Diffusion of Mobile Phones among Woman
(A Comparative Study of Usage Pattern of Mobile Phones in Bhopal District)

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Abstract :- Mobile phone has a huge impact on women's lives in the digital age. It empowers women by making connected and provides access to information. However, questions arise as to what kind of information women seek through mobile phones and how they access it? The aim of this paper is to find the gaps in the usage pattern by answering to all the questions regarding differential access in context to mobile habits and use of mobile phone for different purpose. This cross-sectional study was conducted among females above 18 years of age in the urban and rural Bhopal district. Data was collected using a self-administered questionnaire through simple random sampling which was further analyzed through SPSS software using Chi-square test and t- test. The findings clear the picture of digital divide in context to many aspects of usage of mobile phone as well as the differential mobile habits.

Key words :- Mobile, gender, digital, Usage.

Introduction :- We are living in such a planet which host for use of new technology for accessing information and mediating communication. Information has been touted as a key element of economic growth over the past years. Information is the only thing that can grow and evolve and the concept is the most important to any evolutionary and stage theory (Mowlana1997). The terms "information" and "knowledge" are quite used interchangeably. In the current era information is emerging as a dominant power factor. A new era has been dawn with the emergence of mobile phones on the information and communication scene. Mobile phone has been perceived as sub-media to traditional media. Although its uses may vary in different contexts and cultures but as a medium it has its own specific characteristics and social functions Mobile communications devices are multipurpose, multi-channel connecting point of the network of communication of which everybody becomes a personal node. (Castells 2004). The mobile phone is located between personal, social and mass media and can serve personal, peer-to-peer and mass communication purposes in different communications situations (Oskman2010). Today, mobile communications are identified as mass communication tools which are highly individualized and identified as extensions of the self. Needless to say that utilization of the mobile phone for mass communication is an immensely significant in progressive way in our country. The reach of mobile phone technology as a tool to communicate includes to access, connectivity, mobile phone ownership and affordability. These data above helps to understand up to a certain point, the extent to which there is a gender digital divide in accessing and using mobile phone technology. But it is more difficult to know how women have been using mobile phones. In general, four barriers have been identified that limit technology adoption by women: their exclusion from technology education; their lack of free time; social norms that favor men; and financial and institutional constraints. Mobile phones have brought about a paradigm shift in the way we lead our lives; convergence and connectivity have opened up a world of possibilities and prospects for women. What seemed like a distant, futuristic possibility, a few years ago, is a reality today and the advancement and innovations in technology are driving that change. Digitization is transforming life in a way, hitherto unseen. What seemed impractical and downright science fiction a few years ago is very much a part of our reality now. The paper is based upon the mobile phone usage among women in Bhopal District. For many years quite

known the main question regarding mobile phone was that of access. One of the primary concerns for the researcher was the extent of which women have accesses of mobile media and also how to overcome the digital divide that will emerge. To elaborate the Digital divide it can be can be understand as "the gap between two or more communities living across various geographical areas at different socio-economic levels with regards both to their opportunities to access internet and to their use of the internet in various platforms for a wide variety of activities". In addition, it also informs about their use for age-related needs such as expressing individuality (Matenhelia2010). The research will broaden the knowledge about the mobile habits of the people as well as the changing scenario of the mobile media.

With the technological growth the rate of spread of mobile phone indicates a diffusion that is in its highest peak but does that mean there are no divisions between the users. Mobile phone has become a life seeking oxygen for the mass. No one can leave without mobile phone. The uses of mobile phone, one`s engagement with mobile phone, the perception of his and the perception about others who are mobile phone users. While there is a certain merit in exploring what different segments of a population use their mobile phones for and comparative, cross-country case studies that illustrates mobile phone use (Katz&Aakhus2002), the findings, for the most part, are of an obvious nature-such as that youth in India use mobile phones to keep in touch with their families and friends (Thomas 2012).

Mobile phone has become an identity for the mass. But does this identity follow in both the urban and rural area? Overall we can find dimensions of different users related challenges to bridge the same. The emergence of digital information rich and digital information poor groups within societies and perhaps in the global environment can be attributed to the phenomenon of digital discrimination prevailing among various social, political and working groups. This article attempts to investigate the usage and preferences for mobile among the rural and urban areas of people residing in Bhopal district.

The penetration of mobile phones into our society is so deep that fuelled the development of communication technology. However, the diffusion of mobile technology is not uniform across the country which is evident from the statistics available. Various studies have indicated the existence of digital divide between the rural and urban communities in India. The extent of this divide in terms of mobile and mobile service usage among rural and urban areas will give a clear understanding about how specifically this divide is spread and the strategies to narrow it down. This is very much required as the 'Digital India' initiative is gaining its momentum that aims to bridge the digital divide. Thus this study aims to draw differential use of mobile in rural and urban areas in Bhopal district. All that we can interpret through this paper that it will definitely draw useful inferences that can support and strengthen the understanding of digital divide and subsequent strategies to bridge it.

Objective :- To identify the differential usage pattern of mobile phone among urban & rural women of Bhopal.

Significance of the study :- This study will prove to be helpful in acquainting knowledge about the attributes of mobile phone usage among women.

Methodology :- The present cross-sectional study included women of age group above 18 years through convenience sampling. Data was collected using a self-administered questionnaire. The questionnaire contains items related to ownership, mobile phone usage and habits, mobile-media and patterns. The primary data was collected through schedule for this study from urban and rural areas in Bhopal district. Analysis of data was done through SPSS. Inferential statistics is used in the study to find the significant relationship among the variables.

Data Analysis

Ownership of mobile phone

Number	Urban (N=100)	Rural (N=150)	Total (N=250)
One	79 (79.0%)	137 (91.3%)	216 (86.4%)
Two or more	21 (21.0%)	13 (8.7%)	34 (13.6%)

Chi-Square= 7.776, significant at .05 level

It is clearly interpreted that maximum number of rural women use single phone.

Age of using of mobile phone

Age	Urban (N=100)	Rural (N=150)	Total (N=250)
15-21	40 (40.4%)	66 (44.0%)	106 (42.4%)
22-30	37 (37.0%)	37 (24.7%)	74 (29.6%)
After 30 years of age	23 (23.0%)	47 (31.3%)	70 (28.0%)

Chi-Square= 4.798, significant at .01 level

The table interprets that though there is less difference in urban and rural women in context to using mobile earlier in their ages but maximum rural women have started to use mobile phone after 30 years.

Received mobile phone for first time

Relation	Urban (N=100)	Rural (N=150)	Total (N=250)
Own	28 (28.0%)	18 (12.0%)	46 (18.4%)
Parents	31 (31.0%)	96 (64.0%)	127 (50.8%)
Siblings	14 (14.0%)	26 (17.3%)	40 (16.0%)
friends	27 (27.0%)	10 (6.7%)	37 (14.8%)

Chi-Square= 38.388, significant at .01 level

Maximum urban women have purchased their own mobile phone as they are quite choosy in purchasing their mobile phone. They are gadget friendly and not want to other to interrupt in their choice. On the other hand rural women are guided by their parents to select their mobile phones.

Use of mobile phone for digital banking

Digital Banking	Urban (N=100)	Rural (N=150)	Total (N=250)
Yes	61 (61.0%)	73 (48.7%)	134 (53.6%)
No	39 (39.0%)	77 (51.3%)	116 (46.4%)

Chi-Square= 3.670, significant at .05 level

Rural women do not prefer digital banking in their phone for security reasons.

Use of mobile phone for watching T.V

Watching T.V	Urban (N=100)	Rural (N=150)	Total (N=250)
Yes	63 (63.0%)	48 (32.0%)	111 (44.4%)
No	37 (102%)	102 (68.0%)	139 (55.6%)

Chi-Square= 25.357, significant at .01 level

Urban women are working and they have no time for watching TV at home so they try to watch it during their recess from office while rural women are generally house wives so they can easily watch TV sets at home not to bother their mobile phone.

Type of news watched in mobile phone

Type	Urban (N=100)	Rural (N=150)	Total (N=250)
Entertainment	48 (48.0%)	36 (24.0%)	84 (33.6%)
Sports	22 (22.0%)	11 (7.3%)	33 (13.2%)
Social	9 (9.0%)	25 (16.7%)	34 (13.6%)
Educational	21 (21.0%)	78 (52.0%)	99 (39.6%)

Chi-Square= 37.212, significant at .01 level

Entertainment news is viewed more in urban women while Social news is viewed less in urban women as more entertainment platform is accessible in urban areas such as multiplexes, events and arrival of celebrities in their localities. So they are very eager to get the latest news in their areas but these things do not occur in the rural locality. Educational news is viewed more in rural women for the need of educational updates which is not reached in the rural women. While sports news is not a cup of tea for the rural women.

Type of items downloaded in mobile phone

Type	Urban (N=100)	Rural (N=150)	Total (N=250)
Ringtone	42 (42.05%)	16 (10.7%)	58 (23.2%)
Games	20 (20.0%)	29 (19.3%)	49 (19.6%)
Videos	18 (18.0%)	60 (40.0%)	78 (31.2%)
Songs	20 (20.0%)	45 (30.0%)	65 (26.0%)

Chi-Square= 37.020, significant at .01 level

The most favored item in case of urban women is ringtones as they are quiet choosy about their ringtones and change it every time when they find something new.. This enables them to keep them updated. Rural women download videos as they serve as entertainment purpose.

I use mobile phone for social activity

Option	Urban (N=100)	Rural (N=150)	Total (N=250)
Yes	70 (70.0%)	133 (88.7%)	203 (81.2%)
No	30 (30.0%)	17 (11.3%)	47 (18.8%)

Chi-Square= 13.695, significant at .01 level

More rural women find it a new medium of identity on social platform.

I always lock my mobile phone

Option	Urban (N=100)	Rural (N=150)	Total (N=250)
Yes	84 (84.0%)	134 (89.3%)	218 (87.2%)
No	16 (16.0%)	16 (10.7%)	32 (12.8%)

Chi-Square= 1.529, not significant

The above table is not statistically significant as evident from the data.

Mobile is a social status

Option	Urban (N=100)	Rural (N=150)	Total (N=250)
Yes	50 (50.0%)	129 (86.0%)	179 (71.6%)
No	50 (50.0%)	21 (14.0%)	71 (284%)

Chi-Square= 38.241, significant at .01level

Rural women consider mobile as a social status.

I do not keep my mobile in silent mode

Option	Urban (N=100)	Rural (N=150)	Total (N=250)
Yes	72 (72.0%)	129 (86.0%)	201 (80.4%)
No	28 (28.0%)	21 (14.0%)	49 (19.6%)

Chi-Square= 7.463, significant at .01 level

Rural women do not prefer to keep it in silent mode but the urban women keep the mobile in silent mode.

Language for communication in mobile

Language	Urban (N=100)	Rural (N=150)	Total (N=250)
English	36 (36.0%)	44 (29.3%)	80 (32.0%)
Hindi	38 (38.0%)	87 (58.0%)	125 (50.0%)
Both	26 (26.0%)	19 (12.7%)	45 (18.0%)

Chi-Square= 11.559 significant at .01 level.

Hindi is the most popular language of communication by the rural women as compared to urban women.

Has mobile influenced social life

Influenced social life	Urban (N=100)	Rural (N=150)	Total (N=250)
Yes	88 (88.0%)	145 (96.7%)	233 (93.2%)
No	12 (12.0%)	5 (3.3%)	17 (6.8%)

Chi-Square= 7.111, significant at .01 level

Rural respondents considered that mobile has influenced their social life as compared to urban women.

Has mobile increased crime in society

Increased crime	Urban (N=100)	Rural (N=150)	Total (N=250)
Yes	91 (91.0%)	149 (99.3%)	240 (96.0%)
No	9 (9.0%)	1 (.7%)	10 (4.0%)

Chi-Square= 10.851, significant at .01 level

Rural respondents believe mobile has increased crime in society as compared to urban women.

Comparison of purpose of using mobile phone between urban and rural respondents

Purpose	Urban (N=100)		Rural (N=150)		t-value
	Mean	S.D	Mean	S.D	
Messaging	3.64	1.227	3.79	1.265	.950NS
Photos	3.30	1.467	3.49	1.304	1.054NS
Downloading	3.41	1.450	3.64	1.333	1.290NS
To play games	3.63	1.475	3.69	1.221	.330NS
To read newspaper	3.55	1.373	3.82	.963	1.827NS
Radio listening	3.63	1.361	3.70	1.122	.443NS
Internet surfing	3.85	1.410	4.21	1.059	2.323**

* Significant at .05 level

** Significant at .01 level

NS=Not significant

The t- value indicates that some of the variables used for the purpose of using mobile phone are significant while some are insignificant. The mean of the rural women (4.21) in context internet surfing is greater than those of urban women (3.85). This shows that rural women opt for internet surfing in their mobile phone as usage as compared to urban women.

Comparison of using mobile phone for religious purpose between urban and rural respondents

Total (N=250)	Mean	S.D	t-value
Urban (N=100)	4.18	1.019	3.004*
Rural (N=150)	4.53	.800	

**Significant at .01 level

This shows rural women use mobile phone for religious purpose more as compared to urban women.

Comparison of reasons to buy mobile phone between urban and rural respondents

Purpose	Urban (N=100)		Rural (N=150)		t-value
	Mean	S.D	Mean	S.D	
Price	3.78	1.390	4.51	.939	4.935**
Brand name	4.54	.881	4.69	.768	1.4578NS
Camera	4.59	.793	4.92	.393	4.360*
Battery backup	4.71	.608	4.76	.642	.616NS
Mobile life	4.46	.881	4.89	.318	5.429**

Internet	4.27	1.081	4.45	.574	1.742NS
Easily assessable	3.90	1.322	4.27	.601	3.024**
Easy keypad	4.28	1.016	4.50	.642	2.098**
Good voice quality	4.06	1.362	4.46	.791	2.932**
Radio	3.58	1.478	3.97	1.019	2.448**
SMS	4.16	1.143	4.09	1.058	.473NS
T.V	3.89	1.302	4.13	1.012	1.613NS

* Significant at .01level

** Significant at .05 level

NS=Not significant

The t values of price, camera, mobile life, easily assessable, easy keypad, good voice quality and radio gives a significant difference between the urban women and the rural women. The striking thing is that in all above variables mean of rural women is greater than the urban women. This shows that while buying mobile phone the rural women keep in the mind about price, camera, mobile life, easily assessable, easy keypad, good voice quality and radio as compared to urban women.

Comparison of urban and rural female respondents in context to utility

Total (N=250)	Mean	S.D	t-value
Urban (N=100)	3.57	.784	1.742 NS
Rural (N=150)	3.76	.883	

NS= not significant

The table shows there is no significant difference in the opinions of both the respondents.

Comparison of urban and rural female respondents in context to Habit

Total (N=250)	Mean	S.D	t-value
Urban (N=100)	5.14	1.524	4.258*
Rural (N=150)	5.98	1.530	

Significant at .01 level

The t – value shows that rural respondents are more habituated or dependent on mobile phone as compared to the urban respondents.

Discussion :- As the technology has revolutionized our world it has created amazing tools which provides useful information at our fingertips none other than our mobile phone. It has made our lives easier, faster, better. Digital technology has also changed what people term as 'media.' The traditional media has converged to new media. The multimedia features of the mobile phone have transformed this simple voice device to a new media capable of downloading, uploading text, data, audio, and video to various platforms. Without any doubt it can be said that mobile communication has a bigger impact on humankind in a shorter period of time than any other invention in human history. Diffusion research has attempted to explain the variables that influence how and why women use mobile phone. At present the mobile phone has preceded over to smart phone. Also, critical mass becomes an important factor in adopting new media because new media are interactive tools and thus are required by many users to gain efficiency. That is, the more people use, the more people get benefits. In this sense, diffusion theory

not only can apply to practical things, but also can be related to gender.

Conclusions :- This study throws lights on differential purposes for using mobile phones between the rural and urban women and what significantly influences this gap was also understood. For a number of respondents, the mobile phone was their first 'personal' device; something owned only by them and never shared like any other gadget. The mobile phone created a certain type of privacy that we refer to as personal and security has led to a change in the perception of personal space and increased freedom. For rural women the word digital is not a mystery but a reality. In a nutshell, our results indicate that mobile phone data can be used to understand how urban and rural women use their preference over mobile phone. Mobile phone usage represents, to a certain extent, population concentration. The results presented here can provide the basis of more concrete urban women to use mobile phone as mobile TV which is less developed in rural women. The rural women considers mobile as a social status who maintain a social life which serves the purpose of connectivity through internet connections in mobile phone. To sum up, data from mobile phone users and purpose of their use can provide a new pool of knowledge for relevantly to solve the problem of digital divide among the urban and rural. Mobile as a social tool is considered by the rural population. The use of mobile phone for social activity is increased in the rural women. More and more information which was did not have reach and accesses are easily available to them which are also helping for the upraising of social activity. And this is where the caveat lies. Mobile phone is a unique device of the digital age which has integrated all kind of media access on it. This has changed the consumption patterns. Mobile phone with its converged features is proving the interactive communication technologies which are the future of our society. Due to technological innovations there is a paradigm shift of media consumption. Mobile phones are central to our society, day to day life. Almost every aspect of our society is associated with mobile phones. We are 24*7 users. Hence media research should focus in the field intensively. Country like India in which, mobile-internet is becoming an effective tool to bridge the digital divide by filling the gap between information rich and information poor. Mobile phone is a good option for information for the rural women. To sum up mobile audience are very scattered, heterogeneous in nature hence limited parameters are not sufficient to measure it all. Not just quantitative and qualitative only but mixed methods, ethnography and case studies may create grounded theories in this new field. There is a sense in which the mobile media among women is the moment that she has experienced as her first introduction of digital.

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Changes in Forest Based Practices of Baiga Community in Development Worlds

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Abstract :- The Baiga community is one of the 75 particularly vulnerable tribal groups and known as forest dwellers and hunters who collect food from the forest and also dependent on forests for their subsistence and livelihood. Historically they are nomadic tribe of Central India and Baiga-Chak in Dindori is the home of most of the Baiga now. Traditionally they prefer to hunting and fishing in forests and have indigenous knowledge of herbs, roots, flowers, fruits and their medicinal uses - contraceptives and knowledge of curing common ailments. The relation of Baiga with natural resources are phenomenal. The Baiga community is first tribal community who has received habitation right under Forest Right Act, which indicate vibrant connection with natural resource protection and conservation.

However, they are constantly adapting to mainstream itself with the larger society and in the twenty first century there is significant disconnect of young Baiga from the forest. In the Ph.D. research of the author, it was revealed that there is a significant change in the traditional forest based livelihood practices.

The purpose is envisaged to understand the important of forest right act in terms of Baiga Chak and impact of rural development and forest prohibition on the life of Baiga.

Key Word :- Forest Right, Tribal, Rural Development, Tradition and Culture.

1. Introduction :- The forest inhabits a dominant place in tribal culture and economy. The lie of tribal community is very much uttered by the forest and it starts from the birth and end up to death. It is ironical that in the areas of richest natural resources most backward and poor people of the country are living. Moreover, they are historically pushed to corners owing to commercial interests of various governing clutches. Nevertheless, the need for land for development in modern India is increasing these incidences. However, government is striving to integrate these tribal communities with mainstream of the development.

Tribals still remain the most backward ethnic group in India and the promise of protection given under the Constitution of India (1950) is still not fulfilled. In fact, the situation of tribals are rated very low on health, education and income aspects, which are most significant parameters of any developed society. In contrast, tribals are not only most backward as compared to the general population, but they are also far behind the Scheduled Caste (Dalits), the other backward caste (OBCs). It is evident that the effects on developmental interventions on the tribal society from 1961 to 1981, has not made any significant impact in improving the socio-economic conditions.

The Primitive Vulnerable Tribal Groups (PVTGs), including Baiga are the most disadvantaged ones among tribals. These groups live in small, scattered habitats in remote, inaccessible areas. Their livelihoods are especially vulnerable because they are linked to the most non-productive forest assets/resources. Baiga tribals are nomadic and known as forest dwellers as well as hunters[1]. In fact, they are popular as a magic man among other tribal groups because of their indigenous knowledge of medicinal plants. They collect food from the forests and mostly dependent on forests produces like minor forest produce and non-timber forest produce. Their

[1] Palta Aruna- (1988), "A Study on the Food Consumption Pattern of the Baigas in Baigachak Region of Madhya Pradesh , Bulletin of the Tribal Research and Development Institute, Bhopal, Govt. of M.P, vol-XVI, page no-29

basic livelihood and food intakes also comes from forest.

Over the years, the more dominant tribal and non-tribal groups have encroached upon the resources, which the PVTGs originally controlled and accessed. Despite numerous government schemes to mainstream these groups their condition has not improved in any significant way. The Forest Right Act - The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 was seen as a potent tool to ensure that they would be able to access individual as well as community resources.

2. Methodology :- Bagias are largely concentrated in and around the forest area, and is amongst the most marginalized and vulnerable. Since last few decades Baigas are constantly adapting to mainstream of the larger society and many development programmes have been initiated. The connection of Baiga with forest was historically recognized. The paper is envisaged to understand the important of forest right act in terms of Baiga Chak and impact of rural development on the relation of Baiga community with forest.

The paper is mainly based on the primary survey of author conducted during the PhD research work in 10 Gram Panchayat of Baiga Chuck located in Dindori district. Under the research, 300 Baiga households were interviewed on different development aspect and tried to understand impact of rural development on socio-cultural changes. The field observations were also considered to triangulate the responses of sample households. Important research papers and article has been cited on the life of Baiga and Forest Right Act.

3. Result and Analysis :- Baigas have historically been a nomadic and roving forest tribe who lived within the precincts of dense forests in Central India and during the British administration they were relocated in 52 villages of Dindori district known as Baiga Chak. However, the central India is the native place of Baigas since last 2000 years and the dense canopy of forests of Central Narmada Valley was the original habitat where they carried out shifting, slash and burn cultivation for thousands of years without any influence or competition from other Indian residents or habitats. They inhabit in the most inaccessible hills and the remotest forests. As per Captain Thomson[2] (1867 Seoni settlement report) they are extraordinarily shy, unless you are accompanied by someone they know. However, they are skillful in bows and arrows and living on what they can secure with their bows and arrows. They understood the forest and its produce and grow crops which they raise on the hill sides.

3.1 Relevance of Forest Right Act for Baiga community :- The Forest Right Act recognises and vests secure community tenure on 'community forest resources', which are defined as common forest land within the traditional or customary boundaries of the village or seasonal use of landscape in case of pastoral communities, including reserved forests, protected forests and protected areas such as sanctuaries and national parks to which the community had traditional access.

Community assets/resources for which user rights can be claimed under the FRA are broadly classified as (a) infrastructure for the village, (b) forest resources for livelihood purposes, (c) nistar rights over forest resources and (d) forest resources for religious and cultural purposes. The types of assets/resources under each of these categories are given in the table below:

Table 0: Details of Community Assets under FRA

S. No	Category	Type of community assets
1	Infrastructure for the village	Community building, school building, anganwadi, playground, PDS shop, panchayat building, health infrastructure, other infrastructures
2	Livelihood related	Khirkai, road and connectivity related, pond, water harvesting structure, river, market, traditional

[2] W.B. Thomson: Report of the Land Revenue Settlement of the Seoni District, 1867

S. No	Category	Type of community assets
		livelihood place, agriculture, nursery, garden, NTFP/forest produce area
3	Nistar	Road and connectivity related, pond, water harvesting structure, nullah, mines, pasture land, well, river, medicinal plant usage, NTFP/forest produce area
4	Religious places	Temple/place of worship, funeral spot, gothan, access roads to place of worship, cremation ground

The Government of India enacted the Panchayats Extension to Scheduled Areas Act (PESA) on the recommendations of the Bhuria Committee to ensure that traditional governance systems in scheduled areas were conserved. The PESA recognised traditional rights of tribals to community resources (land, water and forests) and decentralised existing approaches to forest governance by bringing the gram sabha at the centre stage in managing MFPs and social forestry.

3.2 Status of Recognition of Forest Rights in Baiga Chak :- Baigas are traditionally forest dwellers and their livelihood is based on the forest. In the modern and developing world where forest is protected and cutting, burning and hunting in the forest is prohibited under the acts, it becomes further difficult for the Baiga to use forest as they are still using traditional ways. It is heartening that 3 out of 5 families have stated that they have received individual entitlement of land under Forest Right Act 2005. In fact, in the sample villages Baigas have got community rights as well.

Apart from individual and community rights of forest land, there is another level of entitlement, which is called Habitation right. Habitat rights is beyond the individual and community rights under the Act, which aim to protect not just land rights and livelihoods of the people living in forests, but encompasses their whole culture and way of life. These are composite rights over larger landscapes covering multiple villages that recognise territories used by vulnerable tribes and pre-agricultural communities for habitations, livelihoods, social, spiritual, cultural and other purposes.

It has come up that there are seven villages (Dhaba, Rajni Sarai, Dhurkuta, Limauta, Jilang, Silpidi and Ajgar) of Samnapur block where Baiga community is able to receive habitation right under the act. Ajgar, Dhurkutat and Silpidi was part of research sample as well; so that aspects of livelihood related to forest and impact of rural development can be understood.

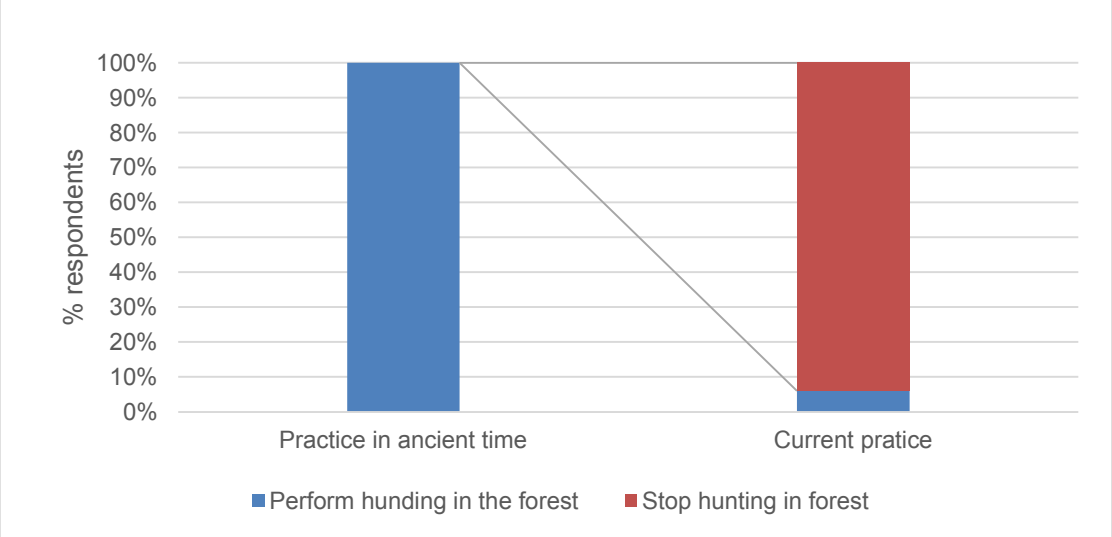
3.3 Status of Forest based livelihood of Baiga community :- The analysis indicates that nowadays collection of fire wood is main livelihood of Baigas as far as forest related employment is concerned, followed by collection of minor forest produce (MFP) and non-timber forest produces (NTFP). Almost cent percent sample respondents stated that their family went to the forest to get the fire wood and used the wood for cooking purpose. There were few families, who also sell fire wood in the market and earn income to feed their family members.

About half of the sample households stated they were engaged in the collection of NTFP and MPF from forest area. Excepting few cases, mostly it is one of the sources of income for Baiga families were engaged in. Often, forest department calls for a job opportunity for collecting MFP and pay daily wages based on the task rate.

Graph 1: Livelihood Opportunity in Forest based Employment

On the other hand, the most important tradition of hunting seems eliminated from the Baiga Chak. About 94% of the sample families stated that they have not performed any hunting in the forest in past few years. In fact, while asking whether they have bow and arrow at their home, only 1/3rd stated that they are having a set of bow and arrow. They consider that nowadays carrying bow and arrow with in the vicinity of forest area is prohibited and if they are caught with these forest officer may impose some punishment or penalty.

Graph-2: Change in Traditional Practice of Hunting (Kheda)



3.4 Status of Shifting Cultivation (Bewar) :- Earlier Baiga was used to do Bewar in throughout the tropical and sub-tropical reasons of the Satpura range. Baiga calls it as dhya – a custom of felling and burning trees in the forest land prepare it for cultivation. Shifting cultivation is uniqueness in the culture of Baiga. Though, it was practised in many parts but Baiga was the only tribe who believed Bewar as the symbol of their tribe, which is differentiating them from all other tribes in the world who had been practiced shifting cultivation. Since the Baiga was shifted to the Baiga-reserve area – called Baiga Chak - the intensity of bewar got declined significantly. The engagement of Baigas in agriculture clearly indicates that the dependency of Baiga on the

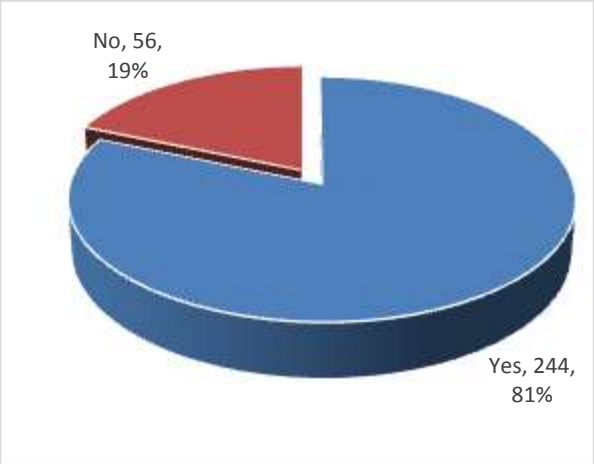
agriculture is high in current time. Baigas in this developing world are striving to change their traditional practice of cultivation, which is known as Bewar or shifting cultivation.

The research has revealed that the practice of cultivation of bewar has come to end. Those who are performing bewar, they had to do it on the dedicated area decided by forest department as a field for bewar. Only 10% of the sample Baigas stated that they have performed Beware cultivation in past years. The reason could be possession of agriculture land by 97% families. Though, Baigas have shifted the way of cultivation, nevertheless, the use of improved agriculture tools is still not adopted by them and still using their traditional tools. In a way, shift is only in the use of fixed landholding for cultivation, other than this they are still following the customs of sacrificing of portion of crop production to Buda Dev or Mata.

3.5 Perceived Impact of Development on the relation of Baiga with forest :- Baigas are traditionally forest dwellers and their livelihood is based on the forest. In the modern and developing world where forest is protected and cutting, burring and hunting in the forest is prohibited under the acts, it becomes rather difficult for the Baigas to use forest for their livelihood, as they were using traditionally.

Historically, hunting and collection of forest produce was the main livelihood source of the Baigas, other than Beware. Strong connection of Baiga with forest was evident and traditionally their customs and rituals were linked with the forest. In contrast, the days of Baigas in earlier time started early in the morning with going to the forest and spend entire day in the forest to collect MFPs and NTPs. The day used to end up with the celebration with drinks, dance, song and having forest produces.

Graph 5.33 : Relation of Baiga and forests getting weak



While asking on the relation of Baigas with forest in the current scenario it reveals that and forest getting weaker as compared to the earlier time, 81% of the sample respondents perceived that it had significant changes and nowadays connection of Baigas with forest is decreasing.

Conclusion :- In the course of development, there has been a significant change in the tradition and culture of shifting cultivation and hunting. In fact, hunting is become occasional events for the Baiga, therefore, their protein intake in the form of flesh depends on local market. Earlier the Baigas collected only food items, but now they also collect some such forest produce too, that could be sold in the market. They were also involved in the collection of NTFP and MFP as a livelihood options.

In the twenty first century they are dependent on farm based agriculture practices rather than Bewar. Due to the prohibition on the forest land the connection of Biaga with forest is getting weaker. However, recognition of entitlement of forest land under FRA in the Baiga Chak as a habitation right is one of the milestones, which will defiantly help Baiga community in improving their connection with forest.

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Information Technology Industry of India
(With Special Reference to Private Telecom Sector)

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Introduction :- The economic growth has been driven by the expansion of services that has been growing consistently faster than other sectors. The economy of India is the seventh largest in the world by nominal GDP and the third largest by purchasing power parity. The long-term growth prospective of the Indian economy is moderately positive due to its young population, corresponding low dependency ratio, healthy savings and investment rates and increasing integration into the global economy.

The economic development of India was dominated by socialist- influenced policies, state-owned sectors and red tape and extensive regulations. It led the country and its economy isolated from the world economy. However, the scenario started changing from the mid-1980s, when India began opening up its market slowly through economic liberalization. The policy played a huge impact on the economic development of India. The Indian economic development got a boost through its economic reform in 1991 and again through its renewal in the 2000s.

Since then, the face of economic development of India has changed completely. The economic development of India largely depends upon a few factors, which prove to be decisive. According to World Bank for a better economic development, India needs to give due priorities in various issues like infrastructure, public sector reform, communication, agricultural and rural development, reforms in lagging states and removal of labor regulations. But the drastic change in the economy of India came into picture with the help of Information Industry.

India's information technology services industry was born in Mumbai in 1967 with the establishment of TATA Group in partnership with Burroughs. Today, Bangalore is known as the "Silicon Valley of India" as it contributes 33% of Indian Information technology exports.

India is now one of the biggest information technology capital in the modern world and has always been an attractive destination for international companies across the world. With its rapidly growing economy, India is making developments in all the sectors including Telecom Service Sector. The telecom sector has registered tremendous growth over the years. As a result, India has become the third largest telecommunication network in the world. India appeals to international market because of the low penetration levels of telecom services. The communication issues of India has also been improved by gaining momentum with the advent of private players like Idea, Airtel, Reliance, Vodafone, Docomo, etc. along with public telecom companies like BSNL and MTNL.

Overview of Indian Telecom Industry :- The telecom services have been recognized the world-over as an important tool for socio-economic development for a nation. It is one of the prime support services needed for rapid growth and modernization of various sectors of the economy. Indian telecommunication sector has undergone a major process of transformation through significant policy reforms. Telecom industry has achieved a phenomenal growth during the last few years and is poised to take a big leap in the future also. Telecommunication is a compound of the Greek prefix "tele" meaning "far off " and the latin "communicare" meaning "to share". In its current usage, it refers to transmission of signals over a distance for the purpose of communication. Telecom industry has impact on every aspect of our lives, from enabling supply

chains to work seamlessly across continents to create products and fulfill demands. Telecom services are now recognized as a key to the rapid growth and modernization of the economy and an important tool for socio-economic development for a nation.

In India telecommunication has started when the East India Company introduced telegraph services in India. In the 1980s, government has monopoly in this sector with the department of post and telecom. In 1986 government set up two new public sector undertakings Mahanagar Telephone Nigam Limited (MTNL) and Videsh Sanchar Nigam Limited (VSNL). But as the change in economy of India as per National Telecom Policy 1994 government allowed private investments and involvement of the private sector to render their basic services.

Since the mid 1990s, the cellular communication industries have witnessed explosive growth. Wireless communication network have become much more pervasive than anyone could have imagined when the cellular concept was first developed in the 1960s and 1970s. The rapid worldwide growth in cellular telephone subscribers has demonstrated conclusively that wireless communication is a robust, viable voice and data transport mechanism. The wide spread success of cellular has led to the development of newer wireless systems and standards for many other types of telecommunication traffic besides mobile voice telephone calls.

The cellular networks are being designed to facilitate high speed data communication traffic in addition to voice calls which has lead to a dragon change in the growth and development of Indian economy in the sector of telecommunication.

Phases of Telecom Industry :- New standards and technologies are being implemented through which the Indian economy can also lead to change in the Indian standards. There was a generation in which telecommunication was link by fiber optic or copper lines between fixed points several kilometers apart known as fixed wireline services. But, with change in technology wire line networks was replaced by wireless services with the help of Wireless Local Area Networks (WLAN). The evolving Bluetooth modem standard promises to replace troublesome appliance communication cords with invisible wireless connections with a person's personal workspace.

Indian economy has been developed in communication sector and has shown key developments with the help of technology and activities of major modern wireless communication systems throughout the world.

Generations of Mobile Networks :- The standard activities and recent developments in wireless fixed access techniques have brought a vast change in the economy of India in the field of communication. The wireless system for worldwide has undergone from the following generations –

- **Second Generation (2G) Cellular Networks :-** Most of today's ubiquitous cellular networks use what is commonly called Second Generation or 2G technologies which conform to the second generation cellular standards. This generation standard use digital modulation formats and multiple access techniques. In many countries, 2G wireless networks are designed and deployed for conventional mobile telephone services, as a high capacity replacement for, or in competition with, existing older first generation cellular telephone systems. Modern cellular systems are also being installed to provide fixed non-mobile telephone services to residences and businesses in developing India. This also supported by particularly cost effective for providing plain old telephone service (POTS) in countries like India which has poor telecommunication infrastructure and are unable to afford the installation of copper wire to all homes. Since all 2G technologies offer at least a three-times increase in

spectrum efficiency as compared to first generation analog technologies, the need to meet rapidly growing customer base justifies the gradual, ongoing change out of analog to digital 2G technologies in any growing wireless network to serve better in telecommunication sector.

- **Third Generation (3G) Wireless Networks :-** The telecom sector has shown a new step of change by shifting from 2G to 3G. Third Generation (3G) wireless network system promises unparalleled wireless access in ways that have never been possible before. Multi-megabit internet access, communications using voice over internet protocol, voice-activated calls, unparalleled network capacity and ubiquitous "always-on" access are just some of the major benefits being touted by 3G developers. Companies developing 3G equipment envision users having the ability to receive live music, conduct interactive web sessions and having simultaneous voice and data access with multiple parties at the same time using a single mobile handset, whether driving, walking or standing still in an office setting.
- **Fourth Generation (4G) Wireless Networks :-** The new and latest change in telecommunication sector is launch of 4G in the wireless network. Fourth Generation is on –going project of almost all private telecommunication companies. In the starting of year 2016 many private telecom companies like Idea, Airtel, etc. has started promoting 4G in the market and currently they have started to motivate their customers by converting their handsets into 4G. It is the new upgraded form of wirless internet services which is not used by many customers today but very soon like we have less users in 2G as compared to 3G same way in future there will be less in 3G users as compared to 4G.

Conclusion :- The Indian telecom sector has witnessed tremendous growth over the past decade. Today, the Indian Telecom network is the second largest in the world after China. A liberal policy regime and involvement of the private sector have played an important role in transforming this sector.

Nowadays, mobile phones have become necessary for all level of users whether it's a big businessmen or a rickshaw man. The telecom sector has provided so many facilities that it is not limited to just for a call or a message sharing, but nowadays its uses has spread with more advance facilities through Internet and that too with latest android handsets and its features which has brought the whole world in one hand. Even through the support of technology the telecom sector has improved their speed journey of internet from 2G to 3G which on the other hand supported users by increasing their working time speed. The telecom industry is very soon going to launch their new project related with speed efficiency that is 4G through which they will again bring an innovation in telecom industry which will on the other hand not only benefit private telecom industry but will also lead to economic development of India.

After the Indian economy was liberalized, privatized and globalized, many private companies flooded the Indian market in telecommunication industry which has contributed alot in economic growth of India through information technology. The telecom industry is not only related to connection between persons only now it is a tool through which a person is connected with the entire world and its environment.

The rapid growth of the internet has created a concurrent demand for broadband internet and computer access from business and homes throughout the world. Particularly in developing nations like India where there is inadequate telecommunications backbone infrastructure, there is a tremendous need for inexpensive, reliable, rapidly deployable broadband connectivity that can bring individuals and enterprises into the information age.

The change in the generations of wirless networks has lead to the growth in the economy of India by bringing the entire world in one area

that is either through computers or through mobile facility. This movement and changes in telecom sector has been the major tool which has improved telecommunication sector and this on the other side has and will lead to growth and development of our country India.

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The Nightingale of India : Sarojini Naidu and her Poetry

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Indian woman had been delimited in the whirlpool of pain and suffering of authored society. Though much has been done to relieve them from the plight of evil practices against women and widow remarriage and for restoration of their righter.[1]

The voice of the women is yet to be heard though women in India have been fortunate enough to occupy high and honorable places of power. But it can't be denied that there are clear differences between made and female temperaments.

There are some women poets who have presented about Indian women in our country. Saronini Naidu is one of them. She is well-known by the sobriquet The Nightingale advocate and poet. She was a great patriot, politician, presenter and administrator of all the famous women of India[2].

In true sense, Sarojini Naidu was one of the Jewels of the World. Being one of the most famous heroines of the 20th Century, her birthday is celebrated as "women's Day". She is the most tyrical women poet of India. In Indian English Poetry she has contributed more. Her poetry has brought to book her involvement with Indian life. She is an epitome of Indian womanhood. Her major contribution 'The Golden Threshald' Sarojini Naidu's first collection of Poems which come out in 1905.[3]

The poetry of Sarojini Naidu made a mark of distinction in the done of Indian Poetry in English and is a pivotal part of women's writing. She was the gifted, artist, whose poetry is appreciated, for its bird like quality. She had pointed aesthetic sensibility and was a follower of the varied colours of Indian traditions and folk life.[4]

Sarojini Naidu's themes are aboriginal as advised by Edmund Gosse and capture the spirit of India. In her poems like 'Indian Love Song', Village Song, 'Pardanashin' and 'Indian Dances' she has depicted the life of Indian women of different sections where women are seen dancing enjoying and involved into he thoughts of their Lovers. Love is prominent theme of her poetry where woman are shown as a sacred beloved who are ready to surrender before their Lovers.[5]

The path of Tear's, if you call me', 'The Sanctuary' and 'The worship of Love' mirror the role of woman as a beloved in the diverse moods. The majority of her Indian love-songs are not however equally happy. Some of them may demand to English men as typically Indian Purely because they are some what typically un-English, but the truth is that they are not masterpieces of Indian emotion.

In if you call me' the beloved is Longing to me swiftly on the call of her Lover. Here the Lovers are Lord Krishna and Radha

'If you call me I will come.
Swifter, o my love,
Than a trembling forest deer
or a panting dove,
Swifter than a snake that files
To the Charmer's thrall……
If you call me I will come
Fearless what befall'

In her poems we find woman complaining of her negligence but at the some time she shows her preparedness to accept all humiliation and suffering at his hands as sweet token of Love. ' Love Guerdon' gives an example of the same.

'Fires wore the wounds you
Struck me o my love
And bitter were the blows!.....

Sarojini poems breathe an Indian air with Particular Light on women and their glory.[6] She is a poet of colour and melody and beauty while her poems, one is bound to be deeply involved in her aesthetic response to things. The women presented by Sarojini Naidu as an ideal one that loves and is Loved by all.

So I want to say that Sarojini poems eschewed flowery Language and stuck to simple.

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Policies for Financial Inclusion such as Jan Dhan Yojana and PM Mudra Yojana

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ABSTRACT :- Time to time Indian Government consistently make its efforts towards inclusion of rural customer (investor) in organised financial system. This might not only provide handsome amount of cash flow to boost Indian economy but it could also help the government to facilitate rural development through offering various services like Gas subsides etc. Thus, nomenclature of financial inclusion various due different ruling party, but the primary objective remains the same i.e. to flourish the bottom of the pyramid of financial market. The current states elucidates that Present Government up to some extent turnout to be successful by opening around 12.54 crore new bank account (upto November 2014) through new form financial inclusion Pradhan Mantri Jan Dhan Yojana (PMJDY) But it has been observed that still the largest part of the rural market in untouched and not explored fully. This paper is an attempt to study about the awareness of financial inclusion schemes among rural customer.

For the sustainable development of the Indian economy, the Government of India launches Pradhan Mantri Jan Dhan Yojana (PMJDY) on 28th August 2014. Financial inclusion is an innovative idea which empowers the alternative techniques to encourage the banking tradition and act as an enabler in reducing the poverty. A total of 18.28 crores accounts have been opened in rural areas by Public sector bank by 7th Feb 2018 , Thus 31.07 crores accounts have been opened in rural and urban areas. An amount of Rs. 74534.79 crores was in accounts which were opened under PMJDY. We can say that PMJDY schemes are playing a significant role in creating a universal platform for financial services for every citizen in India.

Financial inclusion is about ensuring a bank accounts to every individuals and also providing various facilities like credit, deposit, payment, transfer of funds, insurance and so on. PMJDY scheme ensures that all adult population is to have a bank account. After implementing PMJDY scheme, there is felt need to develop the innovative financial products and services in India through the introduction of new and dynamic agencies. This would help in expanding the financial inclusion across the country, especially credit facility and other related products. In this direction, Pradhan Mantri MUDRA Yojana (PMMY) was introduced in the year 2015. Government of India has set up Micro Units Development and Refinance Agency Ltd. (MUDRA). It is accountable for refinancing and developing all types of small business activities i.e. micro-enterprises sector by providing support to the financial institutions. One of the initiatives taken by Government of India (GOI) is Pradhan Mantri Mudra Yojana (PMMY) which plays an important role in achieving the success of financial inclusion. The idea behind the scheme is to provide the credit requirement to small business upto 10 lakh. In this paper the researcher has made an attempt to analyzed financial performance of Pradhan Mantri Jan Dhan Yojana (PMJDY) and Pradhan Mantri Mudra Yojana (PMMY).

Keywords :- Financial inclusion, PMJDY, PMMY.

Introduction :- Financial inclusion is about ensuring a bank accounts to every individual and also providing various facilities like credit, deposit, payment, transfer of funds, insurance and so on. PMJDY schemes ensures that all adult population is to have a bank account. Pradhan Mantri Jan Dhan Yojana (PMJDY) National mission for Financial inclusion is based on “Sab ka Sath, Sab ka Vikas” i.e. incusive growth to ensure access to financial services, namely, banking/saving and deposit accounts, credit, insurance, pension is an affordable manner, launched by Prime Minister Narendra Modi on 28th August 2014. The launch of this scheme was announced at the historic Red Ford on the occasion of India’s Independance Day. Jan Dhan

Yojana roughly translates in to English as "People wealth Scheme". The name "Jan Dhan" was chosen through as online competition on the My Govt. Platform and got more than 6000 suggestions from peoples. The Slogon for the mission is "Mera Khata Bhagya Vidhaata" which when translated into English means "My Bank account the creator of the Good fortune. Government of India has been introduced a number of financial inclusion initiatives such as Pradhan Mantri Jan Dhan Yojana (PMJDY), Pradhan Mantri Mudra Yojana (PMMY), Pradhan Mantri Jeewan Jyoti Beema Yojana (PMJJBY), Atal Pension Yojana (APY), Pradhan Mantri Suraksha Beema Yojana (PMSBY) etc. For the small businessman, weaker section, low income groups and micro enterprises. PMMY was introduced by Hon'ble PM Shri Narendra Modi on 8th April 2015 along with the introduction of MUDRA bank. It is also known as the Mudra loan scheme. This scheme is available from all bank branches across the country.

Review of Literature :-

Mehar L (2014) has showed that the financial inclusion in India has increased in the last few years with new innovations like mobile banking, ultra small branches etc.

Verma S. (2015) has explained that the design of MUDRA scheme will not only caters to the financial problems of MSMEs but also give moral support to a lot of young population to become an entrepreneur balasubramanian (2015) has focused on importance of financial literacy focusing on saving habit among poor. He has build decision tree model indicated that the number of earning members, family size, average monthly income and nature of employment are the deterministic independent variables which influence the regular saving behaviour of the poor.

Mol S. TP (2014) has clarified that there are some issues like money related Illiteracy, absence of mindfulness and client securing is high. Reserve Bank of India has started different activities to improved money related consideration. Information and communication technology offers the opportunities enhancement of financial inclusion.

Research Methodology :-

Rational and objective for study :- Financial inclusion is initiated by RBI in year 2005 and new Government has actively resumed it in August 2014. In literature review we found that many researchers has evaluated financial inclusion schemes and its support from private players but awareness related studies are not done rigorously. All the objectives and features of new financial inclusion scheme PMJDY and PMMY are striking compare to old scheme of swabhimaan, but unless and until the end users would not be aware and educated about all these schemes of financial inclusion the could not contribute effectively. Thus, in this regard we have determined following objectives for the paper.

1. To analysed new financial inclusion the Bank Category wise performances of PMJDY scheme over the last 2 years.
2. To analysed the State – wise, Regional wise, Category-wise performances of PMMY scheme over the last 2 years and awareness about financial inclusion.

Research Design :- The research is purely based on Secondary data. The researcher has made an attempt to analyze the performance of PMJDY and PMMY schemes over the last 2 year on different parameters. The secondary data for the study was gathered from sources like Annual Report of PMJDY & PMMY, Website, Journals and newpapers.

Data Analysis and Discussions :-

Pradhan Mantri Jan Dhan Yojana (PMJDY) :– Financial inclusion is a creative idea which empowers the elective procedures to promote the banking, habits and acts as an enabler in reducing the poverty. The launch of Pradhan Mantri Jan Dhan Yojana (PMJDY) by Government of India is toward that path. The scheme is not just limited to opening a bank account but additionally has different advantages with it viz. Zero balance bank account with Rupay debit card, not with standing accidental insurance cover of Rs. 1 lakh, those who open accounts by 26 january, 2015 over and above the Rs 1 lakh accidental cover, they will be given life insurance cover of Rs. 30000, etc. According to GOI,

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) payments are to be done into the accounts of the MGNREGA labourers in rural areas held either in Banks/Post offices (unless exempted). The target of PMJPY schemes is to guarantee that no household is left without a bank account. There are total 9.98 crore accounts of the MGNREGA worker in Bank/Post offices out of this, there are 3.66 crore accounts in post offices and 0.75 crore in co-operatives. The overdraft allowed of Rs. 5000 under Pradhan Mantri Jan Dhan Yojana (PMJDY).

Pradhan Mantri Mudra Yojana (PMMY) :– PMMY was announced by the Hon'ble Prime Minister Shri Narendra Modi on 8th April 2015 alongside the reporting of MUDRA bank. Government of India has set up Micro Units Development and Refinance Agency Ltd (MUDRA). PMMY is another financial inclusion initiative of Government of India which aims not only on funding the unfunded but also aims to increase the funding gap to micro enterprises. GOI makes guidelines, rules and regulations related to PMMY, for all banks and MFIs. MUDRA is non banking finance institution for supporting the Micro enterprises segment in the country. It provide support to the banks and all MFIs for micro enterprises having loan necessity upto 10 lakhs Any Indian Citizen who has a wage producing plan from small business exercises in enhancing, assembling and preparing and whose advance pre requisite is under Rs. 10 lakh can approach advances under PMMY. Loan rate is regulated by Reserve Bank of India (RBI) time to time. Non Corporate Small Business Sector (NCSBS) occupied with benefit division, miniaturized scale fabricating division, natural products and vegetable distributing, support and repairing, handiworks and working nourishment administration and so on are benefited under the plan MUDRA bank has divided borrowed into three categories such as :-

Shishu : Shelters loans up to Rs. 50000/-

Kishor : Shelters loans above Rs. 50000/- to up to Rs. 5 lakh

Tarun : Shelters loans above Rs. 5 lakh to up to Rs. 10 lakh

MUDRA has been fundamentally shaped as a completely claimed back up for Small Industries Development Bank of India (SIDBI) with 100 % capital being committed by it. The approved capital of MUDRA is 1000 crores and paid up capital is 750 crores.

Process made under PMJDY :- Table 1 reported the status of accounts opened under PMJDY. In rural areas (7,17,89,697) accounts opened by Public sector banks, RRB's and Private sector banks were 5,33,00,249, 1,84,89,448 and 32,26,397 respectively. However, in urban areas (4,84,45,109) accounts opened by public sector banks, RRB's and private sector banks were 4,51,47,276, 32,97,833 and 20,12,086, respectively. Thus the total accounts opened in the rural and urban are by public sector banks, RRB and private sector banks were 9,84,47,525 , 2,17,87,281 and 52,38,483, respectively. The grant total of opened accounts was 12,02,34,806.

Table 1: Status of PMJDY (Accounts opened as on 31.01.2015)

Bank Category wise report

	Public Sector Banks	RRB	Private Sector Banks	Total
Rural	5,33,00249	1,84,89,448	32,26,397	7,17,89,697
Urban	4,51,47,276	32,97,833	20,12,086	4,84,45,109
Total	9,84,47,525	2,17,87,281	52,38,483	12,02,34,806

Souce : http://www.pmjdj.gov.in/account

Table 2 reported the status of accounts opened under PMJDY. In rural/semi urban areas 22.20 crore accounts opened by public sector banks, RRB's and private sector banks were 16.26, 5.24 and 0.70 crore respectively. However, in urban metro centres 15.63 crore accounts opened by public sector banks, RRB and private sector banks were 13.87, 1.20 and 0.56 crore respectively. Thus the total accounts opened in the rural/semi urban and urban metro centres are by public sector banks, RRB and private sector banks were 30.13, 6.44 and 1.23 crore respectively. The grand total of opened accounts was 37.83 crore.

Table : 2 Status of PMJDY (Accounts opened as on 01.01.2020)
Bank Category wise report
(All figures in crore)

	Public Sector Banks	RRB	Private Sector Banks	Total
Rural/Semi Urban	16.26	5.24	0.70	22.20
Urban	13.87	1.20	0.56	15.63
Total	30.13	6.44	1.26	37.83

Souce : http://www.pmjdj.gov.in/account

Analysis of MUDRA scheme :-

(A) State-wise performance analysis :- Based on the agency network and potential to lend the targets were further distributed state-wise by the respective agencies. The state level performance was monitored by State Level Bankers Committee (SLBC). Tamilnadu topped with Rs. 25331.68 crore sanctioned amount. From 2016-17, 40 % growth was recorded in Tamilnadu state. Karnataka was the second amongst all states with Rs. 23009.73 crore sanctioned amount. Only 28 % growth was recorded in Karnataka state. Maharashtra stood at third rank with Rs. 22751.4 crore of sanctioned amount. Maximum 46% growth was recorded in Gujarat and Odisha state. Top 10 states have contributed 71% of total sanctioned amount in financial year 2017-18. Bihar and Gujarat failed to achieve the targeted amount but still secure rant in top 10 states. Performance of top 10 states with comparative position in targeted and sanctioned amount are given below. (Table 3)

Table 3: Performance of Top 10 States

State	2017-18			2016-17			Growth
	Rank	(Rs. In Crore)		Rank	(Rs. In Crore)		
		Targeted	Sanctioned		Targeted	Sanctioned	Percentage
Tamilnadu	1	23083.75	25331.68	1	20117.1	18052.68	40%
Karnataka	2	22049.76	23009.73	2	18388.68	18002.55	28%
Maharashtra	3	22242.92	22751.4	3	20159.08	17286.66	32%
Uttar Pradesh	4	21592.85	22077.89	5	16636.78	15282.61	44%
West Bengal	5	18871.92	20552.19	4	10157.42	15695.01	31%
Bihar	6	17190.56	15919.4	6	10657.51	12190.6	31%
Madhya Pradesh	7	14672.07	14886.15	7	10442.56	10506.45	42%
Rajasthan	8	11815.11	13862.55	8	7086.9	9024.71	54%
Gujarat	9	11505.73	11386.52	10	8066.52	7781.94	46%
Odisha	10	11290.08	11558.91	9	6980.72	7891.34	46%

Source :(MUDRA: Annual Report, 2017-18), (MUDRA: Annual Report, 2016-17)

(B) Regional wise Performance analysis :- The targets were classified into five regions based on distribution of Mudra loan sanctioned and geographical parameters. In terms of number of loan account, North-East and East region were secured top position, with nearly 35% of the total number of loans sanctioned. But, loan amount was around 26% only, which is comparatively lower than 30% of southern region. In Western region, share number of accounts and sanctioned amount is lowest in all region. In terms of sanctioned amount, 179% growth was recorded in North-East region. In F.Y. 2016-17, total sanctioned amount was Rs. 180528.55 crore, whereas in F.Y. 2017-18, it goes to Rs. 253677.09 with 40.51%.

Table 4: Region wise analysis of PMMY

Region	2017-18		2016-17		Growth
	No. Of A/C	Sanctioned Amt. (Rs. In Crore)	No. Of A/C	Sanctioned Amt. (Rs. In Crore)	Percentage
North	8464083	60535.36	6667731	41884.86	45%
East	12764868	48744.33	12838524	43115.35	13%
North-East	4395809	18553.8	1599339	6650.34	179%

South	14464973	76259.92	11430144	52876.65	44%
West	8040860	49583.68	7165309	36001.35	38%

Source: (MUDRA: Annual Report, 2017-18), (MUDRA: Annual Report, 2016-17)

(C) Category-wise Performance analysis :- Based on the size of loans, MUDRA loan are extended in three categories namely, 'Shishu', 'Kishor' and 'Tarun'. 'Shishu' loans are up to Rs. 50000, 'Kishor' loan are range from Rs. 50000 to Rs. 500000 and Tarun category loan are from the range Rs. 500000 to Rs. 1000000. In terms of numbers of accounts, 'Shishu' loan had the maximum stake of 88.65% in all 3 categories of loan. In terms of sanctioned amount, 'Tarun' category loan at 24.02%, 'Kishor' category loan at 34.19% and 'Shishu' category loan was maximum at 41.78%. The share of 'Kishor' category loan accounts improved to 9.67% in F.Y. 2017-18 compared to 6.71% in F.Y. 2016-17. Share of 'Tarun' category loan also improved marginally. (Table 5)

Table 5: Category wise analysis of PMMY scheme

Category	**2017-18**		**2016-17**	
	No. Of Loan A/c	**Sanctioned Amt. (Rs. In crore)**	**No. Of Loan A/c**	**Sanctioned Amt.(Rs.In crore)**
Shishu	42669795	106001.6	36497813	85100.74
Kishor	4653874	86732.15	2663502	53545.14
Tarun	806924	60943.36	539732	41882.66
Total	48130593	253677.11	39701047	180528.54

Source : (MUDRA: Annual Report, 2017-18), (MUDRA : Annual Report, 2016-17)

Conclusion :- In this study we have found that Government is consistently working through various schemes such as PMJDY and PMMY etc. PMJDY and PMMY are a great initiative taken by the GOI. They are partially inclusion plan PMJDY and PMMY compare to swabhimaan. But still government is not able to affect the awareness level of rural customer about financial inclusion schemes significantly. Financial inclusion will help the poor in bringing them to the main stream of growth and would also provide the financial institutions an opportunity to be partners in inclusive growth. Financial inclusion is the essence of sustainable economic growth and development in a nation like India. Inclusive growth winds up inconceivable with financial inclusion. Financial inclusion likewise shall for the economic development of the nation Overall, the PMJDY and PMMY are an ambitious financial inclusion plan. It perceives the because of dispatch of this plan, monetary consideration has expanded towards positive heading. So it can be say that if it is implemented properly, it may work as a game changing financial inclusion initiative of Government of India and may boost the Indian economy.

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PESA Act and Local Self-governance in Scheduled Areas

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Abstract :- The Panchayats Extension to Scheduled Area (PESA) Act 1996 was enacted to provide self autonomy to tribals in Vth Scheduled Areas of the country. This Act was framed in conformity with traditional tribal self-rule by entrusting extraordinary powers to Gram Sabha. Therefore, PESA Act was seen as a viable solution for the protection of the tribal interest. The paper tries to examine the PESA Act, whether it has created any impact on self governance and autonomy of the tribal community and it also tries to highlight the constitutional framework of Scheduled V Areas and attempts to identify the gaps in compliance of other statutory State Laws with PESA Act 1996.

INTRODUCTION :- The Panchayat (Extension to Scheduled Areas) Act, (PESA) 1996 promotes decentralized powers of local self-governance and strengthens democracy at the grassroots level. Therefore, PESA Act in this regard is significant, because it legally recognizes the capacity of tribal communities and strengthens their own systems of self-governance. The PESA Act is framed in conformity with the traditional tribal self-rule by entrusting extraordinary powers to Gram Sabha as local institution that promotes public participation for Socio-economic development of the tribal masses. Therefore, Gram Sabha is regarded as the 'soul' of the PESA Act for socio-economic development and any interventions in this direction in the planning process helps indentify needs and make development programmes inclusive and responsive.

PESA Act – Constitutional Frame Work :- "The State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India".
Artcle 14, Constitution of India

Indian Constitution mandates to protect the identity and rights of the Scheduled Tribes through several of its provisions as contained in Articles 15, 16, 19(5), 13, 29, 46, 164, 343(M), 243(ZC), 244, 275, 330, 332, 334, 335, 338-A, 339, 3342 and 336(25) besides the fifth Scheduled and Sixth Schedule appended to the Constitution. PESA synthesizes in itself the spirit and mandates of two important Constitutional provisions, i.e. Articles 243 and 244.

The 73rd Constitutional Amendment Act, 1992 ushered in a national framework for local self-governance by creation of Panchayati Raj Institutions (PRIs). This national framework was more or less uniformly applicable in all the states except Scheduled Areas prescribed in the Constitution of India. The Parliament enacted PESA - The Provision of the Panchayat (Extension to the Scheduled Areas) Act, 1996 in conformity with the traditional tribal practice of local governance to cover those Scheduled Areas[3].

Scheduled Area :- Historically, a large number of areas predominantly inhabited by adivasis were declared as excluded/ partially excluded areas during the British period. These areas came under the purview of the Scheduled Districts Act of 1874 and the Government of India (Excluded and Partially Excluded Areas) Order 1936.

Article 244 provides that the administration and control of the Scheduled Areas shall be in accordance with the Fifth Schedule. The Fifth Schedule has often been described as "a Constitution within the Constitution" for the special governance of Scheduled Areas, which attempts to bring together in a single frame two totally different worlds - the simple system of tribal communities governed by their respective customs and traditions, and the formal system of the State governed exclusively by laws.' It provides a central role to the village recognizing a habitation

3 The Gazette of India, the Provisions of Panchayat (Extension t Scheduled Area) Act, 1996; Act 40, 24 December 1996.

to be a natural unit of the community (defined as a habitation or group of habitation, the natural village as against the administratively defined unit based on population) and its Gram Sabha (as against the elected Gram Panchayat as in the Panchayat Raj Acts of the states) to be pre-eminent.

Article 40 of the Constitution clearly declares 'The State shall take necessary actions to organize village Panchayats and to endow them with such powers and authority as may be necessary to enable them to function as units of self-government. The Constitution of India, therefore, gave specific importance to the institution of Village Panchayat by enjoining that it shall be the endeavour of the state to take steps to strengthen the village Panchayats.

Article 243(A) of the Constitution reads "A Gram Sabha may exercise such powers and perform such functions at the village level as the legislature of a State may by law provide". This simple provision in the Constitution has enabled the state legislatures to empower Gram Sabha by assigning the statutory powers to it. The Gram Sabha was recognized as being competent to act on a range of powers.

According to Article 243(B) "Gram Sabha consists of all persons registered as voters in the electoral roll relating to the village comprised within the area of the Panchayat at the village level. The above provision reads that Gram Sabha is the centre of democratic power in the local governance system and the centre of village development and planning activity.

Article 243(G) of the Constitution of India enabled the state governments to empower the Panchayati Raj institutions (PRIs) to function as institutions of local self-government and ask to plan and implement schemes/ programmes for economic development and social justice.

Gram Sabha is a participatory decision making process, functions as a mechanism to plan, monitors and evaluates the development activities carried on by the Panchayat. Thus, all the activities carried out by Gram Panchayat have to get approval of Gram Sabha and as such it takes up the responsibility of introducing direct accountability of Panchayat Raj Institutions to people. The Gram Sabha, is therefore, expected to accord approval for different activities relating to schemes, programs, plans and also selection of beneficiaries of different programmes of government.

There are a lot of conflicting views as some people argue that the Gram Sabha is non-existent in most tribal areas and that the law does not recognize the socio-economic changes that have taken place in the society over the past years. Most of the people are unaware of the importance and the existence of Gram Sabhas. Gram Sabhas if implemented properly would pave the way for democratic institution that would work for the upliftment of the Tribal Population.

PESA makes it possible in redrawing the administrative boundaries and reveals the disinclination of administrative machinery to empower the Gram Sabha in developmental planning as well as communal ownership over the processes and control over the resources amongst the tribal through Gram Sabhas.

PESA has faced a lot of challenges both internal and external since its inception. With the advent of technology and Digital India campaign there has been a growing demand for greater transparency, accountability and functioning of government with greater participation. There is the need for more structural changes in the institutions so as to facilitate more ease in functioning. There is a need to provide more sustainable means of livelihood for the Tribal Population along with protecting their culture and natural resources.

Under the PESA provision, section 4(d) articulates - "every Gram Sabha shall be competent to safeguard and preserve the traditions and customs of the people, their cultural identity, community resources and the customary mode of dispute resolution". Further,

under the PESA Provisions there are Mandatory executive functions and responsibilities - before taking up any plan, programme or project for implementation, Gram Panchayat has to take approval from the Gram Sabha. Gram Sabha has been bestowed with the authority for identification of beneficiaries of poverty alleviation and other programmes and issuance of Utilization Certificate of funds by the Gram Panchayat for the above programmes. Planning and management of minor water bodies can be undertaken by Panchayat after getting approval from Gram Sabha only.

Under PESA provision there is also some mandatory consultations - decision regarding acquisition of land or resettling rehabilitated persons affected by such projects can only be taken after consultation with the Gram Sabha or the Panchayat at the appropriate level. The mandatory recommendations are that decisions regarding granting of prospecting license or mining lease or granting of concession for the exploitation of minor minerals can only be taken after getting recommendations of the Gram Sabha or the Panchayat at the appropriate level.

Despite having such power inherent in this Act, there are certain major loopholes which leave the scope of misinterpretation violating the spirit of the Act. The Gram Sabha, the most powerful platform recognized by the Act, is strategically avoided.

The provisions made in this Act even after many years of its enactment, are far reaching in their implications with respect to local self government for planning and implementing programmes for economic development and social justice. And further to ensure the dream of 'Gram Swaraj' of Mahatma Gandhi and motto of 'Power to People' which are essence of true democracy.

In recent decade, economic reforms and local self-government are the two major initiatives that were launched in 1990s. Economic reforms were implemented in the format of Liberalization, Globalization and Privatization (LPG) whereas local self-government was implemented in the form of Panchayati raj in rural areas and municipalities in urban areas.

The Government implemented the 73rd Constitutional Amendment Act and enacted a separate law called Panchayats (Extension to the Scheduled areas) Act, 1996 "PESA" for scheduled areas that are exempted from the above Constitutional Amendment. A Committee headed by Mr. Dileep Singh Bhuria was appointed in 1994 by Narshima Rao government to analyze to how structure similar to Panchayati Raj Institution can be implemented in tribal areas and to structure their power. The Committee in its requests submitted in January 1985. [4]

OBJECTIVE OF THE STUDY :- The objective of the Paper is to understand the PESA Act and local-self governance at grassroot level and to see that how far the Panchayat Raj Institutions in Scheduled Areas have been successful in functional participatory governance Process.

METHODOLOGY :- The paper is based on the secondary data collected from books, Journals, reports, commission proceedings, published literatures by Ministry of Panchayat Raj , research papers found in Economic Political Weekly and various documents found in Websites related to PESA Act.

III. CHALLENGES FACED BY PESA ACT :- PESA Act had been introduced in 1996, yet not much has been achieved and the State Governments have failed to make it functional. This can be summarized as under:

- According to PESA, the power is in the hands of the Gram Sabhas but the State Governments have their own legislations which makes the Gram Sabhas obsolete and without power.
- The state legislation has omitted some of the fundamental principles without which the spirit of PESA cannot be realized.

[4] www.panchayatraj.gov.in

- It was stipulated in the Act that the Gram Sabha will have the power to allocate lands in the Development Projects and it will have the power to restrict a project for the protection and preservation of the Scheduled Area. But unfortunately there is no such provision in the State Legislation.

Until and unless these core challenges are sorted out the Act cannot achieve its objectives.

"The unfortunate confrontation between the tribal people and the state that has been accentuating ever since independence will dissipate and disappear once the traditional system of the tribal people is taken as the foundation of governance in the tribal people is taken as the foundation of governance in the tribal areas. The people will be able to perceive the supra structure of administration as continuation of their own system with no traces of antagonistic relationship". This statement sums up the great expectation of the Bhuria Committee (Feb.1995). [5]

IV. PESA :- India has a large population in rural and scheduled areas. The Panchayat Raj act was introduced with the aim of protecting these people and providing them with sources of livelihood. It was framed keeping in mind that the Gram sabha would lead to local Governance. The scope for direct democracy to see the entire aspects positive, negative, critic, approvals or reflections of proposed of Gram Panchayat and also supervising its performance.

The Mungekar Committee 2009 stated that, "The most sensitive aspect of Tribal life is self governance. Even the British were forced to recognize and reconcile themselves to this fact. That is why they resorted to the creation of "excluded area" through the government of India act 1919. The administrators and lawmakers that the tribal people had a strong functioning system of self-governance forgot it. This omission has had adverse and disastrous consequences in some cases. The community was greatly handicapped in facing the new situation that has resulted in serious unrest throughout tribal India." [6]

Whereas the Bhuria Committee concluded:

"Tribal life and economy, in the not too distant past, bore a harmonious relationship with the nature and its endowments. It was an example of sustainable development with the influx of outside population, it suffered grievous blows". [7]

The main aim of this Act was the empowerment of the Gram Sabha and Panchayat.

V. PESA – NOW :- PESA is implemented in 10 states. At present Scheduled V areas exist in **10 States** viz. Andhra Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Rajasthan and Telangana.
The union and state legislations that impinge on provisions of PESA, Government of India may consider insuring specific directions to it accordance with the power given to it under provision 3 of part A of the fifth scheduled. There is a need to monitor the working of the agencies so that the performance of the states can be measured. So, according to second administrative report, there is a need to modify the provision of PESA for better implementation.

PESA is for the protection of the Tribal Population. It has to address the problems faced by the people and come up with solutions for their betterment.

It has to look into issues pertaining to preservation of their languafe, culture, identity and protect the natural resources in those areas.

VI. BUDGET ALLOCATION :- The Government allocates funds for various schemes for Tribal Welfare and for the Livelihood Missions.

[5] Bhuria Commission Report 1995

[6] Mungekar Committee Report 2009

[7] Bhuria Committee Report 1995

Table 1: Budget for Chhattisgarh on Education for Tribals

Scheme-wise Budget Estimate of Expenditure on Education under Ministry of Tribal Affairs in India (2019-2020)	
Scheme	**Budget Estimates (Rs. in Crore)**
Eklavya Model Residential School (EMRS)	0.31*
Pre-Matric Scholarship for ST Students	340.00
Post-Matric Scholarship for ST Students	1613.50
Scholarship to the ST Students for Studies Abroad	2.00
National Fellowship and Scholarship for Higher Education of ST Students	100.00
Aid to Voluntary Organizations Working for the Scheduled Tribes (Including Strengthening of Educational Among ST Girls in Low Literacy Districts)	110.00
Special Central Assistance to Tribal Sub Scheme (SCA to TSS)	1350.00
Grants under Article 275 (1) of the Constitution	2662.55**

Note : * : It is a token amount under new heads opened for EMRS scheme.
** : During the year 2019-20, funds of Rs.765.08 crores (Rs.45.96 crores for construction of EMRS and Rs.719.12 crores for meeting the recurring costs) has been released for EMRS till date.

Source : Rajya Sabha Starred Question No. 111, dated on 28.11.2019.

Table 2: Budget Allocation for Ministry of Tribal Affairs

Particulars	2017-2018 (Actual)			2018-2019 (Budget)		
	Revenue	Capital	Total	Revenue	Capital	Total
Gross	**5262.79**	**55.00**	**5317.79**	**5935.00**	**65.00**	**6000.00**
Recoveries	**-1.16**	**-**	**-1.16**	**-**	**-**	**-**
Receipts	**-**	**-**	**-**	**-**	**-**	**-**
NET	**5261.63**	**55.00**	**5316.63**	**5935.00**	**65.00**	**6000.00**
A. The Budget allocations, net of recoveries, are given below:						
Centre's Expenditure						
Establishment Expenditure of the Centre						
1. Secretariat	22.11	-	22.11	27.76	-	27.76
2. National Commission for Scheduled Tribes	10.01	-	10.01	15.06	-	15.06

Total-Establishment Expenditure of the Centre	**32.12**	**-**	**32.12**	**42.82**	**-**	**42.82**
Central Sector Schemes/Projects						
Central Scolarships						
3. National Fellowship and Scholarship for Higher Education of ST Students	99.72	-	99.72	100.00	-	100.00
4. Scholarship to the ST Students for Studies Abroad	1.00	-	1.00	2.00	-	2.00
Total-Central Scolarships	**100.72**	**-**	**100.72**	**102.00**	**-**	**102.00**
Support toTribal Institutions						
5. Support to National/ State Scheduled Tribes Finance and Development Corporation	-	55.00	55.00	-	65.00	65.00
6. Institutional Support for Development and Marketing of Tribal Products (TRIFED etc.)	44.95	-	44.95	54.15	-	54.15
7. Aid to Voluntary Organizations Working for the Welfare of Scheduled Tribes	-	-	-	130.00	-	130.00
8. Eklavya Model Residential School (EMRS)	-	-	-	-	-	-
Total-Support to Tribal Institutions	**44.95**	**55.00**	**99.95**	**184.15**	**65.00**	**249.15**
Total-Central Sector Schemes/Projects	**145.67**	**55.00**	**200.67**	**286.15**	**65.00**	**351.15**
Umbrella Programme for Development of Scheduled Tribes						
9. Tribal Education						
9.01 Pre-Matric Scholarship	294.08	-	294.08	350.00	-	350.00
9.02 Post-Matric Scholarship	1463.91	-	1463.91	1586.00	-	1586.00
9.03 Ashram School	7.00	-	7.00	-	-	-
9.04 Boys and Girls Hostel	7.00	-	7.00	-	-	-
Total- Tribal Education	**1771.99**	**-**	**1771.99**	**1936.00**	**-**	**1936.00**
10. Vanbandhu Kalyan Yojana						
10.01 Development of Particularly Vulnerable Tribal Groups (PVTGs)	239.49	-	239.49	260.00	-	260.00
10.02 Minimum Support Price for Minor Forest Produce(MSP for MFP)	8.59	-	8.59	130.00	-	130.00
10.03 Aid to Voluntary Organizations Working for the Welfare of Scheduled Tribes	119.94	-	119.94	-	-	-
10.04 Tribal Festival, Research, information and	4.01	-	4.01	25.00	-	25.00

Mass Education						
10.05 Monitoring and Evaluation	1.27	-	1.27	5.00	-	5.00
10.06 Development Programmes in the Tribal Areas (EAP)	-	-	-	0.01	-	0.01
10.07 Vanbandhu Kalyan Yojana	-	-	-	0.01	-	0.01
Total- Vanbandhu Kalyan Yojana	**373.30**	**-**	**373.30**	**420.02**	**-**	**420.02**
11. Special Central Assistance						
11.01 Special Central Assistance to Tribal Sub-Schemes	1350.01	-	1350.01	1350.00	-	1350.00
12. Support to Tribal Research Institutes						
12.01 Tribal Research Institutes	79.00	-	79.00	99.99	-	99.99
12.02 Tribal Memorial	-	-	-	0.01	-	0.01
Total- Support to Tribal Research Institutes	**79.00**	**-**	**79.00**	**100.00**	**-**	**100.00**
13. Actual Recovery	-1.16	-	-1.16	-	-	-
Total-Umbrella Programme for Development of Scheduled Tribes	**3573.14**	**-**	**3573.14**	**3806.02**	**-**	**3806.02**
Total-Centrally Sponsored Schemes	**3573.14**	**-**	**3573.14**	**3806.02**	**-**	**3806.02**
Other Grants/Loans/Transfers						
Grants under proviso to Article 275(1) of the Constitution						
14. Grants under proviso to Article 275(1) of the Constitution	1510.70	-	1510.70	1800.00	-	1800.00
15. Grant to Assam Government under Clause A of the Second Provision to Article 275(1) of the Constitution	-	-	-	0.01	-	0.01
Total-Grants under proviso to Article 275(1) of the Constitution	**1510.70**	**-**	**1510.70**	**1800.01**	**-**	**1800.01**
Total-Other Grants/Loans/Transfers	**1510.70**	**-**	**1510.70**	**1800.01**	**-**	**1800.01**
Grand Total	**5261.63**	**55.00**	**5316.63**	**5935.00**	**65.00**	**6000.00**
B. Developmental Heads						
Social Services						
1. Welfare of Scheduled Castes, Scheduled Tribes, Other Backward Classes and Minorities	281.51	-	281.51	371.32	-	371.32
2. Secretariat-Social Services	22.11	-	22.11	27.76	-	27.76
3. Capital Outlay on Welfare of Scheduled Castes, Scheduled Tribes , Other Backward Classes and Minorities	-	55.00	55.00	-	65.00	65.00
Total-Social Services	**303.62**	**55.00**	**358.6**	**399.08**	**65.00**	**464.**

			2			**08**
Others						
4. North Eastern Areas	**-**	**-**	**-**	**600.00**	**-**	**600.00**
5. Grants-in-aid to State Governments	4958.01	-	4958.01	4934.90	-	4934.90
6. Grants-in-aid to Union Territory Governments	-	-	-	1.02	-	1.02
Total-Others	**4958.01**	**-**	**4958.01**	**5535.92**	**-**	**5535.92**
Grand Total	**5261.63**	**55.00**	**5316.63**	**5935.00**	**65.00**	**6000.00**

Source: Budget Documents, Ministry of Finance, Govt. of India.

The various budget Allocations of the Government indicates that the funding by the Central Government looks into all the aspects of Tribal Welfare. The funding in the budget has increased from 2018-2019.

VII. THE ROAD AHEAD FOR PESA :- PESA was implemented in solving the problems of the Tribal Population. There has been a lot of discontent among the people living in those areas. If PESA is implemented properly, it would lead to resolving of these issues.

In recent years the legal and institutional basis for the welfare and development of Scheduled Tribe community had broadened and surveys have indicated that people in the tribal belt trust the state as the agency which can reorganize their lot. But there is a need for some seriousness on part of the state to implement it. The state tries to govern it through centralized system which takes the power away from the Gram Sabhas.

Difficulties in implementing PESA can be broadly categorized into two:

(1) Legal difficulties

(2) Political difficulties.

The Legal difficulties are related to the

a) There is no definition of village,
b) There are gaps and inconsistencies between the Central and the State Acts,
c) There is a clash between PESA and pre-existing laws,
d) There is lack of clarity about customary practices and cultural identity etc.

Whereas political problems include

a) There is lack of willingness on part of governments to get involved in this issue.
b) There is lack of awareness of the provisions of PESA.
c) The tribal society is fragmented for electoral competition.

All 10 States having Scheduled Areas have enacted or amended their State Acts but not in conformity with the letter and spirit of the Central PESA.

The state governments have diluted the PESA Act.

In order to make the Act more effective the Central Government will have to step in and play a proactive role. Civil society has to work more vibrantly on right based approach to protect the rights of the tribal population of the country.

The Government can take the following measures:

The Ministry of Panchayati Raj has issued guidelines for implementation of PESA on 21.05.2010. There has to be a detailed guideline which deals with the conflicting laws so that the state is also aware of the scheme.

There should be an involvement of the Ministry of Tribal Affairs so that the interest of the Tribal Population is kept in mind by the states.

Government of India should issue specific directions in accordance with provision 3 of part A of the Fifth Schedule if any State fails to implement PESA in letter and spirit.

There should be Committee formed at the Centre which should monitor all the schemes and the funds and should also try and study the problems faced in the implementation.

This Committee can play advisory role with concrete suggestions to restrict deviations by the states.

The data of the schemes is not available online. There should be a system for making it transparent so that the data can be studied. The report should be made available to the public by uploading it in the website in a time bound manner.

Women participation in all the Tribal councils should be encouraged. Appropriate measure should be taken to ensure at least one third participation of women in all meetings at the Gram Sabha level.

There is also an urgent need to amend the Indian Forest Act, Land Acquisition Act, and other related Acts so that the ownership on minor forest produce, water bodies and land resources are explicitly handed over to the Gram Sabhas of the PESA areas.

VIII. CONCLUSION :- There is a great need that the rights of the Tribal Population in Scheduled Areas over the natural resources are safeguarded. PESA is the most powerful legislation for this cause. Over the years the Act has not seen much success and which has a lot of discontent in the Tribal Population.

It is time for the changes at various levels either it be of administrative, planning, financial and personnel systems. If all the provisions under Act are implemented properly, PESA has the power to transform the rural community and bring about radical changes at every sphere.

It is an important step by the Indian State to make the system more participatory in real meaning. However, the reasons why PESA failed to deliver has been a result of the lack of clarity, legal infirmity, bureaucratic apathy, lack of political will, resistance to change in power hierarchy and so on. It is important that the drawbacks of the Act are addressed so that it will lead to empowerment of the people and development at all levels.

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An Overview of Market Research Methods: It's Role and Importance in Business

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Abstract :- This conceptual paper indicates and focuses on market research methods as the potentially emerging way in the 21st century to overcome the Business challenges in global perspective. Basically classification of market research is primary and secondary research. Secondary research happens to be the first of six market research methods. The other five are all different flavors of primary research. They are surveys, focus group, interviews, Observation, experiments or field trails.

Market Research is a key factor in marketing information services and decision support systems. Its purpose is to provide management with relevant, accurate, reliable, valid and up-to-date information, which is vital in sound decision making. Market research can identify market trends, demographics, economic shifts, customer's buying habits, and important information on competition.

Primary data may be qualitative or quantitative in nature. Qualitative research is carried out to provide a better understanding of the reasons and motivation behind the associated problem. Secondary data are data that were previously collected for some other project. This type of data is easily accessible, relatively inexpensive, quickly obtained and is useful when it is not feasible for the firm to collect primary data, for example a population census.

By the use of different research methods a marketer or business man can get essential information for the success of his business. It will guide him in making strategic business decisions, uncovering unmet customer needs, and in many cases, also help him to discover new ideas for products or services. In other words we can say that market research helps us to communicate effectively, Identify and understand opportunities, Pinpoint obstacles or problems, Benchmark and evaluate the success of business.

So, we can say that- the market research methods works like the senses of any business. As senses of human works to direct human in right path in the same way methods of market research works.

Keywords : Market Research, Primary, Secondary, qualitative Research.

Introduction :- Market research involves collecting, recording and making sense of all the available information which will help a business unit to understand its market. By using various Market research methods we can set up the answer of the following questions: Who makes up the target audience? What do they want? When do they need it? Where does it sell best? How can it be taken to them? Why do they want/need it? What are our competitors doing? How is our market changing ?

ESOMAR (European Society for Opinion and Market Research) defines "Market Research" as "the systematic gathering and interpretation of information about individuals or organizations using the statistical and analytical methods and techniques of the applied social sciences to gain insight or support decision making."

Researching market helps a business man to target his ideal customer, identify new market opportunities and improve his sales performance. Successful businesses make regular market research the foundation of their marketing and sales planning. You can develop strong marketing strategies based on what you find out about your products and services, your customers, your competitors, your industry and the challenges in your marketplace.

Market research methods can also help to identify areas of business that could be updated or changed. Market research method is an extremely valuable tool that can help us: make decisions about pricing, promotion, product and location, understand how your products or services fit your target market, deliver and expand your products and services, better understand how your competitors operate, understand the current environment of your industry identify new opportunities, minimize risks to your business.

Market research methods are useful at all stages of the business life cycle. If you are starting a business, it can help you work out your competitive advantage. If your business is already established, you can use market research to develop new products and services and target customers more effectively. Market research methods help to gather information about:

- industry and market environment - to understand factors external to your business
- customers - to develop a customer profile
- competitors - to develop a competitor profile

The type of information a business man wants to gather about his customers, market or competitors will influence the research methods he chooses. There are different ways to gather information (from primary or secondary sources) and different types of information to gather (quantitative and qualitative).

Primary research method involves finding out new information. It finds the answers to specific questions for a particular purpose. These enquiries may take the form of direct questioning. For example, it may include face-to-face surveys, postal or online questionnaires, telephone interviews or focus groups. This type of direct contact with people is valuable as it gives specific feedback to the questions asked.

However, it is important that the questions are clear and that the researcher is trained. This will ensure that the results are not influenced. Although primary research can be expensive and time-consuming, the up-to-date and relevant data collected can give organizations a competitive advantage. This is because their rivals will not have had access to it.

Secondary research method focuses on existing information. It uses published data that previous research has already discovered. This covers a wide range of materials, such as:

- market research reports
- sales figures
- competitor marketing literature
- Government publications, e.g. national statistics

The best thing about secondary research is that is it often frees and it usually can be done quickly. Your job as a secondary researcher is to find existing data that can be applied to your specific project. It is possible that one might not be able to find secondary data that is suitable for his research needs. If that's the case, he'll need to conduct his own primary research…and that's where we'll find the other five market research methods.

Objectives and Research Methodology of the Study :- The study is based on secondary data which is collected from the published reports, newspapers, journals, websites, etc. The study was planned with the following objectives:

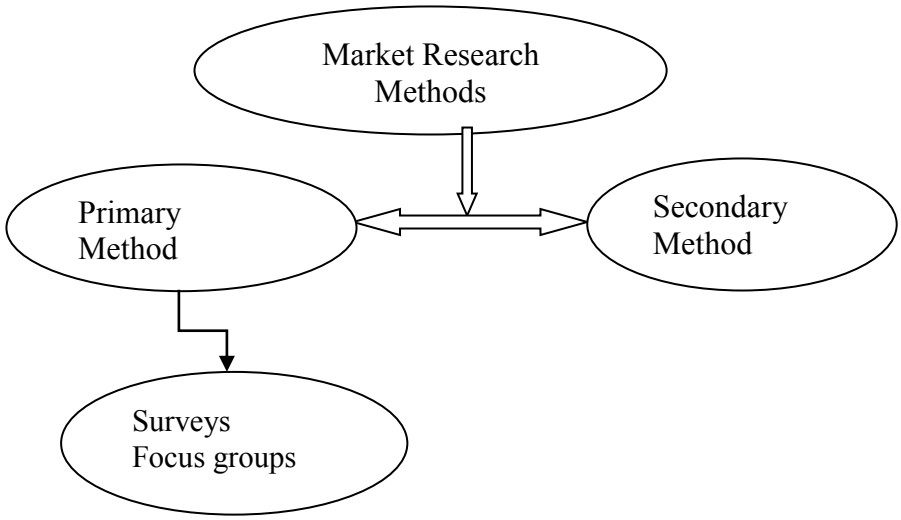
- To study the various market research methods and its impact on research.
- To critically examine the role and importance of market research methods on present business scenario.
- To evaluate the contribution of market research method in business in realistic form.

Characteristics of Good Market Research Methods :- There are some important characteristics of good market research method given below:

(1) Method should be S**ystematic:**
(2) Well **planned** in advanced
(3) **Objectivity** should be there
(4) **Impartiality** should be in all conduct during any research
(5) **Realistic** in nature

Types of Research Methods and its Impact Market :- There are several ways to categorize the various market research methods. The vast majority of techniques fit into one of six categories:

(1) secondary research, (2) surveys, (3) focus groups, (4) interviews, (5) observation, or (6) experiments/field trials.



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Market Research Methods: An Overview

Primary Research is also known as **Practical Research** it consists of the empirical study of the topic under research and chiefly consists of hands on approach. This involves first hand research in the form of questionnaires, surveys, interviews, observations and discussion groups. And **Secondary Research** known as **theoretical Research** this usually involves perusal of mostly published works like researching through archives of public libraries, court rooms and published academic journals.

Primary Research Methods :- Primary data may be qualitative or quantitative in nature. Qualitative research is carried out to provide a better understanding of the reasons and motivation behind the associated problem. Types are given below.

(1) Surveys :- Surveys are perhaps the most widely known and utilized method when it comes to market research. Surveys come in a wide variety of shapes and sizes, from that little "feedback card" on the table at your favorite restaurant to those never-ending web surveys that make you want to punch your computer. Surveys make a lot of sense when the following conditions are true: When anyone wants to measure something objectively (or quantitatively), or something specific to measure. Conversely, surveys are not a great research tool when anyone is still exploring his topic.

Surveys can be used effectively for satisfaction research (customers or employee), measuring attitudes, pricing research, fact gathering (e.g. the census), and much more. You'll find surveys administered in all sorts of ways, including snail mail form, web forms, face-to-face (that guy at the mall with the clipboard), over the phone (the guy who calls during dinner), on the sidebar of a blog, and even on mobile devices via text message or otherwise. Surveys can be self-administered (the respondent reads and answers questions alone) or they can be administered by a person who records his answers.

(2) Focus Group :- Focus groups involve getting a group of people together in a room (usually physically, although technology is making virtual or online focus groups more feasible). These people fit a target demographic (e.g. "mothers under 40 with an income over $50k", "college males who play 8 or more hours of video games a week", etc.) depending on the product or service in question. Participants are almost always compensated in some way, whether it be a money, coupons, free products, etc. A moderator will guide the discussion, with a goal of getting participants to discuss the topic among them, bouncing thoughts off of one another in a natural

group setting. Professional focus group rooms will have a one-way mirror on one wall, with a team of observers on the other side.

A focus group should consist of 8-10 respondents who vary in terms of demographic and socioeconomic background. It should last approximately 1-3 hours and the use of audiocassettes and videotapes are encouraged. The moderator must be sensitive, flexible and encourage and involve everyone in the group. Focus groups are excellent for exploratory, qualitative research Focus groups are great tools to use prior to a survey, because it will inform your survey questions to be more specific and targeted. Focus groups can also be beneficial after a survey, as a way to dive very deep into a topic that came up in the survey. For example, an employee satisfaction survey may reveal "cafeteria food" to be a big issue. A follow up focus group with a handful of employees will allow the employer to understand that issue much better (What is the problem with the food? Is it the taste, price, healthiness, temperature, something else?).

(3) Interviews :- Like focus groups, individual interviews are a qualitative market research method. To simplify things, think of individual interviews as focus groups with only one participant and one moderator (interviewer). There is a wide spectrum of interviewing formats, depending on the goal of the interview. It can be telephonic or personal. Interviews can be free flowing conversations that are loosely constrained to a general topic of interest, or they might be highly structured, with very specific questions and/or activities (e.g. projective techniques such as word association, fill in the blank, etc.) for the subject.
Like focus groups, interviews are useful for exploratory research. Use this market research method when you are interested in digging into a specific issue very deeply, searching for customer problems, understanding psychological motivations and underlying perceptions, etc.

In-depth interviews can uncover a great depth of insights and respondents are more likely to offer free information on a one-to-one basis. However, skilled interviewers can be expensive and hard to find and data can be susceptible to bias. Also the combination of the length of the interview with the cost means the number of interviews will be small.

(4) Observation :- Observation method can come in a different shapes and sizes. In general, there are two categories: strict observation with no interaction with the subject at all, or observation with some level of intervention/interaction between the researcher and subject. The greatest benefit of this technique is that researchers can measure actual behavior, as opposed to user-reported behavior. That's a big deal, because people will often report one thing on a survey, but behaves in another way when the rubber hits the road. Observational research is a direct reflection of "real life," so these insights are often very reliable and useful.

There are many examples of observational research. Here are a few: Usability testing, Eye Tracking, Contextual Inquiry, In-Home Observation, In-Store Observation, and Mystery Shoppers

(5) Experiments/field trials :- Experiments and field trials involve scientific testing, where specific variables and hypotheses can be tested. These tests can be conducted in controlled environments or out in the field (natural settings). This form of market research is always quantitative in nature. Experiments and field trials can be a hairy topic with lots of jargon, but here's a simple example that demonstrates an effective online experiment: In his first presidential campaign, Obama used "A/B testing" to optimize his campaign donation page. Some website visitors would see one image and others (at random) would see a different image. The webpage team was able to measure which image was resulting in more donations, and they could quickly decide to use the more favorable image for all users. By employing this simple market research experiment on which website images performed better, Obama was able to maximize contributions in a major way. Another example might be a cereal company making two different packaging styles and delivering each one to

limited test market stores where their individual sales can be measured.

Secondary Research Method :- Secondary research is simply the act of seeking out existing research and data. Secondary data could be US Census data, Twitter comments, journals, newspaper, reports and much more. The best thing about secondary research is that it is often free and it usually can be done quickly. A secondary researcher is to find existing data that can be applied to your specific project.

In other words we can say that Secondary data are data that were previously collected for some other project. This type of data is easily accessible, relatively inexpensive, quickly obtained and is useful when it is not feasible for the firm to collect primary data, for example a population census. Therefore the examination of secondary data is a prerequisite to the collection of primary data. However, due to the fact that secondary data was collected for some other purpose, their usefulness to the problem at hand may be limited.

Secondary data can be collected both internally and externally. Data that are collected internally can be retrieved in a ready-to-use format, for example information routinely supplied by the management decision support system or from information that exists within the organization that requires further processing, for example sales invoices. External data are retrieved from sources outside the organization such as on-line databases, published material or information provided by syndicated services.

The Role of Market Research Methods in Business :- Market research methods play vital and significant role in market research in any aspect of business. Market research methods are used for primarily analyzing consumer behavior in order to discover who is buying, what they are buying, where they are buying it, and when people buy products or services and then asking the question why are they buying it? The use of market research methods are all about finding out what you can do to entire customers to buy your product or service.

The Importance of Market Research Methods in Business :- By the use of Market research methods we can identify market trends, demographics, economic shifts, customer's buying habits, and important information on competition.

Knowing this information is essential to the success of any business. It will help to guide anyone in making strategic business decisions, uncovering unmet customer needs, and in many cases, help to discover new ideas for products or services.

Therefore, market research methods are essential for a company to know what type of products or services would be profitable to introduce in the market. Also with respect to its existing products in the market, good market research methods enables a company to know if it has been able to satisfy customer needs and whether any changes need to be made in the packaging, delivery or the product itself. This enables a company to formulate a viable marketing plan or measure the success of its existing plan.

Conclusion :- Market research consists of two separate types of research that can be categorized as secondary and primary research. Secondary research consists of collecting already published data. It helps to identify the company's competitors, perform a strategy for benchmarking and also determine the segments the company should target in view of factors such as demographics, population, usage rate, life style and behavioral patterns. Primary research serves to provide information through monitoring sales levels and measuring effectiveness of existing business practices like service quality and tools for communication being used by the company. It carefully follows competitor plans to gather information on market competition. Both primary and secondary researches are essential to fulfill the company's objectives.

In short, market research methods help to businessman to communicate effectively, Identify and understand opportunities, Pinpoint obstacles or problems, Benchmark and evaluate the success.

There is a table, which represents the Summary of Market Research Methods on different basis:

Methodology	Qualitative or Quantitative?	Typical Cost	Typical Time	Comments
Secondary Research	Can be either	Typically free or low cost	Short	Usually a great place to start, but often not detailed or specific enough
Surveys	Quantitative	Varies widely. Key costs include participant incentives, survey design, & survey administration	Medium	Excellent for measuring attitudes across a large population and for answering specific questions
Focus Groups	Qualitative	Medium. Key costs include focus group moderation and participant incentives	Medium	Good for exploratory research
Interviews	Qualitative	Similar to focus groups, but can be much cheaper depending on the audience and # of interviews	Short-Medium	Also good for exploratory research, along with deep dives into specific topics
Experiments &Field Trials	Quantitative	Often the most expensive method	Usually Long	Used for scientifically testing specific hypotheses
Observation	Usually Qualitative	Medium, relative to the other options	Medium	Good for measuring actual behavior, as opposed to self-reported behavior

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The Plundering of Genetic Knowledge: Biopiracy & Biopirates

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Abstract :- The competition is on its way to take full control of the genetic knowledge of living organisms. The global corporations are in a race to discover new genes in plants, animals and in human beings. They are basically competing for isolating genes and patenting them. This has raised several questions in the present regime over gene patenting. The patents provide monopoly rights that are obtained by large investments in research. Various researchers, scientists have many times raised objections over granting of such patents, stating that it is against the morality of living organisms. The biopirates around the world are actively involved in the plundering of genetic information through biopiracy. In this investigation different evidences of gene patenting has been studied to understand its value for humanity. After analyzing the various evidences on gene patenting it is concluded that the purpose of gene patenting was human welfare but its privatization has turned it towards monopolization. Moreover, it was also analysed in this investigation that the greed of scientists, researchers and global corporations for wealth encouraged the biopiracy of genetic resources.

Key Words: Plundering, Genetic Knowledge, Biopiracy, Biopirates, Patenting.

Introduction:- The patents provide the patentee with exclusive rights for a particular innovation for a stipulated time period (Marsoof, 2018). The innovations are mostly exploited for commercial production of different products (Khurana, 2007). The innovations that are subjected to a patent must exhibit three essential requirements:

- Innovations must be novel.
- Innovation must not be a mere discovery.
- Innovations must exhibit an industrial application.

In the past years patenting was limited to innovations based on inanimate objects like engines, parts of engines, different chemicals or drugs. In fact, in the year 1980, the first patent was granted for a living organism for a bacterium that was genetically engineered in the USA and that possessed the property to breakdown oil (Magnani, 1999). Later on gradually the patenting of living organism increased both in the USA and Europe. The patenting of genetic knowledge or information deals with isolation of genes from living organism which include plants, animals and even human beings. However, this is a close step towards the privatizing of the genetic knowledge of the living organisms.

Impact of Patenting Genetic Knowledge:- Critics have always raised questions over patenting of genes throughout the world. The objections on the patenting of genes of living beings are due to the following issues:

- Genetic knowledge is naturally present in the genetic resources and therefore cannot be subjected to patenting.
- Patenting of genetic knowledge is against the morality of the living organisms.
- Patenting of genetic knowledge lead to its privatization that is harmful to the environment and also to humanity.
- The biopiracy of genetic resources of the developing and least developed nations may encourage genetic erosion towards the developed nations and towards their giant corporations.
- Biopirates are merely in the queue for patenting genetic knowledge for obtaining royalty and wealth.

Biopiracy of Genetic Knowledge is Creating Monopoly :- The competition to acquire the rights for a genome has potentially encouraged the development of new genetically modified

plants and animals. The corporations possessing ownership rights for the genetically modified organisms start conquering the global market. The profits generated from such genetic knowledge have served them to acquire the monopoly in the market for their distinct product. The exploitation of genetic knowledge of crops like rice, wheat, of animals like fish, mice and even of human beings have encouraged biopiracy and biopirates at the global scale. Biopirates have plundered the genetic knowledge form the genetic resources through biopiracy and are generating huge income. The Human Genome Project or HGP is a 3 billion dollar funded global project with the collaboration of giant corporations like the Wellcome Trust (https://www.yourgenome.org, 2016). This project was initiated with an aim to completely map the human genome that could be useful in diagnosing various diseases like Alzheimer, Cancer, Diabetes etc.

However, due to high competition in the genomic research sector, some other corporations like the Celera Genomics started their own research to obtain the map of the human genome at an earliest. In the year 1999 Celera genomics applied for patenting of 6,500 genes from the human genome (Jones, 2000). Later on corporations like Incyte, Hexagen also invested in sequencing the human genome. These corporations actively participated in human genome mapping to collect data on the human genome and further sell it to other corporations at higher profits. The patent office of the U. S. has granted to about 1500 patents based on human genetic information (Kluge, 2003). Similarly, corporations around the world have also been investigating plant genome mapping like Monsanto, DuPont and Celera Genomics (Cook-Deegan and Heaney, 2010). In addition to this global corporations are also dealing with animals genome mapping by manipulation of the animal genetic knowledge for developing specific animals with desired characteristics like genetically engineered sheep, chicken, pig and other cattles (National Research Council US, 2004). The accessing of genetic knowledge from genetic resources has been controversial due to its presence in nature. Eminent researchers and scientists suggest that genetic resources are a common heritage of mankind and therefore should not be considered for patenting.

Legislations Safeguarding Genetic Knowledge from Biopirates:- Global nations have established legislations on the basis of the international agreements to prohibit biopiracy of genetic knowledge. The European Patent Convention or EPC does not recognize the innovations that are against the morality of living organisms (Caulfield, Gold and Cho, 2000). As the hunger for wealth has risen among the corporations they do not like these obligations being considered by the EPC. The establishment of WIPO or World Intellectual Property Organisation has configured the patenting in the global scenario (Liberti, 2010). The WIPO is not directly linked to patenting but it controls the biopiracy of the innovations in different member nations who have signed the WIPO treaty. WIPO suggests that it is mandatory to get approval of a patent in different patent offices upon its exploitation at the global scale. This restricts the biopiracy of genetic knowledge and the biopirates. The European Union Directive 98/44/EEC that was enforced in 1998 certainly does not consider innovations based on genetic knowledge suggesting it against the dignity of human beings (Wong and Mahalatchimy, 2018). On the other hand, the European Union Directive 98/81/EC suggests the utilization of the genetically altered microbes (Bielecka and Mohammadi, 2014). The pharmaceutical giant in the European countries opposed this by stating that this may hinder the innovations associated with medical research. The European Union Directive actually is of the view of safeguarding the innovations that are considered against moral values.

Another important legislation that persists in the world scenario and safeguards the immoral innovations is the TRIPS agreement. In this agreement in the Article 27.3 {b} it has been suggested that the member nations of this treaty can prohibit the innovations on the grounds of immorality by developing an efficacious sui generis systems (Tansey, 1999). The developed nations have been opposing this regulation of the TRIPS and are of the view to review it. The

developed nations do not prefer local controlling measures against preserving genetic knowledge because that will definitely cause damage to their global wealth management system. The International Seed Treaty was established to manage and protect the genetic resources of plants (Choudhary, 2002). It recognizes the contribution of plant breeders and farmers in developing new plant varieties.

UPOV is an organization at the global level that was established in the year 1961 in Paris and in its recent revision it illustrates the method of genetic engineering for developing new plant varieties (FAO, Session 3). It suggests that the new plant varieties developed through genetic knowledge should be novel, should show homogeneity and should not change after successive generations. In the year 2000, the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore or IGC was established and authorized by the WIPO (Vivas-Eugui, 2012). This committee laid down various instructions for the global nations that include the instructions on genetic knowledge of genetic resources. The CBD or Convention on biological diversity was established in the year 1993 states in its objectives to equitable sharing of benefit for utilizing the genetic information of the biological resources (Sirakaya, 2019). The Nagoya Protocol was implemented under the European Union regulation 511/2014 that governs the rights of the member nations of this treaty for their genetic knowledge of their respective genetic resources (Flach et al., 2019).

The International Budapest Treaty was enforced in the year 1980 (Nair and Ramachandranna, 2010). This treaty suggested developing IDA or International Depository Authority around the globe for collection of the culture of microorganisms. This was very essential because these depositories acted as good verification points for verifying any microorganism that is being subjected for patenting. The Cartagena Protocol on Biosafety was enforced in the year 2003 (Kinderlerer, 2008). This protocol deals with transportation of LMO or Living Modified Organisms and their handling that may cause a hazard to human beings. The protocol suggests restricting the utilization of genetically modified organisms.

Evidences on Patenting of Genetic Knowledge :-
The object of developing intellectual property rights is that it shall encourage innovations by initiating competition in different fields of research. But the evidences in the domain of genetics suggests that it can restrict the innovations and further create monopolies in this field. This has definitely raised the cost of several biomedical products based on genetic knowledge. Some of the significant evidences relating to biopiracy of genetic resources are described as under:

- In the year 1999, a pharmaceutical giant corporation Myriad Genetics developed a biomedical kit to diagnose breast cancer. This kit employed two human breast cancer susceptible genes BRCA 1 and BRCA 2. The corporation impelled to develop a monopoly in the native region by compelling the local patients to be diagnosed only through their kit at their own high costs. The Myriad Genetics obtained several patents for its genes capable of detecting human breast cancer that include US Patent No. 5,709,999, and US Patent No. 5,693,473 (Gold and Carbone, 2010).
- The development of genetically engineered Tracy sheep was for the isolation and commercialization of human blood clotting agent called as AAT or Alpha-1 Antitrypsin within its mammary glands. Tracy sheep is another evidence of biopiracy of genetic knowledge. The pharma giant companies PPL and Bayer obtained US Patent No. 5,476,995 for the technique of developing Tracy and its successive generations (GRAIN, 1998). The genetically transformed sheeps were regarded as bioreactors that were exploited for generating human blood-clotting protein.
- In the year 1997, the cloning of Dolly sheep was carried out, that was granted two patents as WO 9707668 and WO 9707669 to its innovator i.e. Roslin Institute (Mooney, 1996). The object of such cloning was to investigate different human diseases via such cloned animals for human welfare. But it was

the opinion of several environmentalists that this type of selective animal cloning might bring imbalance in the environment that can be hazardous.

- In the year 1976, John Moore spleen was isolated by a surgeon and his spleen cell lines were used for developing special protein. These cell lines were named as Mo Cell lines patented as US Patent No. 4,438,032 and commercialized for billions of dollars (Glasner, Atkinson and Greenslade, 2017). However, the original source of this patent i.e. John Moore was ignorant about this fact that his spleen cells generated huge income. When Moore came to know about this incident he approached the Supreme Court of California to object. However, the court decided that as the spleen was isolated from the body, therefore, the rights of John Moore declined.
- One of the largest populations of the carrier of the HIV infection is present in the African region (WHO, 2019). In the year 1991 Pasteur Institute located in Paris obtained a patent with US Patent No. 5,019,510 for claiming discovery of HIV (Wain-Hobson et al., 1991). Various researchers from different parts of the globe have isolated samples from the blood and saliva of the people from this region without any prior permission from the people or native authorities. These samples were used to isolate and study DNA. This helped to develop effective drugs against the HIV infection. The biopiracy of the genetic knowledge of the African people for HIV research could be termed as immoral. Several drugs have been manufactured against HIV infections using the genetic information of the African people. The cost of these HIV drugs is very high and beyond the purchasing capacity of the African people. However, the drugs that have been prepared by the contribution of African people are not even available to them at cheaper rate. In fact the African people are not provided with any benefit instead they were exploited.
- The Biopiracy of the blood samples of the Icelandic people was in the news headlines. It has been reported that there has been rarely any migrations in the region of Iceland since the historic times and therefore the genetic knowledge of the people of this region has been preserved. The deCODE corporation by duping the people of Iceland isolated their genetic information. In the year 1990, this corporation was of the view of developing the world's first Biobank based on the genetic information of the human population (Tutton, 2010). The corporation was of the view to establish a database of genetic information of the human population. It was proposed by the deCODE corporation that the genetic database of Icelandic people will be quite useful in treating incurable diseases like HIV and cancer. However, in the year 2013, the services of the deCODE Corporation were stopped.
- The West African plant Amelonado spp. is a variety of cocoa plant that has a distinct flavour. The Mars Corporation of the United Kingdom obtained patents in the United States as US Patent No.5,770,433 and US Patent No. 5,668,007 for the genes of this plant and producing a similar plant variety bearing cocoa flavour (GeneWatch, 2000). The patents were especially obtained by the Mars Corporation for restricting the export of this plant from the West African nations that will hinder their national income.
- A US-based corporation POD-NERS biopirated Mexican Enola beans and obtained a US Patent No. 5,894, 079 (Nottenburg, 2009). The yellow Enola beans were created from the Enola bean variety of Mexico by this corporation by using genetic plant breeding practices and further subjected it to patent. Thus by mere manipulation of genetic knowledge the biopiracy of Enola beans was committed.
- The biopiracy of Bt or Bacillus thuringiensis gene is yet another evidence of biopiracy of genetic knowledge that is hazardous to mankind and the environment. It is well known that Bacillus thuringiensis commonly persists in the soil microflora. It excretes a protein that can inhibit various insects. This characteristic of Bt was utilized by

corporations to create Bt crops by just inserting the Bt genes through genetic engineering. The crops created through Bt genes include Bt-cotton, Bt-soybean, Bt-potato etc. (Guillemaud, Lombaert and Bourguet, 2016).

- In Asian countries like India, several incidences of biopiracy with respect to plant genetic resources has been reported. The biopiracy of Basmati rice by Rice Tec Inc. of the USA is one of the leading cases. The Rice Tec Inc. obtained a patent for an Indian origin rice variety i.e. basmati and patented it as US Patent No. 5,663,484 (Siddiq, Vemireddy and Nagaraju, 2012). Moreover, the corporation renamed the basmati rice variety after patenting, as Texmati. The main object of this corporation was to establish a monopoly on the variety of rice lines of basmati rice. However, after several protests by the Indian government and by providing various evidence on its origin in India, the patent on basmati rice was revoked.

Conclusion :- The privatizing of genetic knowledge is definitely causing an adverse impact on the object of the research that was public-oriented. The main aim of carrying out research on genetic knowledge is to create a noble product that can be utilized to serve mankind. In the present scenario, the patents are just being utilized by the researchers, scientists and corporations for fulfilling their greed towards wealth. Although various legislations have been framed from time to time both at the global and national levels still the biopiracy of genetic knowledge has not been controlled. The case studies of biopiracy of genetic knowledge in this investigation indicate that around the globe the patenting of genetic knowledge has moved towards monopolization.

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Role of ICT in 21st Century's Teacher Education

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ICT is a scientific, technological and engineering discipline and management technique used in handling information, its application and association with social, economic and cultural matters (UNESCO, 2002). ICT stands for Information and Communication Technologies. ICT is a part of our lives for the last few decades affecting our society as well as individual life. ICT which is now broadly used in educational world. Teacher, Student, administrator and every people related to education are popularly used ICT. Teacher use ICT for making teaching learning process easy and interesting. A competent teacher has several skills and techniques for providing successful teaching. So development and increase of skills and competencies of teacher required knowledge of ICT and Science & Technology. In modern science and technological societies education demands more knowledge of teacher regarding ICT and skills to use ICT in teaching –learning process. The knowledge of ICT also required for pre-service teacher during their training programme, because this integrated technological knowledge helps a prospective teacher to know the world of technology in a better way by which it can be applied in future for the betterment of the students. Now – a-days ICT"s are transforming schools and classrooms a new look by bringing in new curriculum based on real world problems, projects, providing tools for enhancing learning, providing teachers and students more facilities and opportunities for feedback. ICT also helps teachers, students and parents to come together. Continuous and Comprehensive Evaluation (CCE) helps students as well as teachers to use more technology for making teaching learning more attractive for the betterment of our future generation. Teachers must know the use of ICT in their subject areas to help the learners for learning more effectively. So, the knowledge of ICT is very much essential for the both prospective teachers as well as in-service teachers also. This will help teachers to know integrated technology with classroom teaching. This paper discussed about the role of ICT in 21st Century"s teacher education.

Keywords :- ICT, technology, pre-service, in –service, student teacher, teacher training.

Introduction :- Today"s age of 21st Century and it is also the age of information and technology (IT). Every aspects of life are related to science and technology. Huge flow of information is emerging in all fields throughout the world. Now information and technology is popularly using in educational field for making teaching learning process successful and interesting for students and teacher both. In 1998, UNESCO World Education report refers about student and teachers must have sufficient access to improve digital technology and the internet in their classroom, schools, teacher educational institutions. Teachers must have the knowledge and skills to use new digital tools to help all students achieve high academic standard. The quality of professional development of teacher education depends on the extent of ICT integration in teacher education programme. According to UNESCO (2002) "ICT is a scientific, technological and engineering discipline and management technique used in handling information, its application and association with social, economic and cultural matters".

Teachers are at the core of any living society. Technologies play an important role in training programme of teachers. Students" accesses knowledge and information through TV, digital media, cable network, internet and social media i. e. Facebook, Twitter, Whatsapp, Linkedinn, Igo, Line, Wechat etc. ICT is very important for Pre-service teacher education programme in the 21st Century. Without proper

knowledge of ICT teacher cannot perform in his/her class room and it could not be said to be a complete one.

Need and Significance of the study :- The scenario of the classroom is changing. There is a technological gap between the progress of the society and instructional activities of the teacher in the classroom. If we see in our society on the one hand technology has revolutionized our society and on the other hand the teaching learning activities at school level have remained so far away from technology. In our classroom the knowledge is imparted by the teacher in an ancient way, a teacher centric mode which is most of the time boring and not to gain interest to the student. But present 21st Century‟s education is student centric education. Students learn from multi sources and for this reason use of ICT & Multimedia is very much essential in educational field and simultaneously teacher‟s knowledge of ICT and Multimedia also required. So present study has great need and significance because this study shows roles of ICT teachers‟ education.

Role of ICT in 21st Century's Teacher Education

Objective of the study :- The objective of the present study is –

To find out the roles of ICT in 21st Century‟s Teacher Education.

Methodology :- This present study is based on secondary sources like books, Articles, Journals, Thesis, University News, Expert opinion and websites etc. The method used is Descriptive Analytic method.

Why do we use ICT in teacher Education :- The classroom is now changing its look from the traditional one i. e. from one way to two way communication. Now teachers as well as students participate in classroom discussion. Now Education is based on child centric education. So the teacher should prepare to cope up with different technology for using them in the classroom for making teaching learning interested. For effective implementation of certain student-centric methodologies such as project-based learning which puts the students in the role of active researches and technology becomes the appropriate tool. ICT has enabled better and swifter communication; presentation of ideas more effective and relevant way. It is an effective tool for information acquiring-thus students are encouraged to look for information from multiple sources and they are now more informed then before. So for this reason ICT is very much necessary for Teacher Education.

Recent Trends in Teacher Education :- Based on various changing needs of our society now emphasis is also given to the various educational theory and educational practices. According to these theories and practices changes are also undergo in teacher education also. It is natural that teacher education must include new technology. Teachers should also know the right attitudes and values, besides being proficient in skills related to teaching. As we know the minimum requirement of any training programme is that it should help the trainee to acquire the basic skills and competencies of a good teacher. Now-a-days new trends in teacher education are Inter-disciplinary Approach, Correspondence courses, orientation courses etc. Simulated Teaching, Micro Teaching, Programmed Instruction, Team Teaching are also used in teacher education. Now-a-day Action Research also implemented in Teacher Education. ICT acts as the gateway to the world of information and helps teachers to be updated. It creates awareness of innovative trends in instructional methodologies, evaluation mechanism etc. for professional development.

Different Strategies for applying ICT in Teacher Education:-

i) Providing adequate infrastructure and technical support.
ii) Applying ICT in all subjects.
iii) Applying new Pre-service teacher Education curriculum.

iv) By using application software, using multimedia, Internet e-mail, communities, understanding system software.

Role of ICT in 21st Century's Teacher Education :-

- ICT helps teachers in both pre-service and in-Service teachers training.
- ICT helps teachers to interact with students.
- It helps them in preparation their teaching, provide feedback.
- ICT also helps teachers to access with institutions and Universities, NCERT, NAAC NCTE and UGC etc.
- It also helps in effective use of ICT software and hardware for teaching – learning process.
- It helps in improve Teaching skill, helps in innovative Teaching.
- It helps in effectiveness of classroom.
- It also helps in improving professional Development and Educational management as well as enhances Active Learning of teacher Trainees.
- It is now replacing the ancient technology. As we know now-a day‟s students are always have competitive mind. So teacher must have the knowledge of the subject. This can be done through ICT.
- ICT helps teachers in preparation for teaching. In order to introduce ICT in pre-service teacher education different methods and strategies are applied. Different tools are used such as word processing, Database, Spreadsheet etc. Various technology based plans are used to help the teachers for their practice teaching.
- ICT prepares teacher for the use of their skills in the real classroom situation and also make students for their future occupation and social life.
- ICT used as an „assisting tool‟ for example while making assignments, communicating, collecting data & documentation, and conducting research. Typically, ICT is used independently from the subject matter.
- ICT as a medium for teaching and learning. It is a tool for teaching and learning itself, the medium through which teachers can teach and learners can learn. It appears in many different forms, such as drill and practice exercises, in simulations and educational networks.
- ICT as a popular tool for organisation and management in Institutions. Teachers must provide technological support to learn using motion picture, animation, simulation training which helped student teachers to give model presentation. If the teacher is highly equipped with technology, the student will also be equipped with technology.
- It removes the traditional method of teaching and prepare teacher to apply modern method of teaching.
- ICT is plays an important role in student evaluation.
- ICT is store house of educational institution because all educational information can safely store through ICT.
- ICT helps Teacher to communicate properly with their students. So ICT bridge the gap between teacher and students.
- ICT helps Teacher to pass information to students within a very little time.
- ICT helps Teacher to design educational environment.
- ICT helps Teacher to identify creative child in educational institute.
- ICT helps Teacher to motivate students and growing interest in learning.
- ICT helps Teacher for organizational preconditions (vision, policy and culture).
- It is also helps Teacher for their personnel support (knowledge, attitude, skills).
- ICT helpful for technical preconditions (infrastructure).
- ICT helpful for designed learning situations which are needed for both vocational education and the training of future teachers (in the teacher training institutes).
- Teacher training institutes can develop their curriculum using ICT.
- With the help of ICT Teacher training institutes can develop communication network.

- Teachers learn most from their own networks (learning from others) with the help of ICT.

Conclusion :- Teaching occupies an honorable position in the society. ICT helps the teacher to update the new knowledge, skills to use the new digital tools and resources. By using and acquire the knowledge of ICT, student teacher will become effective teachers. ICT is one of the major factors for producing the rapid changes in our society. It can change the nature of education and roles of students and teacher in teaching learning process.

Teachers in India now started using technology in the class room. Laptops, LCD projector, Desktop, EDUCOM, Smart classes, Memory sticks are becoming the common media for teacher education institutions.

So we should use information & communication Technology in Teacher Education in 21st Century as because now teachers only can create a bright future for students.

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Knowledge Based Technology - A Strategic Business Approach in Global Indian Banking Sector

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Abstract :- Banking the industry over, is undergoing a rapid and radical transformation, thanks to the all-pervasive influence of information technology, telecommunication and electronic data processing . India is no exception. As the saying goes, change is the only certainty. And it is this change that would govern the banking industry, which is graduating from financial intermediary into risk intermediary. The banking sector plays the most vital role in the economic development of the country. The banking system in India is significantly different from that of the other countries, because of the country's unique geographic, social and economic characteristics. The redundant and recurring systems and procedures have given way to easy key-press technology, ensuring accuracy and high flow of data to improve overall efficiency through current and upcoming approaches one such is Knowledge Management. The paper outlines the role of knowledge management in the processing and functionality of banking sector in India.

Keywords :- Banking, Globalization, Knowledge Management, impact of technology.

Background of the Indian Banking System :- Lately by 2010, banking in India was fairly mature in terms of supply, product range and reach-even, though reach in rural India still remains a challenge for the private sector and foreign banks. In terms of quality of assets and capital adequacy, Indian banks are considered to have clean, strong and transparent balance sheets relative to other banks in comparable economies in its region. The IT revolution has had a great impact on the Indian banking system. The use of knowledge technology has led to the introduction of online banking in India. The emerging knowledge based technology "Knowledge Management" is a noteworthy emerging trends, for example, mobile as new platform for business, cloud computing, Knowledge repositories a technology to handle a large volume of data etc. The use of knowledge technology in the banking sector in India has increased many fold as the country's banking sector has been exposed to the world's market. Indian banks were finding it difficult to compete with the international banks in terms of customer service, without the use of information technology.

Banking the world over, has undergone a rapid and radical transformation, credit goes to all-pervasive influence of Information Technology, telecommunication and Electronic Data Processing. India is no exception. As rightly said, change is the only certainty. And it is this change that would govern the banking industry, which is graduating from financial intermediary into risk intermediary. The repetitive and overlapping systems and procedures have given way to simple key-press technology, ensuring accuracy and speed of data flow to improve overall efficiency through many latest and upcoming technologies one such is the knowledge based technology or popularly know as "Knowledge Management".

Indian banking sector is at 6th position among emerging economies, says assocham. Indian banking sector though stands unhurt by ongoing global financial crisis, has got a long way to go in competing with its counterparts in other emerging economies, ranks at sixth position in terms of efficiency, productivity and soundness among 11 banking institutions of such economies, says an ASSOCHAM Eco Pulse (AEP) Study.

The AEP study analyzed the standing of Indian banking sector vis-à-vis other emerging economies based on eight financial parameters relating to cost, income and profitability taken for the financial year 20012-13. The AEP "Banking

Sector in Emerging Economies" reports that Malaysia has topped among the emerging economies as measured on the basis of financial health indicators. It was followed by Korea and China at second and third place respectively. India fell at sixth position following Russia at 4th position and Chile at 5th, whilst Brazil at 7th position, Mexico at 8th, Thailand 9th, lastly Philippines and Indonesia stand jointly at 10th, were down below India in the rankings as per the statistics.

The emerging knowledge based technology facilitates in utilizing organization knowledge effectively and efficiently to improve both product range and service quality in the banking sector. Definitely by 2025, the vast and massive differences in the ecosystem presently noticed between public sector banks and the new generation private sector as well as foreign banks would be noticeably tapering down. But the supremacy of public sector banks, which accounts for nearly 80% market share in the banking sector, is likely to lessen considerably by 2025. However, whereas organizational knowledge is primarily concerned with the continuous generation of new knowledge, management of organisational knowledge through knowledge based technology is primarily centered on the formalization, storage, sharing, dissemination and co-ordination of existing knowledge assets throughout the organization. Laundering the pre-requests, complicates the processing of voluminous knowledge data besides the process of their storage and retrieval in the desired form and speed. Banks may have to move on to behavioral analysis approach for fine-tuning their products and customer service quality.

Knowledge based technology - "Knowledge Management" :- Knowledge management the new technology in this era is an essential tool towards efficiency building in organisations in today's business world. Its importance has led towards the fact of its necessity in the organisations. Knowledge management or knowledge based technology in simple terms is all about sharing of information, data, and virtual resources within the organisations. To define knowledge based technology is all about creating, sharing, utilizing and managing organisation knowledge and information in an efficient yet effective manner. the concept of knowledge management is not related to single area but has a multidisciplinary approach towards the achievement of organisation knowledge and its management.

The concept of KM evolved in the 1980s when knowledge became known as a driving force in the global economy, and when managers and scholars required to use knowledge to increase organizational performance. Knowledge based technology is quite a larger concept which addresses a range of strategies and practices used in an organization to identify, generate, classify, represent, store, share, circulate, explore and enhance its competencies and strategies. These competencies include knowledge, either embodied in personnel's, who are imbedded in organizational functioning and performance.

The new era technology is strategically focused towards achieving of organisational objectives through improved performance, creating competitive advantage, bringing innovation, sharing of knowledge and lessons learned, integration and through continuous improvement. In simple terms knowledge based technology in today's business world is a strategic asset which leads towards achieving of the goals of the organisation through organizational learning.

The process of knowledge management revolves around six basic dimensions i.e. creating, acquiring, organizing, saving, disseminating, and applying of the organisational knowledge.

Knowledge based technology in Indian Banking Sector :- Revolution in information technology has had a great impact on the Indian banking system. Banking cannot be an exception to this paradigm shift. Henceforth, banks will have to keep changing the strategy and constantly innovate their functionality in order to be in the market, if not ahead of the competition. What exactly is the impact of technology in the banking industry today is a question that needs to be addressed.

Knowledge based technology on the onset requires the orientation of the knowledge. This knowledge in the banks is composed of various components of the banks knowledge, which in turn is related to its various functionality. The various components that are involved have its own value, which must be measured such that the amount of knowledge they create can be determined. This further more helps towards identifying those strategic components that create more of value driven knowledge in the banks. The analysis of the knowledge based technology adopted helps the banks to identify and determine those elements which are not promising and which needs to be dropped for the critical strengthening of the knowledge based technology.

Banks had started use of modern technology about thirty years ago. The process has matured in a gradual way, with all the banks having set up the basic infrastructure of a core banking solution with various delivery channels like Internet banking, ATMs, Mobile banking, call centres etc. Essentially the technology takes care of the transaction processing of large volume of transactions, and increased customers and business volumes. It is worth recalling here that the growth in banking business in the two decades; post nationalisation till early 90's came through massive branch expansion. As against this, in the last two decades there has been an exponential growth due to technological innovations in banking business as can be seen as behavioural patterns are also getting stored.

The implementation of an appropriate knowledge technology in a banks has enhanced the potential of improving customer services, continually improving banks processes, quickly bringing new plans and services to banks, and bring efficiency with innovative services and products to commercialization. In most banks, the key success factors involved in knowledge based technology are human resource managers, process and product developers, sales persons, relationship managers and information technologists. Knowledge management or knowledge based technology is mostly focused on the use of explicit knowledge in a systematic manner. This systematic management of the knowledge includes capturing, organizing and disseminating that knowledge within the banks.

In the process knowledge based technology has greatly helped to generate value from their knowledge-based assets, which has further more made possible to get the right data in the hands of the right people at the right time so as to take the right decisions.

The main aim of the novel knowledge based technology "knowledge management" is to furnish value to the banks information's which enriches the value component in their task and competitive approach. In the banking sector where technology is an in-evitable component, knowledge management has roots itself in areas of risk management, human resource management, sales management, customer relationship management, performance management, strategic management etc. 24*7 all round, banks are involved in providing online banking services via ATM's, RTGS, NEFT, EFT, EDI and many more other services.

Some of the banks using knowledge based technology are:

Knowledge Based Technology at ICICI Bank :- At ICICI bank the knowledge based technology has rooted itself majorly. At ICICI in the bank, knowledge based technology is implemented in the form of "Wiseguy" portal , which was initiated with the aim to articulate those information which were explicit to only a selected employees in the banks and were tacit in general. The “Wiseguy” portal has a human face rather than the technological face. Knowledge events set by Knowledge Management Group in banks are organized from time to time where employees get to interact with CEOs or CFOs or Experts in this formal meeting. On the requirement of the branches, a webcast are also arranged to enhance easy and high delivery of knowledge. The details of the meetings are recorded and is further transferred to the Knowledge management site. Another initiative at the banks is the Corporate Information Bank, this provides Company Research and Industry Analysis to all the employees on the bank. This knowledge based site provides links to other important databases such as MIT knowledge base, ICRA database,

Banking Rules etc. which are required at empowering the employee in the bank to take rational and strategic decision. Another form of knowledge implementation of the bank is the Client tracker and Business tracker, this have restricted access, only to the new incumbent helping them to orient them about the background of the client or the business in hand related to their jobs.

Knowledge based technology at SBI bank :- State Bank of India one of the world's largest commercial bank in the country, has bench marked itself not only in quality service but is the best bank for its product profile, customer share, reliability, quality service, and effective management.

The backbone of SBI bank for becoming one of the top commercial banks in the country is by providing high end customer service. With the use of the high and advanced technology banking services have been made easy as compared to the traditional ways. There has become easy accessibility of the services with the use of technology.

The use of knowledge based technology, SBI has brought the cutting edge technology with which they bring innovation in their practices and functions and achieve 100% customer experience. With the growth at national and international level, SBI has gone beyond the usual domain of technology. The bank has not only sood tall in the banking sector as one of the best but is actively involved in the community services, it supports a long range of socio-economic, educational and health care initiatives.

The high end use of knowledge based technology in the bank has brought growth in the market share of the bank. The applications of knowledge based technology in SBI bank are in areas of risk management, effective customer relationship, marketing management and human resource management. The use of knowledge based technology in the bank helps the management and effectively access, acquire, analyse, share and use the banks knowledge. more to it the use of knowledge based technology has brought high level of motivation among employees to give more to the organizations. This level of high satisfaction and high contribution among employees has benefited the customers of the bank and in-turn has increased the market share of the bank.

Knowledge based technology of Canara Bank :- Canara Bank stands as one of the of the top commercial banks in India. Having its existence more than a century ago since 1906, the bank has grown its strength to greater heights and at present has a branch network of 5849 branches with 9251 ATMs. This shows that the bank holds the highest numbers among all nationalized banks.

Strongly tied to its founding principles, the bank has always dedicated it services towards customer satisfaction. With a slew of innovative initiatives and measures tied to customer centric, either at the IT front or for the new products and processes the bank has show improving levels of customer satisfaction with enhanced fast delivery system. Instant in-principle sanctions for home loans and car loans, loan application with tracking systems, updated net, mobile banking applications, eInfobook, mWallet, customer grievance redressal system etc, are some of the innovations through knowledge based technology, which have increased customer satisfaction.

With a total business of Rs8.05 lakh crore as at 31 March 2016, Canara Bank stood tall in its market capturisation. The bank has always been an IT savvy organization and has pioneered various knowledge based initiatives. As such, the expenditure of the bank on new initiatives and on the maintenance of knowledge based technology has always been in sync with the IT roadmap and vision of the bank.

Conclusion :- The advent of the private sector and foreign banks are instrumental in providing more benefits and new service options to customers. The diffusion of technology is somewhat slow in public sector banks as compared to private banks and foreign banks. The post independence period has massive growth of the Indian banking system. Banks were among the earliest adopters of automated information processing technology. The visible benefits of knowledge based

technology in day-to-day banking in India are quite well known. The past few years saw us marking some major milestones in the Indian payment and settlement systems. New knowledge based technologies set off a process of change. Knowledge based technologies are not yet a very comfortable choice for millions. Therefore, in order to encourage this knowledge based technology proliferation facilitation of a change in customer mindsets and attitudes is must. Consumer satisfaction is a major challenge. Banks must also pass on the benefits of lower costs from technology – based products and services to their customers. In order to meet the customer expectations and face competitive challenges the entire existing technology component must be modernized through Knowledge based technology.

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Development of Dairy Industry and Milk Production in India : An Overview

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Dairy is one of the fastest growing segments of agricultural sector in India today. According to reports, the dairy sector is one of the highest contributors in the country's economy, as the Milk production grew at a rate of 4 percent per annum vis–a–vis world growth rate of 1.5 percent. With this it has also emerged that India is world's larger producer and consumer of Milk with global share of about 18 percent. Another factor that makes India leading producer in Milk is the technology which enables it to increase productivity in the field and this needs to be transferred to build supply capabilities, so that there is enough milk for the region as a whole. It is also said that going by the existing rate of growth in milk production, in next ten years, India may have the potential to export. Thus, development of dairy industry is economically viable and financially bankable for small and marginal farmers including landless agricultural labourers and internationally competitive.

Milk Production :- India has the largest cattle population of 191 million in the world. Milk production was just 17 million ton in 1950 with annual growth rate of only 1.2 percent during 1950s and 1960s, which increased to 4.3 percent propelling India to be the largest milk producer in the world since 1998. A national milk grid is established where annually, over 13 million tons of milk is procured. In 2015–16, milk output is estimated to have increased to 160.35 MT and procurement of 42.162 million kg. per day.

India is one of the largest consumers of milk and milk products in the world and the industry size is estimated at Rs. 430 billion. During three decades, average milk yield of cattle and buffalo per day has grown from 1.9 kg. to 3.9 kg. and 3.7 kg. to 6.2 kg. respectively. Another, the milk yield of cross bred cattle is 7.10 kg. per day, it is also significantly lower than in UK, USA and Israel. This can be attributed largely to factors, viz.

(i) Quite a large number of small and marginal farmers, rural women and landless actively pursuing dairy farming have inadequate resources, technical know–how level of capability to manage cattle efficiently.
(ii) Both inferior farm management and inefficient implementation of bred improvement programme are inadequate.
(iii) Investment in efforts in arresting the declining key natural grazing resources are inadequate.

Owing to these above factors milk production is less than consumption. Annual rate of milk production is 4 percent where as consumption is growing at around 6 percent. The per capita milk availability has increased from 120 grams per day in 1960 to 307 grams in 2013–14 and further to 359 grams in 2017–18. The National Dairy Development Board has projected the demand for milk at 200 MT by 2021–22. Government has invested Rs. 22.42 billion to help meet a national demand of 150 million tons of milk by 2017–18.

National Dairy Plan for Development :- On 19th April 2012, the NDDB launched a 15 years perspective National Dairy Plan (NDP) envisaging an out by of Rs. 173 billion which aims at increasing the productivity of Miltch animals by adapting focused scientific and systematic processes and help rural milk producers greater access to the organised milk processing sector. It will cover about 1.2 million milk producers in 23800 villages and aims at increasing milk procurement by co–operatives from current level of 30 percent to 65 percent in next 15 years. The NDDB will implement through its end implementing agencies located in each of the 14 major milk producing states.

Strategic Action Plan to Develop Dairy Industry :- For increasing milk production and its quality, there is a need of innovative farming models with motivating a large number of milk producers to adopt them. Liking the production system to the consumer demand and processing units requires a robust value chain, wide research and technology introduction, strategic action plan should therefore, focus on following aspects :

(i) Dairy farming now deserves to be given equal status at par with agriculture, rather than its subsidiary status, in view of its share in GDP and employment. Village level milk producing units should be brought in the organised sector and promoted in a systematic manner to convert existing individual sustenance dairy farms and traditional family farms into collective community and commercial farms operating as business farms. This needs training and capacity building of dairy farmers with focus on business like operations, financial and marketing management.

(ii) The production of milk should conform to the domestic, if not global food safety standards to check adulteration, lack of awareness and rigorous enforcement of food safety standards and inadequate infrastructure comprising technology and trained manpower.

(iii) The organised dairy sector (co–operative and private sector) will have to progressively and systematically plan to expand their coverage of milk producers, penetrate into interior villages and improve their current share of marketable surplus from 30 percent to 65 percent by 2021–22. This would in turn, make available larger volumes of good quality milk at competitive prices to consumers.

(iv) For 900 million people residing 640867 villages in India, dairying is not only just a large economic activity, but also an integral part of India's social and cultural heritage. Its uniqueness lies in its unifying power of no other industry touches lives of millions of farmers of which 70 percent are landless. Dairy co–operatives as the people's institutions are the result of dairy farmer's entrepreneurship to exploit the potential of dairy markets in India. The need is to nurture dairy entrepreneurs through effective training of rural youths at the village level compled with dedicated leadership and professional management of farmer's institutions.

(v) Dairy industry's potential for equitable growth and income distribution in villages can be harnessed by enhancing market access and offering stable and remunerative prices to farmers. Integrating dairying and crop farming with value chain system can be better source of sustainable livelihood of rural poor and most vulnerable families.

(vi) India contributes about 17 percent of the global milk out put but its share in global export is insignificant at 4 percent. A large quantity of milk still remains unprocessed. In surrounding of India, there are may countries where milk can be exported. To gain the export opportunities there is need of systematic research and feasibility studies under PPP mode to explore these hitherto unexploited international markets and initiate specific policies and programmes on lines of agricultural products to export of milk products and milk.

(vii) Resourceful farmers in India can be motivated and incentivised to learn best, and successful practices being followed in other countries. For example, supper cows in Israel produce 12000 litters milk a year because of superior breeding techniques, balanced nutrition and management practices including better health care.

Thus, considering the importance of dairying sector, the above strategic action plan is imperative for dairy development. In India, the dairy sector has in–built strength which can be harnessed for propelling further growth. The vast dairy animal production could prove to be a vital asset for the country and unlike, many other natural resources, which will deplete over the years, dairy production will continue to propel the Indian economy.

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A Reflection on the Components of Compensation System and Need for A Good Compensation Management

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Compensation is a tool used by management for a variety of purposes to the existence of company. This is total amount of the monetary and non–monetary pay provides to an employee by an employer in return for work performed as required. Salary as a compensation is something which paid by the employer to the employee for the work done by him as per specified in the contract. Other than salary most often the workers are compensated by provision of lodging, fooding and clothing. Rewards are also given as supplementary compensation interms of incentive bonus and profit sharing scheme for employees satisfaction. A good compensation system motivates employees in the industry or any organisation.

Components of Compensation systems :- Compensation will be perceived by employees as fair if based on systematic components. Various compensation systems have developed to determine the value of positions.

A. Salary Structure consists of the following basic Components

- Base Pay
- Performance Based Variable pay
- Long Term Incentive Compensation
- Benefits including fringe benefits
- Perks and Non–Cash Rewards
- Intrinsic Rewards.

Base Pay :- Base pay is the fixed compensation paid to an employee for performing specific job–responsibilities. It is typically paid as a salary, hourly or piece rate. Employee base pay is first determined when hired. Changes to an employee's base pay can be made as he/she go through his/her career in these ways

(i) **Change in Job** :- When an employee changes job responsibilities, he/she may receive a :

- Promotion
- Demotion
- Lateral transfer.

(ii) **Pay for Performance** :- An employee may also receive a change in base pay for their performance in same job :

- Merit increase – The employee must demonstrate job performance and productivity that are consistently above what is normally expected or required.
- One time merit increase – a lump sum payment to an employee in a classified position.
- Salary reduction – an employee's salary can be reduced based on poor performance due to lower productivity/profitability/efficiency or negligence of duty, indiscipline etc. The disciplinary reduction in pay can go no lower than the minimum rate of the employee's current salary group.

Performance Based Variable Pay :- It is designed to reward achievement of specific company and individual performance objectivities. Payouts vary based on company and individual achievement. They key benefit of the variable system is that it encourages employees to achieve beyond work targets by providing immediate incentives for enhanced performance.
Types of Variable Pay Plans Include :

– Skill pay
– Incentive pay/bonus plans
– Commission Gain sharing/results sharing.

Long Term Incentive Compensation :- It is designed to reward long term company performance. Individual job level/performance

may impact eligibility to participate. Can be an effective retention tool.

Benefits :- Broad range of practices including health insurance, vacation, leaves policies and retirement and savings plans. It is designed to address health and welfare needs of employees. Can send strong messages about company culture and values.

Perks & Non–Cash Rewards :- Used to recognize exceptional contribution performance, commitment to culture and values. Variety of methods including additional time off, tickets to events, trips, dinners, public recognition etc.
Intrinsic Rewards :-

– Performance Feedback Management
– Development Opportunities
– Work Environment.

These compensation are decided by the company owners through the broad of directors (in the case of most highly compensated executive positions and the management team (or 'management committee') for everyone else.

Thus, a good compensation system is important to motivate the employee to increase the organisational productivity. This will also help the organisation to attract and sustain the best talent. Moreover, compensation has far reaching impact on the social side of the industry.

Need for a good compensation Management :- Compensation as a device to attract more work leads to the better performance of form i.e. monetary and non–monetary is inadequate, the worker's potentiality is not imperishable. Introduction of compensation system does not simply lead the workers to sell their labour; rather they have to sell a valuable future which may become gloomy as the increased amount of effort inspired by monetary and non–monetary compensation. Therefore, there is a need for a good compensation management because of the following reasons :

- A good compensation package is important to motivate the employees to increase the organisational productivity.
- Unless organisation is provided no one will come and work for the organisation. Thus, compensation helps in running the organisation effectively and complishing its goal.
- Salary is just a part of the compensation system, the employees have other psychological and self actualisation needs to fulfil. Thus, compensation serves the purpose.
- The most competitive compensation will help the organisation to sustain the best talent. This should be as per organisational standards.

Thus, compensation package provided to employees will contribute utmost to fulfil the desired goals of the management. So, the compensation system is a distinctly progressive measure to increase productivity. Properly implemented compensation systems would enkindle a sense of responsibility among the working people and reduce the incidence of adverse factors which act as morale depressants.

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