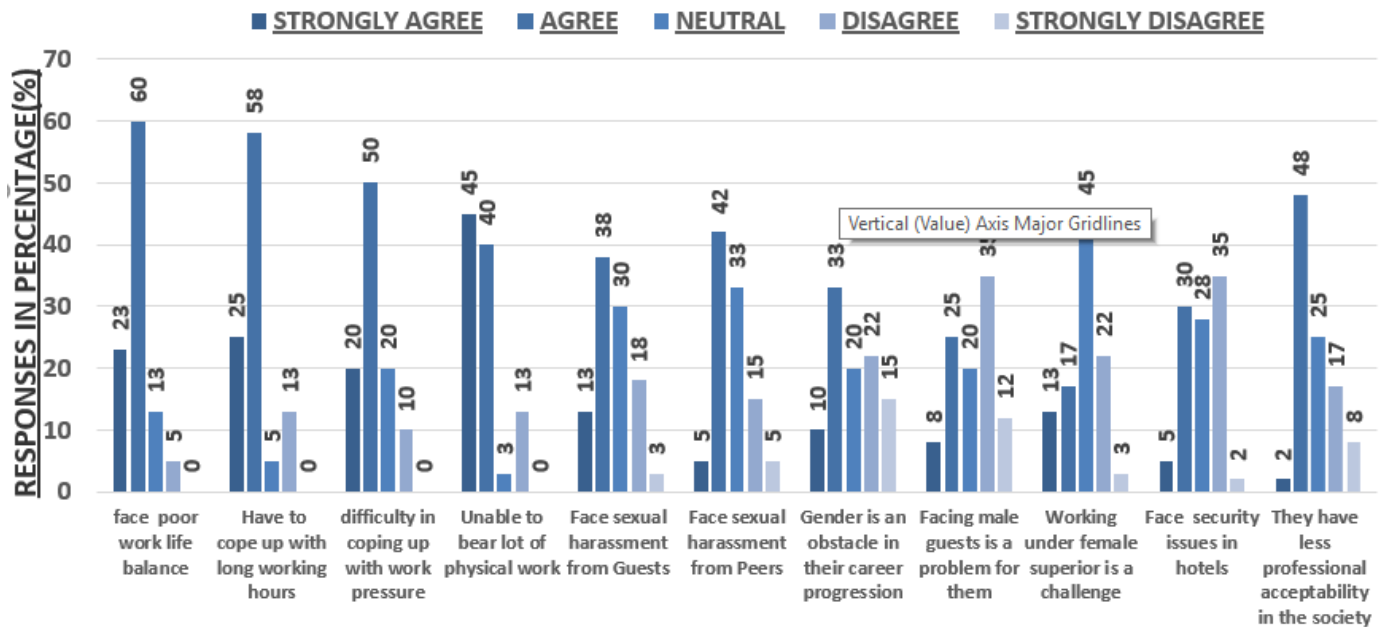


The findings for the level of agreement about strengths and weaknesses of women employees indicates that most of the men (40-50%) either strongly agree or agree about the strengths possessed by women employees such as being more hospitable, presentable, patient, and having better guest interactions of women employee. The trend of not agreeing to these strengths is negligible (5-10%).

This depicts that men do have a positive perception about the strengths possessed by their women counterparts.

As far as the weaknesses like being emotional, carrying their family issues at work ,remaining absent at the work place and using their gender for accomplishing work, men do agree that women employees do possess these weaknesses and very few disagree with the same.

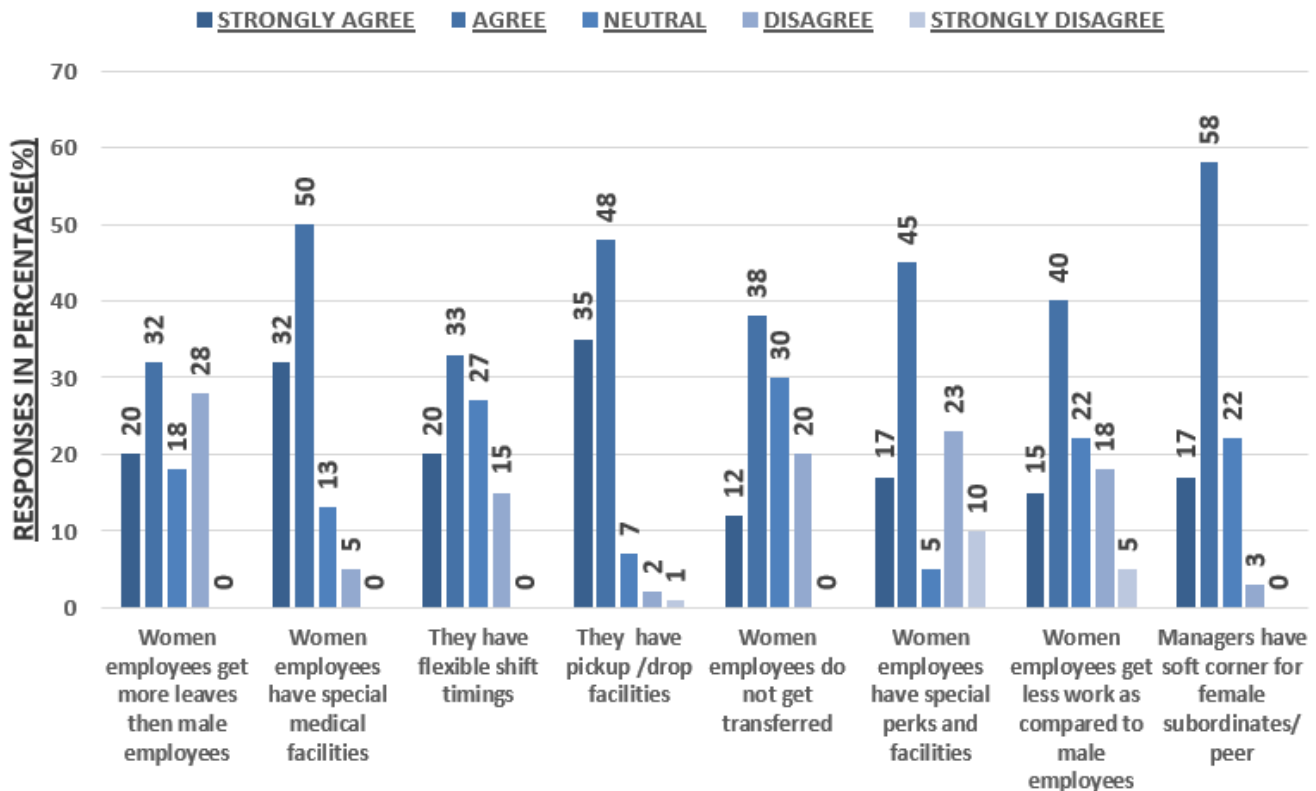
FIG. 5: LEVEL OF AGREEMENT OF MALE EMPLOYEES ABOUT CHALLENGES FACED BY WOMEN EMPLOYEES IN HOTELS



Women employee faces many problems or challenges while working in hotels. From the findings, the above graph indicates that men perceive almost all the challenges in a similar manner as women feel they face. The challenges like work life balance, loing working hours, female mentors/bosses and less acceptability by the society are faced by women, and men colleauges do agree that they face these challenges. On the other hand, some issues related to security of women employees or facing male gusetts is not agreed as a challenge faced by women employees. Maximum men agree that managing work life balance is the biggest challenge, a women employee faces in the hospitality industry.

The most important aspect observed in this study and agreed upon by the male employees is that women employees do face sexual harrassment not only from the guests but also from peers. But at the same time men don't agree that women employees have security iuues in hotels (37% disagree). Sexual harrassment being one of the security concerns , their views about no security issue are faced by the females employees is contradictory .

FIG. 6: LEVEL OF AGREEMENT OF MALE EMPLOYEES ABOUT SPECIAL CONSIDERATIONS GIVEN TO WOMEN EMPLOYEES IN HOTELS



The trend from the data analysis depicts that (38-50 %) men agree that women employees do have special considerations given to them in hotels in terms of special leaves(maternity leave),flexibility in working hours, amount of work and pickup /drop facilities. Maximum men perceive that the superiors have a soft corner for women employees.

FINDINGS

Overall, it can be interpreted that the perception of male employees are inclined towards "agreement" for almost all the parameters whether it's about strengths and weaknesses, the challenges faced by women employees or any special considerations given to women employees. This depicts that male employees have a similar view towards the issues or challenges faced by women employees as they themselves perceive. The neutral perception is seen only for the personality traits of women employees.

Finally, it can be concluded that the study shows that the perception of male employees towards their female counterparts is not pessimistic and they do believe that women have challenges while working in hotels.

CONCLUSION

The study carried out to understand the perception of male employees about their female colleagues in hotel projects that

1. Male employees have neutral approach towards the personality traits of women.
2. The strengths and weaknesses perceived by women are also perceived by male counterparts.
3. Men agree that their female counterpart do face challenges working in hotels and the most challenging problem is managing work life balance.
4. They do agree that women employees are given special considerations in terms of leaves, work related concessions. Also the approach towards them by the superior is compassionate as compared with the male employees.
5. Sexual harassment by not only the guests but also from their peers is a challenge faced by female employees. It is probably because of more interactions and long working hours that the male and female employees together have at the work place. The work culture is also quiet liberal.

SUGGESTIONS AND RECOMMENDATIONS

The study about the perception of male employees highlights a few issues which can be looked into by the management of hotel.

- A protocol of behaviour amongst the colleagues may be suggested to avoid cases of sexual harassment.
- Men should also be given some special considerations as Paternal Leaves, Pickup /drop facilities and even work distribution amongst men and women should be uniform employees.
- Recruitment of female employees may be considered not only at entry level but also at mid or higher levels, by the management owing to the preferences of male employees to work with and under female peer/superior.
- Considering the perception of male employees about women not being good team player, special training may be imparted for women employees to be a good team player.

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COMPARATIVE STUDY OF MEMORY AND ACHIEVEMENT MOTIVATION OF SENIOR SECONDARY SCHOOL STUDENTS IN RELATION TO RESIDENTIAL BACKGROUND

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ABSTRACT

Education is central to sustainable development to ensure a better quality of life for everyone now and for generations to come. Education today requires one to mould a child into an individual capable of contributing effectively to society and to the world community at large. Children in today's world must be taught to think and not merely to remember. Memory constitutes very significant components of the teaching learning process. It is basically in terms of the retention of the acquired experiences or skills that the effectiveness of any educational programmed can be evaluated. Achievement motivation is relatively a new concept in the world of motivation. It is an essential type of motivation that is personal in nature. The basis of achievement motivation is achievement motive i.e. a motive to achieve those who engage themselves in the task an account of an achievement motive that are said to work under the sprit of achievement motivation. It has been referred to as the need for achievement, a wish to do well. Descriptive survey method as research methodology is used in the present study. It has been generally observed that illiteracy is prevailing in the most of the families of the rural area students. It is pertinent to explain that lack of education and rationality adversely affects the thought processes of the individual. This distorted pattern may prevail in the personality make up of the rural students, which may cause low memory level in them in comparing with memory level of urban students. This low memory affects the achievement level of the students.

KEYWORDS

achievement motivation, education, memory.

INTRODUCTION

Education plays an important role in the progress of an individual's mind and country. Ignorance and poverty is major speed breaker in the swift developing country and can be overcome easily through education. It is one of the most important driver's of India social and economic development. Higher levels of literacy lead to greater economic output, higher employment levels, better health, better social structure, and higher marks along number development indicators. More specifically the impact of educating girls and women has been shown to result in rapid improvement in family planning, nutrition, health and income and is seen as one of the best tools from prompting social and economic development. Empirical evidence attests that education has largely contributed to the socio economic progress and improvement of the standard of the living of the people of the nation.

In addition to specialization in particular subject the present age of computer demands knowledge and understanding regarding all fields of life. In today's cut throat competition, where technology rules, growth can be achieved only if one possesses appropriate knowledge and intellectual understanding of concepts which could be reproduced at right place to generate a right decision to achieve such a growth, a high power of memory is pre requisite that helps in quick reproduction of what has been assimilated earlier. Whatever is learnt can only be usable, if it is retained in the mind so that it can be utilized whenever required. Thus, success, durability and efficiency of learning depend upon memory.

Memory constitutes very significant components of the teaching learning process. It is basically in terms of the retention of the acquired experiences or skills that the effectiveness of any educational programmed can be evaluated. Research in educational psychology for a long time shared a major concern with improving the memory of students. The teaching learning strategies, on the characteristics of learners are identified, which governed better or poor retention. Recent developments in the field have brought at the importance of certain strategies related to reception, acquisition organization, coding and retrieval of information in determining retention and subsequent recall. These processes are facilitated or inhibited by certain factors involved in the various stages of processing. An understanding of this processes greatly help learning and retention of a variety of materials.

Achievement motivation is relatively a new concept in the world of motivation. It is essential a type of motivation that is personal in nature. The basis of achievement motivation is achievement motive i.e. a motive to achieve those who engage themselves in the task an account of an achievement motive are said to work under the sprit of achievement motivation. It has been referred to as the need for achievement, a wish to do well. It refers to the accomplish something to do his best, to excel others in performance. This involves competition with a particular standard of the excellence of performance. It is conceived as desired to accomplish something difficult. The desired is accompanied by action, that is, the individual make intense, prolonged and repeated effort to accomplish something difficult.

REVIEW OF RELATED LITERATURE

The review of research literature is the body of research information related to the problem. In simple terms, the similar or related studies carried out by the research workers at various levels are called review of related literature. The survey of relevant studies serves as the basis of most of the research project in physical, natural and social sciences and also in humanities. Realizing the importance of the review of related literature might provide guiding hypotheses suggestive method of investigation comparative data for interpretative purposing. Sometimes textbooks are subjective insight and hypotheses that may well have in the place in the survey of related literature.

STUDIES PERTAINING TO MEMORY IN INDIA

Study on comparative study of Guilford memory study ability among advantaged and disadvantaged students. They found that: (1) the advantaged and disadvantaged students differed significantly in their attainment of different memory abilities. (2) The advantaged girls and disadvantaged boys didn't differ significantly in their attainment of memory abilities. Investigator revealed that both groups differed significantly in their attainment of memory abilities. However, advantages and disadvantages boys as well as girls did not differ significantly in their memory abilities. (Kashinath and Gudi 1997)

Study on effect of certain personal and social variables such as age, sex, grade, family size and socio economic status on memory. A variety of memory tasks and tests were given to boys and girls of class VIII to XII. Factor analysis revealed a set of five factors to account for memory of the subjects. These were numerical and alphabetical memory, figure and color association memory and symbol and older memory. Age, birth – order, family size and socio – economic status exercised significant influences on memory tasks. There were some differences according to grade level, these were not systematic and the effects of sex were not at all

significant. Author concluded that age and sense modalities to be significant determinant of STM and LTM, but the effects of sex were not significant on either measure. (Donga 1989)

STUDIES PERTAINING TO ACHIEVEMENT MOTIVATION IN INDIA

Study on achievement motivation of rural and urban students. Results showed that there was significant difference between achievement motivation of boys and girls. Mean scores of girls of achievement motivation test were 35.32 which was greater than mean scores of boys 34.57. Findings of the study also shows insignificant difference ($F=1.85$, $P>0.05$) between achievement motivation of rural and urban students. Researcher find that rural and urban education have no difference it means that there is education facilities provided in both areas but there is significant difference in boys and girls education this is may be due to restriction for girls in Indian society. (Kaur 2004)

Study on achievement as related to academic achievement motivation and attitude towards study of history. The findings of the study revealed that 54.5% of students have relatively high level of academic achievement motivation, and the rest (45.4%) have relatively low level of academic achievement motivation. The gender, locale of school, economic conditions of students and communities of students have caused no significant difference in respect of their achievement in history, academic achievement motivation and their attitude towards the study of history. The educational status of parents has caused significant difference in respect of their achievement in history, academic achievement motivation and their attitude towards the study of history. There is significant and positive relationship between the higher secondary students achievement in history and their academic achievement motivation. (Krishnamurthy 2001)

STUDIES PERTAINING TO MEMORY AND ACHIEVEMENT MOTIVATION IN INDIA

Study on memory, achievement motivation and mental abilities among secondary school tribal and non-tribal students. A comparative study. The findings with regards to memory of senior Secondary school tribal and non-tribal students showed that (1) there was significant difference in the memory scores of secondary school tribal and non-tribal students. (2) There was significant difference in the memory scores of secondary school tribal and non-tribal boy students. (3) There was significant difference in the memory scores of secondary school tribal and girl non-tribal students. The mean scores of the tribal girls was bit higher than the non-tribal girls it did not premise any note worthy difference. (4) There was no significant difference in the memory scores of secondary school tribal boys and non-tribal girl students. (5) There was significant difference in the memory scores of secondary school tribal girls and non-tribal boy students.

The findings with regards to achievement motivation of Secondary school tribal and non-tribal students showed that (1) there was significant difference in the achievement motivation scores of secondary school tribal and non-tribal students. (2) There was significant difference in the achievement motivation scores of secondary school tribal and non-tribal boy students. (3) There was significant difference in the achievement motivation scores of secondary school tribal and girl non-tribal students. (4) There was significant difference in the achievement motivation scores of secondary school tribal boys and non-tribal girl students. (5) There was significant difference in the achievement motivation scores of secondary school tribal girls and non-tribal boy students.

The findings with regards to mental abilities of Secondary school tribal and non-tribal students showed that (1) there was significant difference in the verbal ability scores of secondary school tribal and non-tribal students. (2) There was significant difference in the verbal ability scores of secondary school tribal and non-tribal boy students. (3) There was significant difference in the verbal ability scores of secondary school tribal and girl non-tribal students. (4) There was significant difference in the verbal ability scores of secondary school tribal boys and non-tribal girl students. (5) There was significant difference in the verbal ability scores of secondary school tribal girls and non-tribal boy students. (6) There was significant difference in the non-verbal ability scores of secondary school tribal and non-tribal students. (7) There was significant difference in the non-verbal ability scores of secondary school tribal and non-tribal boy students. (8) There was significant difference in the non-verbal ability scores of secondary school tribal and girl non-tribal students. (9) There was significant difference in the non-verbal ability scores of secondary school tribal boys and non-tribal girl students. (10) There was significant difference in the non-verbal ability scores of secondary school tribal girls and non-tribal boy students. Researcher of the study concludes that tribal are still lagging behind as compare to non – tribal. This is because of illiteracy and low socio – economic status of the member of the family of the tribal students. (Sa 2003)

STATEMENT OF THE STUDY

India is the seventh largest country and second most populous country of the world. India's population constitutes nearly 16.7% of the total world population in 2.4% of world geographical area. India has 1027 million people as per the 2001 census. Today, India is know as the talent pool of the world, where intelligent, educated people are very easy to find, and this fact has definitely given a boost to education of India. Education is universally recognized as a major component of human development. As such, certain minimum level of literacy seems to be essential for a population to break out of the vicious circle of poverty. Human development is therefore, assembled in terms of literacy and related indicators. The literacy rate in India increase from 18.33% in 1951 to 65.38% in 2001. There has been remarkable progress in literacy. For the first time since independence the absolute number of literates has declined by over 31.9% million in last decades. An India commitment to spread of knowledge and freedom of thought among its citizens is reflected in its constitutions. The directive principle contained in Article 45 enjoins that "the state shall endeavor to provide within a period of ten years from the commencement of this constitutions, for free and compulsory education for all children until they complete the age of fourteen years".

Sikkim is the 22nd state of India. It lies on the north Eastern corner of India and is located between Bhutan and Nepal with West Bengal in its south. Sikkim has population of 540, 493, made up of Lepchas, Nepalese and Bhutias over the area of 7, 096 sq.km. A substantial plan allocation has been made in the Human Resource Development Sector, in line with the objective of the government for achievement of cent per cent by the year 2015. The enrolment ration of girls and boys has improved from 90:100 in the year 1994 to 100:105 in 2005. As against, the literacy rate of 69.68% in the year 2001, which incidentally is more than the national average of the 65.38%. Education policies of the Sikkim have been made to achieve the goal of national development. It highlights growth and priority in the areas of education that points to challenges the future. In spite of the good progress in education, there are continuing problems in senior secondary education. Senior secondary education is a critical stage in any scheme of educational reconstruction for the development of the nation. Students have to face lots of problem after completion of secondary education. Mostly, problems arise in rural areas due to limited schools and poverty. In rural area people are poor and they do not have that much ability to afford proper education facilities to their child. Due to poverty and distance of the schools they leave the schools after completion of the secondary education and sometimes leave the school at the middle of the session. Rural students are may not have proper stimulating home environment to flower their inherent abilities and aptitudes. They may have higher level of memory in comparison to urban students, to get their educational achievement may be much poorer than that of others, because they do not have high aspiration and stronger degrees of achievement motivation. Moreover, they are born and brought up in a different social setup and their abilities may be latent and we need to nourish and develop the same. In this regard, the policy planned and the educational experts need to be well versed basically with respect to the cognitive and non-cognitive abilities of rural and urban students. So as to find out the etiology of their social backwardness and to check out remedial measures and thus to bring them to the mainstream, the researcher addressed the study to the following questions:

- Do the rural and urban students posses different level of Memory?
- Do the rural and urban students posses different level of Achievement Motivation?

If rural students have deficient memory, possess lower level of achievement motivation in comparison to urban students than what measure should be taken for their improvement in all those areas? On the basis of the findings of this question, policy planners and government will have strong base to facilitate better educational system for their upliftment.

The third world countries like India have embarked upon a process of reforming their economics to fall in live with the global trends. Economic development efforts may find fruition only when the secondary and tertiary levels of education are made responsive to the demands of the market forces governed by the ever evolving developments in science and technology. The scanning of previous related research studies reveals that very scanty researches have been made on memory and achievement motivation of secondary school students. Through same studies are available on achievement motivation and general intelligence, the results are contradictory. Moreover, if we do not know the potential level in various memory and achievement motivation of the deprived of our society, we will not be in a better position to adopt various measures to sharpen different dimensions of their personality. Thus, the present researcher study to compare memory, achievement motivation of senior secondary students in relation to residential background to arrive at substantial conclusions.

OBJECTIVES OF THE STUDY

- To compare the memory of senior secondary school boys and girls students in urban area.
- To compare the memory of senior secondary school boys and girls students in rural area.
- To compare the achievement motivation of senior secondary school boys and girls students in urban area.
- To compare the achievement motivation of senior secondary school boys and girls students in rural area.
- To compare memory and achievement motivation of senior secondary school boys and girls students in urban and rural areas.

HYPOTHESES OF THE STUDY

- 1) There exists no significant difference between memory of senior secondary school boys and girls students in urban area.
- 2) There exists no significant difference between memory senior secondary school boys and girls students of in rural area.
- 3) There exists no significant difference between achievement motivation of senior secondary school boys and girls students in urban area.
- 4) There exists no significant difference between achievement motivation of senior secondary school boys and girls students in rural area.
- 5) There exists significant difference between memory and achievement motivation of senior secondary school boys and girls students in urban and rural areas.

METHOD OF RESEARCH

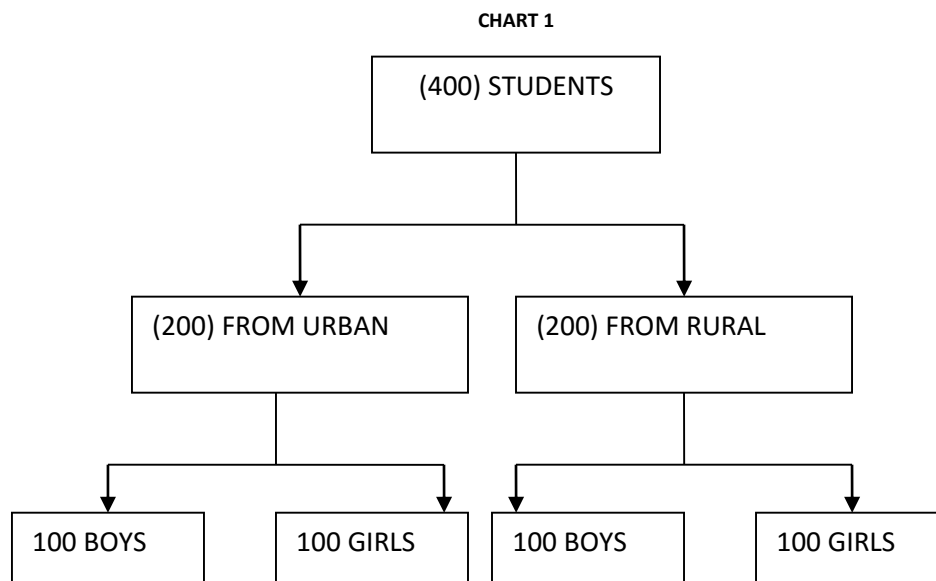
For the present study researcher choose the survey type descriptive research.

POPULATION

The active group from which the sample has been selected is called as population. The senior secondary school rural and urban students studying in class XII of East and South district of Sikkim constituted the population for the present research investigation.

SAMPLE

A sample is a smaller representation of a larger whole i.e. a population. For the present study the investigator has decided to select randomly 10 schools, 5 from Urban and 5 from Rural. 400 students of those schools will be selected as sample using random sampling technique on the basis of equal allocation. Out of 400, 200 from East district (58 boys and 58 girls from rural areas and 42 boys and 42 girls from urban areas) and 200 from South district (60 boys and 60 girls from urban areas and 40 boys and 40 girls from rural areas). The Following chart gives a clear description about the representation of the sample.



TOOLS USED

For the present study researcher decided to go in for the following two standardized psychological tools to measure Memory and Achievement Motivation of the rural and urban senior secondary students in the present study:

- (a) (DwarkaPershad and N.N Wig) P.G.I Memory Scale (PGIMS) (1994).
- (b) (PratibhaDeo and Asha Mohan) Deo – Mohan Achievement Motivation Scale (DMAMS).

STATISTICAL TECHNIQUES USED

Following statistical technique has been used by investigator for analysis and interpretation of data.

- T-test
- ANOVA

RESULTS AND DISCUSSION

After data collection regarding the present research problem it was subjected some statistical treatment to convert the data into information. The tabulated data have no meaning unless these are analyzed and interpreted by applying appropriate statistical techniques.

1. COMPARISON BETWEEN MEMORY SCORE OF SENIOR SECONDARY SCHOOL BOYS AND GIRLS STUDENTS IN URBAN AREA

For the purpose of comparison of memory scores among different sub-groups of the sample subjects belonging to senior secondary school boys and girls students, t-ratio was computed and the result is presented in the table below

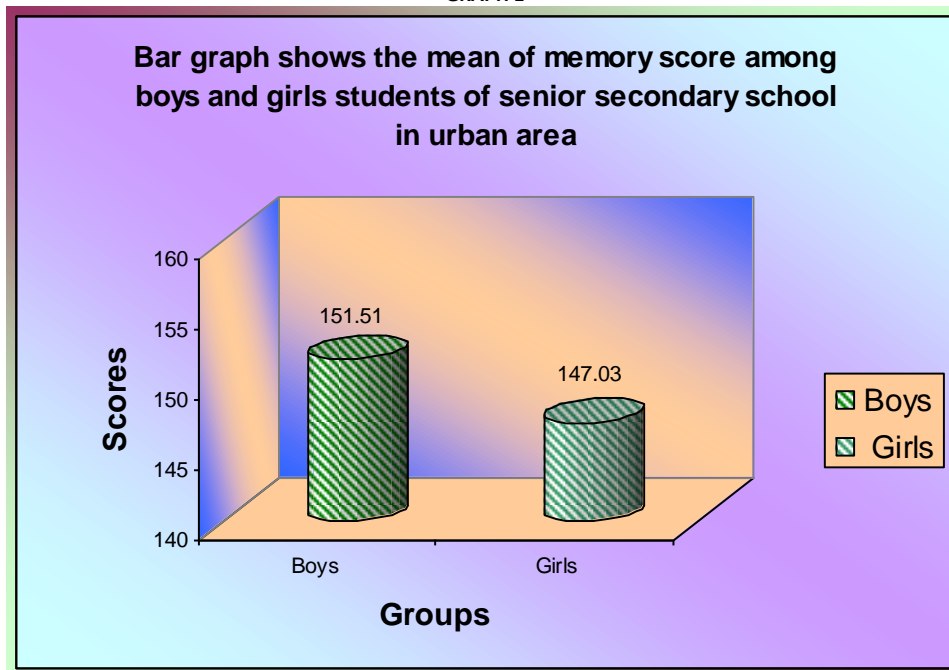
MEAN OF MEMORY SCORE AMONG BOYS AND GIRLS STUDENTS OF SENIOR SECONDARY SCHOOL IN URBAN AREA

TABLE 1

Groups	N	Mean	SD	SED	t-Ratio
Boys	100	151.51	14.58	2.21	2.05
Girls	100	147.04	16.66		

Level of significance 0.05= 1.97, Level of significance 0.01 = 2.60

GRAPH 1



The table observed that the obtained t – ratio 2.05 is found to be significant at 0.05 level. It means that there is significant difference between memory score of senior secondary school boys and girls students in urban area. Thus, the first null hypotheses which states that there exist no significant difference between memory score of senior secondary school girls and boys students in urban area gets rejected. However, there is no significant difference exists at 0.01 level. It says that there is no significant difference between memory score of boys and girls students of senior secondary school in urban area. Therefore, the first null hypotheses which states that there exist no significant difference between memory score of senior secondary school boys and girls students in urban area gets accepted. So it can be interpreted that the senior secondary boys students possess better memory levels than their girls counterparts. The results have been depicted in above graph.

II. COMPARISON BETWEEN MEMORY SCORE OF SENIOR SECONDARY SCHOOL BOYS AND GIRLS STUDENT IN RURAL AREA

The objective of the study was to compare the memory of senior secondary school boys and girls students in rural area. The result has been presented below.

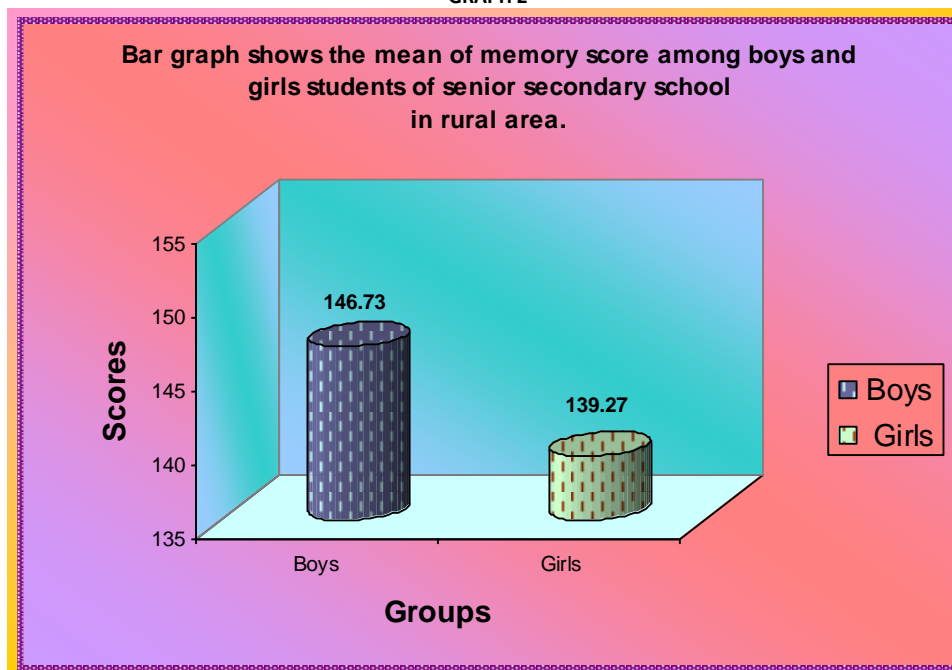
MEAN OF MEMORY SCORE AMONG BOYS AND GIRLS STUDENTS OF SENIOR SECONDARY SCHOOL IN RURAL AREA

TABLE 2

Groups	N	Mean	SD	SED	t-Ratio
Boys	100	146.73	15.04	2.20	3.38
Girls	100	139.27	16.11		

Level of significance 0.05= 1.97, Level of significance 0.01 = 2.60

GRAPH 2



It is an evident from the table 2 that the calculated t–ratio for memory score of senior secondary school boys and girls students in rural area comes out to be 3.38 is significant at 0.01 level. It reveals that there is significant difference between memory scores of senior secondary school boys and girls students in rural area. Therefore, the second hypothesis which states that there exists no significant difference between memory of senior secondary school boys and girls students in rural area stands rejected. So, it can be interpreted that the senior secondary boys students possess better memory level than the senior secondary girls students. The result has been depicted in above graph 2.

III. COMPARISON BETWEEN ACHIEVEMENT MOTIVATION SCORE OF SENIOR SECONDARY SCHOOL BOYS AND GIRLS STUDENTS IN URBAN AREA

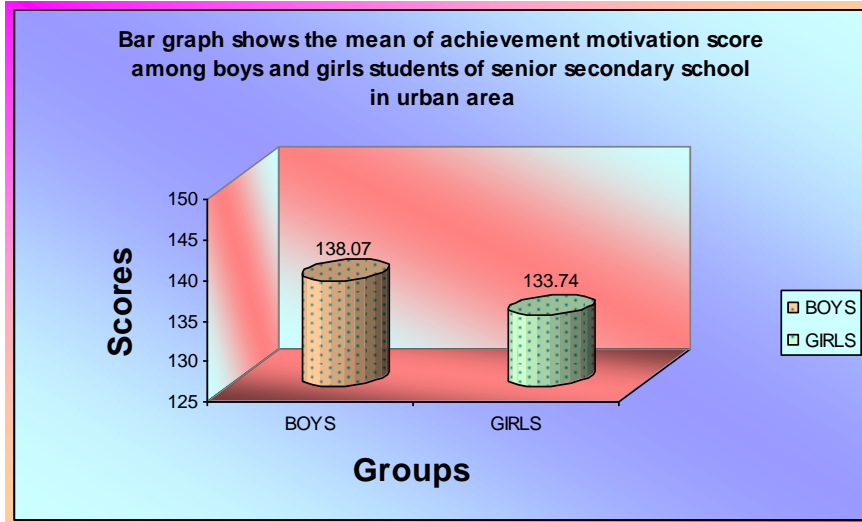
The objective of the study was to compare the achievement motivation of senior secondary school boys and girls students in urban area. The result has been presented below.

TABLE 3: MEAN OF ACHIEVEMENT MOTIVATION SCORE AMONG BOYS AND GIRLS STUDENTS OF SENIOR SECONDARY SCHOOL IN URBAN AREA

Groups	N	Mean	SD	SED	t- Ratio
Boys	100	138.07	18.90	2.63	1.63
Girls	100	133.74	18.43		

Level of significance 0.05= 1.97, Level of significance 0.01 = 2.60

GRAPH 3



The table shows that the calculated t-ratio for achievement motivation of boys and girls students of senior secondary school in urban area is 1.63 which is less than the table value at both level i.e., .05 and .01. So, it can be interpreted that there exists no significant difference between achievement motivation of senior secondary school boys and girls students in urban area. Hence, the H_0 stated beforehand is accepted. The result has been depicted in the above graph 3.

IV. COMPARISON BETWEEN ACHIEVEMENT MOTIVATION SCORE OF SENIOR SECONDARY SCHOOL BOYS AND GIRLS STUDENTS IN RURAL AREA

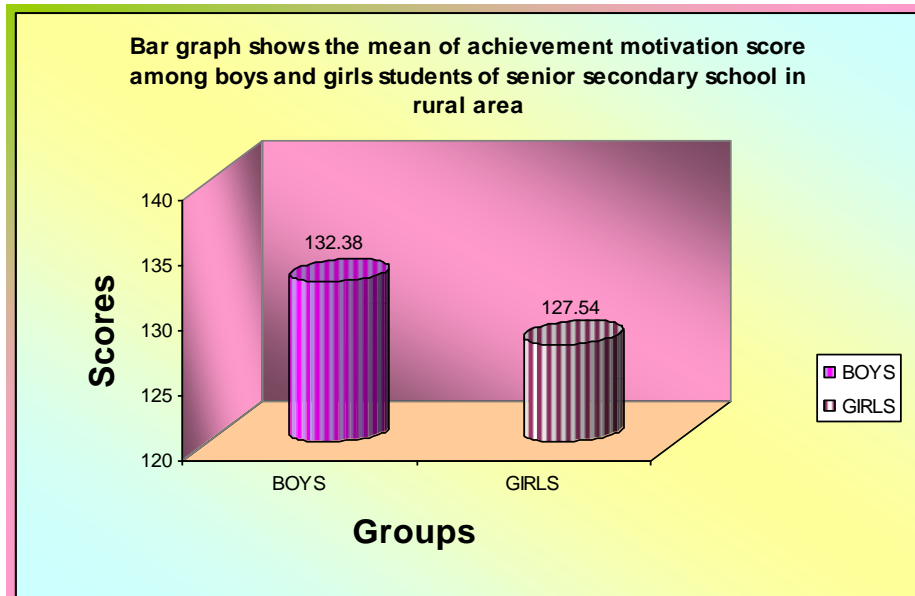
The objective of the study was to compare the achievement motivation of senior secondary school boys and girls students in rural area. The result has been presented below.

TABLE 4: MEAN OF ACHIEVEMENT MOTIVATION SCORE AMONG SENIOR SECONDARY BOYS AND GIRLS IN RURAL AREA

Groups	N	Mean	SD	SED	t- Ratio
Boys	100	132.38	20.39	2.87	1.68
Girls	100	127.54	20.20		

Level of significance 0.05= 1.97, Level of significance 0.01 = 2.60

GRAPH 4



The table 4 depicts that the mean memory score of boys was 132.38 and that of girls was 127.54 with S.D 20.39 and 20.20 respectively. The obtained t-ratio was 1.68 and this was found to be below than the both significant level i.e., .01 and .05. It implied that there exists no significant difference between achievement motivation of senior secondary school boys and girls students in rural area. Hence, the hypothesis gets accepted. The results have been depicted in the above graph 4.

V. COMPARISON BETWEEN MEMORY AND ACHIEVEMENT MOTIVATION SCORE OF SENIOR SECONDARY SCHOOL BOYS AND GIRLS STUDENTS IN URBAN AND RURAL AREAS

The objective of the study was to compare the memory and achievement motivation of senior secondary school boys and girls students in urban and rural areas. The urban and rural areas boys and girls memory and achievement motivation was divided into three parts i.e., high, average and low. To find the difference between memory and achievement motivation of senior secondary school boys and girls students in urban and rural areas, ANOVA was applied and the results have been presented below in table 5.

TABLE 5: ANALYSIS OF VARIANCE OF MEMORY AND ACHIEVEMENT MOTIVATION SCORE AMONG BOYS AND GIRLS STUDENTS OF SENIOR SECONDARY SCHOOL IN URBAN AND RURAL AREAS

Source of Variance	SS	Df	MS	F-value
Between groups	219638.2	7	9549.48	100.44
Within groups	73493.03	792	95.07	
Total	293131.2	799		

The findings in above table 5 indicate that the sum of squares between groups and within groups have been found to be 219638.2 and 73493.03 respectively and the values of mean square between groups and within groups have been found to be 9549.48 and 95.07 respectively. The result explored F-value 100.44 which is significant at 0.01 level.

The hypothesis of the present study was that there exists significant difference between memory and achievement motivation of senior secondary school boys and girls students in urban and rural area. The results explored that there is significant difference between memory and achievement motivation of senior secondary school boys and girls students in urban and rural area. Hence, the hypothesis stands accepted.

FINDINGS

Findings with regard to memory and achievement motivation of senior secondary school boys and girls students in urban and rural areas have been depicted in tables no. 1 to 5. No study was found to compare the memory and achievement motivation of senior secondary school boys and girls students urban and rural areas. Only one study was found in India that is memory, achievement motivation and mental abilities among secondary school tribal and non tribal students by Sa (2003). Investigators find that there exists significant difference between memory, achievement motivation and mental abilities among secondary school tribal and non tribal students. Third finding of present study is that there exist no significant difference between achievement motivation of senior secondary school boys and girls students in urban area and fourth finding there exists no significance difference between achievement motivations of senior secondary school boys and girls students in rural area is in agreement with achievement motivation of rural and urban students by Kaur (2004). Investigator found that there was insignificant difference between achievement motivation of urban and rural students. First finding there exists no significant difference between memory of senior secondary school boys and girls students in urban area. Second finding there exist significance difference between memory of senior secondary school boys and girls students in rural area and fifth findings of the study states that there exists significance difference between memory and achievement motivation of senior secondary school boys and girls students in urban and rural areas is in agreement with Sa (2003). It may be due to lack of advance facilities in rural area. It has been generally observed that illiteracy is prevailing in the most of the families of the rural area students. It is pertinent to explain that lack of education and rationality adversely affects the thought processes of the individual.

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A STUDY ON SOCIAL VALUES, INDIVIDUAL ATTRIBUTES AND PHASES OF ENTREPRENEURIAL ACTIVITY: INDIA Vs. OTHER GEOGRAPHICAL REGIONS

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SAINIKPURI, SECUNDERABAD, TS

ABSTRACT

An ecosystem of entrepreneurship has emerged globally, where companies around the world are connected and their ideas are unleashed and innovation has been transformed into reality. Thereby, the economies are growing and expanding human wellbeing. The paper analyses the entrepreneurial activities in India with reference to select dimensions, in comparison to the various geographical regions of the world, using United Nations Classification for regions. The specific dimensions covered are social values and individual attributes regarding entrepreneurship development, and the various phases of entrepreneurial activities, which play an important role in developing a very positive and constructive entrepreneurial culture in the nation. The paper also presents India's stand in the World with regard to the Entrepreneurial culture. The study is based on secondary data. The recommendations can be used to continuously enhance the quality of entrepreneurial activities in India in the context of going global.

KEYWORDS

entrepreneurship, social values, individual attributes, and phases of entrepreneurial activity.

INTRODUCTION

People have individual values, preferences, assess their own capabilities, see opportunities and make decisions with respect to entrepreneurship. These decisions may be influenced by local availability of business premises and regional market growth. As a consequence, differences in entrepreneurial dimensions such as Social values, Individual attributes as well as the different Phases of Entrepreneurial activity attitude and activities may be the result of regional demography (an overrepresentation of groups of individuals with high entrepreneurial spirits or involvement in entrepreneurial behavior).

Entrepreneurship has been defined as an effort to start a new business, creating a new venture such as self employment, an organization starting a new business or the expansion of an existing business, by a person or a team of people, or a business which already has been established (Reynolds, P. M. and S.M. Camp, 1999). The dimensions of entrepreneurial activities can be defined as below:

- a) Entrepreneurial activities: Entrepreneurial activities are represented in a form of life cycle approach in an organization from nascent, new business, established business and finally discontinuation of the business.
- b) Social values are significant part in which individuals behave entrepreneurially or not. Social values include starting a venture as a good career choice, high status to successful entrepreneurs, and media attention for entrepreneurship which positively contributes to developing an entrepreneurial culture.
- c) Individual Attributes include perception of opportunities, perception of own capabilities to act entrepreneurially, fear of failure and entrepreneurial intentions define entrepreneurial personality of an individual.

The present study provides insights on the perception of whether the entrepreneurship components support or hinder entrepreneurial activity in India. It also analyses India's position in aspiring entrepreneurship (by identifying aspirations to grow among owner-managed businesses and the presence of entrepreneurial employee activity). The findings can provide policymakers with a base for evaluating the present and potential policies to improve and emphasize the vital role and need for entrepreneurship and sustainable growth in the country.

NEED OF THE STUDY

The regional differences in entrepreneurship are very prominent and persistent globally. The variation is applicable to dimensions such as Social values, Individual attributes as well as the different Phases of Entrepreneurial activity. Thus it is very significant to study entrepreneurial activities in India in terms of the above dimensions.

OBJECTIVES OF THE STUDY

1. To study the entrepreneurial dimensions such as social values, individual attributes and phases of entrepreneurial activity of various geographical regions of the world.
2. To analyze the entrepreneurial dimensions in India with reference to select dimensions, in comparison to the various geographical regions of the world.
3. To present India's stand in the World with regard to the Entrepreneurial culture.

RESEARCH METHODOLOGY

The study is based on the data as given in the Global Entrepreneurship Monitor (GEM) Report for 2014–15, the literature on the subject and relevant information available in the World Wide Web. For statistical analysis Two-way ANOVA has been used.

REVIEW OF LITERATURE

There is empirical evidence of large cross-country differences in entrepreneurial dimensions. The annual GEM report demonstrated that entrepreneurial dimensions differ substantially between countries.

Beugelsdijk and Noorderhaven (2004) derived an index relating to 'enterprise culture', which, however, only indirectly links to entrepreneurship, and found significant differences between European regions. Beugelsdijk et al. (2006) showed that regional variation in cultural attitudes is significant and persistent over time (see also Davidsson and Wiklund 1997). This persistency in regional cultural patterns is due to long term cultural heritages (Inglehart and Baker 2000), which can be regional, national. This would call for a regional approach to Hofstede's measurement of national cultural values (Hofstede 2001), in which different spatial scales are acknowledged.

People from entrepreneurial families or with close friends who own businesses, are more likely to develop entrepreneurial values themselves (Davidsson and Honig 2003).

At the regional level, in societies characterized by traditional entrepreneurial structures, like many small retail businesses and habitual entrepreneurship, personal attitudes towards firms and entrepreneurship are more positive than in regions dominated by a managerial culture (Weber, 1904).

However, following the study of Inglehart (2003) on the relation between culture and economic development, it can be argued that regions with persistent high economic growth are also characterized by relatively positive attitudes towards entrepreneurship (see also Uhlaner and Thurik 2007). On the one hand, the pull-factor of economic growth, especially within the region, leading to high spending and growing markets in close vicinity, may well evoke entrepreneurial attitudes. On the other hand, (national) unemployment may push people into entrepreneurship. Finally, relating to institutional (formal and informal) effects, persistent

market regimes and risk aversion attitudes may affect the prevalence of entrepreneurial attitudes at the regional level (Douglas and Shepherd 2002; Acs et al. 2007).

Starting a firm is an individual decision, and individual characteristics are important determinants in the formation of new firms (Sternberg and Wagner 2005; Bosma and Schutjens 2007). As regards informal institutions, Freytag and Thurik (2007) did not find a direct link between national culture and entrepreneurial activity, even though the relationship between national culture and entrepreneurial preference was significant.

With respect to demographic factors, the age-structure of the population is related to business ownership, as young people are underrepresented among business owners and they just lacked the time to set up and maintain a firm over 3.5 years. According to Schutjens and Wever (2000), whether firms survive and prove to be economically viable for over the first years, also depends on entrepreneurial and firm characteristics.

With respect to regional economic attributes, to many firms the local or regional market is the most relevant production milieu (Malecki, 1997). Therefore, regional levels of demand potential and industry (sectoral) composition (e.g. competition intensity) matter.

At the national scale, both formal and informal institutions affect firm survival. The entrepreneurial climate or culture mirrors the regional rather than national value attached to business ownership, risk-bearing behaviour and the status of being ones' own boss. It can be expected that the national variation in cultural entrepreneurial attitudes exceeds regional variation (Beugelsdijk and Noorderhaven 2004; Bosma and Schutjens 2009).

Concerning entrepreneurial activity, we presuppose that as the decision to start a firm is a 'regional' (Feldman 2001) or even local event, regional forces will affect entrepreneurship in the process before start-up, leading to lower regional variation in the prevalence of Early Stage Entrepreneurial Activity (ESEA: nascent entrepreneurs or owners of young businesses up to 3.5 years old). Based on visual inspection of spatial differences in entrepreneurial activity (Bosma and Schutjens 2009), we expect that national conditions matter more to established business ownership (EBO: Established Business Ownership with firms over 3.5 years old) than to ESEA.

HYPOTHESES

SOCIAL VALUES

H01: There is no significant difference between the factors relating to social values dimension.

H11: There is a significant difference between the factors relating to social values dimension.

H02: There is no significant difference between regions relating to social values dimension.

H12: There is a significant difference between regions relating to social values dimension.

INDIVIDUAL ATTRIBUTES

H03: There is no significant difference between the factors relating to individual attributes dimension.

H13: There is a significant difference between the factors relating to individual attributes dimension.

H04: There is no significant difference between the regions relating to individual attributes dimension.

H14: There is a significant difference between the regions relating to individual attributes dimension.

PHASES OF ENTREPRENEURIAL ACTIVITY

H05: There is no significant difference between the factors relating to phases of entrepreneurial activity.

H15: There is significant difference between the factors relating to phases of entrepreneurial activity.

H06: There is no significant difference between regions relating to phases of entrepreneurial activity.

H16: There is significant difference between regions relating to phases of entrepreneurial activity.

DATA ANALYSIS AND INTERPRETATION

The data on the dimensions of entrepreneurship, viz., Social values, Individual attributes and Phases of entrepreneurial activity for India and other Geographical Regions are given in Table 1. The data relate to the average unweighted responses of the sample units, on each of the above dimensions and the factors within each of those dimensions, measured on a 5-point Likert scale. The sample units comprise 206,000 individuals and 3936 national experts on entrepreneurship from 73 economies. In India 3,360 individuals have been taken as sample in 2014 according to age groups (18-64 years) and gender classifications to represent the national population. The data are given region-wise, comprising India, Asia & Oceania, Africa, Latin America & Caribbean, European Union, Non-European Union, and North America.

The data show that in the case of social values, for the factor 'Entrepreneurship as a good career choice', India ranks 6th amongst the 7 regions. For the factor 'High status to successful entrepreneurs' India's rank is 6th. For the factor 'Media attention for entrepreneurship' India is ranked at 5th position. Overall it appears that India stands below the average level regarding Social values.

In case of individual attributes dimension, for the factor 'Perceived opportunities', India ranks 5th compared to other regions. For the factor 'Perceived capabilities' India is ranked at 7th position. For the factor 'Fear of failure', India's rank is 2nd. For the factor 'Entrepreneurial intentions', India is ranked at 7th rank when compared to other regions. Overall India stands below average level for all the factors except fear of failure under Individual attributes dimension.

The data shows that in the case of phases of entrepreneurial dimensions, for the factor 'Nascent entrepreneurship rate', India is ranked at 6th position when compared to other regions. For the factor 'New business ownership rate', India's rank is 7th position. For the factor 'Early stage entrepreneurial Activity (TEA)', India stands at 6th position. For both the factors 'Established business ownership rate' and 'Discontinuation of businesses (% of TEA)', India is ranked at 7th position. The above analysis shows that India stands below average level for all the factors under Phases of entrepreneurial activity.

Overall for the three dimensions referred above India stands below the average level.

The hypothesis taken for the study has been tested using Two-way ANOVA tool. The output is given in tables 2 – 7. The results are summarized in Table 8. It is seen that there is significant difference between regions relating to social values dimension. From Table 2 we find the average for India as 60.23 across the regions i.e 6th position. This is possible because of cultural differences across the regions. There is significant difference between factors relating to individual attributes dimension. This can happen due to differences in personality that may arise even from the stage of upbringing of an individual, among others.

From Table 4, it is observed that perceived opportunities are given the highest rating with mean 45.4, followed by perceived capabilities (42.89), Fear of failure (33.27) and entrepreneurial intentions (19.41). It is significant that there is opportunity recognition to a great extent. At the same time capabilities are considered as a key factor. But the deterrents appear to be fear of failure and entrepreneurial intentions.

CONCLUSION

The analysis relating to entrepreneurial development in a global context reveal difference across regions in the case of social values and differences exist within the various factors under individual attributes. In India the opportunities for entrepreneurship have been growing significantly because of governmental and institutional support. In the global perspective the study reveals that there is an opportunity recognition and confidence regarding capabilities. There is a need to provide support in facing the fear of failure so that entrepreneurial intentions get converted into establishing entrepreneurial culture.

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TABLES

TABLE1: SOCIAL VALUES, INDIVIDUAL ATTRIBUTES AND PHASES OF ENTREPRENEURIAL ACTIVITY FOR INDIA AND OTHER GEOGRAPHICAL REGIONS
(Average Unweighted for % Population aged 18-64)

S. No	Regions	India	Asia & Oceania	Africa	Latin America & Caribbean	European Union	Non European Union	North America	Rank of India
	Dimensions								
I	Social Values								
a)	Entrepreneurship as a good career choice	57.9	63.4	71.5	66.8	56.9	63.3	61.0	6
b)	High status to successful entrepreneurs	66.2	69.8	77.6	64.6	66.6	72.9	73.3	6
c)	Media attention for entrepreneurship	56.6	74.4	72.9	67.3	53.3	51.3	71.8	5
II	Individual Attributes								
a)	Perceived opportunities	38.9	36.6	62.3	49.4	34.8	42.6	53.2	5
b)	Perceived capabilities	36.7	44.6	65.2	64.5	42.3	41.7	51.2	7
c)	Fear of failure	37.7	37.5	23.8	27.7	40.7	32.4	33.1	2
d)	Entrepreneurial intentions	7.7	20.5	45.1	28.8	12.1	9.7	12.0	7
III	Phases of entrepreneurial activity								
a)	Nascent entrepreneurship rate	4.1	5.8	14.1	11.4	4.8	3.3	8.8	6
b)	New business ownership rate	2.5	7.4	13.0	6.7	3.2	2.8	4.9	7
c)	Early stage entrepreneurial Activity (TEA)	6.6	13.0	26.0	17.6	7.8	6.0	13.4	6
d)	Established business ownership rate	3.7	10.8	13.2	8.0	6.7	5.7	8.2	7
e)	Discontinuation of businesses (% of TEA)	1.2	3.9	14.0	5.4	2.6	3.0	4.1	7

TABLE 2: SOCIAL VALUES: DESCRIPTIVE STATISTICS

SUMMARY	Count	Sum	Average	Variance
Entrepreneurship as a good career choice	7	440.8	62.97143	25.69238
High status to successful entrepreneurs	7	491	70.14286	22.01952
Media attention for entrepreneurship	7	447.6	63.94286	98.26952
India	3	180.7	60.23333	27.12333
Asia & Oceania	3	207.6	69.2	30.52
Africa	3	222	74	10.21
Latin America & Caribbean	3	198.7	66.23333	2.063333
European Union	3	176.8	58.93333	47.32333
Non European Union	3	187.5	62.5	117.12
North America	3	206.1	68.7	45.03

TABLE 3: SOCIAL VALUES: ANOVA RESULTS

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	211.8971	2	105.9486	3.665165	0.057233711	3.885294
Columns	529.0057	6	88.16762	3.050054	0.047396319	2.99612
Error	346.8829	12	28.9069			
Total	1087.786	20				

TABLE 4: INDIVIDUAL ATTRIBUTES: DESCRIPTIVE STATISTICS

SUMMARY	Count	Sum	Average	Variance
Perceived opportunities	7	317.8	45.4	100.39
Perceived capabilities	7	300.2	42.88571	404.7114
Fear of failure	7	232.9	33.27143	35.70238
Entrepreneurial intentions	7	135.9	19.41429	181.5148
India	4	121	30.25	226.81
Asia & Oceania	4	139.2	34.8	103.6867
Africa	4	196.4	49.1	363.18
Latin America & Caribbean	4	170.4	42.6	312.7667
European Union	4	129.9	32.475	194.9092
Non European Union	4	126.4	31.6	234.42
North America	4	103.5	25.875	472.9425

TABLE 5: INDIVIDUAL ATTRIBUTES: ANOVA RESULTS

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	2912.077	3	970.6924	6.20897	0.004396954	3.159908
Columns	1519.844	6	253.3073	1.620263	0.198805708	2.661305
Error	2814.068	18	156.3371			
Total	7245.989	27				

TABLE 6: PHASES OF ENTREPRENEURIAL ACTIVITY: DESCRIPTIVE STATISTICS

SUMMARY	Count	Sum	Average	Variance
Nascent entrepreneurship rate	7	52.3	7.471429	16.63905
New business ownership rate	7	40.5	5.785714	13.7781
Early stage entrepreneurial Activity (TEA)	7	90.4	12.91429	51.21143
Established business ownership rate	7	56.3	8.042857	10.06286
Discontinuation of businesses (% of TEA)	7	34.2	4.885714	17.88143
India	5	18.1	3.62	4.057
Asia & Oceania	5	40.9	8.18	13.672
Africa	5	80.3	16.06	31.108
Latin America & Caribbean	5	49.1	9.82	23.902
European Union	5	25.1	5.02	4.942
Non European Union	5	20.8	4.16	2.423
North America	5	39.4	7.88	13.647

TABLE 7: PHASES OF ENTREPRENEURIAL ACTIVITY: ANOVA RESULTS

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	272.0989	4	68.02471	15.86503	1.76971E-06	2.776289
Columns	554.532	6	92.422	21.55507	1.44067E-08	2.508189
Error	102.9051	24	4.287714			
Total	929.536	34				

TABLE 8: HYPOTHESIS - CONCLUSION

	Null Hypothesis	P Value	Decision
Social Values	H01 There is no significant difference between the factors relating to social values dimension	0.057	NR (Not Significant)
	H02 There is no significant difference between regions relating to social values dimension	0.04	Rejected (Significant)
Individual Attributes	H03 There is no significant difference between the factors relating to individual attributes dimension	0.004	Rejected (Significant)
	H04 There is no significant difference between regions relating to individual attributes dimension	0.199	Not Rejected (Not Significant)
Phases of entrepreneurial activity	H05 There is no significant difference between the factors relating to phases of entrepreneurial activity	1.77	Not Rejected (Not Significant)
	H06 There is no significant difference between regions relating to phases of entrepreneurial activity	1.44	NR (Not Significant)

SECURITY PROBLEMS AND STRATEGY IN CLOUD COMPUTING

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ABSTRACT

Cloud Computing is a new technology that is mainly used for large computations workload for clouds. Security is the key factors in these computing. There are various advantages in the cloud computing that mainly leads to data storage, bandwidth, power and software that has been shared for the clouds. There are various models Grid, Parallel and Utility Computing are used. Characters such as Reliability, Expansibility and low price service been used. In these papers it mainly deals with how the security and strategy will be taken place in the cloud. In the cloud storage, only single security method cannot be used to solve the problems and it should contains a total computing and new technologies that are used in the Cloud Computing System.

KEYWORDS

security issues, cloud computing.

1. INTRODUCTION

Nowadays, the Cloud Computing is used in both Industry and academics. Basically it is mainly used for data storage. Security is the key for the cloud computing. The users can use the data anywhere. There is a fast development in the cloud server that the services are used. The service provided by the cloud to the customers having high scalability and reliability. The cloud system are transparent for application that are used in the resources and customers will not be knowing where to place the data. As the technology improving, there is a change in the industry for the development of information that are used in the society. There are virtualization technologies are used in the server to store the data as a centre location.

It can access anywhere in the world includes applications, platform and business mode. The advantage of cloud computing is having high reliability and scalability. Resource are shared by many number of users. The data which are stored by the user are confidentiality. Hacker may use the different software to get the data. The company will be provided a server that is mainly used for storing the data. In these servers there are two things one is public and private. The private server that are access by only the people who are there in a company. But the public data which are used that can be access by any number of peoples. The data stored in public or private system it guarantee the security of the data which are not used by the other users in the system. Platforms are been provided by the most of the companies. There are various problems are used in the cloud computing. There is no boundary and mobility's been used in the cloud Computing these leads to many security problems. The main problems include security of data, protection of data depending on the platform and administration.

2. CLOUD COMPUTING

Cloud Computing means data storage not used in the local computer but there are used in the distributed networks across the networks. The cloud computing performs the operation in personal computer and it includes the data centre either in public data or the private data. When it is used in the private data centre it can distributed across the various large data centers. The cloud give good service quality, reliable it provides on demand service and it automatically capabilities are need. The cloud system infrastructures are owned by an organization which sells cloud services to the general public or to a large industry company. The public cloud is running in the internet and the security is very complex. The service can be given to machines such a computer, laptop and mobiles.

It includes various service models Software as a Server (SaaS) mainly deals with server that are used based on the software. Platform as a Servers (PaaS) deals with application that are used in the configuration, Development, Testing and Deploying. Infrastructure as a Servers (IaaS) deals with infrastructure that are used in the servers. Sharing of the resources may be network, database and through servers. Examples is Amazon Elastic Compute Cloud (EC2). Virtualization Techniques are used in the Cloud Servers.

The resources mainly include the hardware, service, software that are shared fully. In a single system, multiple operating system are running. A Server can be service the host if it is running in the correct environment there is no affected by a host. Host can be added or removed based on the accommodate maintenance. The cloud computing has three important types public, private and hybrid. The public cloud is mainly used to access by various external data centre. The private cloud is mainly used for accessing restricted centre mainly used for confidentiality in internal data centers. The hybrid cloud is the combination of one or more clouds. It mainly consists of two sections one is front end and other is back end. The front end is the user or customer and back end is the resource or service provided by user. It includes various technologies. The Grid Computing is used for solving the problems based on resource, Cloud Computing is mainly used for allocation or sharing of the resources, Parallel computing is mainly used for performing the two or more computing operation at a same time. There are various cloud computing that are used in the market like Google, IBM etc. In Google it mainly consist of Google File System(GFS) which are distributed file system contain one master and any number of servers. The MapReduce operation are used. In these two operations to be performed. It maps the keys value and reduces the key and values are used. It performs the operations or the tasks and integrates the results. The MapReduce is used in the scheduling model not only in programming mode. The Bigtable depends on group of scheduling to perform the operation. The BigTables are used in the Database management systems which mainly include the tables. The Hadoop Distributed File System(HDFS) it works based on master-slave operation it contain center server i.e name nodes and manages the data i.e data nodes. The applications can be extended as the number of user increasing.

3. CLOUD SECURITY PROBLEM

Internet is the most things that is used for running the cloud system and problems are also found in the internet. Some of the security problems consist of virus that leads to data lost. Hackers leads to the hack the cloud account and steal the data in the system. The cloud system is deployed for the security of the data. The cloud center includes the data and business application used for protection of resources. Cloud Computing is a technology is used to change the services, computing and virtualization includes the service, platform and application. The Cloud System mainly deals with Resource, Operation and Networks. If the system fails, the recovery of data is the problems. The system hides the operations or implementation services which are provided by the cloud. The key factors that are used in the user is the resource and privacy data. Data Integrity is used to change the data only authorized user and confidentiality means user can read the data. Transmitting the data through network leads to high flexibility and high scalability of the system to the user. The system in which data are stored deployed to different areas in different clouds nodes. Some of the accessing control are licensing, certification of cloud that are used in the data storage. In cloud computing there are many users changing the service needs. Position of data and how the servers are processing the data are the important problems that are facing by the users. The services must be improved with protecting of the data

4. STRATEGY

In the Cloud system, whatever the data has stored it can be changed by someone or modified by the hackers. So Encrypting the data before deploying in the servers. The data size is small it will not be a problem if it is large, it takes extra time and resources. Security may leads to data storage, recovery, availability,

survivability for the long term of the data. Data is stored in the cloud, the data can be transferred to the server or the cloud providers. The manipulation and data storage related to the resource mainly leads to the environment. The services offered by customers is difficult to get full transparency. Internal process of cloud computing and storage location of the cloud may do not know to the customer. The data how it gets fails with the cloud the customer may not know. The customer should be carefully check the services with security given to the data. The technologies include Confidentiality, Authentication, Integrity, Non-Repudiation, Availability and Access Control. The difficulty of decryption mainly depends on encryption. It also includes asymmetric key, symmetric key in the encryption methods. Authentication is mainly used to solve the problem of cloud security. In real time, traffic and status can be monitored. The unwanted network will be detected and they are fixed. The interruption and failures may leads to the hackers. There should be improved in the response and capabilities mechanisms. Data security recovery and data backup is important for the customers. The availability, security and integrity may be protected to the user information. The virtual private network and encryption can be used for the data transmissions. The user which are connected to cloud server may provide an operations to the user, maintenance, operation and various tasks are carried on . Transmitting the data one server to the server user don't know what is the data storage place. Trojan, virus may affect the internal and external controller in the cloud computing platforms. Damage to the system should be repaired fast so that the backup data should not affect. Designing Encryption and Key distribution mechanism should be proper. The system may provide service architecture in which details and services are hidden to customers. The services can be used as web service for the reference. Different system may use different programming language for the different application, for different platforms through the protocols. The services can be trust, secure conversation and authorizations.

5. CONCLUSION

This paper illustrate the problems of cloud security. Backup ,Recovery of the data, Integrity and authentications are the principles used in the cloud computing. It relates to many service and managements. The data privacy is more than the traditional networks depending on the environment, platform and servers. Many customer may misuse the data, the security for the data are shown in these papers. There is a public and private clouds are also used to solve the problems. The main discussion is the security problems in the cloud computing. There are many users in which how data can be protected without any modification or changes done by the other user. Encryption such as symmetric and asymmetric keys and Decryption is used.

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SCHEDULED CASTE IN INDIA: PROBLEMS AND PROSPECTS

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ABSTRACT

The concept of schedule castes has generated enough interest, due to social turn of recent past, to merit a broad analysis of the problems, typical of this class of Indian social order. The present study is an attempt to evaluate the problems associated with this class and legislative, judicial and administrative efforts to ameliorate the same. Recent Constitutional amendments made to provide a platform for socio – economic upliftment of this class has resulted in creating a schism in the psyche of the so-called privileged class. It is important to evaluate whether these changes would bring the desired equality or further promote a mutant of inequality.

KEYWORDS

Indian social order, scheduled caste, weaker section.

INTRODUCTION

As per the various Anthropological evidences put forward India has always been inter mixture of various castes, which in the past was structural functional basis of Indian social system. Gradually those who were ranked higher on the hierarchy started exploiting those on the lower rank on the basis of 'purity and pollution', concepts developed by them to strengthen their status. Thus caste has formed the basis of pervasive form of inequality from ancient to modern times. Schedule castes, those that were on the lowest stair of hierarchical ladder have continuously faced the deprivation and violent suppression since time immemorial. Even today such practices are prevalent at number of places.

POSITION IN THE PAST

The concept of equality, as is understood and preached /practiced today, was not even conceptualized in earlier times as old as later Vedic period. As has been rightly commented and observed by social scientists and thinkers, the practice of caste system was the greatest manifestation of religiously camouflaged social inequality. The so called upper caste persons denied even the basic human amenities to the people occupying the lowest rung of the social system. Those of the lower caste were violently denied access to those well, which were used by upper castes for purposes of domestic use. The settlements of these 'untouchables' were located at the low-lying, unhygienic locales at village outskirts. Reprehensive acts which repeatedly outraged their sense of self respect like denying ladies of lower caste to cover their upper torsos were commonly practiced. The victim of the social 'order (disorder?)' was forcibly made to carry out inhuman tasks like scavenging, maintaining burial grounds etc. They were forced both physically and economically to become perpetual bonded laborers in fields of upper castes.

CHANGE IN THE SCENARIO

Gradually in course of time customs have undergone a change, though in a very slow and uneven manner. This has led to shattering of the shackles of rigid caste hierarchy as found in middle of 19th century and has helped in diminishing inequalities present during those times. The change is prominently witnessed among the middle class of metropolitan cities, be it professional, administrative or managerial occupations. Many elements in the treatment of then considered inferior, by those who were considered superior, are now condemned as reprehensive. This has been made possible through the several caste movement of 20th century, which was taken up to uplift the lowly to a respectable status, thus strengthening the position of lower castes.

*The democratic system and constitutional validations in the recent times have ensured representation in legislature, executive and judiciary of schedule caste and tribes. This in itself can be read as an important change in the traditional hierarchical system, which even did not give recognition and pace to these ethnic groups in the rigid social structure of the past.

*Customs relating to 'purity and pollution' have weakened in the urban areas. Social exclusion is less extensive among the urban middle class than rural peasantry. Practice of untouchability has declined irrespective of changes in the material conditions of the scheduled castes. Previously castes were made to do defiling tasks against their will; such cases are becoming less and less common.

*Rules of compensability have broken down substantially. Inter-dining between members of 'clean' and 'unclean' caste is not uncommon even in the villages.

*Schools are open to members of scheduled castes as concerning both pupil and teachers. It is one such arena where even in village untouchability is not practiced.

FACTRS THAT LED TO CHANGE**ECONOMY**

In course of time development of market economy introduced money which led the scheduled caste to take up independent occupations compared to the traditional ones where their particular service was considered a social obligation and it had to be necessarily done by them for the upper castes for their survival. Industrialization and urbanization further led to mobilization of schedule castes along with other castes to new areas where the village structure and its obligation no longer prevailed. Jobs there were qualification based rather than destined by birth.

EDUCATION

The modern educational system questioned to the thinking minds about the rationale behind the discrimination. This led to the change in the approach of the educated, regarding the scheduled castes. Even the scheduled castes were equally allowed to study and take up equivalent jobs as the upper castes. Education also led to an improvement in the habits and practices of lower castes, which were considered unhygienic and attached to the concept of 'purity' and 'pollution'. Thus bringing them closer to upper caste be it inter-dining or visiting public places, temples or even using wells where they were violently abstained.

SOCIAL

Another reason for change in the rise and growth of new middle class and its political and social influence exceeds than its numerical strength. Recruitment to it is through education and employment. Middle class has a distinct culture, which cannot accommodate the segregation of people amongst themselves. The growth of middle class has not eliminated caste and the prevalent gaps amongst them, but it has substantially altered its character and significance.

POLITICAL AND CONSITUTIONAL

Significant social changes of 20th to 21st century in India probably began somewhere from middle of 19th century, have dented the hierarchal society resulting to mutation of this social structure 'sensu-stricto'. On the plane of legal and political values hierarchy has been replaced by equality. The V and VI schedule of constitution was prepared and incorporated for castes and tribes suffering from the social disability of untouchability.

The Indian constitution provided these castes, which came to be called as Scheduled Castes, special privileges to help them overcome their socio-economic disabilities. A certain proportion of seats in the Parliament and State legislatures were reserved for them to ensure not only political but proportional representation. Jobs in the government and seats in the educational institutions were in to attempt upliftment. The constitution under article 18 of fundamental

rights abolished untouchability by an act in 1955, later improved as Protection of Civil Rights Act of 1976 and finally in 1989 Prevention of Atrocities Act was passed to prevent atrocities from being committed on the former untouchables, that is, the Scheduled Castes.

The legal provisions and measures discussed above along with the democratic system of governance and the process of planned social upliftment has considerably changed the psyche of caste society. Secular trends unleashed by the policies to promote equality and developments have eroded the rigid traditional basis of caste.

If Manusmriti is regarded as traditional Hindu Society Charter and Constitution of India as that of Modern India, the difference is evident.

FACTORS LEADING TO INEQUALITY

On the plane of actual social value, if the society is analyzed then one form of inequality based on caste is yielding to another form of it which is further based on education, occupation and income. The power lust politicians have further added fuel to this tendency by promoting caste based politics to fulfill their self interests. Gradually, one's **occupation** has become the basis of one's social identity. There is no 'Official' or formal hierarchy of occupations as there was of 'Varnas' in India. But in fact occupations are not equally esteemed nor do they all command equal authority there is social ranking of occupations, particularly professions such as doctors, scientists and engineers enjoy much higher status than manual workers.

Similarly **education** has been a source of increasing inequality. Not all members of society can be benefited from those available opportunities and benefits. In India even elementary education, not speak of higher education, is outside the reach of large masses of the population.

Equality of opportunities promotes equality not in every sense. The institutional structure of modern society reflects inequality of esteem. Intra professional differences are also witnessed for example all scientists do not enjoy equal esteem.

The **politics** of caste based reservation gained with the decision of the union government in 1989 of the Mandal Commission Report, extending the reservation of government jobs for the backward classes. No political party can afford to oppose the prevalent reservation policy as it may lose its popularity. To gain popular support, political parties now compete with each other to extend reservations to castes hitherto excluded from the list of schedule castes and backward castes. Now leaders of these castes complain that the more educated and socially established castes in these reserved categories have monopolized the privileges of reservation. Hence there is now a trend to demand separate quotas for each of the caste within the reserve categories.

Another dimension of the politics of reservations has been the demand for extension of reservations to former untouchable castes among the Muslims and Christians. This demand also reflects the reality that conversion does not wipe out caste discrimination.

The caste based approach to the elimination of caste discrimination will only achieve in perpetuating caste discrepancies. Thus inequality is both a product of change and a stimulus to it, which strongly affects the life chances of the individual and restricts the scope of individual mobility.

SOLUTION

The real solution lies to draw a distinction between equality and universality through non-caste secular strategies, **universality advocates treatment of human being as equals, and not their equal treatment**. The principle of universality appeals to the common humanity of all human beings. This principle often remained on the plane of moral sentiments. A major step forward is taken when it becomes the basis of a whole legal system. Best expression in the constitution is in the concept of citizenship. During the long period of colonial rule Indians were subject rather than citizen. Universal adult franchise is another example supporting universalistic approach. After ensuring political empowerment of schedule caste there is a need to continue the ongoing process of economic and social empowerment. Constitution needs to incorporate human rights with increasing urgency. Right to individual development as a human right, i.e., a right that should be universally acknowledged to all human beings every where is the need of the hour, advocated in the United Nations Development Report 2000 and has been advocated by the studies done by Noble Laureate Dr. Amartya Sen. Thus there is an urgency regarding the universalisation of rights in India where large section of the population have long remained under privileged and disadvantaged. The recent shift from the language of policy to the language of rights in the discourse on development is the step in the right direction. Constitution covers the right in part III under Fundamental Rights, while matters of policy in part IV under Directive Principles of State Policy. Attainment of Universality can be possible by effective implementations of well structured and foresighted policy having a common factor – **That all human beings are equal**. However, that requires political will to carry them through.

With government, NGO's can play a noteworthy role in the direction to advocate and train schedule castes and other poor and vulnerable section of society. The need is to ensure that a new generation of schedule castes rises to provide a role model for not just the members of their own caste but for the whole society like Dr. B.R. Ambedkar one of the founders of Indian constitution.

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IMPACT OF EMPLOYEE ENGAGEMENT ON TALENT RETENTION WITH REFERENCE TO ACADEMICIANS IN GWALIOR REGION

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ABSTRACT

With the changing business environment competition has increased and organizations are striving towards finding various innovative ways to achieve and maintain competitive advantage. And to a great extent such competitive advantage can be maintained through the most important input of every organization i.e. Man. So it becomes very important to maintain and retain talent of the organization on which the success of every organization is based. With the increasing competition, academics also face the problem of turnover. Faculty departure is something which is inevitable because of many reasons. There are so many academic issues which lead to mobility of faculty from one institute to another. Institute view turnover or departure as a costly aspect of Human Resource Management. Loss to the institute may be in terms of student's career as well as the institute's image and so it calls to look forward for employee engagement which is considered as a predictor of talent retention. Present study is concerned with identifying the impact of employee engagement on talent retention among academicians. The study is empirical in nature and done in Gwalior region. The sample size for the study is 150 and correlation and regression method to arrive results. The findings of the study show the significant relation between employee engagement and talent retention.

KEYWORDS

academicians, employee engagement, talent retention.

INTRODUCTION

Employee engagement at work was conceptualized by William.A.Kahn (1990) as the "harnessing of organisational member's selves to their work roles". Research on this concept was started by academicians in 1990's to define the concept of employee engagement more clearly (Kahn,1990; Maslach & Leiter,1997; Schaufeli, Salanova & Gonzalez-Roma, 2002) Employee engagement was then described in academic literature by Schmidt et al.(1993). They described employee engagement as "an employee's involvement with, commitment to and satisfaction with work." Employee engagement creates greater motivation within employees for the work they do and increases their commitment to the organization. Engagement is about creating an enthusiasm for their roles, their work and the organization, and ensuring they are associated with the values of the organization. According to Macey and Schneider, engagement is different from satisfaction or commitment. They identified two components of employee engagement:

- Feelings of engagement (focus and enthusiasm), and
- Engagement behavior (proactivity and persistence).

According to William H. Macey and Benjamin Schneider (2008), employee engagement refers to positive feelings on the part of employees about their jobs and also the motivation and efforts put by them into their work. Engagement leads to positive employee behaviors which in turn lead to organizational success. Talent retention refers to various practices of the organization which lead to employees stick to organization for long. Every organization invests cost in terms of time, money, training to make them appropriate for the working of the organization. The organizations face a great loss when employees leave the job after becoming suitable to the organization. Retaining the talented staff ensures satisfaction to students (in the case of academics) to the students and satisfied colleagues. Failing to retain talented staff is a costly aspect for every organization. Smart employers always realize the importance of talent retention and so make efforts to increase the retention rate. After any organization invested time and cost to train the employees to make them productive, it must also find out the strategies to generate the profit from the trained employees and so it calls for identifying innovate ways or strategies to retain talent. Organizations, now a days have also realized retaining employees is much more cost effective than to replace them. When we talk about retention it means to retain the talented or skilled employees. Talented employees always have good opportunities in their hand and they may easily get attracted to other organization if find themselves dissatisfied with the present employees. If the organization neglects this dissatisfaction of their employees, they would be left with no talented employees.

REVIEW OF LITERATURE

Empirical evidence shows that there are well researched axioms regarding the presence of employee engagement in organizations that leads to retention of the employees. There are so many factors in the work place which impacts engagement level towards organization and their engagement level enhances their intention to stay with the organization. Hewitt and Associates (2004) described engagement as a measure of the energy and passion that employees have for their organizations. Engaged employees are those who acts to improve business results for their organizations. They "stay, say, and strive- in terms that they stay with and are committed to the organization, they say positive things for their work place, and struggle (strive) to go beyond to do extraordinary work."

Deepti Sinha's, Sachin Sinha's Study on Talent Retention (Feb 2008) revealed that high performance organization give more importance to talent and goes all out to grow its talent pool. They found that most of institutes are experiencing recruitment difficulties followed by people leave their managers not their job. They concluded that in order to keep efficient people for a longer period Institutes pay a higher price and a successful retention practice helps in developing a network of experience & talented employees in the institution.

Survey by Corporate Executive Board (2009) found that disengagement is negatively related with employee engagement and retention. Study also found that talented staff significantly effects the performance of business. This survey studied more than 20,000 employees in more than 100 organizations worldwide and revealed out that one in four intended to leave their employer within one year, one in three admitted to not to put his effort into his job. One in five believed that there is imbalance in their personal aspirations and the organisation planning for them.

Saket Jeswani and Suren Sarkar (2008) found talent engagement as the best strategy which as used for performance and retention. The research indicated that engaged workforce in an organization is a loyal workforce and makes extra efforts and contributes in performance and retention. Numerous studies showed empirical evidence that higher levels of engagement reduces turnover intention significantly (Maslach, Schaufeli, & Leiter, 2001; Saks, 2006; Shuck, Reio, & Rocco, 2011)

OBJECTIVE

To measure the impact of employee engagement on talent retention

HYPOTHESIS

H1 Employee engagement has a significant influence on talent retention

RESEARCH METHODOLOGY

The study "Impact of Employee Engagement on Talent Retention" is an attempt to study about employee engagement and its influence on talent retention.

RESEARCH DESIGN

The study is empirical in nature. The purpose of the study was to empirically test the relationships between employee engagement and talent retention and to state whether these research propositions could confidently be accepted or rejected.

SAMPLE SIZE

The population for this study was faculties from colleges and Universities in the Gwalior region. The sampling frame were the colleges and universities situated in the Gwalior region. Initially about 200 questionnaires were distributed and out of which 181 were received back. But after discarding 31 questionnaires because they were incomplete only 150 were considered for further analysis.

SAMPLING TECHNIQUE

For the purpose of this study random sampling method was used. Random sampling is the most preferred data collection technique as every item from the frame has the equal chances of selection. To ensure the balanced representativeness of faculties this method was used. Sample included the faculties from private as well as government institutes of the Gwalior region.

TOOLS FOR DATA COLLECTION

Primary and secondary data sources were used to collect the information. Primary data was collected with the use of standardized measures with some modifications. For measuring employee engagement, Utrecht Work Engagement Scale (UWES: Schaufeli & Bakker, 2003) was used and talent retention was measured using the scale which was used by Eva Kyndt & Filip Dochy & Maya Michielsens & Bastiaan Moeyaert, 2009. Survey conducted involved personal distribution of questionnaires to the faculties teaching in Private as well as Government colleges of Gwalior region. Secondary data sources included journals, magazines, newspaper article, research databases like EBESCO and reports from various consultancy firms like Towers Perrin, Gall up studies and Corporate Leadership Council (CLC) were reviewed to gain insight into the various aspects of employee engagement and its outcomes.

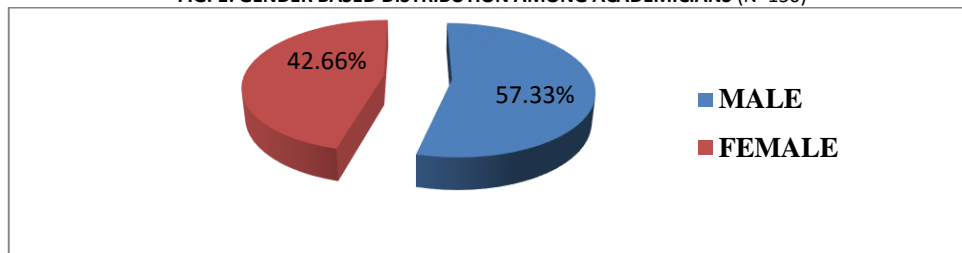
STATISTICAL ANALYSIS TECHNIQUES

Statistical analysis refers to a wide range of tools and techniques to explore and prove the relationships between two or more variables. In the study, reliability was assessed through Cronbach’s alpha. Validity was checked through face validity and construct validity. Descriptive statistics was used to test the general trend and the distribution of the sample while inferential statistical tools like correlation and regression were used to test hypothesis formulated by the researcher.

RESULTS AND DISCUSSION

Descriptive statistics summarizes the characteristics of the respondents which help the researcher to understand the nature of the sample surveyed. Following table summarizes demographic profile of the respondents. Out of 150 respondents, 64 were females (42.66%) and 86 were males (57.33%).

FIG. 1: GENDER BASED DISTRIBUTION AMONG ACADEMICIANS (N=150)



Before applying statistical techniques, reliability and validity of both the constructs was measured. Reliability measures whether the data collected is precise or not. The reliability of the employee engagement and retention construct items was found to be .89 and .83 respectively which are of acceptable value. Also the data so collected found to be valid.

To examine the direct effects of employee engagement on talent retention as stated in hypotheses, first of all correlation analysis was done on the variables used in the study to measure the association between them. Further, talent retention was regressed on employee engagement.

CORRELATION RESULTS

From the below table it is clear that correlation between these two variables is $r = 0.771$ at $p < 0.01$ & $n = 150$ which shows high correlation among variables. According to scale of Guilford (1956), there is significant relation between employee engagement and talent retention.

TABLE 1: CORRELATIONS AMONG EMPLOYEE ENGAGEMENT AND TALENT RETENTION

		Employee Engagement	Talent Retention
EE	Pearson Correlation	1	.771**
	Sig. (2-tailed)		.000
	N	150	150
TR	Pearson Correlation	.771**	1
	Sig. (2-tailed)	.000	
	N	150	150

** . Correlation is significant at the 0.01 level (2-tailed).

REGRESSION RESULTS

The R square value 0.593 indicates that the employee engagement is contributing up to 59.3% towards talent retention i.e. the variance in dependent variable, talent retention, is influenced by independent variable, employee engagement, by 59.3%.

TABLE 2: MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.771 ^a	.594	.593	.45315

a. Predictors: (Constant), EE

The ANOVA table shows significance value of F statistic is less than 0.05 ($p = 0.00$) which means the variation explained by model summary is not due to chance and so relationship between employee engagement and talent retention is significant.

TABLE 3: ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	91.578	1	91.578	445.976	.000 ^b
	Residual	62.630	149	.205		
	Total	154.208	150			

a. Dependent Variable: TR

b. Predictors: (Constant), EE

The statistic shows that the beta value (0.771) is significant at 0.000 significance level. Hence H1 i.e. employee engagement has a significant influence on talent retention, was supported.

TABLE 4: COEFFICIENTS^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.418	.158		2.652	.008
	EE	.889	.042	.771	21.118	.000

a. Dependent Variable: TR

This study proposed and tested a conceptual model that hypothesized direct associations between employee engagement and talent retention. As proposed, statistical analyses using regression revealed that employee engagement has statistically significant positive relationships with talent retention. The study found a direct relationship between employee engagement and talent retention confirming the findings of previous studies Report of Corporate Executive Board (2009). Thus the academicians who are engaged in their work are also likely to be retained with their employing organisation. It is in line with the other findings of Saket Jeswani & Souren Sarkar, (2008).

FINDINGS

Researcher was interested to find out the relationship between employee engagement and talent retention. Through the correlation and regression results it was found that employee engagement is contributing up to 59.3 % towards talent retention i.e. if employees feel engaged at work the probability of their retention increases. Report of CLC also suggested that if the employees are highly engaged, their probability increases by 87%. Engagement also found to be a best strategy used for retention (Saket Jeswani & Souren Sarkar, 2008).

RECOMMENDATIONS

With the increasing competition and professionalism in academics, due importance should be given to the engagement factor in order to retain the good faculties and many of the good institutions do so. This study provides a useful tool for academics to retain talent.

CONCLUSION

The results of the study were up to great extent consistent with the results of previous studies. As talent retention is influenced by employee engagement, the institutes should focus on developing engaged workforce.

LIMITATIONS

This study states the relationship between employee engagement and talent retention but does not focus on the factors that improve engagement level of the employees.

SCOPE FOR FURTHER RESEARCH

There are so many factors present in the organizational environment that affects employee engagement. But these factors may vary from one organization to other. Research may be done to identify the factors affecting engagement level of the employees which in turn leads to retention of the employees.

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GREEN HRM PRACTICES: A NEW OUT LOOK TO SUSTAINABILITY**ALEENA JOY****ASST. PROFESSOR****DEPARTMENT OF MANAGEMENT STUDIES****NAIPUNNYA SCHOOL OF MANAGEMENT****CHERTHALA****ABSTRACT**

The concept of green management for sustainable development refers to the need for balance between industrial growth, for wealth creation and safe guarding the natural environment for future generations. This research paper indicates significant work in Green HRM research from 1996 to 2015. The objective of this research paper is to develop an outlook on green HRM practices in organizations based on the existing literature. A systematic review of literature was conducted on the following HR practices such as recruitment, selection, induction, training, performance management, compensation management and discipline. The aim of this paper is to extend the scope of green HRM practices in materializing sustainable environmental performance of organizations.

KEYWORDS

green hrm, hrm practices, sustainability.

INTRODUCTION

The term "Green Human Resource Management" may seem to be a novel concept to majority of Indian people including academics and professionals in HRM. A further aspect of sustainable HRM is the way HRM supports the "greening" of the organization. Terms like "green employees", "green career", and "green jobs" are more common today. This concept originated in 1996 from the contribution by Wehrmeyer (1996) who edited a book titled "Greening people: Human resource and Environmental management (as in Jackson, Renwick, Jabbour and Muller-Camen, 2011).

Green Human Resource Management (GHRM) is the integration of environmental management into human resource management (HRM) practices. Growing environmental concern and the development of international standards are creating the need for business to adopt formal environmental strategies and programmes (Daily and Hung, 2001).

The concept of green management for sustainable development refers to the need for balance between industrial growth for wealth creation and safe guarding the natural environment for the future generations. Implementation of corporate green management initiatives requires a high level of technical and management skills among employees. According to Renwick et al(2008), the implementation of rigorous recruitment and selection of employees, performance based appraisal system and the introduction of training program are powerful tools to increase the employees' environmental awareness. These scholars broadly specified that distinguished policies in the field of recruitment, performance management and appraisal, training and development, employment relations, pay and rewards are considered to be powerful tools for aligning employees with an organization's environmental strategy. According to Jabbour et al; (2011), green HRM is 'the level of greening of human resource management practices' in terms of functional and competitive dimensions of HRM. Green HRM refers to "all the activities involved in development, implementation and on going maintenance of a system that aims at making employees of an organization green. It is the side of HRM that is concerned with transforming normal employees into green employees so as to achieve environmental goals of the organization and finally to make a significant contribution to environmental sustainability. It refers to the policies, practices and systems that make employees of the organization green for the benefit of the individual, society, natural environment and the business" (Opatha, 2013; Opatha and Anton Arulrajah, 2014). As far as the above definitions are concerned, the very latest definition provides a clear meaning and understanding about what green HRM is in the context of organizational setting.

OBJECTIVES

The paper has the following two objectives:

1. To re-detail a model of HR practices involved in Green HRM.
2. To develop an outlook on green hrm practices in organizations based on the existing literature.

RESEARCH METHODOLOGY

This paper adopts a literature review of significant works on Green HRM research from 1996 to 2015. The reference articles are taken from databases sage, Sheffield, Springerlink, Wiley Online Library, and Emerald with 'Green HRM Practices' as the topic. Literature review is adopted as it enables to structure research and to build a reliable knowledge base in this field. The type of research done for this paper is desk research rather than a survey or any other mode of research. The concentration is given to the following HR processes namely.

1. Recruitment
2. Selection
3. Induction
4. Training
5. Performance Management
6. Compensation Management
7. Discipline

REVIEW OF LITERATURE

The examples from many organizations suggests that HRM leadership can play a vital role in helping articulate the organization's green HRM mission, expressing the role of the business in society beyond that of simply making profit. The Human resource department of a company is said to have a capability to play a significant role in the creation of company's sustainability culture. Many researchers, especially in the area of HRM, argued that the effectiveness and success in any management innovation and strategic tools depends on the quality and ability of their human resources. Green HRM refers to using every employee to endorse sustainable practices and increase employee awareness and commitments on the issues of sustainability. Green HRM has got different meaning for different people, Ashok Ramachandran, Director HR Vodafone Essar Ltd defines green HR as using every employee touch point to espouse sustainable practices and raise employee level of awareness. Anjana Nath Regional Head HR, Fortis Healthcare Ltd. defines Green HR as environment-friendly HR initiatives leading to better efficiencies, lesser cost and heightened employee engagement levels.

It involves undertaking environment friendly initiatives resulting in greater efficiency, lower costs, and better employee engagement and retention which in turn help organization to reduce carbon footprints by the means of

- Electronic filling
- Car sharing
- Job sharing

- Teleconferencing
- Online training
- Flexible working hours
- Tele- commuting

The HR department of the organization plays a vital role in formulating and maintaining the corporate green culture. The traditional HR practices that belong to the HR department are recruitment, selection, induction, training and development of employees, performance appraisal, and compensation management. It is a challenge as to what extent it is possible to keep the green element in these HR practices. It will be discussed as follows:

1. RECRUITMENT Vs. GREEN RECRUITMENT

Recruitment is the process of searching for prospective employees and stimulating them to apply for jobs in the organization. The Recruitment process begins when the personnel department receives requisitions for recruitment from any department of the company. Locating and developing the sources of candidates, stimulating as many candidates as possible for applying are the major steps of recruitment

Green recruitment means paper free recruitment process with a minimal environmental impact (Tulsee Giri Goswami, Saroj Kumar Ranjan, 2015). Applications invited through online mediums like e-mail, online application form or the Global talent pool. Telephone or video based interviews help to reduce travel related environment impact.

(Tulsee Giri Goswami, Saroj Kumar Ranjan, 2015). A survey by the British Carbon trust confirms that most of the employees (more than 75%) considering working for an organization that have an active environmental policy to reduce carbon emissions (Clarke; 2006). Indicating or making transparent about the organization's environmental performance in recruitment message will attract candidates with green competency and attitude (Clarke 2006; Wehrmeyer 1996; Oates 1996)

The findings suggested by Bauer and Aiman-Smith (1996) confirm that when firms present a proactive stand towards protection of the environment then it would help improve the attractiveness of the firm, and it is an effective way to attract new talent (Philips, 2007, Stringer 2009). The Rover group carmaker, in Britain, makes environmental responsibilities and qualifications part of every job profile (Wehrmeyer, 1996)

Including environmental criteria in the recruitment messages and reflecting environmental policy and strategies of the organization in its recruitment policy (Opatha, 2013) helps to stimulate green candidates to apply for the job. Moreover expressing some environmental values in the job advertisement will be a reliable strategy a green firm can follow (Opatha. 2013; Arulrajah, 2015)

According to the suggestions by Shoeb Ahmad, 2015, the recruitment process must be aligned with environment friendly issues. The potential job seekers perceive or rate the green employer on the basis of parameters of sustainability as claimed, namely the presence of green job description, eco- friendly locations, paper less interviews, and such other practices in their recruitment portfolio.

2. SELECTION Vs. GREEN SELECTION

The purpose of the selection process is to determine whether a candidate is suitable for employment in the organization or not. According to Thomas Stone, "selection is the process of differentiating between applicants in order to identify and hire those with a greater likelihood of success in a job. Selection is now centralized and handled by the human resource department. The process of selection is lengthy i.e., it includes preliminary interview, selection tests, selection interviews, checking reference, final selection, and job offer.

In this selection context, the selection committee can consider candidates' environmental concern and interest. During the interview the committee can ask environmental related questions to the interviewee (Wehrmeyer, 1996, North, 1997, Revill, 2000, Arulrajah, 2015). These are some of the good green selection practices any organization can adopt to select environmental friendly people in addition to the normal selection criteria. The selection of wrong candidate will mean loss of time, money, more over destruction of environmental policies of the organization.

3. INDUCTION Vs. GREEN INDUCTION

The selection procedure ends with the placement of a worker to the job. When a new employee joins an organization, he should be welcomed as a new member of the organization. Induction is the welcoming process to make the new employee feel at home and generate in him a feeling of belonging to the organization (Flippo)

New employees need to ensure that they understand and approach their corporate environmental culture in a serious way (Wehrmeyer, 1996). Companies can adopt two approaches in respect of green induction. They are general green induction and job specific green induction. After the selection company provides basic and necessary information about the corporate environmental management policy, system, and practices. Job specific green induction includes a new employee's orientation programs specific to their jobs (Arulrajah, 2015). Now a day these two green induction practices are important to organizations.

4. TRAINING Vs. GREEN TRAINING

Every organization needs the services of trained persons for performing activities in a systematic way. It is an organized procedure for increasing the knowledge and skill of people for specific purposes. Training also provides an awareness of the rules and procedures to regulate their behavior.

Providing environmental education to the work force will help to create environmental awareness among workers (North 1997). Training the staff to produce green analysis of work place, job rotation to train green managers of the future are some techniques of green T&D (Renwick et al, 2008). Green training and development includes education of employees about the value of environment management, training them in working methods to conserve energy, reduce waste, diffuse environmental awareness within the organization, and providing opportunity to engage employees in environmental problem-solving (Zoogah, 2011). To entertain the "go-Green" concept there should be extensive use of online and web-based training programs and interactive media to deliver training rather than printed material to reduce the use of paper (Tulsee Giri Goswami, Saroj Kumar Ranjan, 2015).

5. PERFORMANCE MANAGEMENT Vs. GREEN PERFORMANCE MANAGEMENT

Performance management is the process of measuring quantitatively and qualitatively an employee's past or present performance against the background of his expected role performance. Edward Flippo says that, "performance management is the systematic, periodic, and impartial rating of an employee's excellence in matters pertaining to his present job and his potential for a better job.

In the aspect of green HRM, performance measures, standards and indicators for appraising environmental performance is a difficult task. The measurement criteria of employee green performance of jobs must be carefully aligned with the firm's environmental performance. Normally organizations are using Environmental Management Information System (EMIS) and environmental audits for evaluating the green performance. Organizations must include responsibilities and the success of communicating environmental concerns and policy within the performance evaluation system of the company (Wehrmeyer, 1996)

Communication of green schemes keeping performance indicators and standards of all level of employees and establishing firm wide dialogue on green matters will help to materialize targeted environmental performance (Renwick et al, 2008; Renwick et al, 2013)

Shoeb Ahmad, suggests that green performance appraisal should also focus on environmental incidents, environmental responsibilities, communication of environmental policy, and green information system and audits. The job description should be aligned with green tasks and goals to be achieved.

The HR manager plays a strong role in achieving green outcomes such as familiarization towards green management and encouraging green HR learning and inviting green ideas from employees by developing green performance standards and green behaviour indicators. (Tulsee Giri Goswami, Saroj Kumar Ranjan, 2015).

6. COMPENSATION MANAGEMENT Vs. GREEN COMPENSATION MANAGEMENT

Compensation management system should be linked with green performance management (Liebowitz, 2010). The use of financial incentives and rewards paid to workers whose production exceeds some predetermined standard was first popularized by F.W Taylor in the late 1800s. Financial incentives refer to performance linked compensation paid to improve motivation and productivity of employees.

Providing incentives like environmental awareness incentive, acquiring designated skills in green performance (Renwick et al 2008 and 2013), giving incentives to accomplish green objectives are what makes green compensation management an effective one. (Tulsee Giri Goswami, Saroj Kumar Ranjan, 2015).

The adequacy of green rewards was best observed in a study conducted by Berrone and Gomez-Mejia(2009) on 469 US companies operating in high-polluting industries. They found that the companies having eco-friendly performance paid their CEOs more than the non eco friendly companies. (Shoeb Ahmad, 2015) Denton (1999) examined the impact of employee involvement in pollution control. The employees rewarded those who came up with innovative waste reduction ideas. (Jackson et al, 2011) and those who provided incentives to encourage environmental friendly activities such as recycling and waste management.

7. DISCIPLINE MANAGEMENT Vs. GREEN DISCIPLINE MANAGEMENT

Discipline refers to the presence of orderliness in any particular field of activity. Discipline is the tool for implementing various rules and regulations for the smooth running of the organization.

Wehrmeyer (1996) stated that green discipline management is a pre-requisite in corporate environmental management. It is important to ensure the green behaviour of employees in the work place. For achieving the environmental management objectives and strategies of organization green discipline practices are needed.

Setting penalties for noncompliance on targets in environmental management and dismissal for environmental breaches are some green disciplinary practices followed in some firms (Renwick et al 2008)

Opatha also suggested that implementing discipline management as a tool to self regulate employees in environmental protection activities of the organization. Some companies have developed a clear set of rules and regulations which imposes on employees to be concerned with environmental protection in line with environmental policy of the organization. In such companies if an employee violates environmental rules and regulations disciplinary actions such as warning, fining, suspension etc are taken against him. (arulrajah,2015)

DISCUSSION

This research paper has focused on the greening of the most important seven HR activities practised by all organizations. The selection of described activities is done on the basis of scope and practical implementation of green practices rather than a theoretical description. A key role for HR environmental executives is to guide all employees in terms of gaining full co-operation towards implementing environmental policies. Green HRM practices helps organization to win a cost effective green corporate image. Before implementing the green practices, all employees of the firm must be educated about the methods, practices and benefits of green HRM. This will help to prevent the resistance from employees about the impending change in the work place. Without the formation of a right attitude about greening among employees it is difficult to practice a sustainable work culture in the organization.

CONCLUSION

Based on the review, it is possible to conclude that green HRM practices are the powerful tools that an organization can utilize to maintain its work place sustainability. Green HRM practices are providing a new outlook to the sustainable growth of the organization. Along with profit maximization it helps the organization to maintain the surroundings that would be useful for the future. Hence it is suggested that organizations should implement new measures and give more preference to make each function of HRM green.

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LEARNING & GROWTH ANALYSIS: SIGNIFICANT FOR PERFORMANCE MEASUREMENT

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ABSTRACT

Balanced scorecard helps organizations to streamline vision and strategy with business activities and measures actual organizational performance against preset goals. In addition, this instrument is used to assess financial processes, customer relations, internal business processes and learning and growth characters of an organization. Financial indicators never tell the entire story of an organization, since talent, organizational culture, and customer relationships go a long way toward dictating future financial performance. The great transformation has been witnessed in the performance measurement system wherein the traditional performance appraisal system was taken over by multifaceted performance management system with feedback and continuous monitoring as inseparable part of it. Performance management system slowly gained importance as tool to increase employee productivity, and as an exercise for building employee retention. This paper examines the level of significance of Learning and Growth perspective of Balanced Scorecard Approach in order to analyze the performance of the organization. Also, the key performance indicators included under this perspective in different organizations has been discussed.

KEYWORDS

KPIs (key performance indicators), balanced scorecard, performance management.

INTRODUCTION

Achieving profitability in businesses has always been a necessary requirement for continuity, growth and expansion. Managers of organizations are tasked with the responsibilities of ensuring success of operations within their areas of control all the time, to attain this, it demands making strategic plans by the managers and using appropriate performance measurement techniques to enable them achieve their goals all the time. Performance management systems are often designed to enable organizations to plan, measure and control their performance, so that decisions, resources and activities can be better aligned with business strategies to achieve desired results and create shareholder value. Organizations have their mission and vision and use different strategies in ensuring the achievement of this mission in such a way that will be appropriate to both the management as well as the customers of such organization. Managers make use of only financial perspective to measure performance in the past but that seems not to be adequate enough and hence the development of a tool called the balanced scorecard which incorporated both the financial and non financial measures of performance, because the non-financial criteria are as important as financial criteria in measurement systems and when both measures are integrated in the system, they lead to superior results (Kairu, Wafula, Okaka, Odera & Akerele, 2013).

Financial indicators never tell the entire story of an organization, since talent, organizational culture, and customer relationships go a long way toward dictating future financial performance. The great transformation has been witnessed in the performance measurement system wherein the traditional performance appraisal system was taken over by multifaceted performance management system with feedback and continuous monitoring as inseparable part of it. Performance management system slowly gained importance as tool to increase employee productivity, and as an exercise for building employee retention. Balanced scorecard helps organizations to streamline vision and strategy with business activities and measures actual organizational performance against preset goals. In addition, this instrument is used to assess financial processes, customer relations, internal business processes and learning and growth characters of an organization.

The BSC (Kaplan & Norton, 1992) is a performance measurement framework to allow managers to look at their business performance from four performance perspectives – financial, customer, internal business and innovation and learning. The weight of each feature in balanced scorecard is an impact factor to evaluate performance. By integrating lagging indicators of performance (outcome measures, such as financial results) with leading indicators (performance drivers, such as human resource skills) the BSC approaches performance from above mentioned four different perspectives, and is intended to provide managers with a tool not simply for reporting but also for managing performance.

BALANCED SCORECARD

The balanced scorecard, first proposed in the January- February 1992 issue of HBR (—The Balanced Scorecard- Measures that Drive Performance)), provides executives with a comprehensive framework that translates a company's strategic objectives into a coherent set of performance measures (Kaplan and Norton, 1993). During a year-long research venture with 12 companies at the leading edge of performance measurement, Kaplan and Norton (1992) devised a "balanced scorecard"- a set of measures that provide top managers a fast but comprehensive view of the business. Kaplan and Norton (1992) understood that as the business landscape changed from agricultural to industrial to informational; performance measures must adapt as well. The information age is characterized by the conversion of intangible (employee skills, customer satisfaction, and information technology) rather than intangible assets (property, plant, and inventory) into competitive advantage (Kaplan and Norton, 2000). BSC includes financial measures that tell the effects of actions already taken. And it complements the financial measures with operational measures on customer satisfaction, internal processes, and the organization's innovation and enhancement activities- operational measures that are the drivers of future financial performance (Kaplan and Norton, 1992).

The four perspectives of BSC are Financial Perspective, Customer Perspective, Internal Business Process Perspective and Learning and Growth Perspective.

a. Financial Perspective: It represents the long- term goal of the organizations- to provide superior re-turns based on the capital invested in the unit (Kaplan and Norton, 1996). Financial Measures, has been the traditional method of analyzing organizational success and involves such elements as profit-ability, sales growth, and revenue per sales visit. Although the BSC stresses the need to incorporate additional measures to determine success, the need for Financial Measures is still an extremely strong element to determine success (Niven, 2002)

b. Customer Perspective: Choosing measures for the Customer Perspective of the BSC depends on the type of customers desired and the value that the organization provides to them (Niven, 2002). The purpose of the Customer Perspective is to focus on the target customers. This will allow organizations to create strategies consistent with the type of customers they want to attract.

c. The Internal Process Perspective: It entails the procedures that an organization must develop and master to be successful. Many organizations will concentrate on such elements as order processing, delivery, manufacturing, and product development as examples (Niven, 2002). The focal point of this perspective is related to the Customer Perspective because to keep customers satisfied, an organization will need to focus on the components of the organization important to them. If

target customers are dissatisfied when delivery is late, an organization must concentrate on the internal process of developing a more efficient delivery system or refining the system currently used. To accomplish this, managers are undertaking a rigorous internal analysis not only assessing the internal processes of the organization, but reviewing innovation since global competition has decreased the amount of time organizations can bring their products to market to be successful (Bose & Thomas, 2007; Levy, 1998).

d. Learning and Growth Perspective: According to Kaplan and Norton (1996b), this perspective is the backbone to a successful scorecard because it involves employee skills and information systems. Learning and Growth can include such issues as employee satisfaction, alignment of employee skills with jobs, number of employee suggestions implemented, and hours of employee training. Depending on the actual employee skills and desired employee skills, some organizations change job descriptions, relocate employees to other departments, and/or implement incentive programs designed to motivate employees to provide suggestions, receive education or training, and/or gain tenure through continued employment (Niven, 2002).

REVIEW OF LITERATURE

Kaplan (1994) takes Rockwater Co. for example to explain the development process of the BSC, to ensure the realization of company promise and serve as a management tool. Kaplan and Norton (1996a, 1996b) use more cases, including many different industries such as banking and insurance industries, to explain the management structure of linking the strategy of business units to the entire strategy of a company.

Martinsons et al. (1999) also applied the case study method to explore the result of a corporate information system operation department in implementing the BSC, by adopting four perspectives: corporate value, user orientation, internal process, and future preparation to measure and evaluate the performance of the information system. The result shows that BSC can serve as a measurement system for a strategic information system.

Chia and Hoon (2000) studied the procedures for promoting the BSC, and the BSC item and the criteria establishment process of two large merchandise circulation firms in Singapore. The study result shows that the promotion of the BSC system contributes to clarification of company vision and preparation for the intended strategy in practice.

Hoque and James (2000) studied 66 Australian manufacturing companies that implemented the BSC, and the resulting corporate performance. Organizational performance was a self-reported measure relative to peers within the same industry. The authors measured performance as a composite score on self reported assessments of ROI, sales margin, capacity utilization, customer satisfaction and quality relative to industry peers. The result reveals that both show a highly positive relationship. The authors noted, however, that while their study relates the use of non-financial measures to performance, their survey fails to capture actual reliance on the BSC or the strength of the causal relationships that are so important to BSC implementation.

Ahn (2001) focused on a case study of a strategic business unit (SBU) of a large automation product supplier in Switzerland, in a world-leading position in implementing the BSC. The study result points out that implementing the BSC does not only contribute substantial aid to the realization of performance goals, but can also further achieve advantages in management, for example: planning and budgeting of strategy-oriented action plans, integrating the BSC into the process of company control, contributing to strategy communication, etc. The study also points to the BSC as a comprehensive management tool.

Olson and Slater (2002), via a questionnaire investigation of more than 200 senior managers in service and manufacturing firms, surveyed their recognition of corporate implementing of the BSC. The result shows that the performances in such perspectives as financial, customer, internal business process, and learning and growth, all improved, particular in the perspective of customer satisfaction.

Braam and Nijssen (2004) engaged in the BSC implementation performance investigation of 41 B to B (business-to business) companies in the Netherlands, by using objective performance standard – ROI and subjective performance standard – questionnaire investigation; the research result shows that both objective and subjective performance measurement indicators show positive rises.

Davis and Albright (2004) applied a quasi-experiment design for two different American banking organizations, to study the relationship of each branch bank implementing (experimental group), and without implementing (control group) the BSC, as well as financial performance, and found the performance of the banking organizations implementing the BSC far exceeded that of the banking organizations without implementing the BSC. However, the author were not able to obtain the detailed data for any of the non-financial measures appearing on BSC, thereby making causal inferences between financial and specific non-financial measures at the study is impossible.

Papalexandris et al. (2004) studied one Greek software firm implementing the BSC and found that the said firm, after implementing the BSC for one year, showed considerable progress in performance in four perspectives: 1. Financial; 2. Customer; 3. Internal business process, and; 4. learning and growth.

The application of BSC fields included e-business environment (Bremser and Chung, 2005), airport management (Fernandes and Pacheco, 2007), small and medium size manufacturing organization (Fernandes et al., 2006), integration management system (Bobrek and Sokovic, 2006) and information technology (IT) performance management (Stewart, 2007).

Also, Assiri et al. (2006) presented a roadmap for BSC implementation and identified a series of critical factors that must be carefully considered to ensure successful implementation of BSC.

Moreover, Wong-On-Wing et al. (2007) applied BSC to reduce the conflict between top management and divisional managers because of the failure of the former to evaluate and consider strategy effectiveness in performance evaluation. The theoretical comments of the above authors and empirical studies provide considerable support for this study in theoretical foundation, research method and the entire research framework.

SIGNIFICANCE OF LEARNING AND GROWTH PERSPECTIVE

The measures in the Learning and Growth perspective are enabler of all other measures in the Scorecard, forming the foundation on which this entire house of a Balanced Scorecard is built. The measures designed in this perspective will help to close the gap between current organizational infrastructure of employee skills and information systems, and the level necessary to achieve the results aimed in the other three perspectives and ensure sustainable performance for the future. Niven offers the metaphor of a tree: Think of them as the roots of a tree that will ultimately lead through the trunk of internal process to the branches of customer results and finally to the leaves and fruits of financial returns.

From the Balanced Scorecard paradigm, "Learning and Growths" perspective answers the question: How must the company learn and improve in order to achieve its vision?

So, this perspective explains what the company has to learn in order to: Satisfy customer's needs, improve business processes, and achieve financial goals. This perspective serves to map some big learning goals; something that is relevant to the current business challenges. Having a separate learning perspective doesn't mean that the company should stop other learning processes; on the contrary, this perspective just works as a compass to focus on the most important learning efforts. Regular insights, improvements and learning should still be implemented in each business iteration.

The learning and growth perspective has three dimensions – people, systems and organizational perspectives – and Kaplan and Norton (1993) outline an eight-step process to build and implement the balanced scorecard. The steps in the process are:

- (1) Preparation – identify the business unit where a scorecard is appropriate. The business unit should have its own customers, distribution channels, production facilities, and financial performance measures.
- (2) Interviews – first round, key organizational executives and senior managers are interviewed to obtain their input into the organizations strategic objectives and tentative BSC measures.
- (3) Executive workshop – first round, the top management team is brought together to develop the BSC through discussions on the mission and strategy.
- (4) Interviews – second round, individual interviews are completed to further refine the work completed during the initial workshop phase and seek opinions about issues involved with implementation.
- (5) Executive workshop – second round, top executives and their senior managers and direct reports debate the organizations vision, mission and the tentative scorecard. The BSC is linked to existing plans and initiatives and a start is made on the implementation plan.

(6) Executive workshop – third round, the senior executive team meet to finalize the BSC and the implementation plan. The team must agree on the implementation plan including communicating the BSC to employees, integrating the BSC in to the management philosophy, and developing an information system to support the BSC.

(7) Implementation – a new team is established to drive the introduction and ensure successful implementation including the implantation of appropriate technology to ensure success.

(8) Periodic reviews need to be monitored and report on success of the BSC.

Novak (2000) has suggested that the most important element in the BSC is alignment. There are some generic strategies applicable to most businesses, but the particular objectives inside the perspectives are company-specific. Objectives need to be aligned with other perspectives. In applying the learning and growth perspective, there is a need to identify the organizational infrastructure that would best fit the strategic goals. Learning and Growth perspective is a mix of lag and lead measures.

For example, if any organization wants to expand Information System Capabilities by implementing a new CRM system, then it should support some goals from above standing perspectives, like “faster prospect management” or “achieving a higher first contact resolution rate.”

There are 3 typical objectives for the “Learning and Growth” perspective: Employee capabilities (core competencies and skills). It might include: Employees obtaining the skills necessary to support the strategy. Facilitating people to gain a better understanding of some of the company’s aspects (marketing, sales, etc.); Each of these objectives should be supported by the appropriate leading and lagging indicators.

1. Employee Capabilities: Let’s take “Skills development” as an example. What metrics can we use to measure it? Specific metric suggestion depends on the set of the skills that we believe are necessary to execute the strategy. To obtain these skills employees need to pass some training, thus obtaining expected competencies in the end.

Leading Indicator: The number of training hours passed; Lagging Indicator: Final exam score

2. Strategy awareness: It’s a tough task to measure strategy awareness or motivation in absolute figures. The easiest way is to implement a survey to estimate an employee’s awareness about the company’s strategy. The results of the survey might be a base for further training.

Leading indicator: resources spent on improving strategy awareness (for example, training time); Lagging indicator: average score of the strategy awareness survey.

3. IT innovations: Before implementing/improving certain informational system executives need to understand how this new system supports the delivery of the customer value and specific internal business process.

Leading Indicator: Resources (time, money) saved; Lagging Indicator: Improving customer retention, average shopping cart, etc.

KEY PERFORMANCE INDICATORS UNDER LEARNING & GROWTH PERSPECTIVE

Firstly, it’s critical to understand the difference between a measure, a metric, and a KPI. The easiest way to understand a KPI is that they build on each other. KPIs derive from metrics, which are created out of measurements.

A measurement can be number of customers, number of sales, or total revenue. But until you start making comparisons, they are simply numbers. A metric is typically a combination of two or more measures, so number of customers over time, or total revenue over time. Metrics illustrate whether the values are good or bad and can help with financial forecasting and bench-marking. A metric becomes a KPI when it is put in the context of a particular organization or industry. A KPI adds meat to the detail, so ratios and percentages often make better KPIs than just the number of things in a group.

KPIs provide small business owners with an immediate snapshot of the overall performance of their business. In today’s competitive business environment, it becomes highly important for the owner to have real-time data concerning the health of his business. KPI’s are an actionable scorecard that keeps your strategy on track. They enable you to manage, control and achieve desired business results. KPIs give executives the chance to communicate the mission and focus of the organization to investors, team members, and other stakeholders. As KPIs filter through the organization, they must grab employees’ attention to make sure that everyone is moving together in the right direction and delivering value to the business. Departments, and even individuals within an organization, may have their own KPIs. But it is important that they understand the context of what they are being measured against and how it fits within the broader business strategy and goals.

The measurement indicators of the BSC learning and growth perspective are

Employee satisfaction index, Employee resignation rate, Ratio of employee short-term advanced studies (within one year), Ratio of employee long-term advanced studies (at least one year), and the Ratio of training cost account for total expense. Number of suggestions per employee, Qualitative surveys ratio, number of shared innovations, Number of shared generated ideas, Employee exchange ratio, Number of patents filed, Number of patents granted, Number of training programs conducted, Number of seminars and conferences conducted. Expenses for research and innovation, Specific weight of expenses on research and innovation in the total amount of expenses, Specific weight of expenses on improvements in total amount of expenses related to IT technologies, Length of research and innovation projects, Costs for training relates to multi-profession, Compensation cost, Leadership index, Average number of training hours per employee, Number of customer’s complaint, Qualification index, Resources allocated on research and innovation, Investment in training of personnel dedicated to customer relations, Investments in innovation and research, Expenses related to preparations and study of new products, Investments in exploration of new markets, Frequency of direct contacts with customers, Number of rational and creative ideas per employee, Average training cost per employee, Employee trust rate to the company, Revenue per Employee, Added value per Employee, Employee Turnover Rate, Training Cost Per Employee, Absenteeism Rates and many more .

CONCLUSION AND RECOMMENDATION

It can be concluded that under learning and growth perspective, full encouragement as well as planning for the employees to get engage in continued learning should be done. For continuous learning, formulation of active and creative corporate culture is required. To become “learning organization”, create new thinking for all corporate members, and increase the corporate competency. Besides, organization should jointly grow with suppliers and customers, to jointly create values. On the other hand, with the human resource management viewpoint, the BSC system shall be associated with incentive system. In this way, employees can be inspired to work hard and attain the targets.

But it can be observed that further research is required as the Key Performance Indicators discussed in this paper are not company specific or organization specific. All the organizations need to focus on both the learning as well as growth perspective since these are the basic pillars for attaining the desired objectives.

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PRIVATE AUDIT FIRMS IN ETHIOPIA: CHALLENGES AND OPPORTUNITIES**MUHAMMED ARAGIE****LECTURER****DEPARTMENT OF ACCOUNTING AND FINANCE****JIMMA UNIVERSITY****ETHIOPIA****GEBEREAMLAK YITBAREK****LECTURER****DEPARTMENT OF ACCOUNTING AND FINANCE****JIMMA UNIVERSITY****ETHIOPIA****ABSTRACT**

Any enterprise worldwide relies on two very important and integral components; accounting and auditing. The objective of this study was to investigate challenges and opportunities in the area of regulatory procedures, audit market and human resource for private audit firms' in providing accounting and audit service in Ethiopia. The study employed a mixture of qualitative and quantitative approaches. The results reveal that unavailability of legislations with a brief description of responsibilities, appointment formalities and duties of external auditors, lack of well defined, properly implemented, and updated criteria to scrutinize accountants and auditors, issuance, renewal, suspension and cancellation of certificates of competence are some of the challenges in the area of regulatory procedures. In addition, in the sphere of external audit market low perceived value of the audit function, low demand for professional advice on a variety of business and taxation matters, lack of strong cooperation among private audit firms, unfair competition among audit firms are challenges. Also unavailability of sufficient quantities and qualified audit personnel, higher degree of audit personnel mobility in to another sector (like in banks, insurance, etc) or abroad and low audit fee pertaining to human resource in the country. Thus, a strong financial reporting environment in the country requires active involvement of all stakeholders in continuous reorganization and improvement of legal framework, institutions, accounting and auditing professions, as well as change in its business culture and education system.

KEYWORDS

audit firms, challenges, ethiopia, opportunities, private.

INTRODUCTION

Accounting information is the primary vehicle for managers to make assertions about the past performance, current conditions, and future prospects of their firms (Wallin, 1992, pp. 121-47). Auditing is as important as the generation of such information because in the absence of auditing, firm-specific information would be inaccurate. This would result, on one hand, in mismanagement of a firm's scarce resources. On the other hand, inaccurate information would mislead investors in their investment decisions, resulting in inefficient allocation of resources in the economy (Baiman, et al, 1998). However, the importance of accounting of which external audit is a subset is inextricably linked to economic, political, social, and cultural realities of nations (Toms 2005). Uddin and Hopper (2001) and Wickramasinghe and Hopper (2005) provide some evidence of how country specific dynamics influence accounting. As society is a broad concept in which economy, politics, religion, and social relations are embedded (Polanyi 2001), accountings, and thus external audit practice, tend to be influenced by the contextual dynamics that prevail in a society. Against this background, the purpose of this study was to examine a number of factors which can be the challenges and opportunities for the world of external auditing business, to provide valuable and relevant services to various stakeholders, in Ethiopia as perceived by audit practitioners.

REVIEW OF LITERATURE

This study is based on selected private audit firms in Ethiopia, an East African country. The existing Government of Ethiopia is a federated state comprised of nine autonomous regional states. The federated state has a bicameral parliamentary structure. The House of People's Representatives is the highest decision-making authority in Ethiopia with members of parliament representing the people. A Federal Council represents the interests of the States. The prime minister is the Head of Government and the president is the Chief of state (Mihret, 2009). The Nation is a member of the Common Market for Eastern and Southern Africa (Nations Encyclopedia 2004) and is in line for World Trade Organization accession since February 2003 (World Trade Organization, 2007). The Country was a developing market-oriented economy since 1974.

The development of accounting principles and reporting practices in different countries is influenced by numerous factors including the culture of the country, the nature and source of financing, the size and structure and complexity of businesses, the capital markets, the tax laws, and the regulatory environment. These differences in operating environments of countries lead to differences in audit objectives, standards, and practices (Richard, e. tal, 2005). Brennan and Kelly (2007) argue that the adequacy of legal protection influences external auditors' likelihood to whistle-blow. In a similar vein, a country's legal protection could influence the role of auditors. A country's environment also serves as an overall setting where professionals who serve as external auditors are produced. The legal basis for external audit emanates from the Commercial Code of Ethiopia (1960) and that for internal audit in state-owned companies emanates from directives issued by the Office of the Auditor General of Ethiopia (Argaw, 1997), whereas it is largely voluntary in the private sector. There is no local GAAP in Ethiopia, except that the Commercial Code of Ethiopia serves as a legal foundation for accounting and external audits of business organizations operating in the country. Supporting these Frank (1979) states that the country did not formally adopt another country's standards nor did it establish national standards. Nonetheless, organizations in some sectors (e.g. commercial banks) are required by government regulation to report in accordance with International Financial Reporting Standards (IFRS). In Ethiopia, due to the absence of an organized strong national professional association there is no comprehensive set of ethical standards to govern the behaviors of professional accountants and auditors. Practitioners are affiliated to Western professional accountancy associations dominantly the Association of Chartered Certified Accountants (ACCA), UK (Mihret, et al., 2009; World Bank, 2007).

There are two external audit sub-markets in the corporate governance setting of Ethiopia. The first is external audit of public enterprises. They are fully government-owned and are governed by board of directors according to proclamation No. 25/1992. Audit Service Corporation, which was established by proclamation No.126/1977, undertakes external audit of this sector. The second sub-market comprises private audit firms. Private audit firms are responsible for the audit of private sector organizations and obtain clients through competitive bidding, which led to a fierce competition in Ethiopia's private sector audit-sub market (Lemessa, 1996, Dessalegn et al., 2011).

For a professional service firms' in particular for private audit firms human capital is the "most important resource" (Hitt et al. 2001, p. 15). Yet, these resources are mobile to an extent not found in settings where capital assets are extensively used. Retention is thus a prime challenge. Loss of senior professionals is especially

costly, not only because it depletes the ability to deliver customized services, but because it severs relationships with clients and is often followed by client defections (Levinthal and Fichman 1988, Baker et al. 1998). Audit firms are thus critically dependent on their ability to recruit, retain, and motivate professionals who are highly mobile.

NEED OF THE STUDY

The study attempts to explore the factors influence positively or negatively private audit firms. Therefore, identifying country level factors that influence private audit firms from the viewpoint of Ethiopian external audit practitioner’s arguably shed light on the improvement areas in development of private audit firms in the country. It also offers important conclusions that can serve as a strong foundation for government policy makers, regulators, practitioners and accounting academics about the current major factors that enhance or inhibit external audit practice in the country, so as to design strategies to upgrade their strength of auditing service and reporting policies.

STATEMENT OF THE PROBLEM

Companies are perceived as the nexus of contractual relationships between different interested groups (Jensen and Meckling, 1976). The most important among these agency relationships are between managers (agents) and shareholders (principals) and creditors (principals) and shareholders (agents). In these relationships, the agents are expected to act in the best interests of the principals. However, experience shows that various mechanisms must be put in place to ensure that agents protect the interests of the other parties involved. One such mechanism is the audited financial statement (Chow, 1982; Watts and Zimmerman, 1986; Arnold and Lange, 2004). Wallman (1995) stressed that private audit firms are the sole providers of independent audit services, or annual audits and without them to ensure the validity and credibility of financial information, the markets for capital would be far less efficient, the cost of capital would be far higher, and our standard of living would be lower. Performing this crucial role depends largely, among other things, on the availability of conducive environment. In this context, in order to nurture independent audit services in developing countries, particularly in Ethiopia studies aiming for a deeper understanding of key contextual influences on operation of private audit firms’ are necessary.

OBJECTIVES OF THE STUDY

The main intention of this study could be seen as the examination of the possible treats and opportunities in the area of private audit firms’ function in the country from the perspective of audit practitioners through gathering primary (using questionnaires and interviews) and secondary research data. More specifically;

1. To identify the current challenges and opportunities to private audit firms in the area of regulatory procedure of the country.
2. To identify the current challenges and opportunities for private audit firms in the area of accounting and audit market of the country.
3. To identify the current challenges and opportunities for private audit firms in the area of the accounting and audit human resource of the country.

BASIC RESEARCH QUESTIONS

1. What are the factors related to accounting and auditing regulatory procedures considered as challenges and opportunities for private audit firms in the country?
2. What are the factors related to accounting and audit market considered as challenges and opportunities for private audit firms in the country?
3. What are the factors related to human resources considered as challenges and opportunities for private audit firms in the country?

RESEARCH METHODOLOGY

In order to achieve the research objectives, a mixed research methods is adopted to triangulating research methods. Thus, the study addresses the research problem by collecting and handling a combination of quantitative and qualitative data.

Accordingly, questionnaire surveys of external audit practitioners are conducted. The study covers only private audit firms found in the capital city of Ethiopia, Addis Ababa. The results are then enriched by results of interviews with directors of sample private audit firms’ and office of federal auditors general and leaders of accounting and auditing professional associations as well as reviews of relevant documentary evidence.

In the cases of sampling technique, the study adopted probability sampling, specifically simple random sampling, in which each audit practitioners in a private audit firms has equal probability of being selected as a sampling unit.

DATA PRESENTATION AND ANALYSIS

QUESTIONNAIRE ADMINISTRATION

104 numbers of questionnaires were distributed to the participating audit practitioners in each audit firm. 90 were returned but 16 were eliminated from the study because they were either incomplete or inconsistent, leaving 74 useable questionnaires, a 71 percent response rate.

ANALYSIS OF RESPONSES RELATED TO REGULATORY PROCEDURES

The results in Table 1 show that 37.8 percent of the respondents disagreed and 21.6 percent strongly disagreed about the presence of relevant and detailed regulations and professional standards in Ethiopia to which audit firms and all their staff must adhere, and which support auditor independence. However, 17.6 percent have a neutral opinion, while 13.5 percent agreed and 9.5 percent strongly agreed with this statement.

When respondents were asked regarding availability of legislations with a brief description of responsibilities, appointment formalities and duties of audit firms in general and external auditors in particular in the country, 82.4 percent disagreed and 17.6 percents are neutral to this statement (Table 1).

TABLE 1: NATURE OF REGULATORY PROCEDURES TOWARDS EXTERNAL AUDIT PRACTICE

Items	Response Category	Frequency	Percent
1. Are there relevant, well defined and detailed legal framework, codes of practice and standards in Ethiopia to which audit firms and all their staff must adhere, and which support auditor’s independence?	Strongly Agree	7	9.5
	Agree	10	13.5
	Neutral	13	17.6
	Disagree	28	37.8
	Strongly Disagree	16	21.6
	Total	74	100.0
2. Is there a brief description of responsibilities, appointment formalities and duties of audit firms in general and external auditors in particular in the available legislations in Ethiopia?	Strongly Agree	-	-
	Agree	-	-
	Neutral	61	82.4
	Disagree	13	17.6
	Strongly Agree	-	-
	Total	74	100.0

Source: Survey outcomes, 2014

Office of the Federal Auditor General (OFAG) provides licenses to applicants who meet the practicing requirements. A certificate or license defining professional status implies that the holder has a certain minimum level of professional competence (Cooley, 1932, p. 335). For example, according to the Lithuanian Law on

Audit, an auditor is a person who passed auditing exams, has auditor's certificate and is a member of Lithuanian Certified Accountant (Lithuanian Parliament, 1999). High and demanding requirements for qualification determine several features which are the key elements to be a successful auditor. Similarly, unlike the practice of several other countries where one individual may be licensed to practice both the accountant and the auditor professions, the new legal framework in Albania demands the professionals to choose between being licensed either as auditors or as accountants. The rationale behind this requirement is to provide a clear separation between the accounting and auditing functions by striving to eliminate the risk of overlapping the process of preparing the annual financial statements (performed by the accountants) and the process of auditing these financial statements (carried out by the auditors).

TABLE 2: REGULATORY PROCEDURES TOWARDS THE ISSUANCE, RENEWAL, SUSPENSION AND CANCELLATION OF CERTIFICATES OF COMPETENCE

Items	Response Category	Frequency	Percent
1. Do you believe that criteria to scrutinize the applications of accountants and auditors, the issuance, renewal, suspension and cancellation of certificates of competence are well defined in the regulatory procedures, properly implemented, and updated?	Strongly Agree	3	4.1
	Agree	4	5.4
	Neutral	13	17.6
	Disagree	45	60.8
	Strongly Disagree	9	12.2
	Total	74	100.0
2. Do you believe becoming an authorized auditor and accountant is a challenging process because of the regulatory procedures of the country?	Strongly Agree	8	10.8
	Agree	42	56.8
	Neutral	13	17.6
	Disagree	11	14.9
	Strongly Disagree	-	-
	Total	74	100.0

Source: Survey outcomes, 2014

About our country, table 2 shows that 4.1 percent, 5.4 percent and 17.6 percent of the respondents respectively strongly agreed, agreed and neutral that criteria to scrutinize the applications of accountants and auditors, the issuance, renewal, suspension and cancellation of certificates of competence are well defined in the regulatory procedures, properly implemented, and updated. Most of the respondents, 60.8 percent disagree with the above statement, and 12.2 percent strongly disagree with it. Also, for the question asked, most of the respondents (56.8 percent agree and 10.8 percent strongly agree) are of the opinion that becoming an authorized auditor and accountant is a challenging process as a result of the regulatory procedures of the country.

Because of lack of a strong professional body and specifically dedicated institutions, Office of Federal Auditors General (OFAG) regulates the accounting profession. The activities of OFAG in regulating the profession include licensing of all auditors in the country, issuing a Code of Ethics for Professional Accountants, and taking disciplinary measures on proven acts of misconduct by professional accountants and auditors.

Accordingly, for the question respondents asked whether the current regulatory body OFAG able to fulfill properly responsibility of well-organized professional accountancy associations in the country. Thus, 64.9 percent and 25.7 percent of the respondents disagreed and strongly disagreed that OFAG not able to fulfill properly expected responsibilities of national professional accountancy association (Table 2).

In light of this, World Bank (2007), OFAG, institutionally, is facing effectiveness challenges partly caused by the broad nature of its statutory obligations. A World Bank-conducted needs assessment of OFAG in April 2007 noted that in addition to the very broad nature of OFAG statutory powers and duties, it is short staffed and has insufficient human, institutional, and logistical capacity to meet its statutory obligations. Current funding arrangements pose constraints on OFAG for its effective operations, staff operations, and capacity building.

TABLE 3: OFFICE OF FEDERAL AUDITORS GENERAL AND EXTERNAL AUDIT

Item	Response Category	Frequency	Percent
1. Do you believe that the current regulatory body (Office of Federal Auditors General (OFAG) able to fulfill properly responsibility of well-organized professional accountancy associations in the country?	Strongly Agree	-	-
	Agree	-	-
	Neutral	7	9.5
	Disagree	19	25.7
	Strongly Disagree	48	64.9
	Total	74	100.0

Source: Survey outcome, 2014

Although the state plays a role in the development of accounting professions, it may be efforts of the professional groups and associations that matter the most (Sian 2006; Uche, 2002). A sustained development of the accountancy profession is best achieved by the creation of a well organized and respected professional accountancy body. They will have key objectives to protect the public interest in all matters that pertain to the profession, establish professional standards, especially standards of professional conduct, promote the education, training and certification of accountants (including continuing professional development and practical experience), developing good relationships with government, other national professional accountancy bodies and regional groupings and represent professional accountants and accounting staff.

TABLE 4: ROLE OF PROFESSIONAL ASSOCIATIONS TOWARDS EXTERNAL AUDIT PRACTICE

Item	Response Category	Frequency	Percent
1. Do you believe that the absence of well-organized strong national professional association result some challenges to works of professional auditors and accountants?	Strongly Agree	12	16.2
	Agree	34	45.9
	Neutral	7	9.5
	Disagree	14	18.9
	Strongly Disagree	7	9.5
	Total	74	100.0

Source: Survey outcomes, 2014

Table 4 shows the responses to the question whether absence of well organized strong national professional association result some challenges to works of professional auditors and accountants. Thus, 16.2 percent (strongly agree) and 45.9 percent (agree) believe that absence of well-organized strong national professional association result some challenges to works of professional auditors and accountants. While 9.5 percent, 18.9 percent and 9.5 percent of respondents remain neutral, disagree, and strongly disagree regarding the issue.

As per the researchers opinion this result is similar to findings of Johnson (1996). He stated that most of the countries in Anglophone Africa have an accounting body. The next step is for these bodies to improve the level and quality of their services. While some bodies are fortunate to have financial assistance from their governments, they realize that this is a short-term solution. In the long-term, bodies need to finance their own activities. It is also a problem in Ethiopian context, such as financial constraints, absence of exclusive member benefits tended to constrain member commitment, etc.

The study conducted by Mihret, et al (2012) under their study titled "Accounting professionalization amidst alternating state ideology in Ethiopia" indicate that no indigenous professional accountancy association was empowered by legislation to set standards or to monitor and regulate the accounting profession. Their

findings confirmed that there were some factors that restricted the development of the Association and thus of accountancy in Ethiopia. The first is that the profession is not properly regulated. Although OFAG provides practicing licenses, there is no authorized professional accounting body to monitor the practice. To generalize, the current authoritative body which is empowered to regulate the practice of the profession of accountancy in Ethiopia is OFAG. That is existed accountancy professional bodies in the country have less involvement in sphere of accounting and auditing advancement. To identify the current regulatory activities in the country towards the advancement of accountancy profession, the researcher also raise the following questions to participants of the survey. According to the Table 5 below, 64.9 percent of the respondents disagree and 25.7 percent strongly disagree about the existence of systems with which those private audit firms who have registered outstanding audit service get rewards and the other way round in the country. However, the beliefs of some 9.5 percent of the respondents (agree) differ from the above reality. In the same way, most of the respondents indicated that there is no a mechanism of making/holding liable those private audit firms breach laws, rules and regulations that govern the audit industry, 63.5 percent disagree and 9.5 percent strongly disagree (Table 5).

TABLE 5: REGULATORY PROCEDURES AND AUDIT FIRMS' PERFORMANCE

Item	Response Category	Frequency	Percent
1. Do you believe that there is a system in which those private audit firms who have registered outstanding audit service get rewards and the other way round in the country?	Strongly Agree	-	-
	Agree	7	9.5
	Neutral	-	-
	Disagree	48	64.9
	Strongly Disagree	19	25.7
	Total	74	100.0
2. Do you believe that there is a mechanism of making/holding liable those private audit firms breach laws, rules and regulations, which govern the audit industry?	Strongly Agree	-	-
	Agree	14	18.9
	Neutral	6	8.1
	Disagree	47	63.5
	Strongly Disagree	7	9.5
	Total	74	100.0

Source: Survey outcomes, 2014

In overall, the results of this section show that there is a gap between the respondents' expectations and the present statutory requirements for auditors in providing auditing services. This may suggest that the current auditing regulatory framework and role of auditing professional association are deficient and insufficient.

ANALYSIS OF RESPONSES RELATED TO AUDIT MARKET

Table 6 presents when 44.6 percent and 36.5 percent of respondents were agreed and strongly agreed respectively about whether auditing function is viewed as a non-value adding activity and a waste of money and resources in the country, 13.5 percents neutral and 5.4 percent disagree. This result supports one of the challenges facing audit practitioners in Malaysia, which is the low perceived value of the audit function. The company auditing in the country was viewed as a waste of money and resources (Lee and Ali, 2008a). Similar to Yapa's (1999) observation in the Bruneian context, there is a prevalence of small and medium enterprises in Ethiopia (a majority of private companies are owner-managed). Hence, an audit appears to be meaningless to most of the private companies because the directors and the shareholders are basically the same people. For this very reason, it explains why most audit clients have found an audit function as a non-value adding activity and perceives it to be a costly process.

Regarding the primary reasons why audit clients in the country requesting external audit service, 52.7 percent agree that invitation for an external audit service made only to satisfying the statutory and regulatory requirements. In addition, 64.9 percent of respondents showed that public at large not relies on professional accountants and auditors' competent advice on a variety of business and taxation matters (Table 6).

TABLE 6: PUBLIC PERCEPTION ABOUT AUDIT FUNCTION

Items	Response Category	Frequency	Percent
1. Do you believe that an auditing function is viewed as a non-value adding activity and a waste of money and resources in the country?	Strongly Agree	27	36.5
	Agree	33	44.6
	Neutral	7	9.5
	Disagree	7	9.5
	Strongly Disagree	-	-
	Total	74	100.0
2. Do you believe that the invitation for an external audit service made in the country only to satisfying the statutory and regulatory requirements?	Strongly Agree	19	25.7
	Agree	39	52.7
	Neutral	6	8.1
	Disagree	9	12.2
	Strongly Disagree	1	1.4
	Total	74	100.0
3. Do you agree that the public at large rely on professional accountants and auditors competent advice on a variety of business and taxation matters?	Strongly Agree	-	-
	Agree	13	17.5
	Neutral	7	9.5
	Disagree	48	64.9
	Strongly Disagree	6	8.1
	Total	74	100.0

Source: Survey outcomes, 2014

From the theoretical perspective, the need of an audit function can be explained by the agency theory, which denotes that due to a separation of ownership and control, the principal (owner) will monitor the activities of management through an audit function. However, the result shows that even if the compulsory audit requirement, many auditors have pointed out that the actual contribution of auditing towards its intended purposes is somehow limited. Furthermore, the public at large not depends on professional accountants and auditors advice on a variety of business and taxation matters. This can be witnessed that the practice of auditing has gained little perceived recognition from a large section of the public in Ethiopia.

TABLE 7: COOPERATION AMONG AUDIT FIRMS

Item	Response Category	Frequency	Percent
1. Do you agree that there is a strong cooperation among audit firms to improve the art of accounting, maintain the public's confidence, and carry out the profession's special responsibilities for self-governance, which would be expected in the future?	Strongly Agree	-	-
	Agree	6	8.1
	Neutral	7	9.5
	Disagree	34	45.9
	Strongly Disagree	27	36.5
	Total	74	100.0

Source: Survey outcomes, 2014

Another factor that can be considered as a challenge for the advancement of accounting profession in Ethiopia is lack of strong cooperation among private audit firms. 45.9 percent disagreed and 36.5 percent of respondents strongly disagreed about the existence of strong cooperation among audit firms to improve the art of accounting, maintain the public's confidence, and carry out the profession's special responsibilities for self-governance, which would be expected in the future (Table 7).

TABLE 8: AUDIT FIRMS' COMPETITION IN THE AUDIT MARKET

Items	Response Category	Frequency	Percent
1. Do you agree that obtaining audit clients through competitive bid led to unfair competition among audit firms in Ethiopia private sector audit-sub markets?	Strongly Agree	26	35.1
	Agree	35	47.3
	Neutral	-	-
	Disagree	13	17.6
	Strongly Disagree	-	-
	Total	74	100.0

Source: Survey outcomes, 2014

As observed from the responses obtained the majority of the respondents are agreed (47.3 percent), strongly agreed (35.1 percent) and the remaining disagreed (17.6 percent) about the features of obtaining audit client through competitive bid in Ethiopia private sector audit sub markets (Table 8). Supporting this Lemessa (1996) stated that in Ethiopia the State-owned Audit Service Corporation supplies external audit services to public enterprises and to private enterprise on competitive bids. This tends to make the market for external audit services rather thin. This thinness of the market is exhibited by the high level of competition among audit firms in the private sector.

Also, in response to the problems of price competition, OFAG assessed the audit firms and graded them as A, B, C, with A being the highest grade and C the lowest. Increased competition among audit firms, pressure to retain clients probably made it more difficult for audit partners to say 'no' to management of major clients. Audit firms may argue that their primary client is management. That is very few audit firms appreciate their professional obligation is to consider the well-being of investors. Accordingly, table 9 shows that majority of respondents (62.2 percent) agreed, 20.3 percent strongly agreed, 9.5 percent neutral, and 8.1 percent disagree about the bases of audit firm selection by audit clients. They indicate that it is in terms of positive personal audit-client relationship, grades given for audit firms, etc.

TABLE 9: BASES OF AUDIT FIRM SELECTION

Items	Response Category	Frequency	Percent
1. Do you believe that the specific choice of audit firms by audit client in Ethiopia is often attributed to positive personal auditor-client relationships and grade given (A, B, and C)?	Strongly Agree	15	20.3
	Agree	46	62.2
	Neutral	7	9.5
	Disagree	6	8.1
	Strongly Disagree	-	-
	Total	74	100.0

Source: Survey outcomes, 2014

For instance, assigning a grade for audit firms is not well received by most of the practitioners. In their view, as practitioners possessed practicing certificates from recognized accountancy bodies, such a grading was not meaningful and should have been left to the market. In addition, grading was also not regularly updated, which tended to worsen the problem. This could be one explanation of the apparently less well developed external audit market in the country to date (Mihret, et al, 2012).

The other major issue require due consideration is pursue of private audit firms alternative businesses that did not face the same challenges to audit assignment. This is the rapid expansion of consulting services.

TABLE 10: AUDIT FIRMS' SHIFT TO NON AUDIT SERVICES

Items	Response Category	Frequency	Percent
1. Do you believe that in the absence of effective competition in audit market, auditors tends to reduce the time they devote to an audit assignment and shift to non audit services?	Strongly Agree	13	17.6
	Agree	41	55.4
	Neutral	6	8.1
	Disagree	14	18.9
	Total	74	100.0

Source: Survey outcomes, 2014

From the total respondents, 55.4 percent agreed and 17.6 strongly agreed that private audit firms tends to reduce the time they devote to an audit assignment and shift to non audit services, in the absence of effective competition in audit market (Table 10). Supporting this, Healy and Williston (2005) under their study "The Challenges Facing Auditors and Analysts in U.S. Capital Markets" articulated that, even if there were no conflicts of interest between the two businesses (and he believe that there are), the rise of consulting was leading to a very significant change in the major audit firms. Their focus was on how to grow their consulting practice, rather than how to improve the quality of their audits.

Moreover, tendering has been specifically identified as a means by which independence is threatened (Moizer, 1994, p.20). In addition, the external audit market in most countries characterized by mandated market restriction that required non price competition and prohibited price competition among auditors. In Ethiopia, as per Lemessa (1996) the tendering requirement for auditors to secure clients tends to have caused price competition. This arguably puts auditors in competitive rather than cooperative positions.

TABLE 11: AUDIT TENURE AND UNFAIR COMPETITION IN THE AUDIT MARKET

Items	Response Category	Frequency	Percent
1. Do you believe that the existence of extended audit tenure aggravated unfair audit market competition in Ethiopia?	Strongly Agree	26	35.1
	Agree	41	55.4
	Neutral	-	-
	Disagree	7	9.5
	Strongly Disagree	-	-
	Total	74	100.0

Source: Survey outcomes, 2014

As indicated in the above table (table 11) 55.4 percent of the respondents agreed and 35.1 percent strongly agreed that they have a strong perception, the existence of extended audit tenure aggravated unfair audit market competition in the country. Supporting this, a long association between a corporation and an accounting firm may lead to such close identification of the accounting firm with the interests of its client’s management that truly independent action by the accounting firm becomes difficult (U.S. Senate, 1976).

ANALYSIS OF RESPONSES RELATED TO HUMAN RESOURCE

Human capital is the most important and an essential asset for the auditing industry. An auditor has pointed this out by saying that the forming of an independent opinion whether the financial statements give a true and fair view is a process that requires much subjective judgment. Such a task needs to be performed by professional audit personnel. Therefore, “people” are always important for the success of an audit firm.

TABLE 13: AVAILABILITY OF AUDIT PERSONNEL IN THE COUNTRY

Item	Response Category	Frequency	Percent
1. Do you believe that sufficient quantities and qualified audit personnel (trained human resource) are available in the country?	Strongly Agree	-	-
	Agree	7	9.5
	Neutral	14	18.9
	Disagree	41	55.4
	Strongly Disagree	12	16.2
	Total	74	100.0

Source: Survey outcomes, 2014

In this respect, table 13 above shows that 55.4 percent and 16.2 percent of respondents disagreed and strongly disagreed respectively about the availability of sufficient quantities and qualified audit personnel (trained human resource) in the country. In addition, the quality of audit work depends on the people audit firms hire and programs designed to support their development. Accordingly, effective human capital strategies are critical to achieving sustained audit quality. This start with a rigorous recruiting program to bring in a mix of highly qualified candidates, at all levels, who have diverse backgrounds and skills.

TABLE 14: COMPETITION FOR HUMAN RESOURCES

Item	Response Category	Frequency	Percent
1. Do you believe that shortage of audit personnel has caused an unhealthy competition among audit firms and forced them to incur additional costs for young graduates?	Strongly Agree	6	8.1
	Agree	48	64.9
	Neutral	14	18.9
	Disagree	6	8.1
	Strongly Disagree	-	-
	Total	74	100.0

Source: Survey outcomes, 2014

However, regarding the competition among audit firms for human resource in the country 64.9 percent of respondents agreed for the existence an unhealthy competition as a result of audit personnel shortage in terms of quantity and quality and they forced to incur additional costs for young graduates (Table 14). This is similar to the findings of World Bank (2007) report on the observance of standards and codes (ROSC) Ethiopia. It states that the number of professional accountants in Ethiopia is low in relation to the size of the economy.

Furthermore, in the context of a changing environment, domestically and abroad, it is quite timely to discuss about the problems that accountants/auditors are facing and which are the new skills they should possess in order to survive in the face of an increasingly strong competition from outside consultants (Shkurti, et al, 2011). For instance, in the U.S., audit firms have hired graduates from the leading accounting programs. In contrast, in the U.K., the audit firms have hired talented young graduates at the leading universities, regardless of their field (liberal arts, sciences, etc.), and then provided the new hires with the needed accounting training once they are with the firm (Healy and Williston, 2005).

As can be seen from table 15 majority of (55.4 percent) of respondents have apposite perception about the decoupling between the knowledge base employed by the accounting practice and the one taught in universities and colleges in the country. Supporting this, Titard et al. (2004) suggested that, professional practice of auditing evolves to meet the changing needs of society, the accounting educational process needs to be continuously reevaluated so it can adequately prepare future practitioners for successful careers. It is said that auditing is a social function, and the role of auditors is subject to shift in accordance with the needs and demands of society (Porter, Simon and Hatherly, 2005).

TABLE 15: EDUCATION OF ACCOUNTANTS/AUDITORS IN HIGHER EDUCATIONAL INSTITUTIONS

Item	Response Category	Frequency	Percent
1. Do you believe that there is a decoupling between the knowledge base employed by the accounting practice and the one taught in universities and colleges in the country?	Strongly Agree	13	17.6
	Agree	41	55.4
	Neutral	13	17.6
	Disagree	7	9.5
	Strongly Disagree	-	-
	Total	74	100.0

Source: Survey outcomes, 2014

About compensation of auditors in the auditing profession, the majority of respondents indicated that they believed that auditing is a less attractive profession due to its long working hours and less rewarding remuneration in Ethiopia (45.9 percent agreed and 35.1 percent strongly agreed). However, there was clearly no universal support for such issues, with 18.9 percent of respondents stating that they disagreed with this view (Table 16).

TABLE 16: COMPENSATION OF AUDIT PERSONNEL

Item	Response Category	Frequency	Percent
1. Do you believe that auditing is a less attractive profession due to its long working hours and less rewarding remuneration?	Strongly Agree	26	35.1
	Agree	34	45.9
	Neutral	-	-
	Disagree	14	18.9
	Strongly Disagree	-	-
	Total	74	100.0
2. Do you believe that audit firms are facing a dangerous time in recruiting qualified auditing personnel as they are paid much better in other sectors or abroad?	Strongly Agree	20	27.0
	Agree	48	64.9
	Disagree	6	8.1
	Strongly Disagree	-	-
	Total	74	100.0

Source: Survey outcomes, 2014

In addition, as displayed under table 16 of audit practitioners surveyed, most of them felt that audit firms are facing a dangerous time in recruiting qualified auditing personnel as they are paid much better in other sector (like in financial sectors) or abroad (64.9 percent agreeing and 27 percent agreeing).

FINDINGS

Analyses of the data collected confirm the following findings regarding the participants' awareness level and attitude, the suggested impeding factors and opportunities for private audit firms' activity in providing accounting and auditing service in the country.

FINDINGS ABOUT REGULATORY PROCEDURES

- The study revealed that the availability of detailed regulations and professional standards in to which audit firms and all their staff must adhere, and which support audit qualities are in doubt. That is, there was lack of legislations with a brief description of responsibilities, appointment formalities and duties of audit firms in general and external auditors in particular in the country.
- The criteria's sated to scrutinize the applications of accountants and auditors, the issuance, renewal, suspension and cancellation of certificates of competence are not well defined in the regulatory procedures, properly implemented, and updated. Hence, to be an authorized auditor and accountant is a challenging process.
- It was found that absence of well organized strong national professional association result some challenges to works of private audit firms, in turn professional auditors and accountants in the country.
- The participants of the survey are not too much satisfied with the current regulatory body, Office of Federal Auditors General (OFAG). It is not able to fulfill properly responsibility of well organized professional accountancy associations in the country.
- There are no well defined systems with which those private audit firms who have registered outstanding audit service get rewards and the other way round in the country. That is, there is no a mechanism of making/holding liable those private audit firms breach laws, rules and regulations which govern the audit industry.

FINDINGS ABOUT AUDIT MARKET

- One of the challenges facing audit practitioners can be low perceived value of the audit function. As it is confirmed by most of the participants, the audit function is viewed as a non-value adding activity and a waste of money and resources in the country.
- In relation to primary reasons why audit clients in the country requesting external audit service, it is found that invitation for an external audit service made only to satisfying the statutory and regulatory requirements. Thus, public at large not relies on professional accountants and auditors' competent advice on a variety of business and taxation matters.
- Another factor that can be considered as an opportunity for the advancement of accounting profession in Ethiopia is a strong cooperation among private audit firms. However, it is found that the existence of strong cooperation among audit firms to improve the art of accounting, maintain the public's confidence, and carry out the profession's special responsibilities for self-governance, which would be expected in the future is in question.
- In addition, as observed from the responses obtained the features of competitive bid in private sector audit sub markets results unfair competition among audit firms. Supporting this, the study also revealed that the bases of audit firm selection by audit clients, which is in terms of positive personal audit-client relationship, grades given for audit firms, etc.
- As per survey results and the interview held with key informants as a result of unfair competition in the audit market, private audit firms tends to reduce the time they devote to an audit assignment and shift to non audit services and maintain extended audit tenure.
- Besides, the flourishing private enterprises, progresses in establishing national accounting standards and stock market in the country may contribute positively towards the advancement of private audit firms and audit market.

FINDINGS ABOUT HUMAN RESOURCES

- The participants in this study continue to indicate the other challenges to private audit firms operation in Ethiopia were related to human resources. In light of this, the study revealed that sufficient quantities and qualified audit personnel (trained human resource) supply were limited. Hence, there were strong competitions among audit firms for human resources.
- Private audit firms in the country also forced to incur additional costs for young graduates as a result of decoupling between the knowledge base employed by the accounting practice and the one taught in higher educational institutions in the country.
- The study also indicated that audit firms are facing a dangerous time in recruiting qualified auditing personnel as they are paid much better in other sector (like in banks, insurance, etc) or abroad. Also, majority of respondents have perception that auditing is a less attractive profession due to its long working hours and less remuneration in Ethiopia. However, the major reason for less remuneration for auditors in Ethiopia is low audit fee subsequent to competitive bid in the audit market.
- Further, respondents also confirmed that private audit firms participated in "low balling" practice subsequent to unfair competition among audit firms. Therefore, they suggested that audit firms should soon come to an agreement for a standardized audit pricing.

CONCLUSIONS

According to the findings, it is possible to conclude that unavailability of detailed regulations and professional standards, lack of legislations with a brief description of responsibilities, appointment formalities and duties of external auditors, lack of well defined, properly implemented, and updated criteria to scrutinize accountants and auditors, issuance, renewal, suspension and cancellation of certificates of competence are some of the challenges in the area of regulatory procedures to private audit firms currently constrained their operation and advancements. The results of this study also provide strong indicative evidence about challenges to private audit firms in general and external audit practitioners in particular in the sphere of external audit market. This includes low perceived value of the audit function, low demand for professional accountants and auditors' competent advice on a variety of business and taxation matters, lack of strong cooperation among private audit firms, unfair competition among audit firms in audit market.

On top of the above mentioned challenges, there are additional challenges like unavailability of sufficient quantities and qualified audit personnel (trained human resource), incurrence of additional costs for young graduates as a result of decoupling between the knowledge base employed by the accounting practice and the one taught in higher educational institutions, higher degree of audit personnel mobility in to another sector (like in banks, insurance, etc) or abroad and low audit fee pertaining to human resource in the country. Finally, the researcher is hopeful as these views will give an opportunity to think about some of the challenges both accountants and auditors face in today's business environment even though conclusions are consistent with many of previous research findings.

RECOMMENDATIONS

IMPLICATION TO REGULATORY PROCEDURES

Government regulations and proclamations since the 1920s have contributed to the development of accounting and auditing in Ethiopia. However, the findings of this study suggest that auditors in Ethiopia are facing many problems related to laws governing the activity of private audit firms. This study has shown the most important problem from the viewpoint of the audit practitioners such as;

- Unavailability of detailed regulations and professional standards
- Lack of legislations with a brief description of responsibilities, appointment formalities and duties of external auditors
- Lack of well defined, properly implemented, and updated criteria to scrutinize application of accountants and auditors, issuance, renewal, suspension and cancellation of certificates of competence.

Therefore, to ensure that the financial reporting and auditing rules applicable to different types and sizes of entity are appropriate to the needs of those entities, the users of their financial statements, and auditors, the current regulatory body (OFAG) and other accounting and auditing professional associations should work

together towards eliminating or minimizing problems in this regard. In order to achieve this objective, from time to time, the Office needs to evaluate the prevailing condition and ensure that all authorized auditors and accountants have uniform ethical standard in place and respect in discharging their duties to the public.

For instance they can develop a framework of professional ethics, which governs the provision of accounting and auditing services, aligning the normative (national) and legal framework in the area of financial reporting, accounting and auditing with the best international practices.

Establishing strong indigenous local professional accountancy associations in Ethiopia was attempted with little success. They have neither the capacity nor the legal basis to provide certification examinations that could serve as a prerequisite for licensing of practitioners. To this end, there needs to be a government commitment to provide professional associations with the legal authority to monitor, regulate, and grow the profession.

In addition, audit firms will need to work closely and cooperatively with regulators, like the key organizations involved in establishing international accounting and auditing standards and those involved in overseeing the international auditing profession to achieve the highest standards of performance.

IMPLICATION TO AUDIT MARKET

Since audit firms are both a business and a profession they need to ensure they strike the appropriate balance that serves the public interest. Accordingly, the results of this study also provide strong indicative evidence about challenges to private audit firms in the sphere of external audit market. This includes low perceived value of the audit function, low demand for professional accountants and auditors' competent advice on a variety of business and taxation matters, lack of strong cooperation among private audit firms, unfair competition among audit firms in audit market.

The situations of low perceived value of the audit function, low demand for professional accountants and auditors' competent advice on a variety of business and taxation matters may be improved through educating the users on the role and the duties of auditors, through better communication by private audit firms, regulatory bodies, professional associations, and academicians and by expanding the scope of the audit to meet market expectations.

Moreover, there is a prevalence of small and medium enterprises in Ethiopia, which is possibly associated with the less developed external audit market. Also there is little external audit requirement on most medium-sized private enterprises. Thus, through reforming financial reporting and audit requirements for these enterprises we can improve present low demand for professional accountants and auditors' service.

Furthermore, to overcome the problem of lack of strong cooperation among private audit firms and unfair competition in the audit market, there is a need for creating fair competition in the audit market because the former problem is as a result of unfair competition in the audit market. To achieve this one and the same auditor should not audit the books of accounts of the same client for longer time period, may be for not more than three years. That is private audit firms should avoid extended audit tenure. In addition, private audit firms should not provide both accounting and auditing services for one and the same client. This may result an occasion that organizations select auditors based on family or friends relationship and low balling, in turn unfair competition among audit firms.

IMPLICATION TO HUMAN RESOURCES

The diverse range of demands and impacts on the accounting and auditing profession is forcing a rethink of everything from training and development through to the type of people being recruited. In this respect, the current study identified unavailability of sufficient quantities and qualified audit personnel (trained human resource), incurrence of additional costs for young graduates as a result of decoupling between the knowledge base employed by the accounting practice and the one taught in higher educational institutions, higher degree of audit personnel mobility in to another sector (like in banks, insurance, etc) or abroad and low audit fee in the country.

Currently, to reduce problems of human resource availability in terms of quantity and quality in the country, the government increases the number of public higher educational institutions and frequently revises its educational policies and strategies. However, the critical problem is decoupling between the knowledge base employed by the accounting practice and the one taught in higher educational institutions. Thus, as a solution to this problem higher educational institutions (public and private) work to further develop their connections with the private audit firms, accounting and auditing regulatory bodies and accounting and auditing professional organizations. They also should work to bring together lecturers and representatives from private sector groups (audit firms, companies, etc.), professional associations or body such as the Accounting Society of Ethiopia, and representatives from the Ministry of Finance and Economic Development, Ministry of trade and industry, etc and enhance the dialogue between these groups.

Higher educational institutions also continue and increase their efforts to hire academic staffs with relevant practical experience to teach courses in accounting and auditing. Lecturers with knowledge of the application of accounting and auditing in the workplace can better prepare students for their roles as professional accountants and/or auditors. Besides, they need to take sabbaticals with company accounting departments, audit firms, and government bodies to refresh and enhance their knowledge of the practice of accounting and auditing.

Besides, higher educational institutions should update their curricula and use up-to-date teaching materials with good international practice to a level that will prepare graduates for the enhanced requirements in accounting and auditing. The curriculum should include accounting standards, auditing standards, and professional and business ethics. To support the new curriculum, the training institutions should be assisted with up-to-date textbooks, copies of accounting and auditing standards, and training-of-trainers programs on practical application of IFRS and ISA.

In addition to serving other industries, the private audit firms itself is a service industry in the business environment. To compete with each other within their own industry, audit firms need to provide continuing innovation and consistent investment in human resource development. Hence, professional association or body, nationally or internationally and OFAG should take the responsibilities in providing training for private audit firm staffs on ongoing, intense, specialized basis, and covering a wide variety of relevant subjects that extend beyond traditional accounting and auditing.

Moreover, audit clients in selecting an external auditor, particular consideration should be given to determining whether the fee quote is sufficient for the work required, that the work is to be undertaken by people with an appropriate level of seniority, skill and knowledge and whether the work proposed is sufficient to meet the company's needs and expectations. This may help to curve the problem of low audit fee, in turn higher degree of audit personnel mobility in to another sector (like in banks, insurance, etc) or abroad.

Generally, a strong financial reporting environment in the country requires active involvement of all stakeholders, including policy makers, investors, regulators, standard setters, corporate directors, company management and auditors in continuous reorganization and improvement of legal framework, institutions, accounting and auditing professions, as well as change in its business culture and education system. This can have a significant effect on the conduct of audits, the governance of the profession and the public's perceptions about the value of audits.

SCOPE FOR FURTHER RESEARCH

The study aims to assess social, economic, and regulatory settings in which private audit firms operate in order to identify those factors considered as challenges and opportunities in the perspective of external audit practitioners. For this purpose, taking in to account the constraints of resources (like financial and time) and for the sake of in depth and manageable work, the study confined within the realm of identifying the major challenges and opportunities for well operation of private audit firms in Ethiopia particularly, those audit firms working in the metropolis, Addis Ababa, taking into account its accessibility to the researcher.

That is, office of federal auditor's general definition of external auditor and private audit firms adopted, i.e. External auditor is a professional accountant conducting auditing and related services to the entity but not employed by the entity or by its manager and is independent of the persons who manage the entity. Whereas, private Audit firm: a sole practitioner or partnership of professional accountants, an entity that control such parties, and an entity controlled by such parties.

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DETERMINANTS OF FOOTBALL FANS STADIUM ATTENDANCE: PERSPECTIVES FROM GHANA**SHANI BASHIRU****LECTURER****DEPARTMENT OF MARKETING****SCHOOL OF BUSINESS AND MANAGEMENT STUDIES****ACCRA POLYTECHNIC****ACCRA****ABSTRACT**

The study capitalized on quantitative techniques tailored at identifying pull factors that spurs stadium attendees. Hundred football fans were targeted and responses were elicited via questionnaires. Informants were selected based on convenience sampling. SPSS was used in data analysis. The study pinpointed the availability of stars as a dominant factor that attracts fans to stadium. Factors such as banning of live broadcast of foreign football matches, marketing of matches in media, My favorite team performance improved, and Reduction of ticket prices are found to be peripheral in fans consideration to attend football matches. Therefore, if the current steep slump in fans attendance to football matches is to be halted and fans made to rediscover the routes to stadiums and fill the stands during premier league matches in Ghana, there is the need for football clubs to nurture and retain talented footballers in the league. Sports administrators have a task to retain their budding stars to spice the league in order for fans to make the stadium their habitats during football matches.

KEYWORDS

football, fans, stadium, factors, influence, matches.

1. INTRODUCTION

An exciting pastime and recreation for most people across the globe is to get glued to their seats watching competitive sports. One arch attraction of sports events that fascinates fans is its unique attribute of athletic manoeuvrings by competing athletes and contestants. Besides, the element of surprise in which outcomes of sports events defy bookmaker's predictions make fans expectant regardless of the potency of their contestants. Emotions run sky high during the contests by both contestants and fans in the hope that, the pendulum of success will swing in their favour.

Football has mostly been adjudged as having massive following worldwide. It is one of sports disciples whose following is enjoying an upward mobility in fan addiction and permeating certain parts of the world in which football was a peripheral sport (Fallahi, Asadi and Khabiri, 2011). The groundswell of spectators at various stadia watching football matches, amid anxiety and excitement in local, national and international contests makes sports analyst point to the dominance of football in the arena of sporting events. Beside, the large crowds of audiences viewing football matches live on television in cities, towns, villages and cottages lends credence to the growing acknowledgement of football as the sports disciplines with widespread following.

The role of spectators in boosting the morale and hence the performance of players during football matches has been emphasized by football pundits. Kelly, Allyn and Bacon (1996) posit that players performing in a football match give their all when their supporters are at full voice. The cheers and round of applause that greet a sublime touch of the ball provides players with the adrenalin to exhibit more superlative performances in the field of play during competitive matches.

The level of spectating can also positively influence the performance of games. Players display fine form during the big stage which is often characterized by large stadium attendance. Consequently, Cheng, Chen and Yao (2004) espouses the view that massive spectating during football matches can inspire scintillating performances. Spectators are therefore an integral part of football because they contribute to a charged atmosphere which breeds competition and colour during matches. In the explanation of Cheng (2007), football and sports development can only be deemed successful only when fans follow the game.

According to James and Ridinger (2002), people who develop interest in the sport of football consider themselves fans. These fans part with hard earned money to watch games, ready to celebrate dramatic victories and groan and moan unexpected losses. Figuring what are the motivational factors that spur on fans to troop to football stadia and stay rooted behind television screens during football matches has engaged the attention of sport researchers and stakeholders in the world (Armstrong, 2002). As a result, many studies have dwelled on factors that ginger fans to exhibit immense passion for football with some fans subscribing to season long tickets to enable them attend almost all matches played by their idol clubs (Cohen & Avrahami, 2005).

Such studies are exemplified by the works of Skourtis, Zafeiropoulou & Assiouras (2011), Wann, Grieve, Zapalac & Pease (2008), Won & Kitamura (2007), Correia & Esteves (2007), Robinson & Trail (2005) and Funk, Ridinger & Moorman (2004) whose research detailed the factors that pull football fans to fill the stands in stadia across Europe. Researchers in U.S.A, Japan and Australia joined the fray and conducted studies into the underlying forces of huge fans patronage of football competitions (Kim, Greenwell, Andrew, Lee & Mahony, 2008; Won & Kitamura 2007; Pederson, Kiil & Kjaer, 2011). However, these researches have been far removed from the dynamics of football spectating in West Africa, prompting the need to investigate the motivations which underpin fans attendance or the lack of it to various stadia in the sub region of West Africa especially Ghana.

Whilst football matches across Europe and other parts of the world record massive crowds, the story in Ghana is different. Premier league matches, the flagship football competition in Ghana has seen dwindling crowd numbers during football matches. This has set tongues wagging about the reasons why football fans, once crazy about the game have shied away from the stands during football matches. Near empty stands now greet football matches generating heated debates amongst stakeholders. The President of the Ghana Football Association (GFA) who was re-elected on 11th August, 2015 has made the need to find answers to the lethargic attitude of fans towards stadium attendance a top priority (Ghanaian Times, 12th August, 2015).

Factors determining attendance to football matches and football patronage has gained attention amongst researchers and their findings have found auspicious space in extant literature. Football crazy nations such as Spain, Britain, and Australia and to a moderate extent America and Japan have been the focus of researchers (e.g. Wann et al., 2007; Won & Kitamura, 2007; Correia & Esteves, 2007; Robinson & Trail, 2005; Funk, Ridinger & Moorman, 2004). Skourtis et al. (2011) analyzed the underlying forces driving attendance at competitive sports such as football in Greece whilst Fallahi et al. (2011) drew sharp comparisons between the motivations behind people belonging to different age brackets attending football contest in Iran. Cohen and Avrahami (2005) made important observations in their study and concludes that, variations exist in the factors that inspires attendance to football matches. In their outline of such varying factors, they note economic, social to psychological factors. The findings of some researchers suggest there is no single overriding factor determines spectator patronage of football matches or the lack of it (Cohen & Avrahami, 2005; Kim et al., 2008; Won & Kitamura, 2007). Therefore the motivations of football fans in Europe may for instance, reveal similarities and stark differences to what turns football fans in Africa to troop to various stadia or turn their backs to stadium attendance. By extension, contextual analysis should be factored into determining the factors influencing or discouraging fans to make their presence felt at football stadia during matches. The existence of studies tailored to factors influencing football patronage in Europe and America notwithstanding; there has been a dearth of empirical work focusing on factors that driving football fans demand to attend or not to attend live football matches in Ghana. McDonald, Milne, and Hong, (2002) reveal that a considerable number of empirical research in sport marketing have failed to find answers to many critical many critical questions in relation to sport events, such as what factors determine and explain spectator participation. This current study is dedicated to filling the gap and is aimed at investigating determinants of the low turnout by football fans during premier league matches in Ghana. The arch aim of this work is to determine the factors that influence football fans attendance to the stadium during premier league matches. Comprehending such factors will guide and assist stakeholders in the football fraternity in Ghana to

come to terms with the forces driving football attendance. Decision makers will find the outcome of this study quite useful as they navigate the path of trying to undertake plausible measures that can arrest and reverse the nosedive in stadium attendance in during Ghana premier league matches across the country.

2. LITERATURE REVIEW

Souza and Angelo (2004) conduct a study into fans attendance during Brazilian championship matches in the 2002 football season. The study relied on economic factors, expected match quality, demographic profiles and competitive imbalance to determine the agents of stadium attendance during football matches.

On the other hand, Villar and Madalozzo (2007), adopt an approach close to that of Garcia and Rodriguez (2001), covering football contest for the Brazilian Championship covering a three year period. They adopted variables which were grouped in accordance with Structure, Expected quality, Performance and Uncertainty

Borland and Macdonald (2003) concentrated on consumer preferences, economic factors, utility derived from watching association football, and supply capacity in their study of factors determining the level of fans attendance to football matches.

Shank (2005) detects major factors that shape decisions to attend football matches and mentions match attractiveness, economic factors, competitive factors, value attached to sport in the community, demographic profiles, stadium facilities and fan identification.

TEAM AFFILIATION

Fans attachment to a team largely defines the emotions they experience during competitive football matches (Madrigal, 1995). Fans attachment aside, various studies have made inroads into issues connected to fans decisions to attend football matches at various stadia.

Dhurup, Dubihlela & Surujlal (2010) indicate that attachment to a football club constitutes a major factor in a football fans decision to attend a football contest. A team was rated the most important factor in a fan's decision to attend a soccer match. When the attachment is intense, it breeds a never die attitude in the fan which pushes the fan to the stadium to watch his club. Fans attachment to a team assumes some endurance when the team exhibits quality performances. Fallahi et al. (2011) and Brokaw, Stone, & Jones (2012) disclose that team affiliation more often is a product of the team engaged in superlative play during football matches in order to attract fans to the stadium adding that if the team displays sub-par performances, the attendance will spiral downwards.

STADIUM FACILITIES

Amenities at a stadium have been widely acknowledged as an important factor in drawing crowds to the stadium. In a study conducted by Pederson et al. (2011), they found that stadium amenities, personnel, maintenance regime and ease and speed of access are highly rated by football fans in their quest to attend football matches at stadia. When fans go through trauma to secure tickets and endure long queues to enter stadiums, it serves as a disincentive for stadium attendance. Greenwell, Fink, and Pastore (2002) investigated the link between fans satisfaction and the architecture of stadiums and depicted that fans are more attracted to state of the art stadiums with lorry parks and tidy facilities. Aminuddin and Lee (2008) studied how stadium facilities influence stadium attendance in Malaysia Super League and concluded that sports cape has a significant influence on fans intention to patronize subsequent football competition.

Miloch (2005) adds that the idea of stadium facilities dovetails into Wakefield, Blodgett and Sloan's (1996) "sportscape" model and posits that there is value addition to fans overall experience and entertainment feelings when physical facilities at a stadium pleases the eye. Hill and Green (2000) adopted the position that facilities at a stadium represent an important element in the marketing mix. They contend that football is dependent on the stadium to render an experience that creates value and delight for its clients. Many studies have dealt with the connection between stadium facilities or sport capes and fans disposition towards repeat buy of football matches (Wakefield & Blodgett, 1994; Wakefield & Sloan 1995; Wakefield & Blodgett, 1996; Wakefield et al., 1996, Hill & Green, 2000; Westerbeek, 2000; Chang, 2000; and Lee, Ryder & Shin, 2003) and reveal that stadium facilities is a major variable in a spectator's decision to attend football matches at stadiums.

TEAM QUALITY

Football fans gather at a stadium to watch their teams play quality football that can keep them cheering. Fans are not enthused with drab shows. The quality of a team is one of the main forces that boost stadium attendance (De Schriver and Jensen, 2002). The ingredients of team quality, in the view of Parkhouse (1996) are winning ratios whilst Plunket (2008) puts team quality to just how much a team is star studded. However, the intensity of rivalry also shapes team quality (Robinson, Trail and Dick, 2005). Perhaps, Zhang, Pease, Smith, Lee, Lam and Jambor (1995) portray a comprehensive scale of team quality outlining home team quality, star players, win to loss ratio, ability to entertain crowds with skillful play, history of team, strength of the opposition and quantum of spectators as the essential elements of team quality (Huang, 2009).

Researchers have established a strong link between stadium attendance and team quality. When a team is perceived to have a star studded team, it baits fans to the stadium in anticipation of quality performance on the pitch. Numerous studies have therefore established a positive link between team quality (team performance, strength of opponents, intense rivalry and star players) and fans' attendance to stadiums (Baade & Tiehen, 1990; Welki & Zlatoper, 1994; Madrigal, 1995; Zhang et al., 1997; Pan, Gabert, McGaugh, & Branvold, 1997; Bernthal & Graham, 1999; and DeSchriver & Jensen; 2002).

Zhang et al. (1997) identify the ability of a home team as the key factor in drawing crowds to stadiums during football matches adding that a team that is accustomed to winning matches will serve as an impetus for fans to repeat stadium attendance. Branvold, Pan and Gabert (1997) also indicate that proportion of victories to losses can be used to predict spectators' attendance.

In the same vein, a collection of studies masterminded by Welki and Zlatoper (1994), Madrigal (1995) and DeSchriver and Jensen (2002), also opines that the quality of the game during matches have a considerable influence on spectators' motivation to attend a sporting contest. Hill and Green (2000) hint that teams on a winning spree are the destination of most fans arguing that teams noted for losing matches will record scant attendance during football matches. This is corroborated by Leeuwen, Quick and Daniel (2002) who maintain that spectator satisfaction is hinges on win/lose ratio this is factored in the decision to attend or boycott football matches. If spectators are dissatisfied with the outcome of the game, it is common to hear them murmur about their intensions not to repeat attendance and this will diminish attendance rates.

ECONOMIC FACTORS

Competitive matches attract gate fees. Attendance at football matches depends on ticket rates at the venue of the football match (Feehan, 2006). The cost of tickets and transportation to and from the venue form part of the cost incurred to attend football matches. Isabirye and Surujlal (2012) find that football fans consider cost of tickets and transport fares when deciding to attend football matches at stadiums. Feeham, Forrest and Simmons (2003); Brokaw et al. (2012) draw parallel between a football match and normal goods asserting that football matches are subjected to the forces of demand and supply. They explain that in the eyes of football fans, low ticket prices provide fans with the incentive to attend football matches whilst exorbitant ticket rates discourage attendance. However, there are some fans that religiously follow their teams and will attend football matches at the stadium regardless of ticket prices (Isabirye and Surujlal, 2012).

Terry, Corland, and Houghy, (2002) noted economic factors, as a major determinant of football fans attendance. Simmons (1996) reveals a positive correlation between wage levels in an economy and stadium attendance but Dobson and Goddard (2011) disagree emphasizing that the using income as a factor in determining stadium attendance does not stand on firm grounds.

TV BROADCASTING

Baimbridge, Cameron, and Dawson (1996) analyzed the English Premiership and realized that matches beamed live on television results in significant decline in attendance during weeknights. Televised matches however do not impact negatively on fan attendance during weekends. Garcia and Rodriguez (2002) detected a sharp drop in spectator attendance especially for free to air matches. Focusing on English soccer, Forrest, Simmons, and Szymanski (2004) find mixed results regarding the link between live television broadcast of matches and stadium attendance. Forrest and Simmons (2006) assessed the effect of televised broadcast of Union of European Football Associations (UEFA) Champions League matches on fans patronage at concurrent matches in the English Football league. They report a drop in stadium attendance but the negative effect is more pronounced when matches were telecast on free-to-air rather than pay-TV channels.

In Ghana, the Communications Director to the G.F.A has called for the banning of live broadcast of the English premier league citing it as the reason why premier league matches are played in Ghana in near empty stadium. This call is not underpinned by research. The current study will use empirical findings to corroborate or reject this call.

Several works have dealt with the subject of fans preference for television viewing of live football matches at the expense of stadium attendance. Allan and Roy (2008) find a fall of 30% attendance amongst home team fans in the in the Scottish Premier League once matches were broadcast live.

3. METHODOLOGY

3.0 INTRODUCTION

This section covers the research design, the study population and sample, sampling plan, sample size, and sampling procedure as well as the data collection and data analysis techniques utilized in this work.

3.1 RESEARCH DESIGN

According to Babbie (2002), research design is the process of focusing your perspective for the purposes of particular study. Research design involves a set of decisions regarding what topic is to be studied among what population with what research methods for that purpose.

The Research method employed for this study was descriptive survey. According to Aggarwal (2008) descriptive survey research is devoted to the gathering of information about prevailing conditions or situations for the purpose of description and interpretation. The main informants of this research were football fans, coaches and the players within the football industry.

Questionnaire was used for the study. The rationale for using questionnaire was that, it provided an efficient means for obtaining raw data; moreover many respondents could be reached within a short span of time.

3.2 THE STUDY POPULATION

The study population is an aggregate of all cases that conformed to some set of specifications (Sorenson, 1999). The study population was that element from which the sample was actually selected. In this case, the study population were the football fans, coaches and the players within the football industry. Indeed, this population was too large for the research as would be very difficult to study them all. However, a fraction or a sample of the population was carefully chosen as the representative sample of the study population.

3.5 SAMPLING PLAN

A sampling plan is a detailed outline of which measurements will be taken at what times, on which material, in what manner, and by whom (Dodge 1943). Sampling plans should be designed such a way that the resulting data will contain a representative sample of the parameters of interest and allow for all questions, as stated in the goals; to be answered, (Mason's, 1953). The researcher must also design a sampling plan. This plan calls plan three decisions which are the sampling unit, sampling size and the sampling procedure. The survey method will be we the students to obtain facts and opinion from a representative selection of the population and to enable the researchers present findings as a true representation of the population of football fans using a carefully prepared set of questionnaires. Survey research is often used to assess thoughts, opinion, and feelings of the population of the research.

3.5.1 SAMPLING SIZE

The sampling size of a research sample is the number of objects, set of individuals or scores that constitute it (Lwanga, 1991). Basically, large samples give reliable results than small samples. However, it is not necessary to sample the entire target population or even a substantial portion to achieve reliable results. The sample size for this study is hundred (100) participants. This consists of football fans, coaches and the players of the football industry.

3.5.2 SAMPLING PROCEDURE

Sampling is taken to be any portion of a population or universe as a representative of that population or universe (Osuala, 2005). There are two main types of sampling. These are probability sampling method and non-probability sampling method.

Non-probability sampling method: Non-probability sampling method is a method of sampling whereby the chance of selection for each member in a population is unknown and for some elements is zero (Osuala, 2005). Probability sampling method: Probability sampling is where each element in a population is chosen at random and has a known non-zero chances of selection (Osuala, 2005). This is used for all large scale surveys. The basic idea behind probability sampling is to provide useful description of the total population; hence a sample of individuals from a population must contain essentially the same variations that exist in the population. This method provides an excellent way of selecting representative samples from large known populations. The probability method contains the problems of conscious and non-conscious sampling bias by giving each element in the population a known (non-zero) probability. The sample of this research was chosen from football fans, coaches and the players of the football industry using convenience (judgment) sampling. This method is suitable because it is accessible to the researcher, cheaper to use and less time consuming. Also the essence of using the convenience sampling method is based on the fact that not all the coaches and players in Ghana premier league will get equal opportunity to be selected. However this method is subject to some level of bias.

3.6 DATA COLLECTION METHODS

In view of the purpose of this study, the researcher depends mainly on primary data as a source of data collection.

Primary data for the purpose of this study were obtained through close ended questionnaires. The structured questionnaire was the major instrument for data collection in this research.

The questionnaires were structured carefully to ensure clarity. Simple words were therefore used so that respondents will easily understand as well as answer questions appropriately. The questionnaire contained four sections which are football, football fans and Accra sports stadium and Ghana premier league. Most of the questions required binary (Yes/No) responses. In all, a total of hundred (100) questionnaires were distributed as follows, 10 to coaches, 20 to players, 60 to football fans and 10 to football journalist.

3.7 DATA ANALYSIS

The research questions were broken down into various sets of questions in the questionnaires. The questionnaires were coded into SPSS statistical software according to the available response sets to generate tables and graphs for analysis.

The study used both descriptive and inferential statistics for the data analysis. The descriptive statistics were mainly tables and charts to explore the pattern of the data. The variables of interest to the researchers were Banning of live broadcast of foreign foot ball matches, marketing of matches in media, My favorite team performance improved, Reduction of ticket prices and Quality players which the researchers used for the inferential analysis. The inferential analysis was done using the SPSS software.

The study used the SPSS software to run multiple Regression analysis by examining the inter-relationship between **Factors that attract fans to stadium (Dependent variable)** and a number of **explanatory (Independent) variables** such as Banning of live broadcast of foreign foot ball matches (X_1), marketing of matches in media (X_2), My favorite team performance improved (X_3), Reduction of ticket prices (X_4) and Quality players (X_5).

Mathematically:

$$Y = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + \epsilon;$$

Where **Y** is the **Factors that attract fans to stadium**, the dependent variable,

X1 is the Banning of live broadcast of foreign foot ball matches

X2 is the marketing of matches in media

X3 is the My favorite team performance improved

X4 is the Reduction of ticket prices

X5 is the Quality players

Where **$b_0, b_1, b_2, b_3, b_4, b_5$** , are unknown constants whose values are estimated by the regression analysis from the SPSS output

ϵ is the random error term

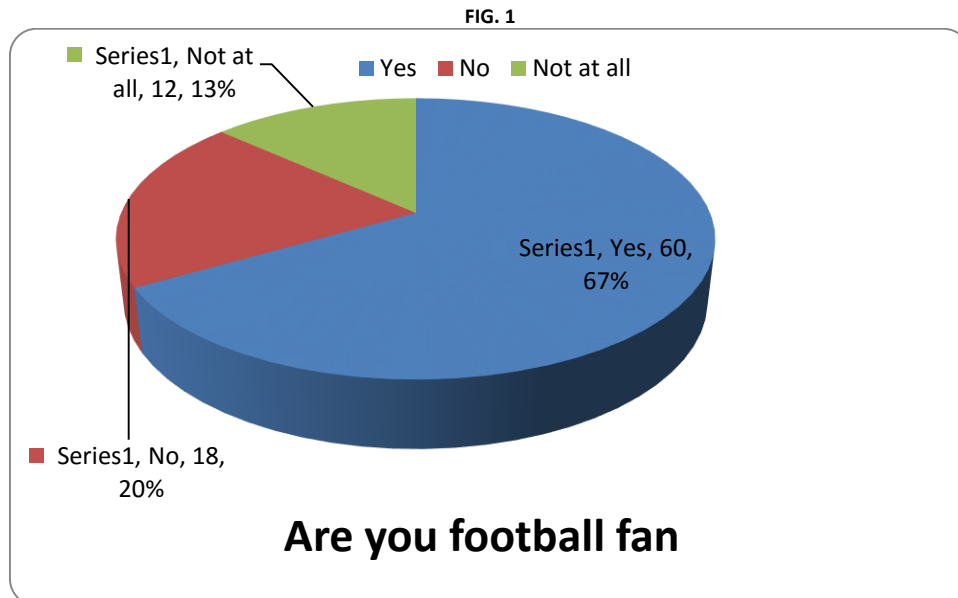
4. DATA ANALYSIS AND DISCUSSIONS

4.0 INTRODUCTION

This section revealed the outcomes or the results of the study. The outcomes were expressed in the form of tables, graph and statistical analysis.

In all a total of 100 people were surveyed out of which 60 were football fans, 20 were players, 10 were Coaches and 10 were football journalist. 90% of the questionnaire was retrieved; implies only 10%. The survey spanned across the football industry with the following responses from the respondents.

4.1 ARE YOU FOOTBALL FAN?



A number of people were asked whether there were football fans. There was mixed response from the respondents. Out of the 90 respondents who participated in the exercise 67% of the respondents answered Yes, 20% said No and 13% said that they are Not at all football fan.

4.2 WHICH LEAGUE DO YOU LIKE WATCHING?

TABLE: 1

Details	Frequency	Percentage %
Europe	54	60
Africa	36	40
Total	90	100

The fans were asked about the kind of football they watch – European or African. Out of the respondents, 60% revealed that they watch European football and the remaining 40% stated that they watch African football. This implies that the fans watch more European football than African even though they reside in Africa.

4.4 HOW OFTEN DO YOU GO TO WATCH MATCHES DURING THE SEASON?

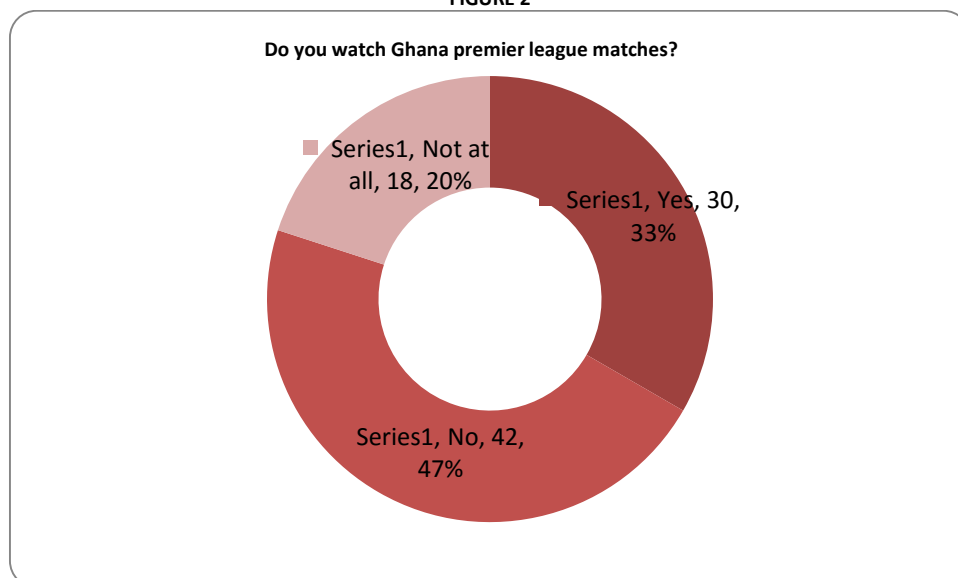
TABLE 2

Details	Frequency	Percentage %
Once a month	60	67
Twice a month	18	20
Thrice a month	0	0
Not at all	12	13
Total	90	100

The respondents were further asked to mention the number of times they watch matches during the season. 67% stated that they watch matches once a month, 20% indicated twice a month, 0% stated thrice a month and the remaining 13% stated Not at all as shown in table 2.

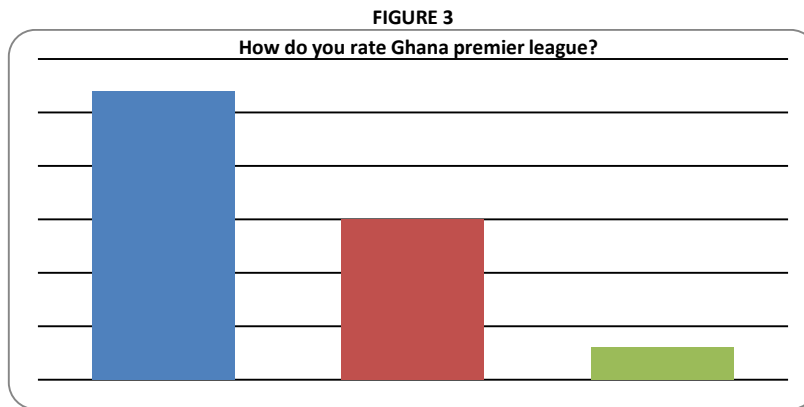
4.5 DO YOU WATCH GHANA PREMIER LEAGUE MATCHES?

FIGURE 2



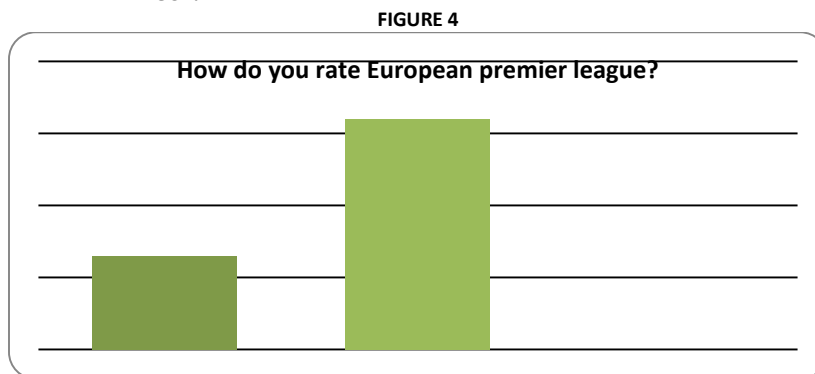
The respondents were asked whether they watch Ghana premier league. A mix response was given. 33 % aswered Yes, 47% No and 20% said Not at all.

4.6 HOW DO YOU RATE GHANA PREMIER LEAGUE?



The participants were again asked to rate the Ghana premier league. 54 (60%) said is boring, 30 (33%) said it is exciting and 6 (7%) said they don't know.

4.7 HOW DO YOU RATE EUROPEAN PREMIER LEAGUE?



A similar question was asked to rate the European premier league. Majority (64) of the respondents stated that it is so exciting and a few (26) stated that it is boring and none of the respondent indicated that they don't know.

MODELING FACTORS THAT ATTRACT FANS TO SPORTS STADIUM

The respondents were asked to rate the following factors: Banning of live broadcast of foreign foot ball matches, marketing of matches in media, My favorite team performance improved, Reduction of ticket prices and Quality players in terms of its ability to attract fans to the sports stadiums? To unravel this issue, the researcher used the SPSS software to run multiple Regression analysis by examining the inter-relationship between Factors that attract fans to stadium (Dependent variable) and a number of explanatory (Independent) variables such as Banning of live broadcast of foreign foot ball matches (X₁), marketing of matches in media (X₂), My favorite team performance improved (X₃), Reduction of ticket prices (X₄) and Quality players (X₅).

Mathematically:

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + \epsilon;$$

Where Y is the Factors that attract fans to stadium, the dependent variable,

X₁ is the Banning of live broadcast of foreign foot ball matches

X₂ is the marketing of matches in media

X₃ is the My favorite team performance improved

X₄ is the Reduction of ticket prices

X₅ is the Quality players

Where b₀, b₁, b₂, b₃, b₄, b₅, are unknown constants whose values are estimated by the regression analysis from the SPSS output

ε is the random error term

In the quest of the researcher to determine the factors that attract fans to stadium, multiple regression analysis was performed to determine whether there is a linear relationship between the dependent variable, Y, and the independent variables(s), X₁, X₂,...X_{p-1} as in table 3.

TABLE 3: COEFFICIENTS^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.163	.197		10.964	.000	1.771	2.556
	Quality players	-.239	.106	-.234	-2.249	.027	-.451	-.028

a. Dependent Variable: Factors that attract fans to stadium

The regression model was developed based on the STEPWISE method for all the explanatory variables. This method is preferred to other methods in the sense that it adds the explanatory variables into the model one after the other at a time. It begins with the variable that has or exhibits the highest correlation with the predicted variable, in our case: Factors that attract fans to stadium.

If an explanatory variable is found not to be contributing significantly to the dependent or predicted variable, it can be removed. The STEPWISE method is especially useful if the independent variables are very large and the motive is to include only those contributing significantly to the model.

After critically examining the SPSS output for the regression model, the study has considered model 1 on the STEPWISE regression model table as the best models. To start with the SPSS package begins selecting explanatory variables that contribute highly to the dependent variable. Hence, the package identified only Quality Players.

Mathematically the final and best model is:

$$Y \text{ Factors that attract fans to stadium} = 2.163 - 0.239X_5$$

The SPSS output also produces no-significant factors contributing to fans attraction to the stadium. Based on this study, the study found out that Banning of live broadcast of foreign foot ball matches, marketing of matches in media, my favourite team performance improved and Reduction of ticket prices are factors not helping to attract fans to the stadium as in table 4.

TABLE 4: EXCLUDED VARIABLES^a

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	Banning of live broadcast of foreign foot ball matches	-.191 ^b	-1.627	.107	-.173	.772
	marketing of matches in media	-.067 ^b	-.634	.528	-.068	.988
	My favorite team performance improved	.062 ^b	.348	.729	.037	.351
	Reduction of ticket prices	-.067 ^b	-.634	.528	-.068	.988

a. Dependent Variable: Factors that attract fans to stadium

b. Predictors in the Model: (Constant), Quality players

CONCLUSIONS AND RECOMMENDATIONS

Quality of players emerged as the most dominant contributor to fans attending football stadium. Star players contribute largely to team success and become a magnetic force that pulls fans to stadiums. As players assume stardom, they become celebrities and fans are prepared to pay to watch such talented star exhibit their qualities.

This work therefore strongly recommends that teams should invest in building talents and retaining them in the domestic league to serve as an attraction to fans. The early exodus of budding stars to Europe is a drain on the league in terms of quality stars and needs to be nib in the bud to ensure that they mature before they set sail to Europe.

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HEALTH CONSCIOUSNESS AND OPINION LEADERSHIP OF SCHOOL TEACHERS: RESULTS OF A SURVEY FROM THE CITY OF MUMBAI

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MUMBAI**

ABSTRACT

According to UNICEF in India over two million children die every year from preventable diseases. India has one of the poorest health records in the world with the highest TB prevalence, every three out of four children have anaemia, and polio eradication is actually backsliding. Many of these deaths are preventable by using vaccines or following basic hygiene norms. But either out of obstinacy or ignorance or fear many do not. It is hypothesised in this study that teachers can play a strong role by imparting health education and consciousness to their students and by being role models in their spheres of influence. But in order to do so the teachers themselves have to have relevant levels of health consciousness and should be respected opinion leaders in their community. In order to test this hypothesis a survey was conducted to study the health awareness levels of the school teachers in Mumbai and the degree to which they considered themselves opinion leaders in their community among government funded and private funded schools. The self administered surveys were followed up with depth interviews. The data collected through the survey was analysed using SPSS. Ver.20. The Personal interview data was subject to content analysis. The results indicated that school teachers in government schools have better awareness about health issues due to NGO interventions, training received etc. They also perceive themselves to have a role to play in the development for a healthy tomorrow.

KEYWORDS

health consciousness, opinion leadership, teachers, school-children, healthy habits, obesity control.

INTRODUCTION

According to UNICEF India over two million children die every year from preventable diseases. Infant Mortality Rate in India is 63 deaths for every 1000 live births. Studies have indicated that more than 16.8 lakh children below five years died of infectious preventable diseases in India in 2010 and more than half of them could not complete the first month of their life (Hindu, 10th May 2012). India has one of the poorest health records in the world with the highest TB prevalence, every three out of four children have anaemia, and polio eradication is actually backsliding. With varying social sector budgets, health indicators differ greatly across the country. Many of these deaths are preventable by using vaccines or following basic hygiene norms. But either out of obstinacy or ignorance or fear many do not. It is hypothesised in this study that teachers can play a strong role by imparting health education and consciousness to their students and by being role models in their spheres of influence. But in order to do so the teachers themselves have to have relevant levels of health consciousness and should be respected opinion leaders in their community.

OBJECTIVES OF THE STUDY

It is hypothesized in this study, that teachers can play a strong role by imparting health education and consciousness to their students and by being role models in their spheres of influence. But in order to do so the teachers themselves have to have relevant levels of health consciousness and should be respected opinion leaders in their community. In order to test this hypothesis a survey was conducted to study the health awareness levels of the school teachers in Mumbai and the degree to which they considered themselves opinion leaders in their community among government funded and private funded schools. Therefore the objectives of the study were to examine:

1. To measure the degree to which school teachers can influence health in the community
2. To compare and contrast the health awareness and consciousness of the school teachers in private and government schools;
3. To compare and contrast the health awareness and consciousness of the English medium school teachers and local medium school teachers.

LITERATURE REVIEW

The major parameters under study in this study are Health Consciousness and Opinion Leadership.

HEALTH CONSCIOUSNESS

Despite the fact, that infectious diseases remain one of the major causes of mortality in the world, especially in developing countries, economic research on policies aimed at limiting their occurrence has been limited. A technology aimed at limiting such diseases has been vaccines. Although the introduction of a vaccine usually produces a sharp drop in the occurrence of a disease, the eradication of vaccine-preventable diseases predicted by many at the time of these inventions has never been achieved. Of the roughly 40 vaccines in the market, only the smallpox vaccine has been successful in eradication. Diseases such as measles, tuberculosis, and different types of influenza still persist, and despite several governmental efforts to eradicate them, and recent attempts to develop a vaccine against HIV or AIDS raise important questions about the causes behind these difficulties (Philipson, March 1997). Remarkable improvements have been made in the past century in the fight against communicable diseases. Respiratory infections and diarrheal diseases, the most leading diseases globally, are responsible for half of all the child deaths every year. The burden of communicable diseases exists in developing regions of the world and children remain particularly vulnerable (Catalina Lopez, Jan 2009). Despite much evidence supporting the effectiveness of measures such as vaccination, improvement in sanitary conditions, and basic hygiene practices in controlling communicable diseases, many developing countries have yet to achieve effective vaccine coverage and remain plagued with poor sanitary conditions. Basic personal hygiene behaviors, such as hand washing, are still not widely practiced. Bearing in mind that school children have rather been consistently vulnerable to the spread of communicable diseases and that the school has been recognized as vital setting for health promotion, hence it becomes imperative to check the prevalence of hand washing behavior among school children (Catalina Lopez, Jan 2009). Health disparities reflect differences in health because of socio-demographic variables, such as race, socio-economic status (SES), and gender. Low-SES individuals consistently have poorer health than high-SES individuals across a variety of morbidity and mortality outcomes. Understanding these relations early in life is critical not only for maximizing children's health but also for understanding the origins of adult disparities in health. Low-SES children have poorer health behaviors, including higher injury rates at young ages and also suffer from chronic impairments, such as higher rates of hospitalization for asthma, and other types of illnesses. Similarly, children belonging to minority groups have poorer health (Edith chen, Apr 2006).

Child health has important effects on learning, on labor productivity (as adults) and more importantly, on child survival and mortality. Consequently, the subject of child health now stands the centre of the most important issue of household welfare in developing countries (Pushkar Maitra, Mar 2006). Improved child health and nutrition are welfare-enhancing in themselves. Better child health and nutrition, in addition, are widely thought to improve various dimensions of child school performance, and therefore subsequent post-school productivity. There are many studies that report significant associations between child health (including nutritional status) and child schooling performance (Pollitt, 1990) (Behrman, 1996).

India has the highest number of undernourished children in the world. The major causes of child deaths in India are diarrhea and acute respiratory infections. Several innovations are available to save the children from dying, for example use of Oral Rehydration Solution (ORS) for diarrhea. However, the management of

diarrhea through ORS is not satisfactory in India. Other causes of child deaths in India are neonatal conditions, malaria, nutritional deficiencies, congenital anomalies, etc. Over-all it has been observed that the child health situation in India, is far from being satisfactory on many factors such as immunization, malnutrition, mortality, etc. Globally, maternal and child under-nutrition is the underlying cause of 3.5 million deaths every year. Under-nutrition occurs due to protein and energy malnutrition as well as micronutrient deficiency. Under-nourishment in children retards physical development and hampers the learning and cognitive processes leading to poor educational, economical and social development. Ignoring under-nutrition triggers the long-term health and development of population at risk (KV Ramani, April-June 2010). Immunization is one of the most cost-effective interventions for preventing a series of major childhood illnesses, particularly in environments where children are under-nourished and may die from vaccine-preventable diseases (KV Ramani, April-June 2010).

"There is plenty of evidence relating to the role of household allocation of resources on children's health outcomes" (Sharmishtha, 2013). Increasing a woman's autonomy has been proved to lead to long-term reductions in infertility, higher child survival rates, and allocations of resources which benefit the children within the household (Eswaran, 2009). It has been found that female autonomy has a significant positive impact on the probability that the children will be taken for formal healthcare for the treatment of respiratory infections and diarrhea (Chakrabarti, 2012). "Female autonomy can be measured in a variety of ways such as income (especially if the woman is the primary contributor) and influence over household decision-making (Kantor, 2003) (Rao, 2004) (Chakrabarti, 2012), education (Jejeebhoy, 1995), labor force participation (Tiefenthaler, 1997) (Eswaran, 2009), freedom of mobility outside the house" (Rao, 2004). Education and labor force participation are the two most commonly utilized measures of female autonomy (Sharmishtha, 2013). (Gupta, 1990) found that women's autonomy, social class, and mother's education significantly influence child survival through improved child care. (Chakrabarti, 2012) also finds to media also leads to greater probability that children will receive formal healthcare.

OPINION LEADERSHIP

This paper is concerned with health-related mentoring in public and private schools on an informal and voluntary basis. Mentoring is viewed as an effective educational tool for empowerment, Mentoring is basically a relationship of coaching, counseling and caring shared between a mentor and a mentee (Wertheim, 2006). Traditional mentor relationships are those intimate learning experiences that occur unnaturally and are in direct contrast to formally organized mentoring. Traditional mentoring, therefore, is an organic process which develops naturally and is a vital and transparent relationship between the mentor and the mentee (Bennetts, 2003). One of the most critical issues in the planning of better health care system for developing countries is the training and education of health manpower. In developing countries, significant improvement in health care can occur with the introduction of simple basic curative and preventive techniques such as improvement of water supply, maternal and child health care service, the control of infectious diseases, hand-washing etc. Thus, the need is not so much for high level healthcare manpower, as for an increase in the supply of voluntary healthcare providers such as health workers, medical assistants, assistant nurses, and village health workers (Lori Vanderschmidt, June 1979). Teaching is traditional and scholastic. Teachers rarely use modern educational methods. Too much dependence on western training models often results in programs with excessive emphasis on the applied sciences of physics, chemistry, and biology. More emphasis needs to be placed on primary skills such as sanitation, nutrition, maternal and child health, family planning and disease surveillance (Lori Vanderschmidt, June 1979).

"School-based health centers" consists of physicians, nurse practitioners, registered nurses, and social workers who provide a complete range of primary care, preventive care, and early intervention services to children from early school to high school. In addition, to providing direct health care services, SBHC staff members engage in a wide range of other activities to promote student health (Miles A. McNall, Sep 2010). Three techniques are recognized for improving immunization levels in students in schools. "Method A involved reviewing school immunization records, specifically inviting immunization-deficient children to a school-based clinic. Method B involved sending out permission slips for a school-based clinic to all students without additional investment of nursing time. Method C involved a health education program encouraging parents to have their children immunized on their own" (Thomas Vernon, May 1976).

There is a widespread concern that students are making inappropriate decisions about what they eat, leading to widespread incidence of obesity and chronic illness in young children these days. Inappropriate nutritional decisions and obesity are of significant importance of public-policy (Ross Brennan, July 2010). "School Nutrition programs were one public initiative to combat the problem of wide-spread nutritional deficiencies in the U.S. The National School Lunch Program (NSLP) currently serves children in ninety-eight per cent of the nation's public schools" (Jayanta Bhattacharya, 2006). The United States and many other countries are facing a big problem since most of the children and adolescents are defined as obese or overweight. A study showed that, in addition to a number of adverse medical consequences, over-weight and decreased fitness levels in childhood are associated with poorer academic achievements in school. Changing children's health habits may be a key element in promoting widespread adoption of a healthier lifestyle that could lead to reduction of cardiovascular risk behavior and disease events in the population. "A program defined as the Heart Healthy Program was designed to accomplish three objectives: 1) increase elementary students consumption of complex carbohydrates and decrease consumption of saturated fats, sodium and sugar, 2) Increase their physical activity, 3) Generalize these changes to other family members" (Thomas J. Coates, Jan 1981). Good nutrition contributes to the improved well-being of children and their potential learning and cognitive ability, thus contributing to better school performances (Blades, 2001) (Aranceta, 2001) and there is an evidence that poor nutrition in school-children tends to compromise their learning capacity (Tompkins, 1998) (W, 1999). Several studies have found out that well-designed and well-implemented school-based programs can improve the physical activity and eating behaviors of young people (Contento I, 1995) (Robinson, 1997)

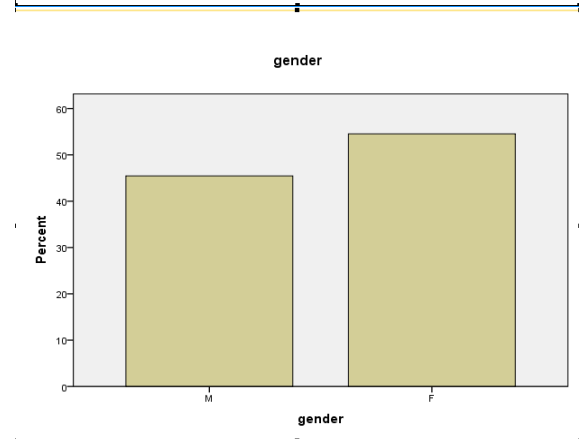
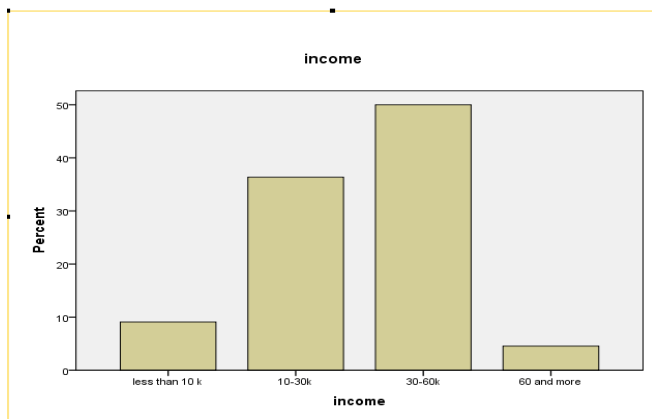
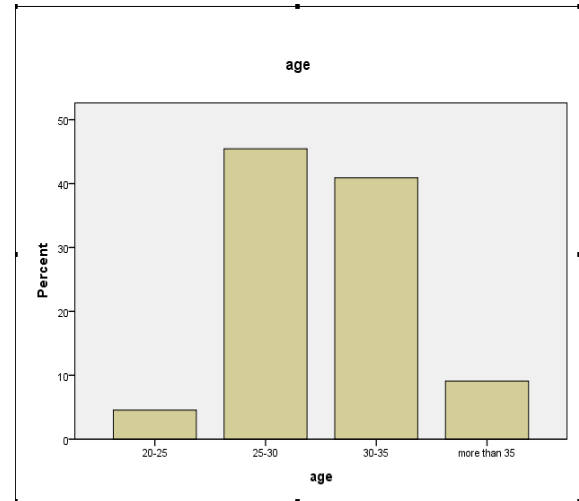
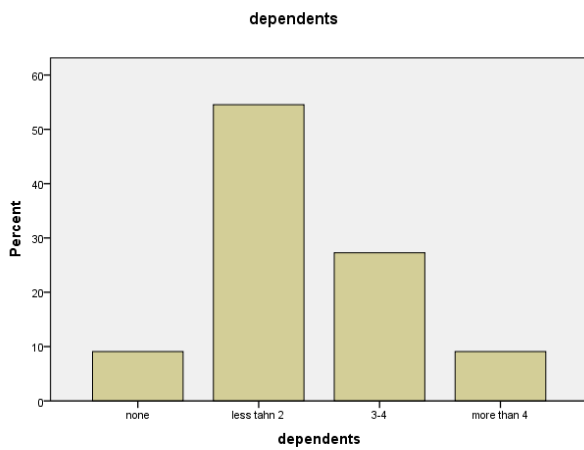
Schools are an ideal setting to inculcate healthy diets and encourage high level of physical activity because they are responsible for administering at least one third of a child's food intake during the school day and they can function as an educational role models for healthier food choices. To institute healthier eating habits in children, all early, middle and high schools shall eliminate all high-processed unhealthy foods, colas and beverages (Heyman, 2006) (Littledyke, May 2008).

METHODOLOGY OF THE STUDY

In order to test this hypothesis a survey was conducted to study the health awareness levels of the school teachers in Mumbai and the degree to which they considered themselves opinion leaders in their community among government funded and private funded schools. The self administered surveys were followed up with depth interviews. The data collected through the survey was analysed using SPSS. Ver.20. The Personal interview data was subject to content analysis.

FINDINGS AND ANALYSIS
PROFILE OF THE RESPONDENTS

FIG. 1 to 4



PROFILE OF THE SCHOOLS COVERED

FIG. 5

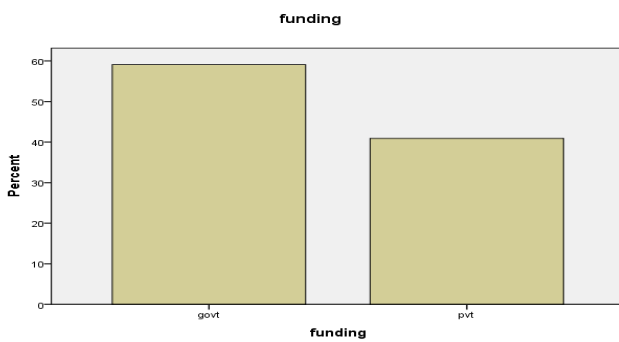
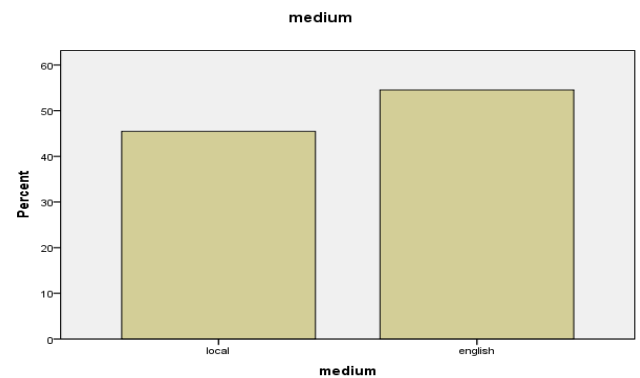


FIG. 6



Most of the respondents were between 25-35 years old and had an family income level of Rs.30,000 to Rs.60,000. Both gender are represented and schools with both government and private funding are represented in the sample. The medium of education of the schools the teachers were associated with was either English or Marathi.

HEALTH CONSCIOUSNESS OF TEACHERS

Difference in Health Consciousness in teachers of both genders

TABLE 1: T-TEST

	Gender	Mean	Std. Deviation	T	df	Sig.
Health Consciousness	Male	3.3286	.44186	0.618	18.88	0.544
	Female	3.2143	.41982			

Not surprisingly there is no significant difference in Health consciousness of the different genders since these individuals are products of their environment.

Difference in Health Consciousness in teachers of different income groups

TABLE 2

		Mean	F	df	Sig.
Health Consciousness	Less than 10 k	3.0000	.275	3	.843
	10-30k	3.2679			
	30-60k	3.3117			
	60k and more	3.2857			
	Total	3.2662			

What possibly is surprising that increasing income is not influencing increase in awareness of health though positive attitude towards health is indicated by the mean values in the higher income groups.

Difference in Health Consciousness in teachers of different age groups

TABLE 3

		Mean	F	df	Sig.
Health Consciousness	20-25	2.8571	.496	3	.69
	25-30	3.2143			
	30-35	3.3333			
	more than 35	3.4286			
	Total	3.2662			

Similarly age creates no significant difference in health awareness though the trend in data does indicate that older teachers are more aware.

Difference in Health Consciousness in teachers of private and Government schools

TABLE 4: T-TEST

	Funding	Mean	Std. Deviation	t	df	Sig.
Health Consciousness	Govt	3.2747	.41	.109	16.33	.931
	Private	3.2540	.45			

It is generally assumed that private schools give more importance to health related aspects but this analysis negates this understanding and the trend in data indicates that government school teachers give more importance to health inspite of the lack of statistical significance.

Difference in Health Consciousness in teachers of English medium and local medium schools

TABLE 5: T-TEST

	Medium	Mean	Std. Deviation	t	df	Sig.
Health Consciousness	Local	3.3429	.56	.722	12.36	.482
	English	3.2024	.26			

It is also generally assumed that English medium schools give more importance to health related aspects but this analysis again negates this understanding and the trend in data indicates that local medium school teachers give more importance to health inspite of the lack of statistical significance.

OPINION LEADERSHIP OF TEACHERS

Difference in Opinion leadership in teachers of both genders

TABLE 6: T-TEST

	Gender	Mean	Std. Deviation	t	df	Sig.
Opinion leadership	Male	3.4000	.70	.255	15.01	.794
	Female	3.3333	.36			

There is no significant difference in opinion leadership of the different genders but the mean value indicates that men perceive themselves as more listened to. This again is part of the Indian culture.

Difference in Opinion leadership in teachers of different income groups

TABLE 7

		Mean	F	df	Sig.
Opinion leadership	less than 10 k	3.2500	2.09	3	.137
	10-30k	3.1563			
	30-60k	3.6136			
	60k and more	2.5000			
	Total	3.3636			

Increasing income is not influencing significant increase in opinion leadership though positive increase is indicated by the mean values in the higher income groups.

Difference Opinion leadership in teachers of different age groups

TABLE 8

		Mean	F	df	Sig.
Opinion leadership	20-25	3.5000	.57	3	.981
	25-30	3.3500			
	30-35	3.3333			
	more than 35	3.5000			
	Total	3.3636			

Again increase in age does according to the mean values bring with it more respect in society but possibly since the sample is predominantly young, this is not indicated as statistically significant.

Difference in Opinion leadership in teachers of private and Government schools

TABLE 9: T-TEST

	Funding	Mean	Std. Deviation	t	df	Sig.
Opinion leadership	Govt	3.3846	.58	.2	17.03	.844
	Pvt	3.3333	.59			

Again surprisingly government school teachers are more confident of their leadership in society.

TABLE 10: T-TEST

	Medium	Mean	Std. Deviation	t	df	Sig.
Opinion leadership	Local	3.4750	.54	.83	19.8	.416
	English	3.2708	.60			

Again similarly, local medium school teachers are more confident of their leadership in society

DISCUSSION, LIMITATIONS AND CONCLUSION

Not surprisingly there is no significant difference in Health consciousness of the different genders since these individuals are products of their environment . What possibly is surprising that increasing income is not influencing increases awareness of health though positive attitude towards health is indicated by the mean values in the higher income groups. It is generally assumed that private schools/English medium schools give more importance to health related aspects but this analysis negates this understanding and the trend in data indicates that government school teachers/local medium schools give more importance to health. Increase in age and income does according to the mean values bring with it more respect in society but again surprisingly government school teachers and local medium teachers are more confident of their leadership in society.

These surprising findings are limited by a small sample size, the self reporting methodology adopted and since its scope is limited to the urban areas of Navi-Mumbai and Mumbai but it can be summarized from the personal interviews with these teachers that there has been considerable interventions of NGO's and other welfare societies especially in government/local medium schools to increase health awareness of both students and teachers. Sometimes training in health and hygiene through workshops etc, are being offered. Since the message is reaching these teachers from different sources, they feel more equipped. Moreover since they are enlisted for several governmental tasks, the teachers feel that the people around them look up to them. In addition to NGOs, Business houses too are taking an increasing interest in health and education through their CSR initiatives but more room exists for further developmental activities in this sphere.

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ANNEXURE

QUESTIONNAIRE

Q1: How many dependents are there in your family?

a) None b) <= 2 c) 3-4 d) > 4

Q2: Please indicate your agreement with the following statements: (1-completely disagree, 2- disagree, 3-neither agree nor disagree, 4-agree, 5- completely agree)

a. My friends and neighbors' often ask my advice about health related issues

- b. I sometimes tell them how to handle some health related issues
- c. I feel I am generally regarded by my family/friends/neighbors' as a good source of advice on health
- d. I can think of at least two people whom I have helped with some health issue in the last six months

Q3: Please indicate your agreement with the following statements:

(1-completely disagree, 2- disagree, 3-neither agree nor disagree, 4-agree, 5- completely agree)

- a. I always choose snacks such as fruits and vegetables.
- b. I eat regular, well-balanced meals.
- c. I enjoy eating nutritiously and exercising regularly.
- d. When sick or injured, I usually seek medical attention immediately.
- e. I exercise vigorously 4-5 times weekly.
- f. I drink at least 6 glasses of water in a day
- g. I finish my prescribed medicine course fully

Q4: Age:

Q5: Income:

- <10,000 a month
- 10,001- 30,000 a month
- 30,001- 60,000 a month
- 60,001 and more a month

Q6: Gender: Male /Female (to be filled in by the researcher)

Q7: Which of the following best describes the area the respondent lives in? (to be filled in by the researcher)

- Urban
- Suburban
- Rural

Q8: School associated with: (to be filled in by the researcher)

- a. Local medium/ English Medium
- b. Government/ Private

THE ROLE OF OMBUDSMAN TO CONTROL THE ADMINISTRATIVE ACTIONS IN INDIA

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ABSTRACT

Maximum democratic countries had adopted welfare concept. The main feature of welfare state is to maintain the transparency in their work. Public has the right to ask the question and get the knowledge regarding administrative works. They can ask the question through media and members of people's representatives. It is a best tool to control the administrative actions and corruption. If anybody injured by the administration injured man can get Judicial and non judicial remedy. There are three institutions to control the administrative arbitrariness and corruption e.g. C.V.C., C.B.I. & Ombudsman. All these institutions are the part of non judicial remedy. Ombudsman can play a vital role to control the arbitrariness of the administration because C.V.C. & C.B.I. are failing to control these problems. Both are institutions are only an investigation authorities. And they are come under the control of union government but ombudsman will be independent. I want to say through my paper that ombudsman is need of the day to control the administrative actions and corruption in India.

KEYWORDS

ombudsman, discretion, organ, arbitrariness, democratic, parliamentary system. lokpal and lokayukt, welfare state. judicial control, none judicial control, ultra-vires, mala fide intention.

INTRODUCTION

There are so many countries in the world which followed the democratic system. India is also following it. And it has adopted parliamentary democratic system. Under this system Pain and complaints of the citizens can be removed through asking the question before the parliament. In this way we can control the arbitrariness of the administration. If the person aggrieved by the administration, he may avail the remedy by filing the application before the court. If he is unable to get the remedy from the court, he can complaint before the member of parliament who tried to solve that problem. But parliament also fails to provide the proper justice (solution) of all those problems. People believe that parliament cannot solve the problem of the citizens against the government. With the beginning of welfare concept, the work of government also increased. Government was only capable to provide all social services and get the economic object. Its result that government interfered in public works directly with this effect the complaints against government was increased. Peoples believed that parliamentary system was not sufficient to stop the complaints. So the power of discretion had become the need of that time. Now this time the discretionary powers of the administrative officers have been developed but the scope of judicial review is curtailed by administrative discretion. We can say that the discretionary powers are doing the exclusion the power of judicial review. The deficiencies of parliamentary system and judicial review on the traditional pattern have led the world to think of substitute or additional institution to control. There are many subsidiary institution e. g. Ombudsman, C.V.C., C.B.I. to control these complaints against government filed by the aggrieved person. They provide fast relief against administrative actions. It is not mandatory to follow Law to get remedy against it by aggrieved person. These institutions are very inexpensive. And their procedure is very simple. They do not have need to follow any procedure aggrieved person can present himself his matter. He does not need to legal representatives. It has proved that these are best institutions to control the arbitrariness, corruption and wrong decisions of administrative authorities.

DEFINITION OF TERM OMBUDSMAN

Ombudsman means A Representative, Agent, Officer or Commissioner. It is impossible to give a perfect Definition of Ombudsman. But **Garner** rightly said "He is an officer of parliament, having as his primary function, the duty of acting as an agent for parliament, for the purpose of safeguarding citizens against abuse or misuse of administrative power by the executive." And in the words of Professor S. K. Agarwal "The term ombudsman refers only to institutions which have three basic and unique characteristics:

- (a) Ombudsman is an independent and non partisan officer of the legislature who supervise the administration.
- (b) He deals with specific complaints from the public against administrative injustice and mal-administration.
- (c) He has the power to investigate, criticize and report back to the legislature, but not to reverse administrative actions.

The Ombudsman Committee of the International Bar Association has described the office thus: "An Office provided for by the Constitution or by action of the Legislature or Parliament and headed by an independent, high-level public official, who is responsible to the Legislature or Parliament, who receives complaints from aggrieved persons against Government agencies, officials and employees, or who acts on his own motion, and who has the power to investigate, recommend corrective action, and issue reports (International Bar Association)

This contemporary definition of the term of Ombudsman is not agreed to universally, but it does serve as a starting point in defining the role.

HISTORICAL BACKGROUND

It is not a new concept. We are well aware with this because this institution was introduced in Scandinavian countries. This institution introduced first time in Sweden 1809. After Sweden this institution was established in Finland 1919. In 1953 Denmark was also form the organization of ombudsman. Norway also appointed an ombudsman in 1963. New Zealand was the first common wealth country which implement it in 1962. than England followed it in 1967 and Australia adopted it 1976. india has also accepted this institute by **The Lokpal and Lokayuktas Act, 2013** and came into force from 16 January 2014.

POSITION OF OMBUDSMAN IN VARIOUS COUNTRIES

The organization of ombudsman is developed by Scandinavian countries after those countries. It was adopted by commonwealth countries and those countries which followed parliamentary system. This concept is recently adopted by India. Now maximum countries of the world have adopted it because this institution is proving to control the administrative discretion.

SWEDEN

Ombudsman was established first time in 1809 by Swedish government. There were two purposes behind the establishment of the post of ombudsman. First one was to control for the civil administration, and other one was to control for army administration. It was called supreme prosecutor. They appointed as a representatives of the parliament (ricksdeg) by the Judges. He must have some qualities e.g. Good skills; impartial, Expert in Law and experienced in judicial functioning. He was appointed for four-year tenure. It is not only the function of ombudsman to execute the law as a representative of parliament. But also he will start the legal process against administrative actions e.g. violation of law, arbitrariness, partiality and negligence. Against all these administrative acts (contrary to law, arbitrariness, partiality and negligence) victim can make a complaint to ombudsman. He has the power to investigate any case Suo Motu but at the same time any administrative decision cannot be quashed or reviewed.

DENMARK

Denmark forms this body in 1954 with more powers and rights than Sweden to investigate and vigil the work of state administrative authorities (civil and army). All these power were given by statutory provisions so we can say Danish ombudsman was greater than Swedish. He is required to keep himself informed as to

any person pursues unlawful ends, takes arbitrary or unreasonable decision or otherwise commits mistakes or acts of negligence in discharge of his function. Victim can make complaints to the ombudsman directly. If he is satisfied that any case has made out by the complaint. Any information can be called from the respective departments. Therefore he is not empowered to quash a decision or give any other remedy to the complaint. His function is only to publish a report, calling attention of the government and the public to the need for rectifying the error found by it.

NORWAY

The office of a commissioner for the civil administration was created in 1960 by legislation. And a commissioner for military administration had been created earlier in 1952. The function which is to be discharged by the Norwegian ombudsman is 'to ensure that the individual citizen suffers no wrong through decision made by administrative authorities, and that they, and all persons exercising power in the service of the state do not make mistakes or neglect their duties'. He can investigate into individual cases; either on the complaint of an aggrieved citizen or *Suo Motu* after the decision has already been taken by administrative authorities. He investigates the facts and makes his own finding for the information and guidance of the administration.

FINLAND

Ombudsman was adopted in 1919 by Finland. There are many provisions regarding ombudsman incorporated in the constitution of Finland. It is appointed by the parliament. He holds the status of a representative of parliament. He works as like a parliamentary representative. And the main function of ombudsman is vigil on the enforcement of law. His main function is vigil on both civil and military functions.

ENGLAND

Ombudsman is known as a parliamentary commissioner for administration in England. The post of parliamentary commissioner for administration was created by parliamentary statute (Parliamentary Act, 1967). Ombudsman is appointed by crown on the recommendation of prime minister. He holds this post till the age of 65 year. Parliament can remove it by a resolution passed by both houses. The main function of ombudsman is to probe those complaints, which is done by aggrieved person, who is aggrieved with the result of misadministration in administrative actions by government officers. Its jurisdiction is limited to central government only. Ombudsman controls over all those subjects matters which are come under the liability of central government.

OMBUDSMAN IN AUSTRALIA

Australia had also introduced it. Australia is a federal country. Australia followed two tier system of ombudsman. Every state has its separate ombudsman. And center has also a separate ombudsman. It is known as commonwealth ombudsman system. It came into force by Ombudsman Act, 1976. It was unable to get the aim so it was amended time to time. It was amended last time in 1983.

The Australian ombudsman system consists:

- (a) A Commonwealth Ombudsman.
- (b) Three deputy commonwealth Ombudsman.
- (c) A defense force Ombudsman.

The tenure of ombudsman is for seven years, and he is eligible to reappointment. He is appointed by governor general. He can hold the office until the age of 65 years. He can be removed from his office on an address by the two houses of parliament praying his removal on the ground of misbehavior or physical or mental incapacity. The ombudsman has been given powers to probe the complaints made to him against action taken by several major government departments. His function is to investigate either on a complaint or *Suo Motu* into a matter of administration taken by a department. Taking of action refers to (a) the making of a decision or recommendation or the formulation of a proposal. (b) Failure or refusal to take action. But certain type of action are exclude from the ombudsman's jurisdiction e.g. action of ministers.

NEW ZEALAND

It was the first parliamentary government country which was appointed ombudsman by Parliamentary Commissioner Act-1962. But it was not competent to control all administrative machineries so it was amended in 1975. By this act Local governments and maximum government tribunals has been came under the jurisdiction of ombudsman. Due to heavy work load a number of ombudsmen were appointed. One of them chief ombudsman and all others were ombudsman. All of them were appointed on the recommendation of House of Representatives by the governor general. Ombudsman was separate from executive and legislative, but he was known as representatives of parliament. He was appointed for five year. But before this term he can be removed with a resolution from House of Representatives by governor general on the grounds of incapability, insolvency, negligence in his duty and misconduct. Every aggrieved person can make a complaint and he can take *suo-moto* actions against misadministration. He has vigil on the government functions, and investigated against them. He sends a report to parliament. His decisions has finality, no one can go to court against his decisions.

REVIEW OF LITERATURE

Ombudsman is an investigating authority as like central vigilance commission and central Bureau of investigation. I have read many books to collect the material for this paper. I have analyzed that maximum writers explain its international scenario. Dr. M.P.Jain & S.N.jain referred in his book its origin, importance, historical back ground, international perspective and requirement in India. He focused mainly international scenario and its origin. He explained the position of ombudsman in England, Australia, New Zealand and India. He suggested that we have strongly required of ombudsman because in modern time it has cleared that all democratic countries follow two tendencies. One, large powers have been, and are being conferred on the administration with the result that a huge administrative machinery having vast discretionary powers has come into existence. The administration has come to play a vital role in influencing and shaping the socio – economic order in today's society. Two, a feeling has arisen in the public mind that vesting of such vast powers in the administration has generated possibilities and opportunities of abuse or misuse of power by administrative functionaries resulting in mala administration and corruption. So ombudsman is only one option to control it. Dr. J.J.R.Upadhy points out that a good administrative system indicate representation and responsible for public. To removes the public complaints against all administrative wrongs ombudsman was established in Scandinavian countries. As like these countries India has also adopted responsible administrative system. In India a lot of complains are filed against administration. With this result we also felt the need of ombudsman. So it has been established in India but it is in developing stage. Dr. S.P. Sathe referred his views in his book Administrative Law; he introduced it as an institute against corruption. It wills vigil administration and administrative works. If it found guilty and corrupt any administrative authority he can investigate and recommend to punishment. It can exercise some powers of civil court. But it will come under the term of public servant under The Corruption Prevention Act-1988.

RESEARCH METHODOLOGY

The proposed study is the study of judicial independence and judicial accountability, so this study will be based mainly on Descriptive, Analytical and Doctrinal methods. Besides these methods some other methods will also be applied according to the need of the study. Where things are of introductory and observatory in nature, the method to be applied would be Descriptive. Regarding analysis of the legal provisions, social status of a country and various socio-psychological problems of the victim, the method to be applied will be Analytical. Since the proposed study deals with one of the heinous problems of the society, therefore to analyze the problem, this work will be based on the Book, journals, , and other materials. In such case, the method to be applied will be doctrinal.

OBJECTIVES OF THE STUDY OF OMBUDSMAN

1-Judiciary has a limited control over the administrative actions. So we can say judicial control has limited criteria to control the administration. Judiciary cannot check all administrative actions. If any case make before the court. Court decides it on the basis of facts and evidence. With this result court cannot discuss on the merits and demerits of administrative functions. Judiciary cannot establish their discretion instead of administrative discretion.

- 1- Judiciary cannot force administration to do something, but this limited power may cause of a big harm. Although there are some grounds of judicial control e.g. ultra-vires, mala fide intention, unreasonableness & use of excess jurisdiction, but all these words are very doubtful and have uncertain meaning. It is not an easy work to get remedy on all these doubtful and uncertain grounds. It is a tuff task to collect evidence against government because governmental documents cannot be found easily.

- 2- Administration is not bound to disclose reason of decision except if it is possible under the provisions of respective act and the principle of natural justice must be followed in that action. Although the courts are forced to follow the rule of natural justice and disclose the reasons behind the judgment, but it is impossible in administrative cases. Apart from it there are so many cases in administrative actions which are not presented before the court. Another cause is expensive and slow justice. Our judicial system is very expensive. Due to work load it takes a long time to decide case. So we require such machinery or institution which can provide fast and low expensive justice. So ombudsman is that institution which is success to provide it.
- 3- Internal Administrative control is unsuccessful and unable to improve their mistakes and negligence. Administrative control does not provide the guarantee for good administrative behavior. Higher administrative authorities do not seriously entertain the complaint against their subordinates due to departmental bias as a result people do not get the remedy. So an independent body must be established to control the administrative negligence, faults and mistakes which review the administrative actions on real sense.
- 4- Legislative body is also unsuccessful to control the administrative actions because it has no time for discussion on individual complaints it spends maximum time for the discussion on policy matters and legislative proposals.
- 5- All enforced laws are failed to control the wrongful acts of administrative authorities.

We should establish an institution to fulfill all above objectives which can stop corruption & bad administration. And provide the remedy against the complaint of administrative authorities, because it is the privileges of ombudsman to call the administrative documents. So he can probe against administration with effective way. Its procedure is very simple & low expensive. It can provide remedy on those circumstances where the court is helpless. Public have more trust on it than any other institution because it is neither an administrative nor a government body. It is independent and impartial institution.

HYPOTHESIS

There are four major problems (population, pollution, corruption and terrorism) in all over the world. Corruption and terrorism both are more dangerous for all countries. The purpose of my paper is to control corruption. Corruption can be stopped by maintaining transparency in administrative functions. We have established many institutions to control it and made lots of Laws regarding the prevention of corruption, but we cannot get success in our aim. Ombudsman is a hope of ray to control corruption. India is not a first country which introduced ombudsman. It has been established in many countries as like Norway, Finland, Denmark, England, New Zealand and Australia. In 1962, Justice M.C. Shitalwad said in an All India Advocates conference, that the day has come when we should form an institution as like ombudsman to control corruption. After it, many times many bills were lying before the parliament but they could not be passed due to some technical problems. At last it was passed in 2013. Indian government has been passed The Lokpal and Lokayukta Act-2013. I think it can be create a barrier against corruption. But it is not absolutely correct that it will become corruption free for India. It will be depend on the awareness and co-operation of public.

DISCUSSION ON THE ROLE OF OMBUDSMAN IN INDIA

India is a democratic country and followed parliamentary system. We have adopted a federal government concept. There are two types of government first one is union or central government and other one is state government. After the independence of India ministers and officers had worked in good faith. After a decade Indian politics converted into economic source. A politician, who has become a rich person, before joined it he was a poor. Now these days Indian politics has become the Salter house for the smugglers and unsocial elements, because they are well aware with the benefits and privileges of politics. There are so many politicians who are involved in murders, scams, illegal acts, blackmailing and covered himself with the mask of public representatives. They are known as a reputed and renounced person in society. Political status and privileges are also attracted to all industrialists. Many industrialists, advocates, doctors, film industrialists, are interested to join politics. It is a curse of Indian politics that Indian government is about to become insolvent but representatives are becoming richer. It is a symbol of corrupt politics. Public representatives are disconnect with public and involved in scams it is a best example of none transparent and irresponsible government. Today's politicians think himself a ruler instead of public servant. If scams and corruption may be removed India becomes developed. Political corruption can be stopped by the establishment of ombudsman. We can say no other country has requirement of this institution like India.

The reasons of the development of ombudsman are same as other welfare countries. After independent of India the welfare concept was followed by Indian constitution. In this way the administrative era was start in India. With the development of administrative powers, corruption is also increased. Corruption is known as misadministration, misuse of discretionary powers, misbehaves etc. When Justice M. C. Shitalwad was addressing in 1962 in the meeting of all India advocates. He reminded to administration about their liabilities and suggested to establishment an institution like ombudsman. In 14th October 1966, the Administrative Reform Commission recommended in his report about immediate establishment of ombudsman to stop the corruption. It was mentioned as lokpal and lokayukt in the report of commission which was independent from executive, legislative and judiciary. Indian Government accepted all these recommendations and introduced a bill before the parliament, Lokpal and Lokayukt Bill, 1968. It was lapsed due to the dissolution of Lok Sabha. In 1977 a new bill was introduced regarding the establishment of ombudsman by Morar ji Desai government, but it was also lapsed in monsoon session 1979 due to the resignation of prime minister Morar ji Desai. Rajiv Gandhi government was also introduced it in 1985, it was similar as Scandinavian countries. According to this bill ombudsman can be given recommendation to punish that guilty person under the provisions of Indian penal code. It did not pass because opposition strongly opposed this bill. Ombudsman bill introduced by maximum governments in their tenure (1989, 1993, 1997, 1998, 2003 & 2005), but it could not be passed. But in 2011 a great movement demanded this organization this movement(India Against Cuurruption) was leaded by some renounced persons and social workers, e.g. Anna Hazare, Arvind Kejriwal, Kiran Bedi etc. it was a grit step against corruption. After all government introduced again a new bill against corruption in 2011, lokpal & Lokayukt bill, 2011. It was passed and known as **The Lokpal and Lokayuktas Act, 2013**. This act was passed by rajya sabha on 17 December 2013, Lok Sabha passed it on 18 December 2013, and President of India gave his consent on 1 January 2014. It came into force on 16 January 2014.

THE LOKPAL AND LOKAYUKTAS ACT, 2013

ESTABLISHMENT OF OMBUDSMAN (Sec.3, THE LOKPAL AND LOKAYUKTAS ACT, 2013)

There are a chairperson and not more than eight members in lokpal office. A Chairperson, who is or has been a Chief Justice of India or is or has been a Judge of the Supreme Court or an eminent person who fulfils the eligibility specified in Clause (b) of sub-section (3); and

(b) Such number of Members, not exceeding eight out of whom fifty per cent, shall be Judicial Members:

Provided that not less than fifty per cent, of the Members of the Lokpal shall be from amongst the persons belonging to the Scheduled Castes, the Scheduled Tribes, Other Backward Classes, Minorities and women.

(3) A person shall be eligible to be appointed,

(a) As a Judicial Member if he is or has been a Judge of the Supreme Court or is or has been a Chief Justice of a High Court;

(b) As a Member other than a Judicial Member, if he is a person of impeccable integrity and outstanding ability having special knowledge and expertise of not less than twenty-five years in the matters relating to anti-corruption policy, public administration, vigilance, finance including insurance and banking, law and management.

The Chairperson and Members shall be appointed by the President after obtaining the recommendations of a Selection Committee consisting of—

(a) The Prime Minister—Chairperson;

(b) The Speaker of the House of the People—Member;

(c) The Leader of Opposition in the House of the People—Member;

(d) The Chief Justice of India or a Judge of the Supreme Court nominated by him—Member;

(e) One eminent jurist, as recommended by the Chairperson and Members referred to in clauses (a) to (d) above, to be nominated by the President—Member.

(Section -4, The Lokpal and Lokayuktas act, 2013)

The Chairperson or a Member shall not be (Section- 3(4), THE LOKPAL AND LOKAYUKTAS ACT, 2013)—

(i) A Member of Parliament or a member of the Legislature of any State or Union territory;

- (ii) A person convicted of any offence involving moral turpitude;
- (iii) A person of less than forty-five years of age, on the date of assuming office as the Chairperson or Member, as the case may be;
- (iv) A member of any Panchayat or Municipality;
- (v) A person who has been removed or dismissed from the service of the Union or a State, and shall not hold any office of trust or profit (other than his office as the Chairperson or a Member) or be affiliated with any political party or carry on any business or practice any profession and, accordingly, before he enters upon his office, a person appointed as the Chairperson or a Member, as the case may be, shall, if—
- (a) He holds any office of trust or profit, resign from such office; or
- (b) He is carrying on any business, sever his connection with the conduct and management of such business; or
- (c) He is practicing any profession, cease to practice such profession.

TERM OF OFFICE OF CHAIRPERSON AND MEMBERS

The Chairperson and every Member shall be appointed for a term of five years from the date on which he enters upon his office or until he attains the age of seventy years, whichever is earlier; (Sec.6, THE LOKPAL AND LOKAYUKTAS ACT, 2013)

Provided that he may—

- (a) By writing under his hand addressed to the President, resign his office; or
- (b) Be removed from his office in the manner provided in section 37.

Under section 37 there are many provisions which are mentioned blow.

- (1) The Lokpal shall not inquire into any complaint made against the Chairperson or any Member.
- (2) Subject to the provisions of sub-section (4), the Chairperson or any Member shall be removed from his office by order of the President on grounds of misbehavior after the Supreme Court, on a reference being made to it by the President on a petition signed by at least one hundred Members of Parliament has, on an inquiry held in accordance with the procedure prescribed in that behalf, reported that the Chairperson or such Member, as the case may be, ought to be removed on such ground.
- (3) The President may suspend from office the Chairperson or any Member in respect of whom a reference has been made to the Supreme Court under sub-section (2), on receipt of the recommendation or interim order made by the Supreme Court in this regard until the President has passed orders on receipt of the final report of the Supreme Court on such reference.
- (4) Notwithstanding anything contained in sub-section (2), the President may, by order, remove from the office, the Chairperson or any Member if the Chairperson or such Member, as the case may be,—
- (a) Is adjudged an insolvent; or
- (b) Engages, during his term of office, in any paid employment outside the duties of his office; or
- (c) Is, in the opinion of the President, unfit to continue in office by reason of infirmity of mind or body.
- (5) If the Chairperson or any Member is, or becomes, in any way concerned or interested in any contract or agreement made by or on behalf of the Government of India or the Government of a State or participates in any way in the profit thereof or in any benefit or emolument arising there from otherwise than as a member and in common with the other members of an incorporated company, he shall, for the purposes of sub-section (2), be deemed to be guilty of misbehavior (Section-37, THE LOKPAL AND LOKAYUKTAS ACT – 2013).

RESTRICTION ON EMPLOYMENT BY CHAIRPERSON AND MEMBERS AFTER CEASING TO HOLD OFFICE

There are many restrictions imposed on Chairperson and members of lokpal. Under Section 8 there are given blow-

Section- 8 (1) on ceasing to hold office, the Chairperson and every Member shall be ineligible for—

- (i) Reappointment as the Chairperson or a Member of the Lokpal;
- (ii) any diplomatic assignment, appointment as administrator of a Union territory and such other assignment or appointment which is required by law to be made by the President by warrant under his hand and seal;
- (iii) Further employment to any other office of profit under the Government of India or the Government of a State;
- (iv) Contesting any election of President or Vice-President or Member of either House of Parliament or Member of either House of a State Legislature or Municipality or Panchayat within a period of five years from the date of relinquishing the post.
- (2) Notwithstanding anything contained in sub-section (1), a Member shall be eligible to be appointed as a Chairperson, if his total tenure as Member and Chairperson does not exceed five years.

Chapter-vii (section-20 to 24) is related with complaints, inquiry and investigation. And under section-53, The Lokpal shall not inquire or investigate into any complaint, if the complaint is made after the expiry of a period of seven years from the date on which the offence mentioned in such complaint is alleged to have been committed.

If any person make falls complaint, he will be punished under section-46(1), notwithstanding anything contained in this Act, whoever makes any false and frivolous or vexatious complaint under this Act shall, on conviction, be punished with imprisonment for a term which may extend to one year and with fine which may extend to one lakh rupees.

In this act a lot of provisions incorporated which protected to lokpal and their members. No suit, prosecution or other legal proceedings shall lie against the Lokpal or against any officer, employee, agency or any person, in respect of anything which is done in good faith or intended to be done under this Act or the rules or the regulations made there under (Section-53, THE INDIAN LOKPAL AND LOKAYUKTAS ACT-2013).

REPORTS OF LOKPAL

It shall be the duty of the Lokpal to present annually to the President a report on the work done by the Lokpal and on receipt of such report the President shall cause a copy thereof together with a memorandum explaining, in respect of the cases, if any, where the advice of the Lokpal was not accepted, the reason for such non-acceptance to be laid before each House of Parliament. (Sec.-48).

ESTABLISHMENT OF LOKAYUKTA

Every State shall establish a body to be known as the Lokayukta for the State, if Not so established, constituted or appointed, by a law made by the State Legislature, to deal with complaints relating to corruption against certain public functionaries, within a period of One year from the date of commencement of this Act (Section-63, THE INDIAN LOKPAL AND LOKAYUKTAS ACT-2013).

Before the establishment of this act many state has enacted lokayukt act in their states and appointed also. Andhra Pradesh in 1983 by Andhra Pradesh lokayukt and vice lokayukt Act-1983, Bihar Lokayukt Act-1973, Himachal Pradesh Lokayukt Act-1983, Karnatka Lokayukt Act-1984, Madhya Pradesh passed it in 1975, Gujrat Lokpal and Lokayukt Act-1975, Maharashtra Lokayukt and Vice-Lokayukt Act-1971, Orisa Lokpal and Lokayukt Act-1970, Rajsthan Lokpal and Lokayukt Act-1971, Uttar Pradesh Lokpal and Lokayukt Act-1975.

THE ROLE OF INDIAN JUDICIARY AND OMBUDSMAN

Indian judiciary did not decide any case regarding union ombudsman because it is a new concept. It is established in 2013. Before it many institutions were investigated administrative arbitrariness e.g. Central Vigilance Commission and Central Beuro of Investigation. But it had been established in states so judiciary plays a vital role to empower it. *Vishwas Rao v. Lokayukta Maharashtra* (AIR1985 Bom. 137), in this case, the high court has stated that an action may constitute both a grievance and an allegation. In certain cases, the action may amount to an allegation and its consequences may result in a grievance. The overlap is indispensable as in one case the definition emphasizes the consequences of an act, in the other, the motive for it. *Lokayukta and uplokayukta v. T.R.S. Reddy* (1997) 9 SCC 42., supreme court had held that the lokayukta /uplokayukta are high official dignitaries it would be obvious that they should be armed with appropriate powers and sanctions so that their opinions do not become mere paper directions. These authorities should not be reduced to mere paper tigers but must be armed with proper teeth and claws so that efforts put in by them are not wasted and their reports are not shelved. *Ram Nagina Singh v. S.V. Sohini*

(AIR 1971 Pat. 36), Patna high court stated that the lokyukta is to carry on the investigation into complaint and then to make a final report which is recommendatory in nature. The lokayukta has no jurisdiction to pass a binding order which will operate in its own force. On the basis of above case study we can say it is an investigating agency only.

FINDINGS AND SUGGESTIONS

After above discussion I want to state that there are some loopholes which must be recovered. After recovering those we can establish an institution which will control the administrative arbitrariness and corruption. Some suggestions are given below-

- 1- It must be absolutely independent from Executive, Legislative and Judiciary. If any organ will have interference in this institution it will not follow fair process.
- 2- It should not only be an investigating agency but also it must be a punishment authority.
- 3- All public servants and authorities must come under the jurisdiction of ombudsman e.g. Ministers, Directors, Secretaries, chairman and Prime Minister etc.
- 4- No member must be appointed from politics.
- 5- It must be elected not appointed. If it will be appointed then he will perform his duty under the influence of appointing authority.
- 6- A must be given to all citizens to complain against public servants. If the complainant's complaint falls, that person must be punished by a symbolic punishment. It should not be as mentioned in The Lokpal and Lokayukt Act -2013, imprisonment for one year or with fine one lakh.
- 7- There must not be any limit for the complaint.
- 8- It must come under the Judicial Review power of court.
- 9- President of India must be free from its jurisdiction.
- 10- It must come under the definition of public servant.
- 11- Complaint must be with affidavit on the behalf of complainant.

CONCLUSION

The study concludes with the finding that it will be a great step against corruption and administrative arbitrariness. Although it is not a substitute body of court, but its main purpose is to develop a clear and clean administration. It can raise difficulties in the working of Accountable Administrative system. All ministers are accountable for their work before the parliament. This institution is also established by parliament and it will do all functions under directions of parliament so they should not have any problem regarding accountability. Some critics say that it can become an arbitrator while it is not possible. Lokpal cannot build a house it can help to remove the uncleanness because in a democratic system administrative officers have limited powers. They have a lot of restrictions also. And the main function of Lokpal is to remind their limits to administrative officers. We cannot say that after the establishment of Lokpal corruption will be absolutely removed it will depend on the awareness of citizens and cooperation of public. If it did not succeed absolutely yet it can create a barrier in the way of corruption.

SCOPE FOR FURTHER RESEARCH

Ombudsman is a new concept for India. It is introduced for the first time in 2013. I hope my paper will provide a good direction for new researchers. It has a great scope because it is secret that it will succeed to stop the arbitrariness of administration and corruption. It is an experiment because all institutions have failed to control these problems.

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