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Assam Liquor Tragedy of 2019: A perspective

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Abstract:

The incident of hooch tragedy in Assam exposed state's inability to control excise activities and to educate people of the outcome from consuming illicit liquor. The commercialization of the liquor trade widened the scope for unethical production of alcohol which cost more than 150 lives in the district of Golaghat and Jorhat districts of Assam.

Keywords: Alcohol, Assam, tragedy, tradition, business, death.

I. INTRODUCTION

More than 150 people died in Golaghat and Jorhat district in the Assam's worst hooch tragedy. The commercialization of the illicit liquor for profit motives of peddlers claimed lives of many innocent and poor people especially in the different tea estates of the two districts. Following the incident, two assistant inspector of Excise have been suspended and high-level inquiry team has started investigation. This is not the first time in Assam to face such tragedy. Similar kind of incident took place in Golaghat in the June last year, where seven people died after consuming spurious liquor.¹ The state government announced monetary compensation to the victims of the tragedy.

This article studies the historical use of alcohol in Assam and its commercialization in present era and unethical production which cost life of many people. First, it studies the historical understanding and use of traditional alcohol by tribal and non-tribal communities of Assam. Second, arguing about the historical use, it brings out the debate on the use and commercialization of alcohol. The issue of alcohol has opened a gate for the politician to create a new issue for the upcoming Lok Sabha election. After discussing different issues and debated on the final note, the article stressed the need of proper

policies to stop further tragedy and politicization of such issues.

II. HISTORICAL USE OF ALCOHOL IN ASSAM

The Northeastern region of India is well known for the production of household liquors with the help of indigenous knowledge system. The region comprised of more than 130 major tribes which mostly include the Mongoloid, the Chinese and the Aryan origin (Ghosh, 1992). Traditional alcohol consumption among the different tribes of the Northeast India is an important societal activity which is carried out mostly in religious ceremonies and social gatherings. As tribal society is mostly agrarian in nature, they use to consume alcohol to reduce tiredness or to boost strength after heavy work in the paddy field. The method of production of local wine among the tribes differs because they follow their own indigenous knowledge which produces different tests. However, most of the tribes use rice as primary sources to produce indigenous alcohol. The rice beer produced by *Ahom* is known as *Xajpani*, *Bodo* tribe produces *Zu*, the *Adivasi* community of Assam produces *Haria*, the *Mishing* tribe produces *Apong* (Tanti, Gurung, Sarma, & Buragohain, 2010).

The *Karbis* are distinct and major hill tribes of Assam who are of Mongoloid origin and speak their dialect 'Karbi'. Their alcoholic beverage is known as *Hor* which is an integral part of their socio-cultural life. *Hor* is used during traditional marriage and worship (Teron, 2006). Other tribal communities of Assam such as Bodo, Mishing, Tiwa, other Kachari tribes also use the traditional alcohol in every ritual. Alcohol remained a symbol of togetherness among the tribal communities. Traditionally, the guests visiting a household of tribal community was offered alcohol as a mark of gratitude. The alcohol is also used along with food as well.

For the production of traditional wine rice is the main raw material in South East Asia because of abundant supply of rice in the region. Such type of alcohol is produced not only in Assam or Northeast India, but it witnessed in China, Malaysia, Tibet, Japan and other countries as well (Ahuja & Ahuja, 2014). Tribal population of India produces rice alcohol for consumption as home level and to serve the guests visiting their home. For example, the Nagas of Northeast India knows no drinks excepts rice beer which is taken uniformly by young, old, men, women and children as well. The alcohols produced by the tribal communities were not commercialized as it was intended to drink only at home and during rituals (Tanti, Gurung, Sarma, & Buragohain, 2010).

In the post colonial structure, alcohol is used as commercial material for economic purposes. The poor section of the society took up local alcohol selling as a profession to earn their livelihood especially in the tea garden plantation areas and in tribal areas (Chatterjee, 2003). Consumption of alcohol is also structured by the social orientation of people, such as the upper caste of Hindu society avoided consumption of alcohol as they thought it as impure or sin to have it (Sharma, 1996). However, coming of modernization and commercialization of alcohol shows a different picture in the present day India in general and Assam in particular which is discussed as follows.

III. CHANGING TREND OF ALCOHOL USE

Traditional method of using alcohol in rituals and festivals are overpowered by intoxication of people towards alcohol which is very much relevant in rural areas. Because of demands of alcohols the tribal people produces more alcohol to be sold to their customers which became a source of income to the family. Alcohol produced for consumption at home is quite different from the produced alcohol for selling to regular customers. As they have to produce a huge amount of alcohol for the customers, the quality of the alcohol is not taken into consideration.

Along with the quantity and quality of production of alcohol for sale at home, the material used in the process of production is to be understood because it causes health hazard. Producers use poisonous leaves, Urea and other chemicals to make it stronger in terms of effectiveness of alcohol which in reality toxicated the process of alcohol production. It is interesting to witness that the locally produced alcohol is not used only in village areas; it is used in Guwahati city as well in open market in the areas of Beltola which shows a failure of the excise and police departments.ⁱⁱ Along with local alcohol, the city is spread with new process of substance abuse (drugs) hampering the harmony of the region. The emergence and spread of drugs in Assam is increasing criminal activities in all corners of the state.

IV. DEBATE ON ASSAM HOOCH TRAGEDY

The recent incident of death of more than 150 people in the two districts of Assam has created debates on the government policies and steps they have taken after the incident. Different leading newspapers of Northeast India claimed that during the week of the tragedy the numbers of the death was increasing in Golaghat District Kushal Konwar Civil Hospital and the Jorhat Medical College and Hospital (JMCH) which were full of people who faced the tragedy of the alcohol death. It is not only the male members but among the deaths a prominent number of women were also affected

which shows that in terms of alcohol consumption, equal share is taken by both male and female.

During the visit of Chief Minister Sarbananda Sonowal to JMCH, he announced rupees two lakh to the family of who died and rupees fifty thousand who are undergoing treatment as compensation. Along with that the government also promised to destruct the illegal market of alcohol. Police and excise department made a drive against the production of alcohol and six go-downs of *lali gur* (molasses) have been sealed which are used for production of *chulai* (illicit liquor).ⁱⁱⁱ For such an incident the excise staff was already informed about the probable tragedy after the incident in Saharanpur and Kushinagar districts of Uttar Pradesh killing over 100 people because of hooch tragedy of February 9, 2019.^{iv} Following the incident of death the opposition legislators disrupted the proceedings of the Assembly sitting of February 25 and claimed that the government is not giving any importance in solving the problems of the alcohol tragedy.^v However, the government also agreed to take up reform policies in the excise sector to control production and selling of the illicit alcohol in the market.^{vi} On the other hand one of the civil society activists Akhil Gogoi urged to make Assam as dry state like few of the states of Northeast and Central India.^{vii} However, the concept of dry state is quite questionable because states with restrictions on alcohol had used alcohol in huge amount. For understanding of such issues we can take examples of Manipur, Nagaland from Northeast India where restriction is still intact but with less regulated. Somehow, if the idea of dry state is implemented to regulate it in proper manner in Assam it will be problematic due to diverse populations and among which many tribal communities practice brewing alcohol is their tradition. Different organs of civil society and students' organization blamed government for its inaction against illicit liquor trade in Assam. Students' organizations such as All Assam Tea Tribe Students' Association (AATSA), All Adivasi Students' Association of Assam (AASAA) and Mod Mukta Asom (MMA) bring the protest to the street and demanded blanket liquor ban in Assam.^{viii}

However, if economic perspective is taken into consideration the locally produced alcohol also acts as economy to the many poor sections of the society who produced local alcohol for economic consumption. In the interior villages, alcohol remained a source of income for many families and running on the income produced from selling locally produced alcohol. It has its economic value for the consumers as well, because the cost of locally produced alcohol is very nominal which could be afforded by the poor people. Because of the minimal price of alcohol most of the death of village areas is the result of overconsumption of alcohol which acts as a slow poison.

The announcement of compensation has revealed another truth in the two concerned districts. People who died were supposed to get 2 lakh and who were hospitalized to get an amount of fifty thousand. However, it has been reported that who died a natural death after the incidents in the districts are also claiming for the compensation urging it is death out of illicit liquor. Rather than compensation by the government proper steps should be taken to regulate such kind of issues to stop further tragedy.

Liquor tragedy of Assam depicts the plights of tea workers of the region, the condition of their living, poverty, poor healthcare and no importance on education. The Adivasis (also called as tea tribes, however it is a debated term) consumes alcohol to drain out their tiredness after their day long work in the tea gardens. However, commercialization of the low priced alcohol by unscrupulous peddlers had taken lives of more than 150 people. The Adivasis had to consume low priced alcohol as they cannot afford quality liquor. It also brings out to debate of wages of the tea tribes which are very minimal to serve a quality life. Issues related to grievances and conditions of Adivasis are never ending. Numerous NGOs are working for the betterment of the community; however, the result could not be achieved without proper consciousness of the people of the community.

The Lok Sabha election finds a new topic to criticize and counter criticize policies of government and opposition respectively. Politics will be played on the issue of who did what during

their regime and who should come to power to stop the tragedy. But, in reality it will not matter whoever comes to power the state of tragedy will continue. In a democracy like India the people hold power only in voting, and no power could be exercised after election. After 70 years of Indian independence the condition of the Adivasis are still same as they are the easy target for any politics in the state. To overcome such issues consciousness should come among Adivasis through proper education which will end different tragedy in the later future.

V. CONCLUSION

The recent incident of the liquor tragedy is a new lesson to Assam to have a concrete policy for restricting illicit alcohol. Traditionally, the use of alcohol in Assam was related to traditions and cultures. However, new trend of alcohol use is more of commercial than tradition. The death of innocent people in the recent incident is the outcome of use of commercialized alcohol produced for economic benefit of peddlers. In many parts of Assam, production of alcohol in many household provides livelihood to the poor section. However, the issue of alcohol death is taking a different turn with politics of blame game and a fresh issue for the upcoming election. Rather than concentrating on politicization of issues, the government and civil society should try to stop illicit alcohol and educate people to reduce their bad habits accepting improvised living standard. Alcohol should also get less importance during election. Mobilization of people, especially the Adivasis through distribution of alcohol to garner vote should be stopped. We cannot blame the uneducated and illiterate people for such deed, but have to blame educated section of people for not helping to eradicate such issues. To overcome such issues, proper policy should be maintained which should be effectively regulated and in terms of recent incident excise duties should be imparted flawlessly then only development of Assam will be inevitable.

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ⁱ The Assam Tribune, February 23, 2019, 'Golaghat hooch tragedy toll rises to 17'.

ⁱⁱ The Sentinel, February 24, 2019, 'Failure of Excise & Police departments'.

ⁱⁱⁱ The Assam Tribune, February 24, 2019, 'Over 100 die in State's worst hooch tragedy'.

^{iv} The Assam Tribune, February 25, 2019, 'Excise staff ignored alert after UP tragedy' by Rituraj Borthakur

^v The Assam Tribune, February 26, 2019, 'House proceedings disrupted over hooch tragedy'.

^{vi} The Assam Tribune, February 26, 2019, 'Govt to undertake reforms in excise sector: All-party team to visit Jorhat, Golaghat'.

^{vii} He stated during different TV interviews on the discussion of death due to alcohol in two districts of Assam.

^{viii} The Times of India, February 26, 2019, 'Assam hooch toll touches 154, protests erupt across state'.

Does an Economic and Political Affairs Matter in Determining the Tax Revenue of Jammu and Kashmir State (India): An Approach through VECM Model

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Abstract

The state of Jammu & Kashmir is one of the special category states of India, that faces a severe resource crunch on the one hand and an explosive public expenditure trend on the other hand. The inability of the state government to raise adequate resources of its own cast's serious doubt about the tax efforts carried out by the government from time to time. Against this background, this paper tries to analyze the major long and short run determinants of tax revenue in the state of Jammu and Kashmir by applying suitable econometric methods such as VECM and by taking a broader set of variables which comprise Economic, Political and demographic sectors. The time series data of last thirty years from 1984 to 2013 has been used to identify the short and long run relationship of variables and to analyze the long term equilibrium adjustment rate by short-term variables. The result shows that all the economic variables, except for the income from of agriculture, income from industry and the unemployment rate, have positive influence on the tax revenue. Regarding political stability variables, some like political crises and law and order are significant, while others like the election cycle were found to be insignificant.

Keywords: Tax Revenue, Economic, VECM, Political Stability, Law and Order, Co-Integration.

JEL Classification: H2, H7, H3, H71, H26, H23, E62.

1. Introduction

In a modern welfare state, fulfillment of social desire to have a better quality of life is dependent not only on the capacity of the government

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to mobilize adequate resources but also on the degree of momentum of the economic activities that a state in question attains. Any jolts to this by the erratic behavior in the social, economic and political institutions of the society at large proves to be a hindrance not only to the expanded economic activities but also narrows down the tax base of the economy in question. The interplay of these two forces can be taken as a starting point for any systematic attempt to explain the social, economic and political implications of the tax effort of the state to attain a reasonable degree of sustainable economic growth with a scientific and reliable econometric model.

The state of Jammu and Kashmir is one of the special category states, which is typically characterized by a greater dependence on agriculture. Around 70 percent of its population depends on agriculture as a main source of livelihood. The region is also unique with its great potential in tourism. Significant development has been witnessed in different spheres of economic life in recent years. Yet access to opportunities for a 'reasonable minimum' standard of living in the state is comparatively lower to that of other special category states of the country. The fiscal health of the state is by no means encouraging at all, where the states' own tax revenue contributes hardly 19.7 percent of the total revenue receipts of the state. In the state where own tax revenue contributes no more than 13 percent of the state income, the aggregate government expenditure constitutes as high as 48.9 percent.

As a result, the state has developed a dependency syndrome and that is evident from an explosive cycle of public expenditure growth. Coupled with this, there is an increasing demand for grants-in-aids and other Central assistance to help bridge the gap of large budgetary deficits. This reflects an inadequacy on the part of the state government to generate enough resources to meet the changing volatile fiscal situation. There are number of reasons that can be attributed for this poor state of fiscal health of the state government. We believe that the major factors that have been responsible are (i) static tax base due to low level of economic activities which might have been due to level of infrastructural development, (ii) emergence of a parallel economy due to various tax preferences that the government accord from time to time and (iii) political and economic

intolerance to the expanded economic activities, and the social unrest that the state economy experiences from time to time.

Therefore, we believe that the repercussion from all these forces at work might have resulted in various leakages in tax generating capacity and in narrowing down the tax base of various taxes in the state. If we are to assign a cause-effect relationship to this type of vexed problem then it can be argued that the variables associated with economic and political dimensions are mainly responsible for the low level of tax base and tax revenue in the state of Jammu and Kashmir.

2. Background of Study

The economy of the state of Jammu and Kashmir depends mostly on traditional forms of occupation. The state is affected by continued violence and insurgency which might have slowed down the pace of economic development in the state. We would like to restrain ourselves from passing value judgments as regards to any causal effect relationship between them at this juncture. Unaffected and unaltered by modern day industrial developments and changing times, the indigenous traditional occupations of farming, animal husbandry and horticulture forms the backbone of the economy. Over a period of time, the expansion of economic activities in the state of Jammu and Kashmir has remained static in the sense that there has been a marginal increase in all the basic macro-economic parameters of development. It may be pointed out that the mobilization of resources on the part of the state depends on the expanded economic activities that a state in question attains at a particular point of time through the expansion of economic base. Mobilization of resources in the state of Jammu and Kashmir remains devoid on this particular aspect. As a result, in the absence of a reasonable degree of resource mobilization capacity of the state, continued expansion in the public expenditure front in the state has culminated in the form of an explosive cycle of public expenditure growth thereby giving rise to a situation of fiscal doldrums. The problem further became accentuated by the prevailing social upheavals in the state, which has further deteriorated the fiscal health of the state to certain extent. As a result, there has been gradual erosion in the tax base on the one hand and a tremendous increase in expenditure to address to the growing societal needs in its entire front.

The performance of the state on the resource mobilization front provides rather a poor and dismal picture. The average annual rate of growth of total revenue of the state which was 11.3 percent during the year 1993-94 to 2003-04 increased to 13.7 percent during the period 2003-04 to 2013-14. The average annual growth rate of the tax revenue of the state which was at 9.4 percent during the year 1993-94 to 2003-04 increased to 19 percent during the year 2003-04 to 2013-14. The average annual rate of growth of state's own tax revenue increased from 17.4 percent during the years 1994 - 2004 to 19.2 percent between 2004 -2014. Along with the increase in the state's tax revenue, the contribution of state's own tax revenue to total revenue receipts which was 10.08 percent in the year 1993-94 rose to 13.8 percent in 2003-04 and further, it has increased to 19.7 percent in the year 2013-14. The State's share in Central taxes and duties to total revenue of the state which was 22.8 percent in the year 1993-94 did decline to 9.0 percent in the year 2003-04 and further picked up to 15.3 percent in year 2013-14. It is worth mentioning here that the central grants and assistances constitute 54.2 percent of the total revenue of the state in the year 2013-14 has shown a declining trend from the year 2003-04, where it stood at 70.2 percent. The shared taxes and duties along with grants and assistances as a percentage of total revenue of the state has shown a declining trend from the year 1993-94 where it stood at 83.9 per cent decreased to 79.2 per cent in 2003-04 and further decreases to 69.51 percent in year 2013-14. It implies the state's own tax revenue as a source of revenue to the state has increased over a period of time but its rate of growth does not commensurate the rate of growth of state domestic product and the rate of growth of total tax revenue of the state. As a result, the very disturbing trend has resulted in a huge fiscal deficit in recent years where the state government has failed miserably to bridge the increasing gap between its public expenditure growth and the tax revenue. The fiscal deficit of the state which was at 4.1 percent in the year 1990-91 increased to 6.4 percent in the year 2004-05 and further went up to 7.36 percent in the year 2013-14. This huge fiscal deficit surprisingly surpasses the fiscal deficits of the similarly situated larger states that enjoy special category status like Tripura (7.2 percent), Arunachal Pradesh (1.9 percent), Uttarakhand (3.3 percent) and Nagaland (3.5 percent).

It is evident from the above discussion that over the last thirty years, the basic macro-economic indicators of economic development has remained at a pathetically lower level. This provides enough evidence that the economic activities vis- a- vis the tax base of various taxes staggered at a low level of vicious circle. As a result, the state has not been able to generate sufficient revenue from its own resources and has been facing serious financial problems (Navlakha, 2007). The problem became all the more serious due to the prevailing circumstances in the state affecting both revenue and expenditure. The state suffered from political dispute for a long period, since 1989 onwards, resulting in the erosion of the tax base, increase in expenditure due to destruction of infrastructure and various other factors related with disturbed law and order.

Thus, having all these constraints in the economy and in the region, the importance of mobilizing the internal revenue for overall developmental process in the state has become a prominent issue of the state. Therefore, the paper is an attempt to look in to the intricate relationship between a set of complex socioeconomic and political variable for determining the major determinants of tax revenue of the state to ascertain whether these variables have played any role in resource mobilization process of the state or they have been proved detrimental in the way of tax generating capacity of the state.

With this background, the present study intends to make an in depth analysis of (i) the economic determinants of tax revenue of the state of Jammu and Kashmir. To identify (ii) the major political and demographic determinants of tax revenue in the state of Jammu and Kashmir, and (3) to analyze the tendency of the variables to bring the long run equilibrium in tax revenue.

Keeping consistency with the above mentioned objectives, the study intends to test the following hypotheses.

3. Hypotheses

1. Changes in political and economic variables may have a larger impact on the level of Tax revenue.
2. Economic Variables have significant tendency to stabilize deteriorating tax system

4. Review of Literature

There exists a wide array of studies pertaining to the determinants of tax revenue. Keeping in consistency with the arguments made in the preceding paragraphs, an attempt is made in this section to review some of the major studies carried out so far pertaining to the problem at hand. Ajaz and Ahmed (2010) made a detailed study on the effect of institutional and structural variable on tax revenues in 25 developing countries for the period 1990-2005. The study found that the corruption has adverse effect on tax collection, while good governance contributes to better performance in tax collection. They also found that structural variables like per capita income, trade openness, industrial share and inflation also play important role but different variables have different effects on tax revenue but institutional variables have common effect on tax revenue. Thornton (2014) argued that one percent increase in foreign aid causes a 0.52 percentage decrease in the tax-to-GDP ratio. His study also found that per capita GDP, openness and the share of industry value added in GDP are generally associated with higher tax revenue ratios, while as corruption and revenue from natural resource rents are associated with lower tax revenue ratios. Wawire (2011) showed that Institution variables like monetary activities, Volume of trade, volume of import and demographic variables like Population are also significant determine the VAT revenue in Kenya. Aisha and Khatoon (2010) showed that in general terms government expenditure causes change in tax revenues which means that government expenditures and tax revenues exhibit a stable long run relationship that is unilateral causality from expenditures to tax revenue

Stotsky and WoldeMariam (1997) with panel data from 30 countries using multiple regression analysis find that the share of agriculture and mining in GDP has a negative impact on tax revenue. However, export share in GDP and per capita GDP are positively significantly associated with tax revenue performance. Piancastelli (2001); Moore (2013) with cross section regression analysis, found that per capita income and the ratio of trade to GDP are positively strong determinants of tax revenue, whereas, share of agriculture in GDP is negatively associated with tax revenue. Karagoz (2013); Castro and Camarillo (2014) uses ADF unit root test followed by

Multiplicative regression model to find out the determinants of tax revenues. Their study observe that tax revenue is significantly affected by agricultural, industrial sector share in GDP, foreign debt stock, monetization rate of the economy and urbanization rate, while the agriculture share in GDP found negatively associated with tax revenue. The results also suggest that openness to foreign trade has no significant impact on tax revenues.

With advanced econometric technique Muibi and Sinbo (2013) carried out an empirical analysis of determinants of tax revenue in Nigeria by using Regression model with ADF unit root test and Granger's Causality test. The authors observe that the tax revenue tends is significantly responsive to changes in income level, exchange rate and inflation rate. They conclude that macroeconomic instability and level of economic activities are the main drivers of tax buoyancy and tax effort in Nigeria. Davoodi and Grigorian (2007) found that the tax collection rate (especially direct taxes) in Armenia did not increase with the same pace as GDP. They also found that institutional quality, urbanization and shadow economic activity are the main factors behind low tax-to-GDP ratio in Armenia. Auriol and wartlers (2005); Teera (2000) estimated the level and composition of tax revenues in developing countries. Their study suggest that the tax to GDP ratio is Positively correlated with the following variables, viz., the size of international trade sector, percent of urban population, adult literacy rate, and per capita income. On the other hand, an increase in aid inflow, percent of old population, population density, the degree of monetization, and the rate of inflation are found to be associated with a lower tax to GDP ratio. The study of Eslava et al. (2014) and Addison et al. (2002) finds that external conflicts do not increase the fiscal capacity of the states, if the duration of the conflict is short or if the conflict does not involve many countries.

Aamir et al. (2011) made an attempt to study the determinants of tax revenue. His study compares the determinants of tax revenue in India and Pakistan on these two variables. His results show that Pakistan is generating more tax revenue through indirect taxes whereas India is generating more tax revenue from direct taxes. The studies of Dhanasekaran (2000); Sharma and Singh (2015) using co-integration, PCA and regression model find that the government

expenditure, inflation, population growth rate, non-developmental expenditure and exports have a significant impact on the government tax revenue in India. Similarly, Bhat and Nirmalala (1993); Dholakia (2009) in their respective studies tried to identify the main determinants of Tax revenue in different states of India by employing multiple regression models. Their study shows that Per capita deficit, Urban population, Per capita Expenditure and Per capita income of the states has significant impact on Tax revenue while the other variables such as Primary sector income, Literacy rate, Density of Population, Schedule cast Population and Political variables are found to be insignificant. Mukhopadhyay and Das (2003) tried to measure the Horizontal imbalance between revenue and expenditure in India. Their study shows that Variations in tax base, tax effort, infrastructural facilities - both physical and social - and political uncertainty are important determinants of horizontal imbalances between revenue and expenditure in India.

Rajaraman and Vasishtha (2000) made an attempt to study the impact of state-local grants on tax effort of rural local governments (panchayats) for Kerala state using data for 1993-94. Their study found that the population of local area is positively associated with own tax revenue. Further the study found that the Bagchi (2003) made an attempt to identify the determinants of property tax in local government in major cities of India. His study finds that property tax is determined by Carpet area of the residential building, Specified rate of tax, Location factor, Age factor, Type of building factor and Occupancy factor. Binswanger-Mkhize et al. (2012) carried out a study on the impact of restricted and unrestricted fiscal grants on tax efforts of Rural Local Governments in India by using ARIS/REDS panel data of 241 villages representing 17 major states of India. Their study shows that although there exists a positive impact of wages on taxation, its impact is found to be very small. Further, the study concludes that the productivity impact of grants on taxes is found to be either zero or negligible. This means that incentives effects associated with the specifics of the inter-governmental fiscal system in the states is the main determinant of village taxation. Dholakia (2000) in his study found that high economic subsidies reduce the non-tax revenue in Gujarat. Ovung (2002) in his study conclude that the

increase in Income and a change in prices have significant impact on the growth of Tax revenue in Nagaland.

5. Methodology

The core exercise in this section is to attempt a model of determinants of government expenditure on a vector of relevant explanatory variables as suggested in the existing literature by taking into consideration the unique economic and political institutions that are in place in the state of Jammu and Kashmir. In the study we intend to use time series data set for the period, 1984-85 to 2013-14. This is a period during which the state economy has passed through phases of both upswing and downswing owing to wide fluctuation in its agricultural sector on the one hand and social tensions and conflict on the other hand. The data has been collected from RBI, Election commission of India, home ministry and south Asian Terrorism portal. The data has been converted into natural log equations for time series so that the coefficients represent the Elasticity (Gujarati, 2008).

At first it is important to identify the variables from economic and political dimensions in context of Jammu and Kashmir. The variables used in this study reflect the actual economic and political structure of the state. The variables used in this study are;

Dependent variable: total revenue collected by levy of Taxes (Tax revenue- *tr*)

Explanatory Variables

Economic variables: Per capita income (*PCI*), Indirect taxes (*indtex*), total outstanding (*Outstand*), Share of Agriculture to NSDP(*Sagri*), Share of Industries to NSDP(*Sind*), share of Services to NSDP(*sserv*), value of exports(*Expo*), rate of unemployment(*Unemp*).

Political variables: Political Crises (*crises*), Law and order (*Law*), Election Cycle (*elecyc*)

The econometric framework adopted in this study is based on developments in co-integration model suggested by Johansen (1988, 1995). By applying VECM techniques to the time-series data, based on the results of unit root and multivariate co-integration test, we are able to approximate a dynamic structure in which initially all the variables in both the models are treated as endogenous. Most time-

series analysis demonstrate non-stationary characteristic in their mean or trending pattern. Therefore, in order to determine the suitable method of time-series econometric analysis, a common approach is to identify the form of the trend in the data and whether individual data series contain unit root characteristic. If the data is trending, then some form of de-trending is needed. The most common de-trending practices are differencing and time-trend regressions. Thus, the first step in co integration modeling is often taken by testing for unit roots to determine whether trending data should be differenced or regressed on deterministic functions of time.

On the bases of results from these two tests, estimated models has been identified. Therefore, on the bases of results two regression models have been used separately for each determinant in order to avoid multi-collinearity issue. Error Correction model has been used for economic determinants like Dritsaki (2005), Kadrzycki (2014). While as, multiple regression model has been used for political determinants of tax revenue like Teera (2002), Stotsky & Woldemerein (1997). Thus the study divides all the explanatory variables into two equations according to determinants.

6. Estimation Procedure

The important step before estimating and necessary transformation of models is to verify the time series properties of the data. This is a significant issue since the use of non-stationary data in the absence of co-integration test can generate spurious regression results. Non-stationary data leads to spurious regression due to non-constant mean and variance (Dimitrova, 2005). To this end, the Augmented Dickey-Fuller (ADF (1979) and Philips Pearson (PP()) test has been adopted to examine the stationarity, or otherwise, of the time series data. The lowest value of Akaike Information Criterion (AIC) has been used in this study to decide the optimal lag length in the ADF and PP regression model for each determinant and for models of the study. These lags were used in ADF and PP regression to make sure that the error term is white noise. The regression form ADF test is in following form:

$$\Delta y_t = \alpha_0 + \alpha_1 y_{t-1} + \sum_{j=1}^p \gamma_j \Delta y_{t-j} + \varepsilon_t \quad (5)$$

Where, Δ is the first-difference operator, y_t is the respective variable of expenditure over time, p is lag, α_0 is constant, α_1 and γ_j are parameters and ε_t denotes stochastic error term.

If $\alpha_1 = 0$, then the series is said to have a unit root and is non-stationary. Hence, if the hypothesis, $\alpha_1 = 0$, is not accepted according to equation it can be concluded that the time series does not have a unit root and is integrated of order I(0), or in other words it has stationarity properties.

Similarly the regression form Phillips-Perron (PP) test is in following form:

$$y_t = \alpha_0 + \alpha_1 y_{t-1} + \alpha_2 (t - T/2) + \mu_t \quad (6)$$

Where $\alpha_0, \alpha_1, \alpha_2$ are the expected least-squares regression coefficients. The hypotheses of stationarity to be tested are $H_0: \alpha_0 = 1$ and $H_0: \alpha_1 = 1, H_0: \alpha_2 = 0$.

Co-integration Test

After analyzing whether the series is stationary in levels or first-difference or integrated in same order, we tried to apply Johansen's co-integration method (Johansen, 1988) to verify whether there exist co-integrating vectors among all other variables or not except the political variables because of the dummy nature of the variables. The Johansen's co-integration test employs two test statistics to identify the number of co-integrating vectors. They are (i) the Trace test and (ii) the Max Eigen value test. The trace statistic test is calculated by using the following expression:

$$LR_{tr}(r/n) = -T * \sum_{i=r+1}^n \log(1 - \check{Y}_i)$$

Where

\check{Y} is trace statistic value, n is the number of variables in the system and $r = 0, 1, 2, \dots, n-1$ co-integrating equations.

The test statistic for Max Eigen value is computed as:

$$LR_{max}(r/n + 1) = -T * \log(1 - \check{Y})$$

Where

\check{Y} is the Max Eigen value and T is the sample size.

In case Max Eigen value statistic and the Trace statistic yield different results, then trace test statistic will be preferred as suggested by Alexander (2001).

Estimated Models

The study has been divided in to two models. VECM model has been conducted to know the economic determinants of tax revenue on the bases of unit root and co integration results. While as, multiple regression method has been used for political determinants. A vector error correction model (VECM) is a modeling technique which adds error correction features to a multi-factor model to understand the long run as well as short run relationship among the variables after knowing that the variables are co integrated (Jang 2008, kadrzycki 2014, Massiefield 2000). The study follows the methods adopted by Mubi & sinbo (2013), kadrzycki (2014) and Massiefield (2000) to develop our model for the study. We have divided the economic variables further into two VECM equations in order to avoid the problem of multi-collarity (Karagoz 2013). The subsequent Vector Error Correction models for economic determinants are shown below:

$$\begin{aligned}
 Dlntr_t = & \alpha_1 + \sum_{i=0}^n \beta_1 Dlntr_{t-i} + \sum_{i=0}^n \beta_2 Dindtax_{t-i} + \sum_{i=0}^n \beta_3 DPci_{t-i} \\
 & + \sum_{i=0}^n \beta_4 DSagr_{t-i} + \sum_{i=0}^n \beta_5 DSserv_{t-i} + \sum_{i=0}^n \beta_6 Dexpo_{t-i} \\
 & + \prod ECT_{t-1} + \epsilon_{1t} \quad (I)
 \end{aligned}$$

$$\begin{aligned}
 Dlntr_t = & \alpha_2 + \sum_{i=0}^n \gamma_1 Dlntr_{t-i} + \sum_{i=0}^n \gamma_2 Doutsatnd_{t-i} + \sum_{i=0}^n \gamma_3 DSind_{t-i} \\
 & + \sum_{i=0}^n \gamma_4 Dunmp_{t-i} + \prod ECT_{t-1} + \epsilon_{2t} \quad (II)
 \end{aligned}$$

Where D is the difference level of the variable and ln is the natural log. α_1 and α_2 are the long run coefficients of the two equations. ECT is the Error coefficient term of the long term relationship of the variables and $\prod t$ are the Error coefficients of the two equations which

capture the adjustment of independent variables in the long run. Also $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ and β_6 are the short run coefficients of the respective variables of VECM equation I and $\gamma_1, \gamma_2, \gamma_3$, and γ_4 are the short run coefficients of the respective variables in Equation II. The hypothesis of both the equations is tested on probability value of t-statistics at 5% and 10 % level of significance.

Political Determinants Model

The study uses OLS multivariate regression model, Roa (1979), Amir et al. (2011), Purohit (2006) to test the political determinants of tax revenue. The dummy variables have been chosen as explanatory political variables like Political crisis (Cukierman, 1994; Drazen, 2006) were 0 is for the years, when there was political parties ruling, and 1 when there was Presidents rule in the state. Law and order, Addison et al. (2002) were 0 when there were less than 500 civilian deaths and 1 when there were more than 500 civilian deaths in a year in the state (Jong-A-Pin 2006). Finally election cycles were 0 for normal year and 1 for election year. The regression equation tested for Political determinants of tax revenue is shown below:

$$Dlntr_t = \alpha_1 + \delta_1 Pcrisis_t + \delta_2 law_t + \delta_3 elec_t + \varepsilon_t \quad (III)$$

Where D is difference level of the variable, ln is the natural log and α_1 is the intercept of the model. δ_1, δ_2 , and δ_3 are the coefficients of Political crisis, law and order and election cycle. ε_t is the Error term of the model. The coefficients and the hypothesis of the model will be tested on probability value of t-statistic at 5 and 10% level of significance.

Diagnostic Tests

In order to check the strength of our models estimated, different diagnostic tests have been carried out. Breusch-Godfrey Serial Correlation or LM Test was done for serial correlation of the models; ARCH Test (autoregressive conditional heteroscedasticity) has been carried for Heteroscedasticity. Similarly, the test for parameter stability of the model has been performed by the CUSUM statistics and the Normality test has been done through Jarque-Bera test. All the diagnostic tests are estimated through null hypothesis which are tested

through the test statistic value of each test and the probability value at 5% level of significance.

8. Results and Discussion

Unit Root Test

Before going for ADF test the Schwarz-Bayesian Criterion (SBC) and Akaike Information Criterion were used to determine the optimal number of lags included in the test. Table 1.1 present the results of the unit root tests both at levels and 1st differences.

Table 1.1: Augmented Dickey-Fuller Unit Root Test Statistic

S.no	Variables	Definition of variables	At level			1st difference Stationary I(1)		
			t-statistic	5%	P value	t-statistic	5%	P value*
1	taxrev	Total tax revenue	-3.48	-3.57	0.559	-5.86	-3.58	0.0003
2	Indtax	Share of indirect taxes	-1.42	-2.96	0.555	-5.92	-3.58	0.0002
3	outstand	Total outstand	-2.03	-3.57	0.556	-5.41	-3.58	0.0008
4	Pci	Per capita income	-2.97	-3.57	0.156	-6.01	-2.97	0.0000
5	sagr	Share of Agri. in nsdp	-1.96	-3.57	0.640	-5.94	-3.58	0.0002
6	sind	Share of ind.in nsdp	-2.37	-3.57	0.385	-5.90	-2.97	0.0000
7	sserv	Share of serv in nsdp	-2.37	-3.57	0.385	-5.90	-2.97	0.0000
8	Sxpo	Share of exp in nsdp	-2.71	-3.58	0.237	-2.26	-1.96	0.0252
9	unemp	Rate of unemployment	-2.55	-3.57	0.302	-4.68	-3.58	0.0043

*MacKinnon (1996) p .value @ 5%

All variables under investigation were found stationary at level and after first difference all the variables are non-stationary. Thus we conclude that tax revenue, share of indirect taxes to total tax revenue, total outstanding, per capita income, share of agriculture to NSDP, Share of Industries to NSDP, Share of Services sector to NSDP, value of exports and unemployment rate are having an integrated order on I(1). Thus we will use VECM model to test the long and short run relationship of the variables under study.

Johansen Co Integration Test

Since after running the unit root test and observe that the variables are at I (1) order and having stationary at 1st difference, we will go for the Johansen co-integration test to analyze the number of co integrated Vectors. The Johansen-Juselius (1990) test has been used to identify

Table 1.2a: Result of Johansen Co-Integration Test

Equation I: Series: TAXREV IND TAX OUTSTAND PCI SAGR SIND SSERV SSXPO UNEMP

Unrestricted Cointegration Rank Test				
Hypothesized		Trace	5 %	1 %
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Critical Value
None **	0.966529	348.6129	192.89	204.95
At most 1 **	0.929047	253.4951	156.00	168.36
At most 2 **	0.873866	179.4146	124.24	133.57
At most 3 **	0.783239	121.4431	94.15	103.18
At most 4 **	0.642976	78.63231	68.52	76.07
At most 5 *	0.598566	49.79366	47.21	54.46
At most 6	0.408923	24.23770	29.68	35.65
At most 7	0.283942	9.515032	15.41	20.04
At most 8	0.005811	0.163193	3.76	6.65

Table 1.2b				
Hypothesized		Max-Eigen	5 %	1 %
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Critical Value
None **	0.966529	95.11784	57.12	62.80
At most 1 **	0.929047	74.08046	51.42	57.69
At most 2 **	0.873866	57.97151	45.28	51.57
At most 3 *	0.783239	42.81082	39.37	45.10
At most 4	0.642976	28.83865	33.46	38.77
At most 5	0.598566	25.55596	27.07	32.24
At most 6	0.408923	14.72267	20.97	25.52
At most 7	0.283942	9.351839	14.07	18.63
At most 8	0.005811	0.163193	3.76	6.65

*(**) denotes rejection of the hypothesis at the 5%(1%) level , Trace test indicates 6 and 5 Co integrated equations(s) at 5 and 1% level, Max-Eigen value test indicates 4 and 3 co integrated Equation(s) at 5 and 1% level.

the number of co-integrated vectors and to sum up whether the variables have long run association. The Johansen co integration test is determined by two statistics, i.e. Trace statistic and Max-Eigen statistics which are subjected to the number of hypothesis. The results of Johansen co integration test are presented in table 1.2a and 1.2 b.

Table 1.2a and 1.2b presents the results of Johansen co-integration test against the null hypothesis of no co-integrated equation among variables. The trace statistics suggests that there are at most 5 co-integrating equation among the variables and the variables have long run relationship. Similarly max Eigen statics conclude that there are at most 3 co- integrated equations among the variables. Thus the Max-Egan statistic also shows that all the variables have long run relationship. Therefore, the Johansen co-integration test indicates that the variables have long run association with each other. Thus in order to know estimate the coefficient of short run as well as long run relationship among the variables, as the variables are co integrated, so we will proceed for VECM test.

9. Result of the Models

As we discuss in the methodology section that in order to remove the problem of multi-collinearity we will split the economic variables into two VECM equations, to know the significant variable which affects the tax revenue in the state of Jammu and Kashmir. Table 1.3 presents the results of two VECM equations which show the economic determinants tax revenue.

Table 1.3 Result of Vector Error Correction Model for Economic Variables

Penal A: long run estimates							
Long Run estimates: Equation 1				Long run estimates: Equation II			
Regressor	Coff.	S.E	T.Stat.	Regressor	Coff.	S.E	T. Stat.
Dtaxrev(1)	1						
Dindtax(1)	1.08	1.9	4.11**				
DPCI(1)	0.2	0.012	16.3**				
Dsagri(1)	-0.023	0.0056	-4.19**				
Dsserv(1)	0.15	0.0041	38.54**				
Dsexpo(1)	0.012	0.0009	12.40**				

Table 1.3 Result of Vector Error Correction Model for Economic Variables

Penal B: Short run estimates						
Dep. Var: TAXREV	Equation I			Equation II		
Ind. Variables	Coefficient	t-Statistic	Prob.*	Coefficient	t-Statistic	Prob.*
C	7.828762	4.116672	0.0012			
D(TAXREV(-1))	-5.76605	-2.92763	0.0118			
D(TAXREV(-2))	-3.0227	-2.1981	0.0467			
D(INDTAX(-1))	5.351724	2.850832	0.0136			
D(INDTAX(-2))	2.600142	2.145964	0.0513			
D(PCI(-1))	0.845078	1.231081	0.2401			
D(PCI(-2))	1.326701	2.3956	0.0324			
D(SAGR(-1))	-1.38307	-2.63279	0.0207			
D(SAGR(-2))	-1.17103	-2.5587	0.0238			
D(SSERV(-1))	2.171677	2.428106	0.0304			
D(SSERV(-2))	1.888181	1.79524	0.0959**			
D(SSXPO(-1))	0.414272	3.227266	0.0066			
D(SSXPO(-2))	0.050663	0.410379	0.6882			
ECM C(14)	-0.64825	-0.71563	0.0869**			
C				0.56523	5.300134	0.0001
D(TAXREV(-1))				-0.54116	-2.65116	0.0168
D(TAXREV(-2))				-0.51544	-2.5042	0.0228
D(OUTSTAND(-1))				-0.43429	-4.08591	0.0008
D(OUTSTAND(-2))				-0.18996	-1.77491	0.0938
D(SIND(-1))				0.57798	2.768471	0.0131
D(SIND(-2))				0.128829	1.350666	0.1945
D(UMEMP(-1))				-4.96173	-0.06477	0.9491
D(UMEMP(-2))				-12.66826	-0.17141	0.8659
ECM C(10)				-0.27113	-5.48588	0
R-squared	0.835512	Adj. R-sq	0.67102	R-sq	0.945068	Log lik.ho -169.33
Log likelihood	45.3556	D.W	1.88765	Adj. R-sq	0.915987	D.W 2.2382

* at 5% level of significance ** 10% level of significance

The long run estimates of economic variables presented in VECM equation I and II are shown in penal A of table 1.3. Equation I of

Penal A reveals that indirect taxes, income from services sector, per capita income, income from agriculture sector and value of exports are the key determinants of tax revenue in long run. In long run, indirect taxes have positive and significant impact on tax revenue as expected. 1% increase in indirect taxes will lead to 1.08% increase in tax revenue. Indirect taxes like sales tax, excise duty, stamp and registration duty etc. are the taxes easily collected by the government over the years thus with increase indirect taxes the tax revenue increases. The result is in tune with the findings of (Wawire, 2011) and is statistically significant at 1% level of significance.

Per capita income as the proxy of economic growth also shows positive and significant impact on tax revenue in long run. It implies that with increase in per capita income of the people by 1%, tax revenue increases by 0.20% and is significant at 1% level of significance. These results are in line with (Stotsky & Woldemerein, 1997).

Agricultural income to NSDP is negatively related to tax revenue collection. 1% percent growth in agriculture income to NSDP will reduce tax revenue by 0.023%. It is statistically significant at 1 percent level and indicates that more share of agriculture sector reduces the tax revenue. Agriculture has almost 29 percent contribution in GDP of Jammu and Kashmir but its contribution in tax revenue is almost 1 percent because of low tax on the income from agriculture sector. Tanzi (1992) and Bird *et al.* (2008) support this negative relationship of income from agriculture sector to tax revenue.

The sign of income from services sector is positive and is statistically significant at 1% level of significance. It implies that in long run 1% increase in income from services sector increase the tax revenue by 0.15%. The results are in line with (Karagoz, 2013). Similarly the value of exports also shows positive and significant relationship with tax revenue. It implies that 1% increase in value of exports in the state will increase the tax revenue by 0.012%. It reveals that with the increase of export value of goods in the state the tax revenue will also increase. These results are also supported by (Rao, 1979; Gupta, 2007).

Similarly, the long run estimates of the economic variables in equation II, provided by penal A shows that outstanding, per capita

income has positive and significant while as income from industry and rate of unemployment has negative and significant impact on tax revenue collection in long run. The results show that total outstanding has positive and significant impact on Tax revenue in the long run and the variable is significant at 5% level of significance. The above equation shows that 1% increase in outstanding of the state will increase the tax revenue by 1.19%, which are valid results in line with (Thompson, 1999; Purohit, 2006). It is a desirable result, because the increasing level of outstanding forces the government to impose new taxes and increase the tax base in order to repay the debt which increase the tax system efficiency as the state has to make more efforts to reduce the outstanding.

Surprisingly, income from industry sector shows negative and significant impact on tax revenue in long run. It reveals that 1% increase in income in industry sector reduces the tax revenue by -0.91% and the coefficient is significant at 1% level of significance. These results are against the findings of by (Stotsky & Woldemerein, 1997; Karagoz, 2013). It might be due to the industrial status of the state. The state has very poor and sick industrial sector. Due to the social conflict in 90's the wide industrial base of the state has hit by vast destruction. Therefore huge tax holidays, tax exemptions, heavy subsidies and many more incentives has been given to industrial sector over the years to increase the industrial base of the state. It is interesting to know over last 2 decades there was no commercial tax, wealth tax and excises duty on the industrial sector of the state. Thus over the years with increase in income of industry sector to NSDP the tax revenue decrease because huge income of industry sector is not taxed.

Rate of unemployment shows negative and significant impact on tax revenue in long run. The penal A, shows that 1% increase in rate of unemployment reduce tax revenue by -0.49% and the coefficient is significant at 5% level of significance. These results are in line with (Buttner, 1999) but against to (Aghazadah, 2014). With increase in unemployment rate the sources of income reduce to the people which affect their level of income and thus taxation as well. Also with increasing rate of unemployment government has to give many subsidies and on different indirect taxes to benefit the unemployment classes.

Next step is to estimates of short run dynamic coefficients of economic variables in equation I and II. The short run dynamic results for economic variables are provided in table 1.3 in penal B for VECM model I and II. The table reveals that Indirect taxes at lag 1 and 2 (According AIC % SIC criteria) are significant determinants in the short run. The short run error coefficients show that both at $\text{indtax}(-1)$ previous year and $\text{indtax}(-2)$ previous of previous year has positive and significant impact on the tax revenue of current year at 5% level of significance. It shows that 1% increase in indirect taxes at $\text{indtax}(-1)$ will increase the tax revenue at 5.35% and 2.60% as 1% increase at lag 2 in ($\text{indtax}(-2)$).

The per capita income shows that it is positively related to tax revenue at lag 1 but insignificant to produce change in tax revenue but significant in lag 2. In other words we can say that previous year's PCI of the state does not have any impact on current year's tax revenue but two years back PCI has significant impact on current year's tax revenue. It shows that 1% increase in PCI in previous year can increase current year's tax revenue by 0.84%, while as 1% increase in PCI in previous of previous year increases the current year's tax revenue by 1.32%, and it is also statistically significant.

The share of agriculture income shows negative but has a significant impact on tax revenue at both 1 and 2 lag at 5% level of significance (0.0207 and 0.0238). The results of error coefficient model shows that, at lag 1 of SAGR, 1% increase in SAGR in previous year will reduce the tax revenue of current year at -1.38%, and at lag 2, 1% increase in SARG(-2) will reduce tax revenue at -1.17%.

The coefficient of share of services sector to NSDP shows that it has positive and significant impact on tax revenue at both the time lags at 5% and 10% level of significance. It implies that, 1% increase in services sector income at 1 lag will increase the tax revenue by 2.17% and by 1% increase in services sector income at lag 2 will increase tax revenue by 1.18% as the variable is significant at 10 % level of significance. The share of exports in NSDP shows that it has a positive and significant impact on tax revenue at lag 1, but positive and insignificant impact on tax revenue at lags 2 at 5 % level of significance.

Penal B of table 1.3 also present the short run estimates of economic variables in equation II. The results reveal that that the total outstanding over lag 1 has negative and significant relationship with tax revenue at 5% level of significance in short run and also over lag 2. It is also negative and significant at 10% level of significance. It shows that 1% increase in total outstanding in previous year (Outstand (-1)) will reduce the tax revenue of current year at -0.43% at 5% (0.008) level of significance. Also 1% increase in total outstanding in previous of previous year (Outstand (-2)) will reduce the tax revenue over -0.18% at 10% (0.0978) level of significance. Hence it shows the severity of total outstanding on the collection tax revenue over the period as the total outstanding of the state is mounting at higher rate.

The share of industrial sector to NSDP shows positive and significant association to tax revenue in first lag, but in lag 2 it shows insignificance towards tax revenue. It implies that previous year's share of industrial sector income growth has significant impact on current year's tax revenue while as two years back share of industrial sector has no impact on current year's tax revenue. The table 1.3 shows that 1% increase in previous year's share of industrial sector income will increase the tax revenue by 0.57%, which is significant at 5% level of significance, while as lag 2 shows insignificance with tax revenue. Finally the rate of unemployment shows insignificant relationship with tax revenue in the short run. As the p value is greater than 5 and 10 % level of significance so we could not find any association between rate of unemployment and tax revenue in short run in the state of Jammu and Kashmir.

The results obtained for VECM model through both the equations (I and II) are satisfactory in terms of Jammu And Kashmir State is concerned. As indirect taxes are major sources of tax revenue, so the effect of Indirect taxes will be more on tax revenue also the less tax base and exemption of various direct taxes over long period of time in the state, like commercial taxes, wealth taxes, property taxes etc. have increase the importance of indirect taxes in the state. As the per capita income of the state is at average level so the effect of PCI is also moderate to Tax revenue. As the state has gone through long period of stagnation so it has very less major economic activities which increase the PCI of people like industry sector, services sector etc. and the

share of agricultural income to NSDP is reducing in the state as the people are engaged in other activities in industry, services sector and other informal sectors. Also, the agriculture sector of the state is not taxed much, so increases in share will reduce tax revenue. As far as services sector of the state is concerned, it is the only growing sector of the economy but due to lot of constraints like infrastructure of the state and law and order problems, the sector also shows less coefficient to tax revenue, but as the SSERV variable has positive impact on tax revenue it is due to the tourism sector and telecom sector. The state is known for its handicraft and handloom works which generates goods of export quality thus as the value of exports to NSDP has increased over the years the tax revenue has also increased.

The state of Jammu and Kashmir is leading in the having huge liabilities, thus level of outstanding forces the government to impose new taxes and increase the tax base in order to repay the debt which increase the tax system efficiency as the state has to make more efforts to reduce the outstanding. As we know that state has remained under taxes for almost two decades thus imposing new taxes or increasing rate of taxes would not affect the economy. Thus with increase in outstanding liabilities the tax revenue has increased. The state has very poor and sick industrial sector. Due to the social conflict in 90's the wide industrial base of the state has hit by vast destruction. Therefore huge tax holidays, tax exemptions, heavy subsidies and many more incentives has been given to industrial sector over the years to increase the industrial base of the state. It is interesting to know over last 2 decades there was no income tax, commercial tax, and wealth tax and excises duty on the industrial sector of the state. Thus over the years with increase in income of industry sector to NSDP the tax revenue decrease because huge income of industry sector is not taxed.

The error coefficient of the Error Correction Term (ECM) which is denoted by $C(14)$ for equation I is negative(-0.64825) and statistically significant at 10% level of significance. It shows that any fluctuation caused in previous years, or in the short run will bring equilibrium in long run at 64% or in other words it means that it will take at least two years to restore any disequilibrium in tax revenue. So the variables of our first model shows evidence of fast pace of response to bring

equilibrium in tax revenue when there are shocks in short run. The negative coefficient of error correction model determines the speed of adjustment to long-run equilibrium.

The error correction term ECM denoted by $C(10)$ for equation II is (-0.27113) and is statically significant at 5% level of significance. The negative coefficient is an indication that any shock that takes place in the short-run would be corrected in the long-run. It indicates the speed of error correction and the approach toward long term equilibrium. The negative coefficient indicates that 27% of an imbalance in a period of total tax revenues is modified in next period. So, the emergence of a momentum regarding the economic variables in table 1.4, maintains its effect on total tax revenues after one year. The adjusted R-Squares of both the models suggest that 64% variation in tax revenue in equation I and 91% variation in tax revenue in equation II is explained by the respective variables.

The different diagnostic tests were carried out in order to check whether our models have given the right results. Breusch-Godfrey (LM Test) was carried out to know whether the models has the problem of serial correlation or not and ARCH test was done to check the heterokidasticity of the models. Also normality test of Jerque Bera and CUSUM test are carried out to check the normal distribution assumption and strength of our models. The diagnostic tests for both the models indicate that models have no serial correlation, no misspecification of functional form and no heteroscedasticity. Stability of the coefficients has been shown with the help of cumulative sum of recursive residuals (CUSUM) test. As CUSUM tests verify that estimated lines are inside the critical lines at 5 percent level of significance, so it shows the stability of the model. In other words, models have no structural break and it can be applied for policy options. Durbin Watson results show that model does not suffer for autocorrelation.

Political Determinants of Tax Revenue

Another regression model was estimated to know the political determinants of tax revenue in the state of Jammu and Kashmir. The regression equation analyzed is shown below:

$$DTAXREV = C(1)*CRISIS + C(2)*LAW + C(3)*ELECY + C(4)$$

The regression result of political variables is shown in table 1.8 below.

Table 1.8: Summary of Regression Results for Political Variables

<i>DTAXREV = C(1)*CRISIS + C(2)*LAW + C(3)*ELECY + C(4)</i>			
Variable	Coefficient	t-Statistic	Prob.
CRISIS	-0.42093	-1.47935	0.0698**
LAW	-1.12577	-5.66481	0.0002*
ELECY	-0.29969	-1.05323	0.3170
C	8.809681	62.69166	0.0000
R-squared	0.787042	Adjusted R-squared	0.723155
Log likelihood	-3.45501	Durbin-Watson stat	1.393177
Breusch-Godfrey Serial Correlation LM Test			
F-statistic	0.407772	Probability*	0.678209
Obs*R-squared	1.295169	Probability*	0.523308
ARCH Test			
F-statistic	0.000136	Probability*	0.990911
Obs*R-squared	0.00016	Probability*	0.989893
Normality test			
Jarque-Bera*	1.15598	Prob*	0.561413

Sources: Calculated by us, * at 5% level of significance, **10% level of significance

The result of political determinants equation, where tax revenue was a dependent variable and political crisis, law and order and election cycle are independent variables, show that all the political variables have negative association with tax revenue which means that political stability in the state will have significant impact on tax revenue. But among the three political variables, Political crises and Law and order variables are statistically significant while as election cycle was found insignificant to produce change in tax revenue. If we look at the table political crisis has negative coefficient (-0.42093), and significant impact on tax revenue. It shows that 1% increase in political crises will lead to reduce tax revenue by -0.42%, the probability value is less than 10% level of significance. It implies that

with change of political ruling in the state from elected government to governors or presidents rule, which is often seen in the state, the tax revenue decline by -0.420%. It is due to the issue that democratically elected party or ruling party has efficient management and machinery to collect taxes from different sources by implementing policies and to run the state efficiently, while as in governors ruling the bureaucrats only manage day to day affairs of the government and hardly engage in efficient policy making and efficient mechanism to improve tax system. The results are in line with (Jong-A-Pin, 2006; Drazen, 2006).

Law and order (Number of civilian deaths in year) has also negative coefficient (-1.12577), but its probability value is less than 5% (0.0002) level of significance which means that it is a significant variable to produce change in dependent variable. And these results are in tune with the study of (Addison *et al.*, 2002; Dristsaki, 2005). It implies that 1% increase in the law and order situation, or in other words, 1% increase in civilian deaths can reduce the tax revenue by -1.25%, which is an expected result. It is due to the factor that with increasing number of civilian deaths, the people protest and strikes become common, which results economic activities slow down, markets remain closed for longer period of time, business units cannot function properly due to the strikes, and most importantly during high law and order crises public authorities are not able to move to collect taxes from different sources. Thus with increasing law and order problem has direct effect on functioning of economic activities and which in turn reduce tax revenue.

Finally the election cycle was also found negative related to tax revenue as in tune with the study of (Mukhopadhyay & Das, 2003) but as its probability value (0.3170) is greater than 5% level of significance, thus it is considered as insignificant variable to produce change in tax revenue. Thus by analysis of the political variables we found that political crises and law and order situation in the state has significant impact on tax revenue.

The stability and accuracy of our model can be checked by R^2 of the model. The R^2 of the model is (0.787042) implies that, over the model 78% of variation in tax revenue is explained by the political variables mentioned above. Durban Watson statistic is also close to 2 which imply that there is no problem of multi- collinearity.

Similarly other diagnostic tests were carried out to prove the stability, normality and serial correlation and heteroscedasticity of our model. Table 1.8 also shows that the model doesn't have problem of serial correlation. ARCH Test also shows that the model doesn't have the problem of heteroscedasticity. Normality tests were carried out through Jarque-Bera test. It shows that the series in the model is normally distributed as probability value is greater than 5% level of significance.

10. Conclusion

The study tries to examine the economic and political determinants of tax revenue in the state of Jammu and Kashmir, over the period 1984-85 to 2013-14. The study finds very appealing results which can help to improve the tax structure in the state. The study finds that economic and political variables are most effective instruments which produce significant change in tax revenue in the short run as well as in the long run. The study shows that from the economic point of view the variables like Indirect taxes, income from services sector to NSDP, total outstanding, Value of exports and PCI are highly positive and significant variables to produce change in tax revenue in long run as well as in short run. While as surprisingly, income from industry sector to NSDP, rate of unemployment and share of agriculture has been found negative and significant determinant of tax revenue in long run as well in short run as well. Similarly the political determinants of tax revenue shows that political crisis and law and order has negative and significant impact on Tax revenue growth, while election cycle has positive but insignificant impact on tax revenue which we were expecting.

The political stability in terms of law and order and political ruling in the state has carried a big role in generating revenue through taxes in the state. It has been seen that law and order problem and change in political ruling has reduce the efficiency of tax revenue over the years. Similarly the economic indicators have the potential to generate sufficient amount of growth to tax revenue of the state.

Thus, by analyzing the tax structure of the state through different economic, political and demographic variables, we accept the null hypothesis that change in economic and political determinants have a

larger impact on the level of tax revenue and demographic determinants are positively correlated with the growth of Tax revenue. Thus our study will recommend to the policymaker of the state that more and more factors of economic variables like tourism, industry, telecommunication, trade, marketing, and business should be brought under taxation as the state has large number of economic activities which have not been taxed for taxation yet and has been given lot of tax exemptions and tax holidays to these sectors. These sectors are performing very well from last few years, so these sectors are still either not taxed or under-taxed which can help to improve the tax system if proper and appropriate tax will be imposed on them. There should be a reform in the existing agricultural and industry policies to reap the dividends from growing agriculture to one hand and for sustainable industrial growth. Also state should take more care of law and order situation in the state for free and smooth progress of economic activities which will help to improve the existing tax structure of the state.

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Large Scale Monitoring System in IT Industries using Big Data

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ABSTRACT

This research paper is based on modelling technique and building a prediction model using Python programming language PANDA to predict data set on large-scale monitoring system using Big Data Analytics in IT Industries. In this research paper, the researcher developed a programming modelling technique which would be identify the customer behaviours patterns using large scale of data. The programming language Python to perform the full life-cycle of any data set. It includes reading, analysing, visualizing and finally making predictions. The Researcher focused on the modelling techniques how attributes / data of applicants or customers are providing a significant role to make a specific decision or generate a new information about their candidatures towards predictions on specific real life problems.

Keywords : Big Data, ETL, PANDAS

I. INTRODUCTION

The term Big Data refers to large-scale information management and analysis technologies that exceed the capability of traditional data processing technologies. Big Data is differentiated from traditional technologies in three ways: the amount of data (volume), the rate of data generation and transmission (velocity), and the types of structured and unstructured data (variety) (Laney, 2001). Big Data analytics – the process of analysing and mining Big Data – can produce operational and business knowledge at an unprecedented scale and specificity. The need to analyse and leverage trend data collected by businesses is one of the main drivers for Big Data analysis tools.

Big data analytics refers to the strategy of analysing large volumes of data, or big data. This big data is gathered from a wide variety of sources, including social networks, videos, digital images, sensors, and

sales transaction records. The aim in analysing all this data is to uncover patterns and connections that might otherwise be invisible, and that might provide valuable insights about the users who created it. Through this insight, businesses may be able to gain an edge over their rivals and make superior business decisions.

The technological advances in storage, processing, and analysis of Big Data include (a) the rapidly decreasing cost of storage and CPU power in recent years; (b) the flexibility and cost-effectiveness of datacentres and cloud computing for elastic computation and storage; and (c) the development of new frameworks such as Hadoop, which allow users to take advantage of these distributed computing systems storing large quantities of data through flexible parallel processing. These advances have created several differences between traditional analytics and Big Data analytics.

1. Storage cost has dramatically decreased in the last few years. Therefore, while traditional data warehouse operations retained data for a specific time interval, Big Data applications retain data indefinitely to understand long historical trends.
2. Big Data tools such as the Hadoop ecosystem and No-SQL databases provide the technology to increase the processing speed of complex queries and analytics.
3. Extract, Transform, and Load (ETL) in traditional data warehouses is rigid because users have to define schemas ahead of time. As a result, after a data warehouse has been deployed, incorporating a new schema might be difficult. With Big Data tools, users do not have to use predefined formats. They can load structured and unstructured data in a variety of formats and can choose how best to use the data.

Big Data technologies can be divided into two groups: batch processing, which are analytics on data at rest, and stream processing, which are analytics on data in motion. Real-time processing does not always need to reside in memory, and new interactive analyses of large-scale data sets through new technologies like Drill and Dremel provide new paradigms for data analysis.

The complexity of the Internet has rapidly increased, making it more important and challenging to design scalable network monitoring tools. Network monitoring typically requires rolling data analysis, i.e., continuously and incrementally updating (rolling-over) various reports and statistics over high volume data streams. In this paper, we describe DB-Stream, which is an SQL-based system that explicitly supports incremental queries for rolling data analysis. We also present a performance comparison of DB-Stream with a parallel data processing engine (Spark), showing that, in some scenarios, a single DB-Stream node can outperform a cluster of ten Spark nodes on rolling network monitoring workloads. Although our performance evaluation is based on network

monitoring data, our results can be generalized to other Big Data problems with high volume and velocity (Arian Bär and Alessandro Finamore (2014)).

II. LITERATURE REVIEW

Jun Liu and Feng Liu (2014) analysed the network traffic monitoring and analysis is of theoretical and practical significance for optimizing network resource and improving user experience. However, existing solutions, which usually rely on a high-performance server with large storage capacity, are not scalable for detailed analysis of a large volume of traffic data. In this article, we present a traffic monitoring and analysis system for large-scale networks based on Hadoop, an open-source distributed computing platform for big data processing on commodity hardware.

Pedro Domingos(2018)stated the machine learning algorithms can figure out how to perform important tasks by generalizing from examples. This is often feasible and cost-effective where manual programming is not. As more data becomes available, more ambitious problems can be tackled. As a result, machine learning is widely used in computer science and other fields. However, developing successful machine learning applications requires a substantial amount of “black art” that is hard to find in textbooks. This article summarizes twelve key lessons that machine learning researchers and practitioners have learned. These include pitfalls to avoid, important issues to focus on, and answers to common questions

Nada Elgendy and Ahmed Elragal(2014) researcher stated that in the information era, enormous amounts of data have become available on hand to decision makers. Big data refers to datasets that are not only big, but also high in variety and velocity, which makes them difficult to handle using traditional tools and techniques. Due to the rapid growth of such data, solutions need to be studied and provided in order to

handle and extract value and knowledge from these datasets. Furthermore, decision makers need to be able to gain valuable insights from such varied and rapidly changing data, ranging from daily transactions to customer interactions and social network data. Such value can be provided using big data analytics, which is the application of advanced analytics techniques on big data. This paper aims to analyze some of the different analytics methods and tools which can be applied to big data, as well as the opportunities provided by the application of big data analytics in various decision domains.

E. F. CODD (1970), stated that future users of large data banks must be protected from having to know how the data is organized in the machine (the internal representation). A prompting service which supplies such information is not a satisfactory solution. Activities of users at terminals and most application programs should remain unaffected when the internal representation of data is changed and even when some aspects of the external representation are changed. Changes in data representation will often be needed as a result of changes in query, update, and report traffic and natural growth in the types of stored information. Existing no inferential, formatted data systems provide users with tree-structured files or slightly more general network models of the data. In Section 1, inadequacies of these models are discussed. A model based on n-ary relations, a normal form for data base relations, and the concept of a universal data sublanguage are introduced.

mRajeev Gupta and Himanshu Gupt (2012) focused on many industries, such as telecom, health care, retail, pharmaceutical, financial services, etc., generate large amounts of data. Gaining critical business insights by querying and analyzing such massive amounts of data is becoming the need of the hour. The warehouses and solutions built around them are unable to provide reasonable response times

in handling expanding data volumes. One can either perform analytics on big volume once in days or one can perform transactions on small amounts of data in seconds. With the new requirements, one needs to ensure the real-time or near real-time response for huge amount of data.

K. Leahy, K. Bruton and D. T. J. O'Sulliva (2015) has stated that in recent years, many initiatives and groups have been formed to advance smart manufacturing, with the most prominent being the Smart Manufacturing Leadership Coalition (SMLC), Industry 4.0, and the Industrial Internet Consortium. These initiatives comprise industry, academic and government partners, and contribute to the development of strategic policies, guidelines, and roadmaps relating to smart manufacturing adoption. In turn, many of these recommendations may be implemented using data-centric technologies, such as Big Data, Machine Learning, Simulation, Internet of Things and Cyber Physical Systems, to realise smart operations in the factory. Given the importance of machine uptime and availability in smart manufacturing, this research centres on the application of data-driven analytics to industrial equipment maintenance. The main contributions of this research are a set of data and system requirements for implementing equipment maintenance applications in industrial environments, and an information system model that provides a scalable and fault tolerant big data pipeline for integrating, processing and analysing industrial equipment data.

CliffEngle and Antonio Luper(2012) emphasized on Shark is a research data analysis system built on a novel coarse-grained distributed shared-memory abstraction. Shark marries query processing with deep data analysis, providing a unified system for easy data manipulation using SQL and pushing sophisticated analysis closer to data. It scales to thousands of nodes in a fault-tolerant manner. Shark

can answer queries 40X faster than Apache Hive and run machine learning programs 25X faster than MapReduce programs in Apache Hadoop on large datasets. Modern data analysis employs statistical methods that go well beyond the roll-up and drill-down capabilities provided by traditional enterprise data warehouse (EDW) solutions. Data scientists appreciate the ability to use SQL for simple data manipulation but rely on other systems for machine learning on these data. What is needed is a system that consolidates both. For sophisticated data analysis at scale, it is important to exploit in-memory computation.

Badrish Chandramouli and Jonathan Goldstein (2013) focused on analytics over the increasing quantity of data stored in the Cloud has become very expensive, particularly due to the pay-as-you-go Cloud computation model. Data scientists typically manually extract samples of increasing data size (progressive samples) using domain-specific sampling strategies for exploratory querying. This provides them with user-control, repeatable semantics, and result provenance. However, such solutions result in tedious workflows that preclude the reuse of work across samples. On the other hand, existing approximate query processing systems report early results, but do not offer the above benefits for complex ad-hoc queries.

D. P. Acharjya and Kauser Ahmed P (2016) focused on a huge repository of terabytes of data is generated each day from modern information systems and digital technologies such as Internet of Things and cloud computing. Analysis of these massive data requires a lot of efforts at multiple levels to extract knowledge for decision making. Therefore, big data analysis is a current area of research and development. The basic objective of this paper is to explore the potential impact of big data challenges, open research issues, and various tools associated with it. As a result, this article provides a platform to explore big data at

numerous stages. Additionally, it opens a new horizon for researchers to develop the solution, based on the challenges and open research issues.

Matei Zaharia and Mosharaf Chowdhury (2018) focused on Map Reduce and its variants have been highly successful in implementing large-scale data-intensive applications on commodity clusters. However, most of these systems are built around an acyclic data flow model that is not suitable for other popular applications. This paper focuses on one such class of applications: those that reuse a working set of data across multiple parallel operations. This includes many iterative machine learning algorithms, as well as interactive data analysis tools. We propose a new framework called Spark that supports these applications while retaining the scalability and fault tolerance of Map Reduce.

G. Sabarmathi and Dr. R. Chinnaiyan (2016) focused on a collection of large and complex data sets which are difficult to process using common database management tools or traditional data processing applications. Big data is not just about size. Finds insights from complex, noisy, heterogeneous, longitudinal, and voluminous data. It aims to answer questions that were previously unanswered. Big Data constantly facing significant challenges like outsized, heterogeneity, noisy labels, non-stationary distribution. Capturing, storing, searching, sharing & analysing. The four dimensions (V's) of Big Data It is important to recognize the full potential of Big Data by addressing these technical challenges with new ways of thinking and transformative solutions. If these challenges are resolved on time, there will be a plenteous opportunities to provide major advancement in science, medicine and business. While there is clearly an important research space examining the fundamental methods and technologies for big data analytics, it is vital to acknowledge that it is also necessary to fund domain targeted research that allows specialized solutions to

be developed for specific applications. Healthcare, in general, deserves to be a natural candidate for this kind of evaluation.

III. PROBLEM STATEMENT AND RESEARCH OBJECTIVES

To analysis data on large-scale monitoring system using big data analytics in IT industries is one of the significant research problem in the real world, to identify the natures of attributes, their behaviours patterns, their originality or validation which are directly predicted to the decision making process in IT Industries. The researcher developed a modelling technique for prediction model perform the full life-cycle of any data set, which includes reading, analysing, visualizing and finally making predictions. The researcher stated the following research

objectives which are significant with building prediction model.

1. To identify the data source
2. Analysis the data using Python Programing Modelling Technique- PANDAS
3. To Generate the Report
4. To develop a Modelling Techniques / Prediction Model to derive new information from large data set about applicants candidatures.

In this research paper, the researcher stated the current research problem to identify the customer behaviours patterns using data analysis techniques with the help of Python programming Technique-PANDAS. The researcher used this technical tools to analyse the data which comes from any sources of data from the external sources.

IV. CONCEPTUAL FRAMEWORK OF THE RESEARCH STUDY

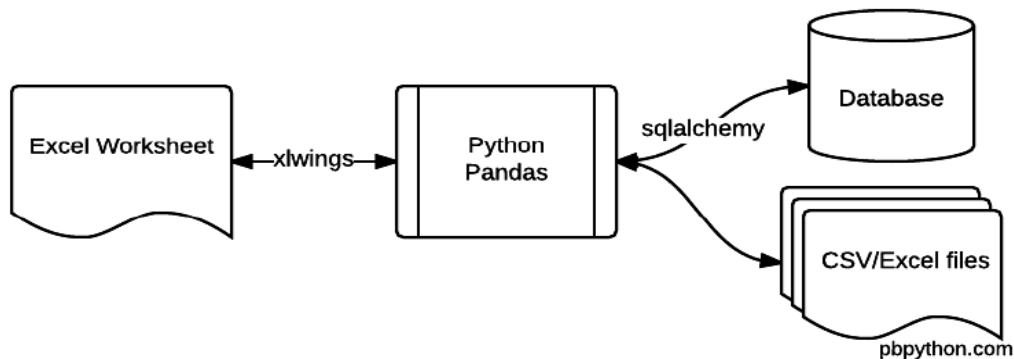


Figure 1. Data Analysis Using python Pandas

The conceptual framework of the research study is based on large amount of data which has be analysed using python programming PANDAS data analysis model. It direct access data from the different sources of external data system, stored it during processing and generating the report towards the decision making process.

V. METHODOLOGY ADAPTED FOR DATA ANALYSIS

Python is a great language for doing data analysis, primarily because of the fantastic ecosystem of data-centric Python packages. Pandas is one of those packages, and makes importing and analysing data much easier. Pandas builds on packages like

NUMPY and MATPLOTLIB to give you a single, convenient for data analysis and visualization work. IMPORTING DATA WITH PANDAS

The first step we'll take is to read the data in. The data is stored as a comma-separated values, or csv, file, where each row is separated by a new line, and each column by a comma (.). Here are the first few rows of the ign.csv file:

There's also a leading column that contains row index values. We can safely ignore this column, but we'll dive into what index values are later on. In order to be able to work with the data in Python, we'll need to read the csv file into a Pandas Data Frame. A Data Frame is a way to represent and work with tabular data. Tabular data has rows and columns, just like our csv file.

In order to read in the data, we'll need to use the pandas.read_csv function. This function will take in a csv file and return a Data Frame. The below code will:

1. Import the panda's library. We rename it to pd so it's faster to type out.
2. Read ign.csv into a Data Frame, and assign the result to reviews.

Once we read in a Data Frame, Pandas gives us two methods that make it fast to print out the data. These functions are:

1. Pandas. Data Frame .head -- prints the first N rows of a Data Frame. By default.
2. Pandas. Data Frame. tail -- prints the last N rows of a Data Frame. By default

Indexing Data Frames with Pandas

Earlier, we used the head method to print the first 5 rows of reviews. We could accomplish the same thing using the pandas.DataFrame.iloc method. The iloc method allows us to retrieve rows and columns by position. In order to do that, we'll need to specify the positions of the rows that we want, and the positions of the columns that we want as well.

VI. RESULTS AND DISCUSSION

pbp_proj.py: programming Module

```
import pandas as pd
from sqlalchemy import create_engine
from xlwings import Workbook, Range
import os
def summarize_sales():
    """
    Retrieve the account number and date ranges from the Excel sheet
    Read in the data from the sqlite database, then manipulate and return it to exce
    """
    # Make a connection to the calling Excel file
    wb = Workbook.caller()
```

```
# Connect to sqlite db
```

```
db_file = os.path.join(os.path.dirname(wb.fullname), 'pbp_proj.db')
```

```
engine = create_engine(r"sqlite:///{}".format(db_file))
```

```
# Retrieve the account number from the excel sheet as an int
```

```
account = Range('B2').options(numbers=int).value
```

```
# Get our dates - in real life would need to do some error checking to ensure
```

```
# the correct format
```

```
start_date = Range('D2').value
```

```
end_date = Range('F2').value
```

```
# Clear existing data
```

```
Range('A5:F100').clear_contents()
```

```
# Create SQL query
```

```
sql = 'SELECT * from sales WHERE account="{}" AND date BETWEEN "{}" AND  
"{}".format(account, start_date, end_date)
```

```
# Read query directly into a dataframe
```

```
sales_data = pd.read_sql(sql, engine)
```

```
# Analyze the data however we want
```

```
summary = sales_data.groupby(["sku"])["quantity", "ext-price"].sum()
```

```
total_sales = sales_data["ext-price"].sum()
```

```
# Output the results
```

```
if summary.empty:
```

```
Range('A5').value = "No Data for account {}".format(account)
```

else:

```
Range('A5').options(index=True).value = summary
```

```
Range('E5').value = "Total Sales"
```

```
Range('F5').value = total_sales
```

Here is a sample result:

A	B	C	D	E	F	G	H	I
Account Number	740150	Start Date	1/1/2014	End Date	3/1/2014		Retrieve Sales	
Sales History								
sku	quantity	ext-price		Total Sales	18395.6			
B1-20000	67	5659.83						
B1-33087	35	3263.75						
B1-33364	6	147.84						
B1-38851	20	1619.21						
B1-50809	8	156.8						
B1-53102	1	68.06						
B1-86481	20	608.2						
S1-06532	10	658.7						
S1-30248	21	295.05						
S1-47412	27	975.24						
S1-93683	21	217.14						
S2-10342	47	4543.96						
S2-16558	2	181.82						

Figure 2. Output of a Sample Data Analysis

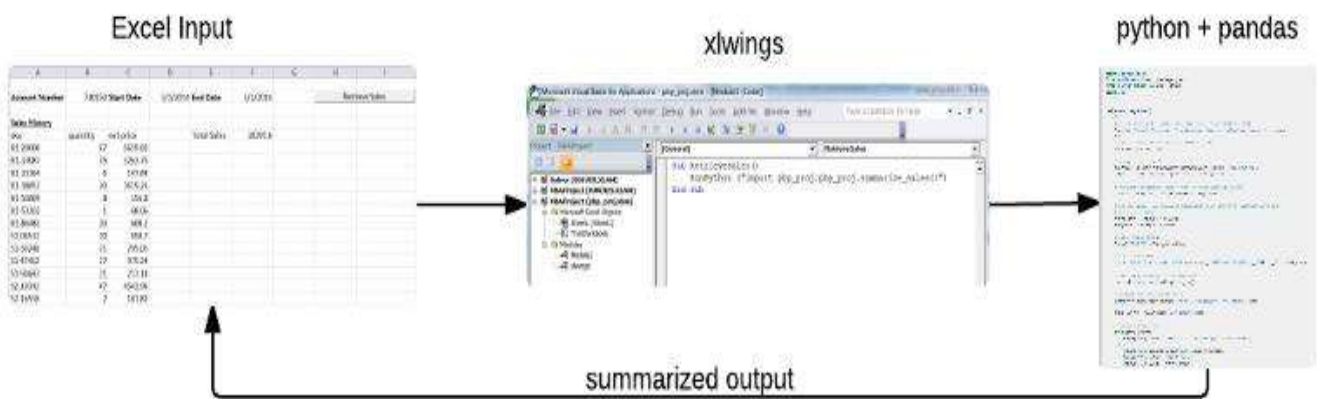


Figure 3. Summarized of a Sample Data Analysis

VII. CONCLUSION

In this research paper the researcher stated the current research problem and proposed a modelling technique to analysis the large amount of data using

Python programming PANDAS tools which takes the data from the different sources from the external system and generate a report towards the customer behaviours patterns. The researcher also stated a proposed model and programming algorithms to identify the problem and analysis to generate the report towards decision making process in IT industries.

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RESEARCH ARTICLE

TEA GARDEN LABOURER AND THEIR LIVING CONDITION: A STUDY IN BORSILLAH TEA ESTATE OF SIVSAGAR DISTRICT, ASSAM.

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Tea garden labourer, Borsillah Tea Estate, Socio-economic life, Poverty, Illiteracy.

Abstract

Tea Estate labourers play an important role in our society. Our society will never be complete without their involvement and contribution. Therefore, it is essential to study the socio-economic condition of this particular section. Most of the tea garden labourers are backward in all aspects of their life. The economic condition they live in, the socio-cultural values and institutions they cherish and the kind of relationship they maintain with the other people living around them and in the adjacent areas need to be understood in the light of the present-contemporary society. They have been facing enormous problems and difficulties (poverty, homeless and illiteracy) in their day-to-day life. The study proposes to investigate the socio-economic life of tea garden labourers in Borsillah Tea Estate and how poverty affects in day to day life of labourers in Borsillah Tea Eastate.

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Introduction:-

The Assam Tea Industry, which accounts for more than 50 percent of India's total tea production. The tea industry developed by British planters brought in labourers from Bihar and Orissa. Tea industry has contributed substantially to the economy of Assam by providing employment to nearly half a million population, contributing revenues and support to develop other infrastructure and service sector over the year. Among the total tea garden working labour in each tea garden, only 30 percent of them are permanent employees. During the peak season, each garden employs casual workers at wages much lower than the actual minimum wage. And poor socio-economic conditions, ignorance due to illiteracy, over-crowded and unhygienic living conditions in the residential colonies make tea garden population helpless to various communicable diseases and underfeeding. There may be some also specific health problems, which may be related to their occupation. Most of the tea garden labourer in Borsillah tea garden is migrated from different states. In different agrarian states in India such as Bihar, Uttar Pradesh, Madhya Pradesh and Orissa, famine, drought, flood and epidemics coupled with excessive exploitation of poor peasants and landless labourers by landlords and zamindars was common. These factors led to migration of huge bulk of population to Assam in search of livelihood. Apart from these 'push factors', certain 'pull factors' like false assurance regarding easy work, ideal condition of work, better pay and unlimited land available cultivable land were given to the workers which motivated them to migrate to Assam. Motivating by this 'pull factors' a numbers of labourer came and settled down in tea garden as wage labourers during the British period. Work and employment possibly introduced them to leave their ancestral property as they migrated to different regions and especially in Assam. Due

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poverty, illiteracy, ignorance their life becomes more miserable than their original habitats. Till today they were deprived in different circumstances and faced numerous problems like poverty, homeless, illiteracy instead of their hope of economic prosperity for which they leave their home land.

Review of literature:-

R. K. Kar (2009) in his study offer discrete description on the history and migration of the workers in the tea plantations in North East India and their settlements there. The articles included demographic characteristic; food habits of populations; nutritional status; health and hygiene and morbidity scenario; status of women; socio-economic and political problems etc.

Sir Edward Gait (1926; 2008) viewed that rural society of Assam has numerous self-sufficient village communities. People used to cultivate their own land and naturally they preferred independent and self-sufficient position of cultivator. Because of its self-sufficient nature of village communities of Assam, there was scarcity of labourers particularly for working in tea plantation. Tea planters, at very early stage of plantation in Assam, faced hurdles in getting workers. To meet growing demand of plantation work tea garden coolies were brought from elsewhere and in 1853 Assam Company started to import labourers from Bengal. For which legislation was made by British policy makers and from 1863 to 1903 a series of enactments were passed regarding hiring labourers from outside Assam.

Amalendu Guha (1977) studied of the region's plantation economy the imperialism of opium cultivation and workers struggle. He links up the political development with economic problems and exploitations by the tea planters in Assam. Guha analyses of the opium issue, agrarian problem and the question of the indentured tea labourers exposes this exploiting conduct of the European planters and capitalists at the conscious patronage of the colonialists.

R.K Kar (1989) studies and views that tea labourers in Assam consist mostly of tribal communities drawn from different parts of the country. They started migrating to Assam tea plantation since about the middle of 19th century. Through his study he makes an appraisal of general condition of life of tea labourers, changes that have occurred in their way of life, their commitment to the industry and problems they confront because of conflict between traditional and emerging pattern of social structure.

Mita Bhadra's (1999) study reflects development of tea plantations of West Bengal in the light of historical process of migration of labourers from other states outside West Bengal. Their migration from different states and regions, setting down within the multi-ethnic community in the tea plantations, occupational mobility from agriculture to industry etc. has brought certain changes in their socio-economic life. Her study traces development of West Bengal plantation system in the light of the past and forces to which it has been subjected and has responded over time.

George Kandulna (1999) in his study of Adivasis of Assam emphasises on nature of socio-economic conditions of Adivasis of Assam. In his view traditionally Adivasis were agriculturists. After migration to Assam they were engaged in a completely different profession that is highly industrialized. All Adivasis are engaged in plantations as tea garden workers. The major constraints in the economic development have been faced by them in Assam. It is due to their lack of adjustment with the local people.

Ranjit K. Bhadra (1999) says wider social-economic background of tea plantation workers in north-east has considerable importance for understanding their social change. A large number of labourers were brought from Bihar, Orissa, and Madhya Pradesh during British period to work in tea gardens. These labourers belonged to the various ethnic groups like Oraon, Munda, Santhal, Baraik, Kharia Ghasi, Gond, Mahali, Sabar, Khond, etc. There have been many changes in the life due to their migration and adaptation in the plantation industrial environment. This study seeks to understand the process of migration and its consequent effects on socio-economic life of migrant workers.

Gadapani Sharma (2007) his study it is highlighted the economic condition of tea community of Lahpohia Tea Estate, and how to failed to provided the facilities to labour at epidemic time. Agitation of labour is common against management. Non-education, poverty, addiction of male and health facilities are the immutable problems in their lives.

Pallabi Devi (2014) in their study has been design to know the socio- economic status of the tea garden women workers of the Sonitpur District of Assam. Women can play an important role in the upliftment of the society. Without economic, political and social participation, the human society could not be developing.

Achyut Krishna Borah (2013) studied the socio- economic condition and income and expenditure pattern of plantation workers in Lepetkota tea estate in Assam. The study found that majority of the Indian tea producers are not getting fair prices in the market for their tea and this passes to the workers as wage cuts and it further affects the tea industry without a strong and skilled labour force and there are lack of educational facilities for the children of the tea estate workers in the study area.

Robert Kerketta (1999) views about why and how the tribes from Chotonagpur in Bengal, Bihar, Orissa and Madhya Pradesh came to Assam to work in the tea gardens. Many Adivasis from Chotanagpur were recruited to work in the tea gardens of Assam. After coming in this region the labourers partially lost their original identity and partially maintained it under different aspects. They were completely uprooted from their places of origin and landed in an unknown region where they met people and tribes of different cultures, speaking different languages and the assimilation process started. Gradually they lost their culture, language, songs and dances etc and they are deprived of their educational, economic and political privileges.

Thomas Pulloppillil (1999) says that North-East is a mosaic of various cultures and peoples. It is situated in one of the greatest routes of migration of mankind. The migration process began with Bodo tribes in the 4th century B.C. is not finished phenomenon. The tribes of Chotonagpur unlike the rest were unwilling migrants to this land of blue hills and green valleys. Sixty one tribes and forty castes in the tea plantation in Assam. Their migration started from mid nineteenth century and continued up to about mid-twentieth century. This study is intended to offer a panorama of Adivasi life-in particular, the tribal of Jharkhand in the North-East. The papers on the tribal's of Chotanagpur in the plantation of Assam are from the social, cultural and religious point of view.

S.C.Daniel (1999) mentions about the problems of language and culture of Santhals of Chotanagpur since their migration to tea plantation of Assam. To him Santhals in tea gardens of Assam constitute an ethnic group since they fulfill the core or necessary factors of the concept of ethnicity. They share certain aspirations of which language and culture are very crucial. In term of their religion many Santhals in the tea gardens of Assam have become Christians. And Christian Santhals are facing criticism that Christianity and modernism has destroyed their culture.

George Kandulna (1999) through a modest attempt emphasizes on the nature of socio-economic conditions of the Adivasis of Assam. In his view traditionally adivasis were agriculturists. After migration to Assam they were engaged in a completely different profession that is highly industrialized.

From these reviews, it is apparent that studies related to tea garden labourers are conducted in large-scale, have far-reaching effects. The scholars have taken immense interests and pains to study and unearth many notable points. Almost all kinds of approaches have related to tea garden labourers. But studies relating to the problems of tea garden labourers and the effects of the socio-economic and cultural processes in which they live in are rather rare.

Universe of the Study:-

This study is carried out in Borsillah Tea Estate which is located in Sivsagar district of Assam. Sivsagar is located at 26^o 45'N and 27^o 15'N latitudes and 94^o 25'E and 95^o 25'E longitudes. Borsillah Tea Estate is under the Atmaram & Company. The Sub-division of Borsillah Tea Estate is Borsillah, Namti, Ladaigrah, Boruah and Deopani. The total grand area of Borsillah tea estate is 1121.46 hector and the total tea garden area is 625.46 hector. The total number of workers in this tea estate is 2628. There are 1478 permanent workers and 1150 casual workers (*Source: As per tea garden report 2016*).

Methods and Data:-

So far methodology is concerned this study is based on both primary and secondary sources. Primary data have been collected mostly by direct contact method. Interview schedules have been used to carry out the whole investigation. Secondary data was collected from books, journals, census, periodicals etc. Total sample size 40. The sample selected by using random sampling methods. Both male and female respondent was representation of the study. Data was analysis through descriptions and explanations method. Both primary and secondary data was process with systematic statistical procedure. Classification of data was done in proper way and it was presented in tabular form where ever necessary. MS Excel and SPSS used for data processing.

Results and Discussions:-

Social Profile:-

The economic profile of the respondents is determined by Age group, Religion, Place of Origin, Marital status, Types of Family, Education Qualifications of the tea garden labourers in Borsillah Tea Estate.

Table no 1:- Social Profile of Tea Garden Labourer.

Sl.no	Social Profile	Frequency	Percentage	
1.	<i>Age group</i>	<i>20-30years</i>	6	15%
		<i>31-40 years</i>	22	55%
		<i>41-50 years</i>	10	25%
		<i>51-60 years</i>	2	5%
2.	<i>Religion</i>	<i>Hindu</i>	36	90%
		<i>Christian</i>	4	10%
3.	<i>Duration of Residence in Borsillah Tea Estate</i>	<i>Since Birth</i>	29	72.5%
		<i>For last 20 years</i>	7	17.5%
		<i>For last 40 years</i>	3	7.5%
		<i>For last 60 years</i>	1	2.5%
4.	<i>Place of Origin</i>	<i>West Bengal</i>	3	7.5%
		<i>Orissa</i>	32	80%
		<i>Jharkhand</i>	5	12.5%
5	<i>Marital status</i>	<i>Married</i>	37	92.5%
		<i>Unmarried</i>	3	7.5%
6	<i>Types of Family</i>	<i>Nuclear</i>	34	85%
		<i>Joint</i>	6	15%
7	<i>Education Qualifications of the Respondents</i>	<i>Illiterate</i>	12	30%
		<i>Primary</i>	15	37.5%
		<i>High School</i>	12	30%
		<i>Higher Secondary</i>	1	2.5%

Source: Field Study

Age group of the Respondent:-

The above table show that 55% of the respondents are from 31- 40years age group and 25% of the respondents are belonging from 41-50 years age group. Beside these 15% are from 20-30 years and only 5% are of 51-60 years age group. Therefore it is clear from the data majority of the tea garden labourers are from of 31-40 years age group.

Religion followed by the Respondents:-

It is observed from the table 1, that 90% of the labourers of Borsillah tea estate are Hindu, while the remaining 10% of the respondents are Christian.

Duration of Residence in Borsillah Tea Estate:-

Data indicate that majority of the respondents 72.5% are residing in tea garden since birth. 17.5% of the respondents are residing for last 20 years, 7.5% are residing for last 40 years and only 2.5% of the respondents are living in this tea garden for last 60 years.

Place of Origin:-

Data reflect that majority of the tea garden labourers 80% are migrated from Orissa. Remaining these 12.5 % is from Jharkhand and 7.5% of the labourers are migrated from West Bengal. Thus it can be said that labourers of Borsillah tea estate are not original inhabitants in Assam. Most probably their forefathers come and settle down in this tea estate during British period for economic development.

Marital Status:-

It is transparent from table 1 that majority of the tea garden labourers 92.5% are married and remaining only a few 7.5% respondents are unmarried.

Types of Family:-

Nuclear family refers to a group consists of husband, wife and their unmarried children. While in joint family members of more than one nuclear unit stay together and have a common hearth. Above table show that 85% of the respondent have Nuclear Family, while the remaining 15% of the respondents prefer joint family.

Education Qualification:-

From the above table it seen that 30% of the respondents are illiterate, 37.5% of the respondents education up to primary, while 30% of the respondents got education up to high school level and only a little segment that is 2.5% of the respondents got education up to higher secondary. Thus, it can be said that educational level of tea garden labourer is not satisfactory.

Economic Profile:-

The economic profile of the respondents is determined by occupation, income, housing condition of the tea garden labourers in Borsillah Tea Estate.

Table no 2:- Economic Profile of Tea Garden Labourer.

Sl.no	Economic Profile	Frequency	Percentage	
1.	<i>Occupational Category</i>	Casual worker	9	22.5%
		Permanent worker	31	77.5%
2.	<i>Main Earner</i>	Self	25	62.5%
		Father	1	2.5%
		Husband	14	35%
3.	<i>Monthly Family Income</i>	Below Rs. 3000	10	25%
		Rs.3000-5000	21	52.5%
		Rs. 5001-7000	6	15%
		Above Rs.7000	3	7.5%
4.	<i>Total Earner of the Family</i>	One	2	5%
		Two	30	75%
		Three	5	12.5%
		Four	3	7.5%
5.	<i>Housing conditions of Tea Garden Labourer</i>	Pucca	40	100%
		Kacha	0	0%
6.	<i>Saving Account</i>	Yes	1	2.5%
		No	39	97.5%

Source: Field Study

Occupational category:-

Table no 2 shows that 77.5% of respondents are permanent worker and 22.5% of the respondents are casual worker in the tea garden.

Main Earner:-

From the table no 2 it is clear that 62.5% of the respondent is the sole earner of their family while 35% of the respondent's Husband is the main earner and only 2.5 % respondent's father is the main earner of their family.

Monthly Family Income:-

Respondent's family income is mainly based on tea garden wages. Respondent's view that wages of tea garden is not adequate to meet their daily expenses. Hence, they are not financially solvent. From the above table it is indicate that 52.5% of the respondents have low family income with range Rs.3000-5000 and 25% respondent income very low, below Rs 3000. Beside these 15% of the respondent income are medium Rs 5001-7000, and only 7.5% of the respondent family income relatively high with Rs Above 7000 per month.

Total Earner:-

Tea garden labourers are generally dependent on wage of the tea garden to maintain their livelihood. Their daily wage is so less than one person's wage is not sufficient to maintain a family. That is why more than one member is engaged in tea garden work to meet their daily expenses. It is observed from the table 2 that 75% of the respondent

have two earning member in their family and 12.5% of the respondent have three earning member in their family. Remaining 7.5 % have four earners and only 5% respondent's family depend on only one earner.

Type of House:-

House is the indicator of socio-economic condition and its change in a particular family or community. The housing conditions of the respondent are not the same. The tea garden authority provides the house for their labourers. From the table 2 it is clear that the entire respondent (100%) have pucca houses in the study area. But due to old age of the house some of those have become poor in quality.

Saving Account:-

Table 2 reveal that majority of tea garden labourers (97.5%) have no saving account and only a few (2.5%) of respondent have saving account.

Development schemes for tea garden labourers:-

After independence government announced a series of welfare scheme for development of tea garden labourer. Despite of formulation of plan and policy by government, labourer of Borsillah tea Estate are deprived of minimum facility. Government made provision for economic and educational improvement of tea labour of Assam but condition of labourer is very deplorable in the study area. Labourers are ignorant about facility provided to them by government. Their illiteracy and ignorance are used as weapons by tea garden management to deprive them from basic amenity provided to them by government. Their school going children do not get pre-matric scholarship. School in tea garden inhabited locality lack infrastructural facility and shortage of teacher. In Borsillah tea estate tea community as a whole are deprived of all government amenities. Condition of road, school, house, electricity in tea labourer inhabited localities is worse till today. Tea community suffers from numerous health problems but government hospitals even sub-centers do not attend to health related problems. No facility is available to them to maintain sanitation and hygiene. Tea labourer childrens as well as pregnant and lactating mothers suffer from mal-nutrition and deficiency. ASHA, AWC and ANM are there only in official records but practically they do not work in this locality. Thus, it can be said that tea garden labourer are deprived of all government aid and facility. Poverty, illiteracy and ignorance are being capitalised by government officials to deprive them.

Recommendation:-

Following recommendations are made from the study.

1. Government should make regulation to safeguard tea garden labourers from exploitation of authority.
2. Tea garden authority should increase salary as well as basic amenity of life for workers.
3. Special attention needs to be given to improve educational attainment of tea community in the Borsillah tea garden.
4. Government plan and policy should be implemented properly for development tea community in the Borsillah tea garden.
5. Tea garden authority should look after problems of labourer and try to solve their problem in a concrete manner.
6. Tea community should not be socially excluded rather measures should be taken to include them in wider society.

Conclusion:-

From sum up it can be concluded that labourers in Borsillah tea estate live in poor condition. They suffer from multiple problems. Economic life of majority of them is in bad shape. Tea garden labourers are still lagging behind in terms of socially, economically and culturally. It is the duty of the society to make them literate, culturally reach and economically stable so that they can live in this beautiful world happily and peacefully.

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A STUDY ON GROWTH OF MICRO INSURANCE IN ASSAM

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Dr. Sankar Thappa**

(Micro insurance is a tool for investment, savings and as a measure of social security to the poor. It increases the livelihood of the poor where they can eat well, have good health since they wouldn't have to save as much for emergencies. This research paper discuss about growth of micro-insurance in India as well as in Assam. The micro insurance providers are seventeen in number in India. The numbers of micro insurance agents are in growing trend both in LIC of India and in private insurers too. The study concludes that the growth rate micro (life) insurance sector is not positive through the years as started it.)

Keywords: Low-Income; Micro-Insurance; Growth; Policyholder.

Introduction:

A poor people's property may be limited to a few animals or crops and modest shelter, but the destruction of any of these may be a great blow to the family's economy. Even small sums insured can ensure some protection and peace of mind for a poor person. Whether poor people want insurance, and if so, only micro insurance products are benefit able to the poor.

Insuring against the adverse situation is one of the options before the poor. Insurance can assist them to manage and diversify their risks at the adverse situation. But it is difficult to be insured in the formal market, because of high risk and affordable premium for poor. Generally credit and insurance market are non-existent for the poor in the developing countries. Therefore, insurance benefits are modified for the low income group to suit their needs and it is named as micro insurance.

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Micro insurance:

The term micro insurance, as the name suggests, is insurance to protect the low income group. These groups have to pay specific amounts, as regular premiums, proportionate to the likelihood and the cost of the risk against which they are insuring their life, those of their family members and property. This concept is quite in line with regular insurance. The only exception in the targeted beneficiaries is the low income people.

Micro insurance means different things for different supervisors. In most jurisdictions, micro insurance is not considered as a separate type of insurance and just viewed as insurance available in small sums.

“Micro-insurance is the protection for the low -income population against specific dangers in exchange for regular payments of proportional premiums to the probability and costs of the involved risks”. – Churchill

Micro insurance in India:

Micro insurance is a new concept In India, adopted in 2005, as per the Insurance Regulatory and Development Authority of India (IRDA) guidelines to enhance insurance coverage to people around the poverty line. Basically, micro insurance covers the people working in the informal economy and are financially excluded as compared to the rich people of the society.

The concept of micro insurance, in developing countries like India, has originated from the concept of microfinance. Microfinance institutions face high risks of default through death or physical disability of the borrower. As a result they (Microfinance institutions) began to associate with insuring bodies, both public and private.

The Indian regulator (IRDA) has bought in specified micro insurance regulations in November 2005, in which the regulator has undertaken the product design, specifying a distribution channel in form of NGO, Self Help Group or a MFI and the pricing mechanism to insurers.

Insurance Regulatory Authority of India (micro insurance) Regulation 2005 has been stated mainly two types of micro insurance:

General micro insurance product:

General micro insurance product means any health insurance contract, any contract covering the belonging, such as hut, livestock, or tools or instruments or any personal accident contract, either on individual or group basis, as per terms stated in schedule-I appended to the regulations,

Life micro insurance product:

Life micro insurance product means any term insurance contract with or without return of premium, any endowment insurance contract or health insurance contract, with or without an accident benefit rider, either on individual or group basis, as per terms stated in schedule-II appended to the regulations.

Micro Insurance Products in India:

There are 24 life insurance companies are present in India but only 17 companies are providing micro insurance products this clearly give an idea of low attraction of majority of companies towards these products. Below is the list of micro insurance products along with the name of companies:

Table-1

LIST OF MICRO INSURANCE PRODUCTS OF LIFE INSURERS AS AT 31. 03.2016

Name of Insurer	Name of the Product	
	Individual Category	Group Category
AVIVA Life	Aviva Nayi Grameen Suraksha	
Bajaj Allianz Life	Bajaj Allianz Life Bima Dhan Suraksha Yojana. Bajaj Allianz Life Bima Dhan Saral Suraksha Yojana. Bajaj Allianz Life Bima Sanchay Yojana.	
Bharti AXA Life		Bharti AXA life Jan Suraksha
Birla Sun Life	BSLI Bima Suraksha Super. BSLI Grameen Jeevan Raksha	

Canara HSBC OBC Life		Canara HSBC Oriental Bank of Commerce life Insurance Sampoom Kavach Plan
DHFL Pramerica Life		DLF Pramerica Sarv-Suraksha.
Edleweiss Tokio Life	Edleweiss Tokio Life Suraksha Kavach Edleweiss Tokio Life Dhan Nivesh Bima Yojana	
HDFC Standard Life	HDFC SL Sar Grameen Bachat Yojana	
ICICI Prudential Life	ICICI Pru. Sarva Jana Suraksha ICICI Pru Anmol Bachat	
IDBI Federal Life	Termsurance Sampoom Suraksha Micro Insurance Plan	IDBI Federal Group Micro insurance Plan
Kotak Mahindra Life	Sampoom Bima Micro Insurance Plan	
LIC of India	Bhagya Lakshmi New Jeevan Mangal	
PNB Met Life	Met Life Grameen Ashray	
Sahara Life	Sahara Surakshit Pariwar Jeevan Bima	
SBI Life.	SBI Life Grameen Bima	SBI Life Grameen Super Suraksha. SBI Life Grameen Shakti
Shriram Life		Sri Sahay (SP).
TATA AIA Life	TATA AIA Life Insurance Navkalyan Yojana. TATA AIA Life Insurance Sat Saath	

Source: IRDAI Annual Report-2015-16

Note: All Micro-insurance products and products falling within the parameters prescribed under the IRDA (Micro-insurance) Regulations, 2005, but launched prior to the said Regulations.

Need of study:

Insurance plays the important role in the economic development of the country. It helps for the mobilization of savings of people, specially from middle and lower income group.

A news item in 'The Economic Times' issued dated April 24, 2007 briefly touches upon a special rural drive in rural India for promoting activities and implementing plans in micro insurance. According to the report, in the 2006, the then President of India A.P.J. Abdul Kalam

had launched a special scheme for covering the risk of the rural poor through micro insurance by the LIC of India. But any research has not been taken yet in promoting activities and implementing plans of micro insurance in Assam. The trends of micro insurance in Assam are still remaining as unknown. The researcher intends to focus a picture on the growth of micro insurance on Assam.

Objectives of the study:

1. To study the awareness level of micro insurance among the poor people of Assam.
2. To study the growth of micro insurance in India as well as in Assam.

Review of literature:

Name of Author	Topic	Findings
Dr. Ashfaque Ahmed (2013)	perception of life insurance policies in rural India	There is low level of awareness and understanding of life insurance products. There are various factors that influence consumer thinking when they are planning to invest in insurance scheme. Most of the customers show their interest in life insurance having higher risk coverage and also for good return with safety. The roles played in perception of life insurance policies in rural market by members of the family varies with knowledge parameters as well as with the typed of products and sometimes with the company name also. While a number of psychological variables are useful in obtaining into consumer's perception towards buying life insurance policies in rural areas. The insurance company name also plays an important role in purchasing.
Ramanathan, K.V. (2011)	A Study on Policyholders Satisfaction with Special	Research has resulted in the development of a reliable and valid instrument for assessing customer perceived service quality, awareness level, and

	Reference to Life Insurance Corporation of India, Thanjavur Division	satisfaction level of customers towards life insurance industry. Here, service quality needs to be measured using a six dimensional hierarchal structure consisting of assurance, competence, personalized financial planning, corporate image, tangibles and technology dimensions.
Syed Abdul Hamid & Roberts & Paul Mosley (2010)	“Can micro health insurance reduce poverty: Evidence from Bangladesh” Sheffield economic research paper series no.2010001, 2010	There is a positive impact of micro health insurance in the reduction of poverty among rural households of Bangladesh. Micro health insurance has a significant beneficial effect on food sufficiency of poor’s and has a dynamic improvement in the health status of poor rural households.
Gunita Arun Chandhok (2009)	“Insurance- A tool to eradicate and a vehicle to economic development” NBER Working paper no. 15396, 2009	There is a huge untapped market for micro health insurance and majority of population are aware and understand the importance of micro health insurance. Thus, micro insurance will go a long way in eradicating poverty. If the various micro insurance models are implemented effectively by Insurer, MFI’s, SHG’s, NGO’s, Health institutions, Donors and Co-operatives the BPL population will lead a peaceful and secure life.
Venkata Ramana Rao (2008)	“Life insurance awareness in rural India: Micro insurance lessons to learn and teach” Bimaquest- Volume VIII issue I, 2008	The study reveals that micro insurance is not an opportunity but a responsibility and to serve this responsibility good awareness campaign is needed. Micro insurance is offering real solutions to the billions of rural poor that raises the awareness of micro insurance as a key issue in coming future.

Prof. M. ZiaulhaqMamun (2007)	“Contribution of micro insurance augmenting the poverty alleviation role of micro-finance: A case study of Bangladesh”	The study concluded that there are three basic models of micro insurance this is Provider model, Insurer model and Linked model. As per the study, linked model is the best suitable model for the improvement of poor’s conditions in Bangladesh, but presently they are using Insurer model, which is less productive for poor’s social security.
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Research Methology:

A questionnaire developed that includes 23 different questions to be applied to 300 people in Dibrugarh and Sibsagar district of Assam, in the study period. The questionnaire is to be filled by the respondents in the presence of interview.

- 1. Population of the study:** All the below poverty line inhabitant of Dibrugarh and Sibsagar district.
- 2. Sampling Frame:** Sampling frame comprises the list of Panchayat level Below Poverty Line inhabitant. In this study sampling frame will be considered Below Poverty Line inhabitant in two Panchayat from each Development Block of selected Districts.
- 3) Sample Size:** The sample size is to be 300 BPL people from four gaon panchayat and selected respondent from NGOs.
- 4) Sampling Technique Adopted:** Convenient sampling

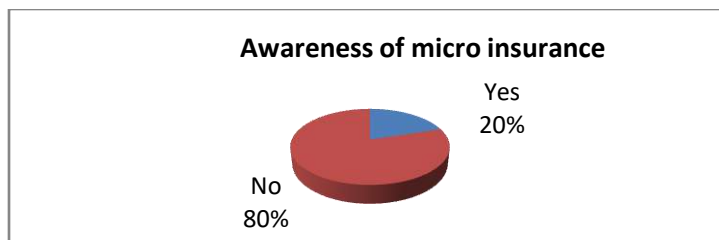
Analysis of data:

1. Awareness of Micro insurance in Study Area:

Presently the researcher collected data from 300 respondents from the four Gaon Panchayat and NGO. From the study it is found that only 20% respondents are aware about the micro insurance i.e. 60 respondent and 80% (240respondents) are not aware about it.

Figure -1

Awareness level of micro insurance

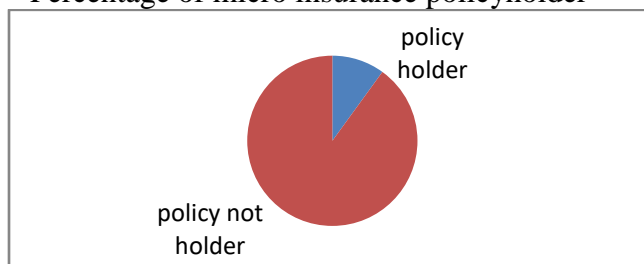


From the above analysis it is found that majority of the population are not aware about micro insurance in this area. They have not any idea about micro insurance. The agents are given more preference to them who are financially sound. Therefore it is highly recommended to give more and more trained rural life insurance agents, especially micro insurance agents, for the micro insurance products only. For this purpose IRDA should monitor the quality of training imparted to the life agent/advisors. More quality training institutes are required for this purpose.

2. Micro insurance policyholder:

Only 10% (i.e. 30 no.) respondents have any kind of micro insurance policy and other 90% (270 no.) have not hold any insurance policy.

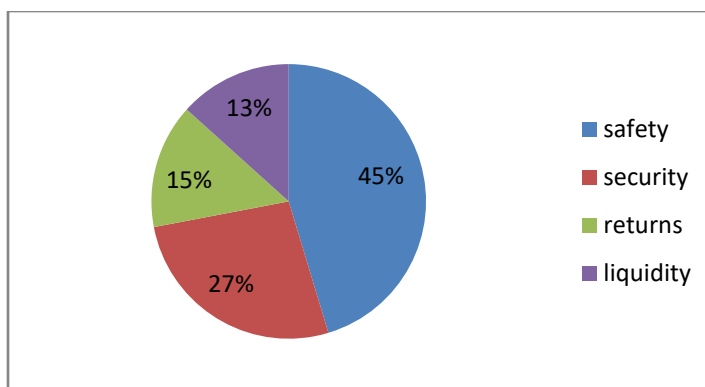
Figure -2
Percentage of micro insurance policyholder



3. Factors influencing in taking a policy:

While purchasing policy majority of the respondent given importance in the factor of safety i.e. 45.33% (136 nos.) of the policyholders. The second factor influencing in taking insurance policy is security i.e. 26.67% (80 nos.). The third factors of taking insurance policy is return, it is 14.67% (44 nos.) while the fourth factor is only 13.33% (40 nos.).

Figure -3
Factors influencing in taking policy



Growth of micro insurance in India

The micro insurance business in India cannot make a continuous progress in both public insurance and private insurance companies. More life and group operations and many fresh policies have been launched by the insurance companies. The distribution system of policies has also been strengthened substantially, and the new business of micro insurance has shown a sufficient growth though the mass is still very low.

Table-2

Growth of Individual Micro Insurance Business (premium in Rupees Lakh)

Year	Public Insurance Company					Private Insurance Company				
	Policies	% change in growth rate of policies	premium	% change in growth rate of premium	Premium per policy	policies	% change in rate of policies	premium	% change in growth rate of premium	Premium per policy
2007-08	854615	-	1613.36	-	188.78	83153	-	209.74	-	252.23
2008-09	1541218	80.34	3118.74	93.31	202.36	610851	634.61	537.81	156.42	88.04
2009-10	1985145	132.29	14982.5	828.65	754.73	998809	1101.17	839.78	300.39	84.08
2010-11	2951235	245.33	12305.8	662.74	416.97	699733	741.50	735.09	250.48	105.05
2011-12	3826783	347.78	10603.5	557.23	277.09	793660	854.46	964.22	359.72	121.49
2012-13	4340235	407.86	9949.05	516.67	229.23	695904	736.90	1,018.54	385.62	146.36
2013-14	2205820	158.11	8635.77	435.27	391.50	561339	575.07	929.29	343.07	165.55
2014-15	400341	-53.16	1640.23	1.67	409.71	416027	400.32	1249.22	495.60	300.27
2015-16	452291	-47.08	1953.78	21.10	431.97	458655	451.58	1217.95	480.69	265.55

Source: IRDA Annual Reports.

The Table no.2 shows the percentage change in the growth rate of individual micro insurance business of public and private insurance companies. For calculating the percentage change in the growth rate during year 2007-08 has been taken as base year. The Table clearly revealed that public insurance companies have increased the percentage of policies in first six years but in the last two years it is negative growing rate. On the other hand, private insurance companies have increased percentage policies not less than 400% whether it is some time increased or decreased. Similarly public insurance companies have increased growth rate for premium from the first six year satisfactory but in the last two years the growth rate of premium is very low. But the private insurance companies have maintained a satisfactory growth rate in case of the premium amount.

Table-3

Growth of Group Micro Insurance Business (premium in Rupees Lakh)

A. Public Insurance Company:

Year	Scheme	% change in growth rate of Scheme	Lives Covered	% change in growth rate of lives covered	Premium	% change in growth rate of premium
2007-08	7583		11367126		19256.23	
2008-09	6883	-9.23	11052815	-2.77	17268.54	-10.32
2009-10	5190	-31.56	14946927	31.49	22869.72	18.77
2010-11	5446	-28.18	13275464	16.79	13803.67	-28.32
2011-12	5461	-27.98	983163	-99.91	94443.49	480.30
2012-13	5325	-29.78	13223872	16.33	21045.76	9.29
2013-14	5292	-30.21	11887303	4.58	12581.45	-34.66
2014-15	5417	-28.56	20596725	81.19	28193.80	46.41
2015-16	4844	-36.12	22603919	98.85	25426.39	32.04

B. Private Insurance Companies:

Year	Scheme	% change in growth rate of Scheme	Lives Covered	% change in growth rate of lives covered	Premium	% change in growth rate of premium
2007-08	15		874901	-	871.23	
2008-09	14	-6.67	1498994	71.33	3326.8	281.85
2009-10	17	13.33	1895143	116.61	1472.09	68.97
2010-11	23	53.33	1983537	126.72	1719.14	97.32
2011-12	112	646.67	115067	-99.87	7505.55	761.48
2012-13	151	906.67	7,57,450	-13.42	756.89	-13.12
2013-14	164	993.33	1291741	47.64	1595.23	83.10
2014-15	62	313.33	2531436	189.34	3366.22	286.38
2015-16	153	920.00	66,50,805	660.18	4816.67	452.86

. The table no.3 examine the percentage change in the growth rate of group micro insurance business during the last nine years i.e., from 2007-08 to 2015-16. In case of group micro insurance business, public insurance companies have been negative growth rate of percentage in schemes. Whereas the private insurance companies have decreased their schemes in their 2008-2009 from 15 to 14 schemes but again increased in next five years and again decreased in the year of 2014-15. Similarly, in case of lives covered by public & private insurance companies there has been an increased trend of micro insurance from 2007-08 to 2015-2016. While in case of premium collection by public insurance companies, they had been rising trend premium amount from 2007-2009 but decreased in 2010 that again increases in 2011-2012. Same Condition is there with private insurance companies for the premium amount.

Therefore, the tables reveal that in case of individual micro insurance business the overall policies issued by private insurance companies is more than public insurance company but the premium collection rate of public insurance companies is higher.

Similarly in group micro insurance business private insurance companies overall growth rate is higher in number of schemes issued and premium collection but negative in lives covered then public insurance companies.

Table-4

Micro Insurance Agents of Life Insurers 2015-16

Insurer	As on 1 st April,2015	Additions	Deletions	As on 31 st March,2016
Private	3382	6392	1307	8,467
LICI	19379	997	1802	18,574
Total	22761	7389	3109	27,041

Source: IRDA Annual report 2015-16.

In 2015-16 the private insurance agent increased from 3382 to 8467 there were an additions of 6392 and deletions of 1307 agents and the LIC agents were decreased from 19379 to 18574 there were an additions of 997 and deletions of 1802 agents. From the table- 5 it reveals that private insurance companies are give more importance on micro insurance than public company.

Micro Insurance in Assam:

LIC started Micro insurance business in the financial year 2006-2007 by the product of JEEVAN MADHUR POLICY- (Table No. 182). The following table shows the present LIC's micro insurance business in Assam.

Table-5
Growth of Individual Micro Insurance Business (LIC of India)

YEAR	DIVISION								
	GUWAHATI			BONGAIGAON			JORHAT		
	POLICI ES	% change in growth rate of policies	FPI	POLICI ES	% change in growth rate of policies	FPI	POLICI ES	% change in growth rate of policies	FPI
2010-11	9,067	---	18,00,855	7,315	---	10,56,446	7,205	---	NA
2011-12	27,053	198.37	23,55,727	9,316	27.35	14,77,660	75,110	942.47	NA
2012-13	32,025	253.20	20,89,818	13,624	86.25	8,45,123	77,798	979.78	NA
2013-14	18,463	103.62	16,24,199	4,463	-38.99	11,10,510	5,530	-23.25	NA
2014-15	4,060	-55.22	6,30,605	1,563	-78.63	4,40,310	3,159	-56.16	9,92,910
2015-16	4,177	-53.93	9,37,682	2,929	-59.96	22,04,334	2,401	-66.68	14,98,920
2016-17	4,258	-53.04	8,43,774	3,030	-58.58	16,95,703	2,467	-65.76	18,56,450

Source: Collected Data.

The Table-5 clearly revealed that public insurance companies have increased the percentage of policies in years 2010-11, 2011-12 and 2012-13 but in the last three years i.e. 2013-14, 2014-15 and 2015-16 it is decreasing the no. of policies and first premium installment

Table-6
Micro Insurance Agent (LIC, Guwahati Division)

YEAR	As on 1 st April	Additions	Deletions	As on 31 st March	Activate
2010-2011	27	19	0	46	37
2011-2012	47	15	1	61	40
2012-2013	61	8	0	69	31
2013-2014	70	5	1	72	16
2014-2015	74	22	2	94	25
2015-2016	107	10	13	104	26
2016-2017	126	6	22	110	23

Source: Collected Data

In table-6 it is clearly revealed that the Life insurance Company of India, Guwahati Division insurance agent increased from 27 in the year 2010-11 to 126 in the year 2016-17 but only 23 insurance agents are working actively in the year 2016-17. It focuses that the public insurance company cannot attract the mass people to micro insurance in Assam.

Conclusion

Micro insurance is just one of the several risk pooling tools available to low income people. Micro insurance sector can play a vital role in developing of our economy. But all the insurance companies except LICI have reduced working on micro insurance because of many people not came forward to act as agents or intermediaries for providing life micro insurance. Micro insurance providers should begin by training and educating key intermediaries in the idea of promoting insurance and private insurers should also begin developing relationships with existing delivery channels The insurance companies should innovate products and distribution beyond the regulatory requirement to conduct business in the low income segment.

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I. Books/Journals Consulted:

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2. Gunita Arun Chandhok “Insurance- A tool to eradicate and a vehicle to economic development” NBER Working paper no. 15396, 2009
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7. Venkata Ramana Rao “Life insurance awareness in rural India: Micro insurance lessons to learn and teach” Bimaquest- Volume VIII issue I, 2008.

II. Reports etc.:

- a) Insurance Institute of India, Annual Reports 2014 to 2015.
- b) IRDA Annual Reports, 2011 to 2016.
- c) LIC of India Annual Reports, 2011 to 2016.
- d) Insurance Institute of India <http://www.iii.com>
- e) Insurance Regulatory Development Authority <http://www.irdaindia.org>

Measuring the Impact of Unemployment on Youth in Ukhrul district of Manipur

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Abstract: Unemployment of youth is one of the most serious crises that human society is facing today. The crisis is serious as unemployment is not an end in itself; it is giving birth to many other social problems as crime, drug addiction, alcoholism, gambling, insurgency, suicide etc. When these unemployed youths are educated, the problem is graver, as they can easily fall into the prey of violent protest against political system which proved to be incapable of addressing their problem. Hence the present study attempts to capture the impacts of unemployment, which is one of the major impediments the youths are facing in Manipur in general and Ukhrul district in particular. The study is focussed in Ukhrul district of 5 blocks, i.e. Chingai, Ukhrul central, Phungyar, Kamjong, Kasom.

The study reveals that unemployment is causing financial, social and psychological struggle to the youths and it is not confined to the unemployed only as their entire family is also affected by this. The negative financial, social and psychological effects of unemployment make the youth vulnerable to be victims of other social problems as addiction to alcoholic drinks (35.2%) followed by gambling (24.7%), insurgency (14.7%), addiction to drugs (13.8%), crime (11.7%).

Keywords: Unemployment; Youth; Education; Employment; Problems.

I. INTRODUCTION

Unemployment of youth is one of the most serious crises that human society is facing today. ILO estimates that the global youth unemployment rate is expected to reach 13.1 per cent in 2016 and remain at that level through to 2017. According to United Nations Development Programme (UNDP), between 2012–2020, almost 1.1 billion of young job seekers are likely to enter in the job market and many of them would be in South Asia and Sub Saharan Africa. Therefore, (ILO 2012) gives a statement that 600 million jobs will be needed over the next 15 years. But the crisis is serious as unemployment is not an end in itself; it is giving birth to many other social problems as crime, drug addiction, alcoholism, gambling, insurgency, suicide etc. When these unemployed youths are educated, the problem is graver, as they can easily fall into the prey of violent protest against political system which proved to be incapable of addressing their problem.

Hence the present study attempts to capture the impacts of unemployment, which is one of the major impediments the youths are facing in Manipur in general and Ukhrul district in particular. According to official reports of Employment Exchange Office Report, there are 33,918 educated youth seeking employment in Ukhrul district as on 2016 (till October), which may be much less than the real figure as not every youth prefer to register their name in employment exchange as they have lost hope in it. The population of Ukhrul, according to the 2011 census, is 183,998. Political observers say that, due to absence of industries in Manipur, alternative employment opportunities apart from government jobs are very limited in Ukhrul district. Consequently, the government sector is over burdened and the state government now holding that it does not have enough funds to recruit such large numbers of education youths. But the reality shows that till 2014-15 in Ukhrul district the number of micro, small & medium enterprises is nil.

Table1: District-Wise number of EM (Part-II) Micro, Small & Medium Enterprises at District Industries Centre under the various State UT Commissioner ate/Directorate of Industries for the year 2014-15

Sl.No	District	Micro	Small	Medium	Total
1	Senapati	11	0	0	11
2	Tamenglong	10	01	0	11
3	Churachanpur	18	0	0	18
4	Bishnupur	79	0	0	79
5	Thoubal	07	02	0	09
6	Imphal West	20	06	01	27
7	Imphal East	31	10	0	41
8	Ukhrul	0	0	0	0
9	Chandel	02	0	0	02
Total		178	19	01	198

Source: Nucleus Cell / Comm. & Industry .Manipur

Moreover when we look at the trend of the number of micro, small & medium enterprises over the period from 2007-16 in Manipur, it shows that the growth is significantly slowing down.

Table2: District Industrial Potential Survey Report of Imphal West District 2014-15

Sl.No	Year	Micro	Small	Medium	Total
1	2007-08	53	1	-	54
2	2008-09	131	6	1	138
3	2009-10	76	4	1	81
4	2010-11	117	5	-	122
5	2011-12	111	10	1	122
6	2012-13	174	7	-	181
7	2013-14	164	13	1	178
8	2014-15	178	19	1	198
9	2015-16	23	0	0	23
Total		849	82	5	1097

Source: DIC, Imphal West District Industrial Potential Survey Report of Imphal

Therefore as unemployment is a momentous crisis that the region is facing is also giving birth to many other social problems, the present paper is an attempt to capture the extent of these impact of unemployment on youth and their society.

II. METHODOLOGY

The data is collected from both primary and secondary sources. For primary sources the methods of data collection are interview and observation. Interview is conducted with the help of interview schedule and non participatory observation method is used. Moreover other tools used for data collection are camera and voice recorders. For secondary sources the data is collected from books, government documents, archive materials, internet sources etc. The researcher has used non probability sampling method i.e purposive sampling as the unemployed youth are difficult to be traced particularly in the study area as they spend most of their time outside their house.

III. FINDINGS OF THE STUDY

Socio economic background of the respondents

To understand the patterns of the unemployment in any social setting one has to understand the social background of the unemployed as it plays a significant role in determining the pattern. The data for the present study has been collected from 600 respondents who are unemployed and from the age group 20-40. The study is conducted on 64.0% of male and 36.0% female respondents. The age group of the respondents shows that majority of them (48.8%) are from 26-30 age group, followed by 20-25 (26.5%). The study is conducted at Ukhrul where majority are from Tangkhul tribe, which is one of the largest Naga tribe in Manipur. All the respondents for the study are from Tangkhul tribe, who practice Christianity. The educational level of the respondent reveals a optimistic picture as majority of the respondents has completed their bachelor degree (54.0%) followed by master degree (30.0%), higher secondary 10+2 with (14%) and Ph.D with (2%) in the study area (Uriah, O.A.; Ololube, N.P. & Egbezor, D.A. 2015). Because of their educational background they are also mostly (95%) multilingual who knows Manipuri, Hindi and English. When asked about the main reason for discontinuing from studies, it reveals that 50.3% respondents have discontinued as they finished their course and want to start working after that. Moreover, 21.7% have discontinued as they finished their course/studies and don't want to continue any more.

The economic status of the respondents also plays a vital role in capturing the patterns of unemployment and measuring its impact on them and their family (Khan, J.H., & Hassan, T., 2011). The monthly household income of the respondents reveals that most of them (37.7%) have income of Rs 30,001 – Rs 45000, followed by (17.2%) Rs 15,001- 20,000, (16.8%) Rs 10,000-15000, (16.2%) Rs 25,001-3000 and finally (12.2%) Rs 20,001- 25,000. The monthly households income is also reflected in their household consumption pattern as majority (66.2%) of them have very low consumption pattern, followed by low household consumption pattern (14.2%), average 12.3. The size of the family of the respondents reveals that majority of them (63%) have big family with 5-7 members (Vikash, P. 2014). The type of household of the unemployed youth who are taken as a respondent, majority of the respondents (52.7%) have semi concrete type of house followed by katcha house 42% and finally concrete houses 5.3%. When asked about the occupation of the respondent parents, it shows that (49.0%) are practicing agriculture, (Tilak, V. R. K., 1965) followed by (13.3%) of government servant, whereas the occupation of the respondent mother reveals that 36.22% are engaged in housework whereas 36.2% are engaged in agriculture work.

Interpretation of the different problem that emerged due to unemployment

The study shows that majority of the respondents (83.0%) believe that population growth is responsible for the rising problem of unemployment (Bhebhe etal; 2015), but it has not stopped the educated youth from

looking for job as 69.5% of the respondent are still actively seeking for a job (Gomathi, V. & Neela, M. 2016), while a significant number (30.5%) of the respondents are not looking for any job as they may have lost hope in the system. This is mainly because the educated unemployed feels education is a priority for getting a job, 83.3% of the respondent did not ever stop their education whereas 16.7% of the respondent stopped their education to work or look for work and then re-enter school/colleges at a later date. The study shows that these educated youth suffering from unemployment are facing problems as family problems (40.0%), followed by economic impediments (38.3%), psychological stress (13.3) addiction to different drugs (8.3) (Weich, S., & Lewis, G. 1998; Majumder, R. & Mukherjee, D. 2013; Mansingh, J.P., & Legesse. W. 2016). The problem of unemployment has come up to a big concern because most of the educated unemployed youth (51.2%) are more likely to accept any job provided it is stable (Alan, B. K., & and Maleckova, J. 2013), followed by those who have reported that they will accept any job in whatever the condition (28.8%). The dearth of employment opportunities is forcing them to take any job they get without being choosy. Thus, from the survey, majority of the respondents (57.3%) needs a minimum level of income per month below which they are not going to accept a job as the respondents are well qualified, whereas a significant number of them (42.7%) do not need a minimum level of income per month to accept a job as the respondent are too desperate to get any job (Cooper, D. 2014). In these conditions moving out of the district or the state would be a considerable option for youths but most of the youths (59.7%) are not considering moving out of the district for seeking job mainly because of financial inabilities.

The unemployed youth often feel that they are not getting the importance in their family, peers group and society. In the study it is found that most of the respondents are consulted by their family members regarding family affairs only occasionally (46.7%), followed by always (44.8%) rarely (8.5%). Hence it tells about the status of those youths who are unemployed in their own house. Consequently majority (87.5%) of the respondents believed that unemployment undermines their status at home as well the status of their family in the community which shows that unemployment is a problem for the individual, family and society as it hampers their familial and social image (Fineman, S. 1983). This inject a sense of inferiority complex in the mind of the youth who started to believe that their status is not going to change as majority of the respondent are not sure if they can fulfil the expectations of their parents by getting a job (59%) and followed by those who are confident of getting job (34.5%) whereas (6.3%) of the respondent have no hope of fulfilling the parental expectations. Therefore, it is clear that majority of the respondents are doubting their chances of fulfilling their parents or guardians' expectations in the near future, (Osemengbe, O. 2013). At the same time, study also reveals that most of the respondents (69.3%) interact with unemployed friends. This tells the level of inferiority complex of the respondents who are not comfortable in regularly spending time and interacting with employed friends of theirs. As the situation of unemployment is getting high in the study reveals that majority (48.3%) of the respondent are uncertain about their chances of getting a suitable job of their choice and hence most of the respondent (70.8%) think that their life will end up doing something different from what they have been trained for. It also reveals majority of the respondent (51.7%) in the past have felt isolated and feels that they are cut off from the society, which may be an instrumental reason for the youth becoming vulnerable to fall into the trap of crime.

Table3: Cases Reported (I), Victims (V) & Rate(R) of Cognizable Crimes (IPC) Under Different Crime Heads During 2015

Sl	Crime	I	V	R
1	Murder (Sec.302IPC)	81	102	3.1
2	Attempt to Commit Murder (Sec. 307 IPC)	196	205	7.6
3	Rape (Sec. 376 IPC)	46	46	3.6
4	Kidnapping & Abduction (Sec. 363-369, 371-373 IPC)	179	192	7.0
5	Robbery (Sec. 392-394,397,398 IPC)	7	8	0.3
6	Criminal Trespass/Burglary (Sec. 449-452,454,455, 457-460 IPC)	84	-	3.3
7	Theft (Sec.379-382 IPC)	1333	-	51.8
8	Riots (Sec.143-145,147 151,153,153A,153B,157, 158,160 IPC)	164	176	6.4
9	Criminal Breach of Trust (Sec. 406-409 IPC)	51	-	2.0
10	Cheating (Sec. 419,420 IPC)	124	-	4.8
11	Forgery	20	-	0.8
12	Counterfeiting (Sec. 231-254,489A- 489D IPC)	6	-	0.2
13	Arson (Sec. 435,436,438 IPC)	75	-	2.9
14	Grievous Hurt (Section 325, 326, 326A & 326B IPC)	224	226	8.7
15	Assault on Women With Intent to Outrage Her Modesty (Sec.354 IPC)	84	84	6.6
16	Cruelty By Husband Or His Relatives (Sec. 498A IPC)	39	39	3.1
17	Causing Death By Negligence (Sec. 304A IPC)	119	136	4.6
18	Offences Against State (Section 121, 121A, 122, 123 & 124A IPC)	20	-	0.7

19	Extortion	67	69	2.6
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Source: *Crime in India 2015 statistic, National Crime Records Bureau (Ministry of Home Affairs)*

The table show that in Manipur most of the crime is related to violent crimes, murder, kidnapping, theft and in all these crime youths are engaged who are vulnerable to fall into the prey of these crimes mainly because of their unemployment.

IV. CONCLUSION

Hence the study reveals that unemployment is causing financial, social and psychological struggle to the youths and it is not confined to the unemployed only as their entire family is also affected by this. The negative financial, social and psychological effects of unemployment make the youth vulnerable to be victims of other social problems as addiction to alcoholic drinks (35.2%) followed by gambling (24.7%), insurgency (14.7%), addiction to drugs (13.8%), crime (11.7%) (Gould, E.D., etal 2002; Osemengbe, O. 2013). Though the study reveals the failure of political leadership as majority of the respondents (89.7%) held poor political leadership as the reason for unemployment in the area, the policy makers and the government needs to look after the youth in various ways by giving an opportunity to the youths by opening new avenues of employment as improving the infrastructure for entrepreneurship (Bhagat, R. 2002) and attracting private companies to the State and district of Ukhrul. Moreover the civil society and other pressure groups should stand by these youths and pressurise the government to come up with policies that address their requirements and also act as a watch dog during the implementation of these policies. The people of the region should also look for other employment generating measures through tourism, entrepreneurship endeavours etc. The study clearly reveals that unemployment is an immense crisis that the region in particular and the state in general is facing today and it is also giving birth to other severe social problems, hence the first step to solve the problem is to recognise the extent of the problem which both the state government and the civil societies are still now reluctant to accept.

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Relationship of Cohesion and Expressiveness Dimensions of Home Environment on Academic Achievement of Class X Students

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Abstract: *In the present study an attempt was made to investigate the relation between cohesion and expressive dimensions of home environment and the academic achievement of class X students in the Ri Bhoi District of Meghalaya. The study was carried with the 472 samples selected randomly from the schools by using the standardized tools Family Environment Scale (FES) by Dr. Harpreet Bahtia and Dr. N. K Chadha. (1993) to collect the data. To measure the relation between cohesion and expressive dimension of home environment Pearson's co-efficient of correlation test was used Findings of the present study shows that there exists a significant relationship between the two dimensions of home environment at .01 levels. It is therefore recommended that at home, children should get full support, help and commitment from the family members and children at home should be provided opportunities to express freely.*

1. 0 Introduction

A home environment that encourages learning is more important to student's achievement than income, educational level and cultural background of the family. Similarly, school which provide effective teaching learning environment in school contributes more to the pupils' achievement than any other factor. Family involvement has been a key theme in early childhood education for more than three decades (Fantuzzo, Tighe and child. 2000). for thousands of years Indian culture has emphasized the influence of family in which the child is born and brought up. The parents are the primary agents in child's academic achievements. The pattern of family life differs from one social group to another. The kind of husband wife relationship and parent-child relationship varies. Similarly the family values, the use of money and the types of home management also vary. Cohesion refers to the degree of commitment, help, and support family members provide for one another. Expressiveness on the other hand refers to the extent to which family members are encouraged to act openly and express their feelings and thoughts directly in the famil, among the family members.

It is in this background that the present study has been undertaken to determine whether the dimensions of home environment such as cohesion and expressive has a relationship with the academic achievement of school children or not. If the home factors which facilitate academic achievement of students are identified then it may be possible to provide a healthy educational environment at home which may pave the way for student's academic success. A study of this nature would definitely help parents, teachers and educationists in further understanding the mental make-up of the students regarding their academic achievement.

1.1 Objectives of the study

- a) To Study the Relationship between Cohesion Dimensions of Home Environment and the Academic Achievement of Class X Students.
- b) To Study the relationship between the expressive dimensions of home environment and the academic achievement of class X students.
- c) To suggests measures to improve the quality of home environment.

1.2 Hypotheses

A. Research Hypotheses:

- i) There is a significant relationship between cohesion dimensions of home environment and academic achievement of class X students.
- ii) There is a significant relationship between expressive dimensions of home environment and academic achievement of class X students

B. Null Hypotheses:

- i) There is no significant relationship between cohesion dimensions of home environment and academic achievement of class X students.

- ii) There is no significant relationship between expressive dimensions of home environment and academic achievement of class X students.

1.3 Methods and procedures

a) Population

All the students studying in class X in the secondary schools situated in Ri-Bhoi District will constitute the population of the study.

b) Sample

The sample for the present study consist of 472 students studying in class X.

c) Tool Used

The following tools have been adapted to collect the data: (i) Family Environment Scale (FES) by Dr. Harpreet Bahtia and Dr. N. K Chadha. (1993).

d) Data Collection.

The investigator visited the schools under study and sought the permission from the heads of the institutions under study and tests were administered to the class X students. While administering the tests, instructions were read out by investigator and illustrative examples were explained to the students. When required. It was made sure that all the students had understood the instruction fully regarding the answering of the tests and then they were asked to respond the tests. Both the tests were administered concurrently after short break in between.

1.4 Major Findings

(A) Relationship between Cohesion and Academic Achievement,

Hypotheses No 1 A:

"There is no significant relationship between cohesion dimension environment and academic achievement".

Table (A)

Showing the Pearson's Co efficient of Correlation (r) between Cohesion and Academic Achievement (N=472).

Variables	(r)	df	Table Value	Significance level
Cohesion X Achievement	0.28	470	0.118	.01

There exists a significant relationship between the cohesive dimensions of home environment and academic achievement. It 1

shows that more the home environment is cohesive; the higher will be the academic achievement.

The result is not unique in case of the present study, rather these have been explored by several studies conducted earlier by Harris (1961) who found that children did not learn when they were emotionally disturbed due to unfavorable home conditions. Levin et al. also (1972) concluded that more supportive home environment of children may have been found responsible for higher academic achievement.

(B) Relationship between Expressiveness and Academic Achievement.

Hypotheses No 1 B:

"There is no significant relationship between expressiveness dimension of home environment and academic achievement"

Table (B)

Showing the Pearson's coefficient of correlation (r) between Expressiveness and Academic Achievement (N= 472).

Variables	(r)	df	Table Value	Significance Level
Expressiveness X Achievement	0.17	470	0.118	.01

There exists a significant relationship between the expressiveness dimensions of home environment and academic achievement. It shows that more the home environment is expressive, higher will be the academic achievement

Research in this connection has been supported by many studies, Patel (1966), Kuppaswami (1980); found that there is a significant positive relationship between expressiveness and academic achievement.

Since, there exists a significant relationship between the Cohesion and Expressiveness Dimensions of Home Environment on Academic Achievement of Class X Students, Therefore the Research Hypotheses is accepted and a Null hypothesis is rejected. It shows that more the cohesiveness at home more better the achievement. On the other hand, it reveals that, if children are allowed to be expressive, their performance enhanced.

1.5 Educational implications

To strengthen the quality of home environment the family should provide full support to the children at home by providing an atmosphere of love and happiness, developing a sense of recognition and security, and helping in his or her home work given in the school. It is therefore recommended that at home, children should get full support, help and commitment from the family members. Children at home should be provided opportunities to express freely. If the family members encourage their children to act openly and express their feelings and thought directly the academic achievement of children is likely to enhance and allowed to express their feelings and thought directly.

1.6 Conclusion

The present study shows that, if cohesive environment at home is provided to the children it will facilitate their learning. And, it will certainly pave the way for student's academic success. It shows that more the home environment is cohesive; the higher will be the academic achievement. Expressiveness on the other hand will encourage students to act openly and express their feelings and thoughts directly. It shows that more the home environment is expressive; higher will be the academic achievement. In the present study dimensions of home environment, like cohesion, expressiveness, were found to be correlated with academic achievement. This shows that the home dimensions constitute important determinant of academic achievement. The knowledge of various home dimensions contributing to academic achievement may be useful to the teachers and educators to understand those who are academically low in their performance.

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RESEARCH ARTICLE

Measuring Customers' Perception in Bancassurance Channel Using Psychometric Scale

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Abstract: The study attempts to investigate the customers' perception towards bancassurance channel. Customers' perception towards bancassurance is studied by considering six attributes, namely, compliance, tangible infrastructure, reliability, responsiveness, assurance, and empathy. The study is based on primary data collected using structured questionnaire from the customers buying life insurance policy of SBI Life through different branches of State Bank of India in Guwahati City of Assam. Cronbach's alpha is used to test the reliability of the questionnaire. Other statistical tools like Mean, Standard Deviation, Kolmogorov-Smirnov, and Friedman test were used to arrive at suitable conclusion. The study finds that customers have favourable perception regarding reliability, responsiveness, empathy, and assurance of bancassurance channel. Customers perceive that bank's tangible infrastructure is adequate for providing insurance service and the bank has moderate compliance with insurance related rules and regulations. Favourable customers' perception towards bancassurance channel is very important as it is expected to bring more customers for the bank.

Keywords: Bancassurance, Banks, Customers' Perception, Insurance, State Bank of India (SBI), Service quality

JEL Classification: M21, M310, M370

In today's competitive marketplace, customers' perceptions are becoming important for gaining sustainable competitive advantage. Measuring customers' perceptions has become an important tool for evaluating marketing strategies. This is because there is a growing customers' perception that company's image and its products affect the buying decision of customers.

In the case of a bank, customers' perception is formed through its customers' assessment of the quality of service provided and their satisfaction level with its overall service (Zeithaml & Bitner, 2003). Customers'

perception with respect to a bank means the customers' overall picture of the bank, including bank's image, expectations, external influences, service quality, and so forth. All interactions that occur between the customers and the bank will ultimately affect the customers' view and image of the bank. All that the customers see, hear, and experience are linked together and form their overall perception towards the bank (Aspfors, 2010).

With the advent of financial deregulation and globalization, competition in the banking sector is getting fierce day-by-day. In this dynamic competitive

scenario, banks are devising new products and formulating new business models in order to gain competitive advantages over their competitors. One such model is “bancassurance” (Malik, 2014).

After liberalization of the insurance business, this model has gained considerable momentum. Bancassurance is a combination of the term “Bank” and “Insurance.” It is a business model that refers to the selling of insurance policies through a bank’s established distribution channels (Aggarwal, 2004). It is the concept of a bank selling insurance plans along with a complete range of banking and investment products and services (Venugopal, 2011). Here, the bank simply plays the role of an intermediary for sourcing business to the insurance company.

In bancassurance model, banks do not only face competition from other banks. Rather, they also face competition from insurance companies and individual insurance agents working under agency channel. In order to survive this cutthroat competition, it is essential for banks to understand their customers’ perception towards bancassurance channel.

Today’s banking customers are more aware and rational in their selection of service provider (Kaur, Sharma, & Kapoor, 2012). Thus, amidst the avenue of substitutes, there is every possibility for customers to opt for competitors. Therefore, it is necessary to identify the factors that attract customers to visit any particular bank to buy an insurance policy. The bank must attempt to address the needs of their clients constantly. This would help a bank generate a competitive advantage over others. It also facilitates a bank to differentiate itself from its competitors. One of the best ways to address customers’ need effectively is by knowing the customers’ perception of the service provided by the bank (Zemke & Woods, 1998). Customers’ perception alone influences overall service quality of a bank (Boulding, Kalra, Staelin, & Zeithaml, 1993). Thus, it would enable the bank to provide and promote effectively those products and services that would be in demand and thereby endure the competition of insurance business.

Through bancassurance channel, bank earns significant non-interest income in the form of commission. This posits bancassurance channel as lucrative model for banks. Hence, exploring customers’ perception of bancassurance channel can be a matter of financial significance for banks.

The rest of the paper is organized as follows: section 2 focuses on measurement of customers’ perception towards bancassurance channel; section 3 discusses the attributes considered for measuring customers’ perception of bancassurance; section 4 depicts objectives of the study; section 5 presents hypothesis considered for the study; section 6 throws light on data and research methodology adopted to carry out the study; section 7 focuses on the analysis and findings; section 8 discusses about the policy implication and conclusion of the study; and lastly, section 9 portrays the scope of future research.

Measurement of Customers’ Perception Towards Bancassurance Channel

There have been numerous studies on measuring the perception of customers. Out of them, a significant number of studies have been done on measuring the customers’ perception especially for banking and insurance industry. Zeithaml, Bitner, and Glemmler (2009) have calculated customers’ perception as the difference between the scores of expected service regarding a particular dimension and perceived service on the same dimension. Customers’ perception towards service quality is difficult to quantify. However, Renganathan, Balachandran, and Govindarajan (2012) were of the opinion that customers’ perception can be measured by ensuring that a service is provided as per customers’ perception and expectation. Dabholkar, Thorpe, and Rentz (1996) proposed that customers’ perceptions are multilayered and comprise of customers’ overall perception of quality (physical attributes, reliability, personal interaction, problem solving, and policy), and other sub-dimension (appearance, convenience).

Bahia and Nantel (2000) proposed a specific scale—Bank Service Quality (BSQ)—for measuring customers’ perception in retail banking. It consists of six dimensions, namely, effectiveness and assurance, access, price, tangibles, service portfolio, and reliability. Aldlaigan and Buttle (2002) have developed and validated a new 21-item scale that describes customers’ perceptions comprising of four dimensions, namely, service system quality, behavioral service quality, service transactional accuracy, and machine service quality. The scale developed by Aldlaigan and Buttle (2002) was based

on the technical and functional service quality schema proposed by Gronroos (1984).

Popli and Rao (2009) found from their survey that trust, personal relationship, and convenience are the main reasons for buying insurance products from a bank vis-à-vis bancassurance channel. Choudhury and Singh (2015a) and Choudhury, Singh, and Saikia (2016) studied experience of customers with regard to bancassurance channel. Ali and Chatley, (2013) measured the customers' perception towards bancassurance, considering the dimensions like ease in premium payment, timely intimation of policy details, and staff behavior. Factors like payment equity, experience, image, service convenience, interpersonal relationship, and trust affect customers' perception in buying insurance from banks (Fan, Lee, Tang, & Lee, 2011). Customer perceives bancassurance channel as an authentic source to purchase insurance policy (Satsangi, 2014; Kumari, 2012). Soni and Rao (2014) and Choudhury and Singh (2015b) have measured the customers' perception using psychometric scale towards bancassurance with respect to the channel's reliability. Tiwari and Yadav (2012) found that customers perceive bancassurance channel as trustworthy and safe. Choudhury and Singh (2015c) found that there is relatively high degree of responsiveness of bancassurance channel. Choudhury and Singh (2015c) have used a psychometric tool for which necessary reliability and validity test was claimed to be done. In the life insurance industry in India, responsiveness dimension of service quality provides maximum customer satisfaction (Goswami, 2007; Parthivan, 2014).

Khurana (2013) has studied the gap between customer's expectation and perception towards the reliability dimension of service quality in Indian life insurance industry using a questionnaire and found that Indian customers perceive Indian life insurance industry as relatively reliable. Another study by Duodu and Amankwah (2011) concluded that reliability has a significant impact on customer satisfaction in insurance industry in Ghana. Singh and Kaur (2011) in their study revealed that responsiveness, tangibles, services innovation, reliability and accessibility, assurance, pricing and other facilities, problem solving capability, and convenient working hours are the main determinants of customer satisfaction in insurance industry as perceived by the customers. Safety and security, risk coverage, and agent's cooperation are the

factors that are perceived by the customers as the main motivators to buy the insurance products from agency channel (Karthiga & Vadivalagan, 2013). Sandhu (2011) concluded that proficiency, physical and ethical excellence, and functionality has significant impact on the overall customers' perception towards service quality of Life Insurance Corporation of India (LICI).

Rajan and Gomatheeswaran (2013) have found that customers do not evaluate a bank on the basis of its being public or private; rather, they give importance to how conveniently they get their products/services. Employee and customer perception of service quality are related with each other in retail bank (Clark, 1997).

The most significant work in the context of customer's perception is done by Parasuraman, Berry, and Zeithaml (1988). They developed SERVQUAL scale to measure customer's perception of service quality. The scale consists of five dimensions: tangibility, reliability, responsiveness, assurance, and empathy. The SERVQUAL instrument has been the predominant method used to measure customers' perceptions of service quality (van Iwaarden, van der Wiele, Ball, & Millen, 2003). SERVQUAL has been extensively used to measure service quality of financial services (Bahia & Nantel, 2000; Lassar, Manolis, & Winsor, 2000; Cui, Lewis, & Park, 2003; Guo, Duff, & Hair, 2008).

Saraswati (2011) and Khare (2011) aimed to measure customers' perception in private banks by using SERVQUAL scale. Glaveli, Petridou, Liassides, and Spathis (2006) examined the difference in customers' perception regarding the banking services of five Balkan countries namely Greece, Bulgaria, Albania, FYROM, and Serbia. Arasli, Mehtap-Smadi, and Katircioglu (2005) aimed to measure the perception of Greek Cypriot bank customers. Tsoukatos and Rand (2006) applied SERVQUAL scale in their study of customers' perception of Greek insurance industry. Vikas (2011) and Bapat, Soni, and Joshi (2014) applied SERVQUAL scale to measure customers' perception in public and private insurance companies.

From the review of literature it has been found that there is lack of studies on customers' perception towards bancassurance. Many researchers have studied customer's perception in banking industry and insurance industry. But bancassurance, a business model that combines the features of banking and insurance industry has received little attention. This paper, therefore, focuses on measuring customers' perception

in bancassurance channel. Out of various aspects considered for measuring customers' perception, the most widely used scale of measuring customers' perception is SERVQUAL. The SERVQUAL scale is used in measuring customer's perception of service quality in five dimensions: tangibility, reliability, responsiveness, assurance, and empathy.

Along with these five dimensions, this paper considers one more dimension: perception of customers towards compliance by the bank of IRDA norms. China, a country with the fastest growing economy has given much attention on compliance of insurance business in accordance with established rules and regulations. The insurance companies and employees involved in insurance selling must adhere to related laws and regulation (China Insurance Regulatory Commission, 2007). Okediji (1992) studied the extent of compliance of Nigerian Life Insurance industry. World Economic Forum (2015) in their research report mentioned compliance to be a new set of risks for financial institutions. PricewaterhouseCoopers (2014) conducted a survey of state of compliance in insurance industry. It is mentioned in the report that compliance is vital in operational and strategic planning of insurance industry. Kabiru, Oino, and Kuloba (2012) in their study mentioned the importance of finding out challenges faced by insurance companies regarding compliance. In view of these, this study considers customers' perception towards bancassurance channel regarding tangibility, reliability, responsiveness, assurance, empathy, and compliance.

Attributes Considered for Measuring Customers' Perception of Bancassurance

For measuring customers' perception of bancassurance, the present study has considered the following six attributes.

1. **Compliance:** Compliance is a state in which someone or something is in accordance with established guidelines, specifications, or legislation. In insurance industry, the term "compliance" means that organizations involved in insurance service and the employees and marketing staff of the organization shall carry out insurance operation and management behaviours subject to the related laws and regulations, provisions of insurance regulatory organizations, self-discipline rules of the industry, their internal management system, and the ethical code of honesty and good faith (China Insurance Regulatory Commission, 2007). In this present study, the statements considered under compliance dimension are explaining the product benefit as per the norms set by the Insurance Regulatory and Development Authority of India (IRDA) and providing insurance services as per the norms set by IRDA.
2. **Tangible Infrastructure:** It denotes bank's physical facilities, equipment, and appearance of bank personnel (Parasuraman, Zeithml, & Berry, 1990). In this study, the variables considered under this dimension are up-to-date equipment available in bank, availability of adequate furniture in bank, visually appealing physical facilities of bank, well-dressed sales personnel of bank, Internet facility of bank (Rajasekar & Kumari, 2014), and convenient location of bank's branch (Siddiqui & Sharma, 2010).
3. **Reliability:** It means the ability of the bank to perform the promised service dependably and accurately (Parasuraman et al., 1990). Choudhury and Singh (2015b) and Rajasekar and Kumari, (2014) considered the following variables to measure reliability of bancassurance channel: keeping accurate records of insurance related transaction, providing services by bank employees at the time they promise to do so, security of transaction in bank, the information provided by the bancassurance channel is accurate, trustworthiness of bank, consistency in behaviour of bank's staff, consistency in performance of bank's staff, disclosing customer's financial information to others, and bank disclosing customer's personal information to others.
4. **Responsiveness:** It denotes willingness of bank's employees to help customers and provide prompt service to the customers (Parasuraman et al., 1990). The variables considered under responsiveness dimension are providing prompt service to the customer by the bank's employees, providing the service that is exactly required by the customer, willingness

of bank's staff to help the customer, replying any query of the customer related to insurance, and providing insurance related service on favourable terms (Rajasekar & Kumari, 2014; Choudhury & Singh, 2015c).

5. **Assurance:** It is a state of customer feeling free from danger, risk, or doubts including physical safety, financial security, and confidentiality. It involves the factors such as trustworthiness, belief, and honesty (Parasuraman et al., 1990). Under this dimension, the variables considered in this study are: sympathetic approach of bank's staff, politeness of the sales personnel of bank, knowledge level of the sales personnel of bank, customers feel free to talk about insurance related problems with the sales personnel of bank, and bank personnel giving customers financial advice other than insurance (Siddiqui & Sharma, 2010).
6. **Empathy:** It includes making an effort by the bank's employees to understand the customer's individual needs, providing individualized attention to the customers, recognizing the customer when they arrive, and so on (Parasuraman et al., 1990). Under this dimension, the study considers variables like giving individual attention to the customer, bank's working hours is convenient to all customers, trying to know the actual insurance need of the customer, and gaining confidence of the customer (Rajasekar & Kumari, 2014).

Objective of the Study

The study's objective is to understand and analyze the perception of customers towards bancassurance channel of buying life insurance policy. The paper attempts to study customers' perception towards bancassurance channel with respect to compliance with the insurance regulation, availability of tangible infrastructure, reliability, responsiveness, assurance, and empathy shown by bancassurance channel.

Hypothesis of the Study

From the review of literature discussed, it is evident that customers' perception with respect to the

variables identified in the study can be measured. It is also evident that customers have favourable/positive perception regarding bank as a channel of distribution including that of insurance product for almost all the variables. This has given us the impetus to frame the following null hypothesis:

H_0 : There is no significant difference amongst perception with respect to compliance, tangible infrastructure, reliability, responsiveness, assurance, and empathy of the customers buying life insurance policies from bancassurance channel.

Research Methods

Universe of the Study

The universe of the study consists of all State Bank of India, Guwahati's customers who have received life insurance related services from the bank's 37 branches. Total number of such customers as of 11th March, 2013 was 3,315.

Sampling Unit and Sample Size

Using random sampling at 95% confidence level and 5% confidence interval, a sample of 345 customers was obtained. This sampling unit consists of those customers who are registered with Regional Office of SBI Life, Guwahati, irrespective of various branches of State Bank of India in Guwahati.

Data Collection

The study is mainly based on primary data. A "structured questionnaire" was used to collect the necessary information relevant for the study. For secondary data, official reports and records, journals, newspapers, and magazines are accessed.

Development of Questionnaire

Questionnaire was developed to collect primary data from the bank customers who have bought insurance policy from the bank. The questionnaire was designed to measure the perception of the customers with respect to the dimensions and variables mentioned in this paper. The variables considered to measure a particular attribute were converted into statements and respondents were asked to give their opinion on those statements on a five point scale. Thus, the responses regarding the abovementioned statements

were obtained on a five-point scale ranging from 5 to 1 for each of the selected dimension where 5 denotes very high level of compliance, tangible infrastructure, reliability, responsiveness, assurance, and empathy, respectively; and 1 indicates very low level of compliance, tangible infrastructure, reliability, responsiveness, assurance, and empathy, respectively. The variables identified in the study were converted into affirmative statements that are understandable to the respondents, except a few respondents were asked to provide their opinion ranging from strongly agree to strongly disagree. Some of the questions were in reverse scaling to ensure accuracy of response.

Administration of Questionnaire

A list of 3,315 customers was obtained on 11th March, 2013. Out of these 3,315 numbers of customers, 415 customers were identified by using random table at 95% confidence level and 5% confidence interval. Then, questionnaire was distributed among these 415 customers. Out of this, 350 filled-up questionnaires were returned. After scrutinizing the 350 filled-up questionnaires, five questionnaires were found defective and incomplete. Therefore, these five filled-up questionnaires were rejected. Thus, there were 345 questionnaires filled-up accurately.

Tools for Data Analysis

To investigate the perception of the customers' towards bancassurance channel, statistical tools like mean, standard deviation, One-Sample Kolmogorov-Smirnov Test, Friedman Test, and post hoc test were used. Cronbach's alpha is used to test the reliability of scale developed to measure customers' perception with respect to identified dimensions.

Analysis and Findings

Reliability of the Questionnaire

The reliability of the questionnaire was tested using Cronbach's Alpha. The result of the test is given in the Table 1.

The coefficients of Cronbach's Alpha with respect to all the considered dimensions were found to be more than 0.70. A very high value of Cronbach's Alpha is indicative of very high degree of reliability of scale. It also shows that the items are highly correlated. Cronbach' Alpha of more than 0.70 is considered to be good measure of reliability of scale (Nunnaly, 1978). It also indicates that the items considered for measuring the latent variable are actually measuring the latent variable.

Measuring Perception of Customers Towards Bancassurance Channel

Perception of the customers towards bancassurance channel is measured with respect to the dimensions like compliance, tangible infrastructure, reliability, responsiveness, assurance, and empathy. It is presented in detail under the following paragraphs:

I. Perception with respect to compliance shown by bancassurance channel

Table 2 consists of two items considered for measuring perception of customers towards compliance of bancassurance channel with the various rules and regulations framed by IRDA. It is evident that customers perceive that there is relatively higher compliance of bank with regards to providing the service as per IRDA norms and the bank compliance

Table 1. *Reliability of Questionnaire Using Cronbach's Alpha*

Dimension of Customer Perception	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
Perception of customers towards compliance	0.814	0.836	2
Perception of customers towards tangible infrastructure	0.780	0.784	6
Perception of customers towards reliability	0.922	0.935	9
Perception of customers towards responsiveness	0.930	0.932	5
Perception of customers towards assurance	0.772	0.805	5
Perception of customers towards empathy	0.834	0.832	4

Source: Authors' compilation from questionnaire

Table 2. *Item Statistics for Compliance*

Particulars	Mean	Std. Deviation
Providing service as per IRDA norms	3.26	0.638
Explaining product benefit as per IRDA norms	3.1	0.864

Source: Authors' compilation from questionnaire

Table 3. *Scale Statistics for Compliance*

Mean	Variance	Std. Deviation	No. of Items
6.36	1.945	1.395	2

Source: Authors' compilation from questionnaire

Exhibit 1. *Interpretation Table to Interpret Compliance Score*

Perception score	Interpretation
2–3.6	Very low level of compliance
3.6–5.2	Low level of compliance
5.2–6.8	Moderate level of compliance
6.8–8.4	High level of compliance
8.4–10	Very high level of compliance

is relatively low with regard to explaining product benefits as per IRDA norms. It is known that IRDA has set some norms and criteria for providing service and these norms and criteria have to be mentioned in the illustration prepared by the insurance company to explain the product benefit to their customers. Thus, it is assumed that banks are providing these leaflets to their customers.

There is a total of 2 numbers of items in the considered scale. The scale used for the study was a Likert scale. The variables were converted into affirmative statements and respondents were asked to provide their opinion as strongly agree, agree, moderate, disagree, and strongly disagree. For the response of strongly agree, a score of 5 was given. Similarly for the response of agree, moderate, disagree, and strongly disagree, a score of 4, 3, 2, and 1 were given respectively. Thus, for a scale consisting of 2 items, the maximum score possible is 10 (2X5) and minimum score possible is 2 (2X1). The difference in scores is 8 (10–2). It is divided by 5 to demonstrate five different layers

of perception regarding compliance. Thus, if 8 is divided by 5, the result is 1.6. Therefore, the first level of customers perception score with respect to compliance is between 2 (minimum possible score) and 3.6 (2+1.6) which is interpreted as very low level of compliance. Similarly, other intervals are calculated to demonstrate different level of customers' perception with respect to compliance with the insurance regulations. Exhibit 1 is prepared to interpret the total compliance score.

By looking at the scale statistic in Table 3, the mean score is 6.36. It falls under moderate level of compliance. Thus, it can be interpreted that customers of bancassurance perceive that banks have moderate compliance with insurance regulation.

II. Perception with respect to tangible infrastructure of bancassurance channel

Table 4 consists of items relating to availability of tangible infrastructure. It is seen in Table 4 that customers perceive that there is relatively

Table 4. *Item Statistics Used for Measuring Tangible Infrastructure*

Particulars	Mean	Std. Deviation
Up-to-date equipment	4.12	0.409
Adequate furniture	4.1	0.478
Well-dressed sales personnel	4.1	0.424
Visually appealing physical facilities	4.05	0.5
Convenient location of branch	4.01	0.417
Internet facility	3.9	0.487

Source: Authors' compilation from questionnaire

adequate availability of tangible infrastructure in bank for bancassurance business regarding “up to date equipment” and “adequate furniture.” Customers perceive that tangible infrastructure is relatively weak for bancassurance business with respect to “internet facility” and “convenient location of branch.” Customers’ perception of having relatively weak “internet facility” needs urgent attention from the policy makers as it is very important for efficient customer services and satisfaction of customers (Lin & Chang, 2011; Singh, 2011).

Table 5. *Scale Statistics for Tangible Infrastructure*

Mean	Variance	Std. Deviation	No. of Items
24.28	3.539	1.881	6

Source: Authors' compilation from questionnaire

As explained in Exhibit 1, an interpretation table is made considering the six items taken for measuring customers’ perception regarding tangible infrastructure and it is presented in Exhibit 2.

By looking at the scale statistic in Table 5, the mean score is 24.28. It falls in the category of adequate infrastructure. Thus, it can be interpreted that customers of bancassurance perceive that the bank has adequate tangible infrastructure to provide bancassurance service. This is expected to provide competitive advantage to bank over agency channel as the availability of tangible infrastructure is low in public sector insurance companies (Vikas, 2011; Rajasekar & Kumari, 2014).

Exhibit 2. *Interpretation Table to Interpret Score of Tangible Infrastructure*

Perception score	Interpretation
6–10.8	Very inadequate infrastructure
10.8–15.6	Inadequate infrastructure
15.6–20.4	Moderate infrastructure
20.4–25.2	Adequate infrastructure
25.2–30	Very adequate infrastructure

III. Perception with respect to reliability of bancassurance channel

Table 6 shows that customers perceive the reliability of the bank as relatively higher with respect to the factors like “security of transaction” and “keeping accurate records of insurance related transaction.” Customers perceive relatively lower reliability of bank with respect to the factor like “providing service at the time they (bank personnel) promise” and “consistency in performance.”

As explained in Exhibits 1 and 2, an interpretation table is made by considering nine items of measure on perception of customers with respect to reliability of bancassurance channel. Thus, the interpretation table is given in Exhibit 3.

By looking at the scale statistic in Table 7, the mean score is 35.29. It falls under high level of reliability. Thus, it can be interpreted that customers of bancassurance perceive bank to be highly reliable channel for buying life insurance. Choudhury and Singh (2015b) and Soni and Rao (2014) have also gotten similar findings. Thus, high reliability of

Table 6. Item Statistics Used for Measuring Reliability of Bancassurance

Particulars	Mean	Std. Deviation
Security of transaction	4.14	0.398
Keeping accurate records of insurance transaction	4.12	0.374
Disclosing financial information	4.12	0.355
Disclosing personal information	4.11	0.352
Trustworthiness	3.99	0.56
Information provided by channel is accurate	3.96	0.577
Consistency in behaviour	3.69	0.728
Consistency in performance	3.61	0.763
Providing service at the time they promise	3.56	0.753

Source: Authors' compilation from questionnaire

Table 7. Scale Statistics for Reliability of Bancassurance Channel

Mean	Variance	Std. Deviation	No. of Items
35.29	15.963	3.995	9

Source: Authors' compilation from questionnaire

Exhibit 3. Interpretation Table to Interpret Reliability Score of Bancassurance Channel

Perception score	Interpretation
9–16.2	Very low level of reliability
16.2–23.4	Low level of reliability
23.4–30.6	Moderate level of reliability
30.6–37.8	High level of reliability
37.8–45	Very high level of reliability

bancassurance channel is definitely advantageous for the banks in getting more customers.

IV. Perception with respect to responsiveness of bancassurance channel

It is shown in Table 8 that customer perceives responsiveness of bank as relatively high for the factors like “providing service exactly required by

customers” and “replying insurance related query of customer” and relatively low responsiveness of bank regarding the factor like “providing prompt service to customers.”

Like Exhibits 1, 2, and 3, an interpretation table is made by taking five items considered for measuring perception of customers with respect to responsiveness. The following interpretation table is framed and presented under Exhibit 4.

Table 8. *Item Statistics for Measuring Responsiveness of Bancassurance Channel*

Particulars	Mean	Standard Deviation
Providing service exactly required by customers	3.75	0.64
Replying insurance related query of customer	3.75	0.701
Willingness to help customers	3.68	0.72
Providing insurance related service on favorable terms	3.52	0.656
Providing prompt service to customers	3.4	0.768

Source: Authors' compilation from questionnaire

Table 9. *Scale Statistics for Responsiveness of Bancassurance Channel*

Mean	Variance	Std. Deviation	No. of Items
18.10	9.545	3.089	5

Source: Authors' compilation from questionnaire

Exhibit 4. *Interpretation Table to Interpret Responsiveness Score of Bancassurance Channel*

Perception score	Interpretation
5–9	Very low level of responsiveness
9–13	Low level of responsiveness
13–17	Moderate level of responsiveness
17–21	High level of responsiveness
21–25	Very high level of responsiveness

By looking at the scale statistic in Table 9, the mean score is 18.10. It is falling under the category of high level of responsiveness. Thus, it can be interpreted that customers of bancassurance perceive that banks have high responsiveness regarding insurance related service.

V. Perception with respect to assurance of bancassurance channel

Table 10 represents that customers perceive that the assurance provided by bancassurance channel is relatively high with respect to the factor like “feel free to talk about insurance related problems” and relatively low degree of assurance with respect to the factor like “giving financial advice other than insurance.”

As discussed in Exhibits 1, 2, 3, and 4, an interpretation table is presented under Exhibit 5 to

interpret the perception score of customers with respect to assurance dimension of bancassurance by considering five items.

Table 11 shows that the mean score is 17.45. It falls in the category of high level of assurance. Thus, it can be interpreted that customers of bancassurance perceive that the bank provides high degree of assurance regarding insurance related services. This finding is in accordance with the findings of Vikas (2011) and Rajasekar and Kumari, (2014).

VI. Perception with respect to empathy revealed by bancassurance channel

Table 12 shows that customers' perception with respect to empathy from the bancassurance channel is relatively high regarding the factors like “working hours convenient to customers”

Table 10. *Item Statistics for Measuring Assurance of Bancassurance Channel*

Particulars	Mean	Std. Deviation
Feel free to talk about insurance problems	3.97	0.496
Knowledge level of sales personnel	3.76	0.623
Politeness of sales personnel	3.72	0.642
Sympathetic approach	3.62	0.738
Giving financial advice other than insurance	2.39	0.979

Source: Authors' compilation from questionnaire

Table 11. *Scale Statistics for Assurance of Bancassurance Channel*

Mean	Variance	Std. Deviation	No. of Items
17.45	6.661	2.581	5

Source: Authors' compilation from questionnaire

Table 12. *Item Statistics with Respect to Empathy*

Particulars	Mean	Std. Deviation
Working hours convenient to customers	3.89	0.444
Gaining confidence of customers	3.77	0.651
Giving individual attention to customers	3.59	0.672
Trying to know actual insurance need of customers	3.21	0.796

Source: Authors' compilation from questionnaire

Table 13. *Scale Statistics for Empathy*

Mean	Variance	Standard Deviation	No. of Items
14.46	4.557	2.135	4

Source: Authors' compilation from questionnaire

Exhibit 5. *Interpretation Table to Interpret the Assurance Score of Bancassurance Channel*

Perception score	Interpretation
5–9	Very low level of assurance
9–13	Low level of assurance
13–17	Moderate level of assurance
17–21	High level of assurance
21–25	Very high level of assurance

and relatively low empathy of bank regarding the factor “trying to know actual insurance need of the customers.”

Exhibit 6 is prepared to interpret the perception score of customers under empathy dimension of bancassurance by considering four items.

By looking at the scale statistic in Table 13, the mean score is 14.46, which falls under the category of high level of empathy. Thus, it can be interpreted that customers of bancassurance perceive that banks show high empathy in providing insurance related service. This finding supports the claim of Vikas (2011) but negates the claim of Rajasekar and Kumari (2014).

Overall Rank of Perception with Respect to Considered Dimensions Towards Bancassurance Channel

To test the normality of data, Kolmogorov-Smirnov test is performed. As seen in Table 14 under the Asymp. Significance value for two tailed test, the calculated value of each of the perception measurement is less than .05, at 5% level of significance. Thus, it can

Exhibit 6. Interpretation Table to Interpret Empathy Score

Perception score	Interpretation
4–7.2	Very low level of empathy
7.2–10.4	Low level of empathy
10.4–13.6	Moderate level of empathy
13.6–16.8	High level of empathy
16.8–20	Very high level of empathy

Table 14. One-Sample Kolmogorov-Smirnov Test

		Perception with respect to compliance	Perception with respect to tangible infrastructure	Perception with respect to reliability	Perception with respect to empathy	Perception with respect to responsiveness	Perception with respect to assurance
N		345	345	345	345	345	345
Normal Parameters	Mean	3.1246	4.1304	4.0812	3.7304	3.7797	3.7594
	Std. Deviation	.87544	.40753	.49921	.66893	.66747	.62187
Most Extreme Differences	Absolute	.217	.469	.399	.361	.368	.332
	Positive	.217	.469	.399	.268	.284	.260
	Negative	-.180	-.348	-.354	-.361	-.368	-.332
Kolmogorov-Smirnov Z		4.039	8.712	7.418	6.703	6.844	6.162
Asymp. Sig. (2-tailed)		.000	.000	.000	.000	.000	.000

Source: Authors' compilation from questionnaire

Table 15. Mean Ranks of the Perception With Respect to the Considered Dimensions of Bancassurance

Perception regarding considered dimensions	Mean Rank
Perception with respect to compliance	2.10
Perception with respect to tangible infrastructure	4.33
Perception with respect to reliability	4.27
Perception with respect to empathy	3.37
Perception with respect to responsiveness	3.51
Perception with respect to assurance	3.43

Source: Authors' compilation from questionnaire

be concluded that the distribution of data relating to customers' perception towards various dimension of bancassurance do not follow normal distribution. Hence, parametric tests cannot be applied to this data. Therefore, non-parametric test is applied.

Friedman test is done to test if the data relating to the customers' perception towards compliance, tangible infrastructure, reliability, responsiveness, assurance, and empathy are coming from the same population. The Friedman test is the non-parametric alternative to the one-way ANOVA with repeated measures. It is used to test for differences between groups when the dependent variable being measured

is ordinal (<https://statistics.laerd.com/spss-tutorials/friedman-test-using-spss-statistics.php>).

From Table 15, it is evident in the sample that the most favourable perception is with respect to tangible infrastructure of banks for providing insurance related services followed by reliability. Out of the six dimensions considered in the study, customers have, relatively, least favourable perception with respect to the compliance of banks for various insurance related norms and guidelines, given the test and methodology.

Under the Friedman Test presented under Table 16, the calculated chi-square value is 85.576 and the Asymp. Significance value (0.000) is less than 0.001

Table 16. Test Statistic

N	345
Chi-Square	605.838
Df	5
Asymp. Sig.	.000

Source: Authors' Compilation from questionnaire

Table 17. Wilcoxon Signed Rank Test

		Ranks		
		N	Mean Rank	Sum of Ranks
overall perception regarding tangible infrastructure - overall perception with compliance	Negative Ranks	8 ^a	81.19	649.50
	Positive Ranks	236 ^b	123.90	29240.50
	Ties	101 ^c		
	Total	345		
overall perception regarding reliability - overall perception with compliance	Negative Ranks	9 ^d	79.50	715.50
	Positive Ranks	241 ^e	127.22	30659.50
	Ties	95 ^f		
	Total	345		
overall perception regarding empathy - overall perception with compliance	Negative Ranks	22 ^g	92.34	2031.50
	Positive Ranks	192 ^h	109.24	20973.50
	Ties	131 ⁱ		
	Total	345		
overall perception regarding responsiveness - overall perception with compliance	Negative Ranks	20 ^j	89.60	1792.00
	Positive Ranks	193 ^k	108.80	20999.00
	Ties	132 ^l		
	Total	345		
overall perception regarding assurance - overall perception with compliance	Negative Ranks	21 ^m	80.38	1688.00
	Positive Ranks	185 ⁿ	106.12	19633.00
	Ties	139 ^o		
	Total	345		

Table 17 continued...

overall perception regarding reliability - overall perception regarding tangible infrastructure	Negative Ranks	51 ^p	42.83	2184.50
	Positive Ranks	34 ^q	43.25	1470.50
	Ties	260 ^r		
	Total	345		
overall perception regarding empathy - overall perception regarding tangible infrastructure	Negative Ranks	129 ^s	72.11	9302.50
	Positive Ranks	13 ^t	65.42	850.50
	Ties	203 ^u		
	Total	345		
overall perception regarding responsiveness - overall perception regarding tangible infrastructure	Negative Ranks	112 ^v	64.38	7211.00
	Positive Ranks	14 ^w	56.43	790.00
	Ties	219 ^x		
	Total	345		
overall perception regarding assurance - overall perception regarding tangible infrastructure	Negative Ranks	130 ^y	74.11	9634.50
	Positive Ranks	17 ^z	73.15	1243.50
	Ties	198 ^{aa}		
	Total	345		
overall perception regarding empathy - overall perception regarding reliability	Negative Ranks	122 ^{ab}	65.73	8019.00
	Positive Ranks	8 ^{ac}	62.00	496.00
	Ties	215 ^{ad}		
	Total	345		
overall perception regarding responsiveness - overall perception regarding reliability	Negative Ranks	104 ^{ae}	56.24	5848.50
	Positive Ranks	7 ^{af}	52.50	367.50
	Ties	234 ^{ag}		
	Total	345		
overall perception regarding assurance - overall perception regarding reliability	Negative Ranks	113 ^{ah}	61.78	6981.00
	Positive Ranks	9 ^{ai}	58.00	522.00
	Ties	223 ^{aj}		
	Total	345		
overall perception regarding responsiveness - overall perception regarding empathy	Negative Ranks	29 ^{ak}	40.66	1179.00
	Positive Ranks	48 ^{al}	38.00	1824.00
	Ties	268 ^{am}		
	Total	345		
overall perception regarding assurance - overall perception regarding empathy	Negative Ranks	43 ^{an}	48.50	2085.50
	Positive Ranks	53 ^{ao}	48.50	2570.50
	Ties	249 ^{ap}		
	Total	345		
overall perception regarding assurance - overall perception regarding responsiveness	Negative Ranks	42 ^{aq}	38.92	1634.50
	Positive Ranks	35 ^{ar}	39.10	1368.50
	Ties	268 ^{as}		
	Total	345		

Source: Compiled from the data collected from questionnaire

($p < .001$). It can be concluded that the data relating to different dimensions vis-à-vis customers' perception towards compliance, tangible infrastructure, reliability, responsiveness, assurance, and empathy are not coming from the same population. It means the differences in the perception with respect to the various dimensions considered in the study are actually traceable in the population.

Post Hoc Tests

To examine where the differences actually occur, there is a need to run separate Wilcoxon signed-rank tests on the different combinations of related groups. The result of Wilcoxon signed-rank tests is given in Table 17.

From Table 18, it is evident that the differences in the overall perception are statistically significant at 0.33% level of significance (5% level of significance becomes 0.33% level of significance after Bonferroni adjustment) with respect to: (1) tangible infrastructure and compliance; (2) reliability and compliance; (3) empathy and compliance; (4) responsiveness and compliance; (5) assurance and compliance; (6) empathy and tangible infrastructure; (7) responsiveness and tangible infrastructure; (8) assurance and tangible infrastructure; (9) empathy and reliability; (10) responsiveness and reliability; and (11) assurance and reliability.

Thus, the hypothesis considered for the study that there is no significant difference amongst customers' perception with respect to compliance, tangible infrastructure, to reliability, responsiveness, assurance, and empathy cannot be accepted, given the test and methodology.

Policy Implications and Conclusions

The study attempts to examine the perception of customers towards bancassurance business model with respect to selected attributes. The study finds that customers have highly favourable perception regarding reliability, responsiveness, empathy, and assurance of bancassurance channel. Customers also perceive that the bank has adequate tangible infrastructure to provide insurance service, which is significant for bringing more customers and

retaining old customers as tangible infrastructure is low in public sector life insurance companies for doing business under agency channel (Vikas, 2011; Rajasekar & Kumari, 2014). All these are definitely strong points for the bank, but yet there are scopes for improvement in customers' perception with respect to the abovementioned attributes as there are possibilities to uplift them to a very high level too.

Choudhury and Singh (2015b) and Soni and Rao (2014) have found that customers perceive bancassurance channel having high reliability. Choudhury and Singh (2015c) found that customers perceive bancassurance channel as highly responsive. Agency channel of public sector life insurance companies are also perceived to be highly reliable, responsive, assured, and empathetic (Vikas, 2011; Devi, 2008; Bapat et al., 2014; Madan, 2012). Therefore, even a small reduction in the reliability, responsiveness, assurance, and empathy of bancassurance channel may lead to the outswing of customers from bancassurance channel to agency channel of public sector life insurance companies which are also equally perceived to be reliable. However, Rajasekar and Kumari (2014) found that reliability, responsiveness, and empathy of life insurance service under agency channel is low but assurance is found to be high. Thus, bancassurance channel is in an advantageous position than that of agency channel of life insurance, and it is expected to bring more customers to the bank.

However, regarding bank's compliance to insurance rules and regulation, customers perceive that the bank has moderate compliance. This finding is to be seen in the light that IRDA has made it mandatory for the insurance service providers to use illustration as per the norms set by IRDA and it is to be written on all the leaflets meant to be distributed to the potential customers. This finding is a matter of concern for the bank. This is because compliance plays a key role in selling insurance policy. Maintaining compliance enhances policyholders' experience (Ernst & Young, 2014). Compliance with laws, rules, and standards helps to maintain the bank's reputation and meet the expectations of its customers (Basel Committee on Banking Supervision, 2003). The compliance function affects the value creation in a bank. It helps in strengthening public confidence in bank (Mundra, 2014). Therefore, to enhance client base and to retain existing clients through insurance service, banks need to focus on this aspect. The bank should periodically

Table 18. Test Statistics

Z			
Asymp. Sig. (2-tailed)			
	overall perception regarding tangible infrastructure - overall perception with compliance	-13.346 ^a	.000
	overall perception regarding reliability - overall perception with compliance	-13.586 ^a	.000
	overall perception regarding empathy - overall perception with compliance	-11.229 ^a	.000
	overall perception regarding responsiveness - overall perception with compliance	-11.264 ^a	.000
	overall perception regarding assurance - overall perception with compliance	-11.044 ^a	.000
	overall perception regarding tangible infrastructure	-1.781 ^b	.075
	overall perception regarding empathy - overall perception regarding tangible infrastructure	-9.315 ^b	.000
	overall perception regarding responsiveness - overall perception regarding tangible infrastructure	-8.410 ^b	.000
	overall perception regarding assurance - overall perception regarding tangible infrastructure	-8.873 ^b	.000
	overall perception regarding reliability - overall perception regarding empathy	-9.830 ^b	.000
	overall perception regarding responsiveness - overall perception regarding reliability	-9.032 ^b	.000
	overall perception regarding assurance - overall perception regarding reliability	-9.265 ^b	.000
	overall perception regarding responsiveness - overall perception regarding empathy	-1.862 ^a	.063
	overall perception regarding assurance - overall perception regarding empathy	-1.021 ^a	.307
	overall perception regarding assurance - overall perception regarding responsiveness	-.768 ^b	.443

Source: Compiled from the data collected from questionnaire

review its state of affairs and activities and also impart continuous training for its human resources.

Capitalizing on the strengths, banks in India have already joined hands with insurance company for insurance distribution. For instance, State Bank of India is selling insurance of SBI Life. SBI life is a joint venture of State Bank of India and Cardiff SA, an insurance company of France. UCO bank sells insurance policy of LIC. Banks see bancassurance as a way of creating a new revenue flow and diversifying their business activities. Considering this monetary aspect of bancassurance channel, many banks have taken steps to concentrate on insurance business. For example, Canara Bank along with Oriental Bank of Commerce and HSBC bank set up insurance company named The Canara HSBC Oriental Bank of Commerce Life Insurance Company Limited. Punjab National Bank has acquired 40% stake in US-based Met-life insurance company and it is functioning under the brand name of PNB Met-life.

The customers' perception is found to be the same for both the distribution channel of insurance, that is, agency channel and bancassurance channel, but customers will prefer bancassurance channel if efforts are placed in time and in the right direction. This is because customers trust banks usually more than insurance companies (Wang & Hwang, 2009). Customers consider the bank as the most authentic channel over other mode of distribution channel for buying insurance (Tiwari & Yadav, 2012). Reliability and trust are very important to gain customers' loyalty and these are possessed by the banks (Kuusik & Varblane, 2009). Customers prefer the bank due to convenience, interpersonal relationship, safety, and customized service (Popliand & Rao, 2009; Fan et al. 2011; Kumari, 2012; Ali & Chatley, 2013; Berghe & Verweire, 2001; Shukla, Bhatt, & Shrisvatava, 2012).

In case of selling insurance policy, the bank has a competitive advantage over traditional channel of insurance companies. The bank has financial data of their clients. Therefore, the bank can offer tailor-made insurance solutions according to the financial position and requirement of its customers. Offering customized insurance plans will boost up the business of bancassurance channel.

Therefore, banks should work on the improvement of customers' perception by taking care of the

areas considered to measure the abovementioned perceptions. In this respect, the bank can rely upon the use of technology too due to its affordability (Brige, 2006).

Scope of Future Research

Customers' perception of bancassurance service of private banks can be considered for study. A comparative study of customers' perception of bancassurance business model and traditional insurance selling model, that is, selling policy through agent can also be carried out.

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A Study on School Dropouts in Rural Niuland Block, Nagaland

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Abstract

Education deepens people's understanding of themselves and the world, enriches the mind by broadening one's experiences, and improves the choice they make as consumers, producers and citizens. Education strengthens the ability to meet their wants and those of their family and society. Concerns over the dropout rate have been escalating nationwide. This has aroused the need to measure the extent of dropout problems and the factors associated with it. This study is undertaken in 9 villages of Niuland Block under Dimapur district, Nagaland among the local tribal communities. Considering the negative impact of the phenomena it was found appropriate to explore the various factors such as family environment, personal characteristics and school environment related to early school dropout. Data were gathered using semi-structured, open-ended interviews conducted among purposively selected participants. This study's findings and conclusions confirm that family background, personal and school characteristics are all related to early school leaving.

Keywords: Dropout, Niuland block, school environment, home environment, causes.

1. Introduction:

A student who withdraws before completing a course of instruction is considered as a dropout. Dropout rate is the percentage of students who drop out from a given grade or cycle or level of education in a given school year (GoI, 2014). According to the Oxford Advanced Learner's Dictionary dropout refers to a person who leaves school or college before they have finished their studies. India stands at 111th position at the worldwide literacy rate. According to the Census of India 2011, 40% of the population did not finish their elementary education (Census, 2011a). School dropout rate amongst adolescent girls in India was as high as 63.5% (MoSPI, 2012).

It has been long recognised that youths from low socio-economic backgrounds were more likely than their more affluent peers to suffer from a wide range of problems including academic deficiencies. Connell (1994) has emphasized the importance of socio-economic status within the school context when he remarked that children from poor families were, generally speaking, the least successful by conventional measures and the hardest to teach by traditional methods. The literature has also showed that children who have experienced persistent or occasional poverty were far more likely to have low intelligence-quotient (IQ) test scores (Smale, 2001). Low IQ was highly correlated with the propensity to quit school. Early school dropouts were also more likely to report marital plans or take on adult roles prematurely (Smale, 2001). Proximal factors such as parental influences also appeared to influence one's decision to leave school. Parents of dropouts, more often than not, had low education attainment and might be dropouts themselves. Fagan and Wexler (1987) has noted that the family played an active role in socializing youths to violent behaviours through supervision and discipline practices and modelling and reinforcement of antisocial behaviours. Rumberger (1995) has opined

that students develop more psychosocial maturity and do better in school when they come from families in which parents monitor and regulate their children's activities at the same time that they provide emotional support. One prime reason offered by students for leaving school early is related to boredom with the classroom or school routine. According to a study, boredom and disliking school were common reasons for quitting. Another body of research has shown that dropouts acquired lower grades than school graduates. Hahn (1987) has found that students who had received low marks and failed a grade were four times more likely than other students to drop out of school.

Several other studies have also shown that poor grades were correlated with the propensity to leave school early. Other research supported the assertion that institutional climate may influence student behaviour (Smale, 2001). More precisely, this research concluded that a negative student-teacher relationship may significantly affect a youth's educational prospects. Without doubt teachers and administrators play an integral part in a students' commitment to schooling.

A study of 21 states in India has shown that the topmost reasons for dropping out were lack of interest in studies, economic condition of the parents, migration of family and to help the family in domestic work. After dropping out the children were found to be involved in helping their parents in household work, occupation work, working to earn money and a lot of students were also sitting idle and doing nothing. More or less the students after dropping out from upper primary classes helped their parents in earning money, either by getting them involved in the agriculture and allied activities or directly by doing work to earn money (TNS, 2013).

One of the studies has shown that it was important to consider the economic and racial/ethnic diversity of students when evaluating the effects of financial aid on student dropout. Given the heterogeneous nature of the student population, researchers in higher education needed to explore the possible variations in aid effects on dropout risks across different subgroups rather than just specify average effects for the population as a whole (Smart, 2008).

The specific objective of the present study was to determine and analyze the causes of school dropouts. It is proposed that socio-economic factors and improper educational facilities result in school dropout. This study was based on both secondary data and primary data collected from the field. The secondary data were retrieved from internet, articles, books and journals to have a macro picture of school dropouts at national and state levels. The primary data was collected from the nine villages of Niuland Sub-division under Dimapur District, Nagaland, India. The size of the sample is 106 (Dropouts – 74, Parents – 26, Teachers – 6). The studied villages are i) Kuhoxu village, ii) Yeveto village, iii) Hovukhu village, iv) Zuheshe village, v) Ghotovi village, vi) Hovishe village, vii) Hakhizhe village, viii) Hozukhe village and ix) Henito village. Purposive sampling is used in this study. The rationale for choosing this approach is that the researcher seeks knowledge about the school dropouts which the participants would provide by virtue of their experience. In this study only respondents who were eligible were purposively chosen to participate. In collecting primary data, three Questionnaire Schedules, one each for dropouts, parents and teachers; formal and informal interviews and observations were used.

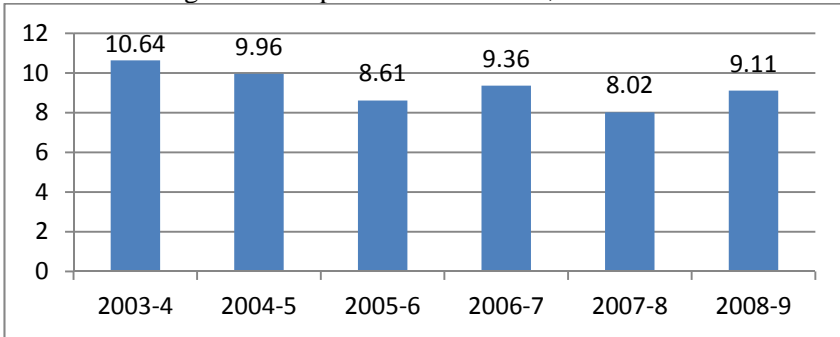
The nine villages studied in Nuiland have similar socio-economical, political and religious phenomena, located within a range of 5 to 10 kms surrounding Nuiland town. The nine villages surveyed have a total of approximately 585 households with an approximate 3500 population. Agriculture is the predominant occupation of the people of the region.

2. Dropouts at national and state levels:

Elementary education in India has witnessed a steady growth over the years in enrolment of children from all sections of society, particularly from weaker and disadvantaged sections such as girls, scheduled castes (SC), scheduled tribes (ST), and linguistic, ethnic and religious minorities. Owing to the increased inflow of children from weaker and disadvantaged sections, classrooms and schools have become increasingly diverse.

Census 2011 data indicates that majority of Indians live in rural areas (68.84%) and the literacy in rural India is 68.91%, which is much less than the urban literacy of 84.96% (Census, 2011a). Accordingly, the dropout rate is also higher in rural India. Figure 1 shows the dropout trend in India from 2003 to 2009, which reflects that although the dropout rate is decreasing, during 2006-7 and 2008-9 it has increased over preceding years.

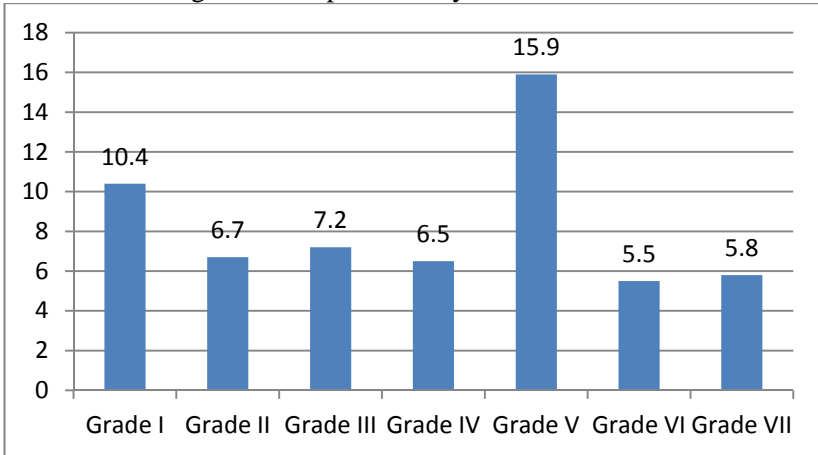
Figure 1: Dropout Trend in India, 2003-2009



Source: USAID, 2011, Dropout Trend Analysis: India, United States Agency for International Development, Washington, DC.

The figure 2 shows the dropout in India by grade in 2009-10. It is clear that highest dropout rate is in grade V (15.9), which is a transitory phase after pre-primary level of education. It is worth mentioning here that in our country the number of schools at upper primary/middle level quite is less mainly in the rural areas as compared to number of schools at pre-primary/ elementary level. Traditionally, poverty ridden families with illiteracy or low level of education engage children of this age group to help in household chores, taking care of younger siblings or in works outside household arenas. Girls of this age group, after onset of puberty and lack of separate toilet for them, are especially restrained from continuing education. In course of time they drop out, irrespective of their desire to continue education. Further, in many areas, child marriage also leads to high dropouts.

Figure 2: Dropout rate by Grade, 2009-10



Source: USAID, 2011, Dropout Trend Analysis: India, United States Agency for International Development, Washington, DC.

The table 1 shows the level wise dropouts for boys and girls. It certifies that at all levels dropouts among the boys are more than the girls. Further, the dropout rates among STs are much higher, for both boys and girls at all levels.

Table 1. Level-wise Dropout Rates in School Education in India, 2013-14

Level	ALL			ST		
	Boys	Girls	Total	Boys	Girls	Total
I-V	21.2	18.3	19.8	31.9	30.7	31.3
I-VIII	39.2	32.9	36.3	49.8	46.4	48.2
I-X	48.1	46.7	47.4	63.2	61.4	62.4

Source: U-DISE-2013-14 (Provisional)

It is imperative to look into the dropout rates among STs, as our study samples were STs. Table 2 indicates the dropout rates among STs at different levels of education for both boys and girls from 1990-91 to 2013-14. It shows that the dropout rate at classes (I-V) are more for ST girls from 1990-91 to 2007-8, at classes (I-VIII) up to 2003-4 and at

classes (I-X) up to 2011-12. It is an interesting observation here that the current dropout rates among STs are less for girls at all levels.

Table 2. Dropout Rates for Scheduled Tribes Students, 1990-2014

Year/ Classes	Classes (I-V)			Classes (I-VIII)			Classes (I-X)		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1990-91	60.3	66.1	62.5	75.7	82.2	78.6	83.3	87.7	85.0
1994-95	56.9	61.3	58.6	74.5	80.0	76.7	NA	NA	NA
1998-99	54.8	56.8	55.7	70.1	75.7	72.4	79.8	85.1	82.2
2003-04	49.1	48.7	48.9	69.0	71.4	70.1	77.9	81.2	79.3
2007-08	31.0	31.7	31.3	62.6	62.3	62.5	76.0	78.0	76.9
2011-12	36.1	34.4	35.3	57.3	57.1	57.2	64.4	67.6	65.9
2013-14(P)	31.9	30.7	31.3	49.8	46.4	48.2	63.2	61.4	62.4

Source: (i) figures for 1990-91 to 2011-12 taken from the publication Statistics of School Education, MHRD and (ii) figures for 2013-14(P) have been calculated from U-DISE-NUEPA Enrolment Data.

National level data reflects that at the primary stage there is a similar dropout rate for boys and girls, but at the upper primary stage there is a higher percentage of boys dropping out as compared to the girls (TNS, 2013). Further, around 35% of the school leavers dropped out amongst the SC, ST and Muslims at the primary stage and 37% at the upper primary stage. At the primary stage, 15.3 % of SC, 7.4% of ST and 15% of Muslim pass outs of the terminal grade of the school discontinued their education; and 7.9% of SC, 7.8% of ST and 6.2% of the Muslims discontinued education before completing the upper primary stage (TNS, 2013).

Inter-state variations in dropout are studied for understanding regional variations of dropouts. Table 3 shows that at the national level the dropout rate at the primary stage was 2.7% in 2008-09 and increased to 3.1% in 2009-10. At the upper primary stage the dropout rate have remained almost same at 2.1% and 2.2% for the two years. At Primary stage, the highest dropout rate was in West Bengal (3.9) in 2008-9 and in Uttar Pradesh (4.6) in 2009-10, while the lowest rate was in Gujarat (1.0) for both the years. At Upper Primary stage, the highest dropout rate was in Karnataka (6.8 and 5.7) for both the years, while the

lowest rate was in Delhi (0.3) in 2008-9 and in Delhi and West Bengal (0.3) in 2009-10.

Table 3. Dropout Rates in selected states of India, 2008-9 & 2009-10

Sl. No	State	Primary Stage (I-V)		Upper Primary Stage (V-VIII)	
		2008-9	2009-10	2008-9	2009-10
1	Andhra Pradesh	3.0	2.9	3.4	2.4
2	Assam	3.2	2.6	4.6	3.3
3	Bihar	3.4	3.0	1.1	1.2
4	Chhattisgarh	3.0	4.4	1.5	3.4
5	Delhi	2.7	4.3	0.3	0.3
6	Gujarat	1.0	1.0	3.5	3.0
7	Haryana	2.1	1.8	0.4	0.2
8	Himachal Pradesh	1.4	1.4	1.4	0.9
9	Jammu & Kashmir	1.3	1.3	0.7	0.5
10	Jharkhand	3.5	3.0	2.1	2.8
11	Karnataka	1.6	1.5	6.8	5.7
12	Kerala	2.7	4.2	2.9	3.7
13	Madhya Pradesh	3.2	2.8	1.5	2.2
14	Maharashtra	1.8	2.0	1.7	1.5
15	Orissa	2.7	1.3	4.1	5.0
16	Punjab	3.4	3.9	0.5	1.4
17	Rajasthan	3.2	3.1	2.7	2.2
18	Tamil Nadu	2.6	1.7	1.3	1.9
19	Uttar Pradesh	2.4	4.6	1.5	1.5
20	Uttarakhand	2.6	1.7	1.2	0.8
21	West Bengal	3.9	2.5	0.4	0.3
All States		2.7	3.1	2.1	2.2

Source: TNS, 2013, *Survey for Assessment of Dropout Rates at Elementary Level in 21 States*, Prepared by TNS India Private Limited, Gurgaon and submitted to EDCIL, India.

3. Dropouts in Nagaland:

Nagaland is one of the better literate states of India, though school dropout is common in the state. The total literacy rate in Nagaland is 80.11%; the district with the highest total literacy rate in the state is Mokokchung (92.68%) and with the lowest rate is Mon (56.60%) (Census, 2011a). The elementary school education indicators in Nagaland were comparatively better than the national level during the period 2006-7. The table 4 shows that indicators like out of school children, dropouts, Pupil-Teacher Ratio (PTR), teacher vacancies and per capita budgeted expenditure on education are much better in Nagaland. Only the GER in Nagaland is lower than the national level.

Table 4. Elementary School Education (Classes 1 to VIII) in Nagaland, 2006-07

Indicators	Nagaland	All India
Number of Out of School Children (6 - 14 yrs)	9116	8043889
% of Out of School Children (6 - 14 yrs)	2.56	4.22
Enrolment (Classes I to VIII)	316986	188196018
GER (Classes 1 to VIII)	79.08	97.08
Dropout (Classes 1 to VIII)	38.60	45.90
PTR (Pupil-Teacher Ratio) at Middle / Senior Basic School	16	34
% of teacher vacancies (only Government schools) against normative requirement of PTR more than 40:1, <2 teachers at primary <1 teacher per section at upper primary	0.90	9.71
Per Capita Budgeted Expenditure (Revenue account on Education in 2006-07) in Rupees	1595.75	1241

Source: GoI, 2011, Human Development Report of North East States, Ministry of DoNER, New Delhi.

Dropout rate in Nagaland at primary and elementary levels are different (Table 5). It is interesting to observe that at primary level,

dropout rate in Nagaland is much higher (42.69%) than national rate (29.00%). While, if we look into the elementary level the rate is lower in Nagaland (42.49%) than the national level (50.84%). Gender wise, at both primary and elementary levels, the dropout rates among the girls are higher than the boys, though at national level, dropouts for girls is lower at primary level but higher at elementary level.

Table 5: Gender-wise Drop- Out Rates in Nagaland, 2004-05

States	Classes I-V (Primary) (Age group 6 to 11 years)			Classes I-VIII (Elementary) (Age group 6 to 14 years)		
	Boys	Girls	Total	Boys	Girls	Total
Nagaland	41.79	43.66	42.69	41.09	43.93	42.49
All India	31.81	25.42	29.00	50.49	51.28	50.84

Source: Selected Educational Statistics 2004-05, Ministry of Human Resource Development.

A comparative look into the Right to Education Act norms in Nagaland vis-a-vis India gives us a clear picture on some of the important factors of dropout in the state. Table 6 shows a comparative data relating to Pupil-Teacher Ratio (PTR), Classroom-Teacher Ratio (CTR), building, drinking water, toilet, library and Mid-Day-Meal. It reflects that most of the indicators in Nagaland are impressively not better off, e.g., PTR, playground, drinking water, girls' toilet, library and Mid-Day-Meal served. Such lack of infrastructural facilities contributes towards higher dropouts.

Table 6: Schools meeting selected RTE norms in Nagaland and India, 2014

Schools meeting the following RTE norms (%):		2014	
		Nagaland	India
PTR & CTR	Pupil-Teacher Ratio (PTR)	92.1	49.3
	Classroom-Teacher Ratio (CTR)	73.9	72.8
Building	Office/store/office cum store	81.0	76.7
	Playground	43.8	65.3
	Boundary wall/fencing	52.6	58.8
Drinking water	No facility for drinking water	73.4	13.9
	Facility but no drinking water available	3.2	10.5
	Drinking water available	23.4	75.6
Toilet	No toilet facility	4.4	6.3
	Facility but toilet not useable	27.7	28.5
	Toilet useable	68.0	65.2
Girls' toilet	No separate provision for girls' toilet	31.1	18.8
	Separate provision but locked	16.7	12.9
	Separate provision, unlocked but not useable	7.2	12.6
	Separate provision, unlocked and useable	45.0	55.7
Library	No library	85.4	21.9
	Library but no books being used by children on day of visit	9.1	37.4
	Library books being used by children on day of visit	5.5	40.7
Mid-day meal	Kitchen shed for cooking mid-day meal	79.2	88.1
	Mid-day meal served in school on day of visit	24.1	85.1

Source: ASER, 2015, Annual Status of Education Report (Rural) 2014 (P), ASER Centre, New Delhi.

Further, a look into the trained teachers and female teachers in the state and comparing it with national scenario is relevant in this context. Data shows that percentage of trained teachers is quite low in Nagaland

at both primary (34% compared to 86% at national level) and middle/upper primary (17% vis-à-vis 87%) schools. The proportion of female teachers was marginally lower in the state (59 and 61 per 100 male teachers at primary and middle/upper primary levels) compared to national level of 66 and 65 (MHRD, 2008).

4. Dropouts in Rural Niuland Block:

Niuland is a rural block in Dimapur District of Nagaland. The main objective of the present study is to understand the issues of dropouts in Rural Niuland Block. Dimapur is the most populous district which has emerged as the main commercial centre of the state with a literacy rate of 85.44% (Census, 2011b). According to a study on Elementary School Dropouts in Nagaland conducted by the State Council of Educational Research and Training, school dropouts in Nagaland and Dimapur are 7.4% and 9.7% respectively (Assam Tribune, 2015). Dimapur has 8 blocks i.e., Nuiland, Kuhuboto, Medziphema, Dhansiripar, Chumukedima, Dimapur Sardar, Aghunaqha and Nihokhu. Nuiland is located 35 km away from Dimapur city. It has a total area of 305 km² comprising of 79 recognized villages. Sumis are the predominant tribe inhabiting the area.

Analysis of Data:

A total of 74 dropouts were interviewed from 73 households out of which 60.81% were male and 39.19% were female. The family size of the dropout respondents showed that majority of the dropout belonged to a family size of 4-6 members and the average family size were found to be 6 (six). It was further found that 20.27% were from joint family, majority of 78.38% from nuclear family and 1.35% from extended families.

Majority of the dropout respondents' age was found to be between the age group of 19-24 years with 54.04%. Regarding the class studied, majority of the respondents were found to have dropped out between classes 6-10 (89.18%). Failure in class 10 was the major cause. 17.57% respondents revealed to have dropped out at class 8 while majority of them were found to have dropped out at class 10 (52.70%). With regard

to the age at which they dropped out, it was found that 18.92% of the respondents dropped out at 8-12 years and 81.08% i.e., majority of them dropped out at 13-17 years of age. It was also observed that 67.56% dropped out from government schools and 32.44% from private schools.

Deviant activities were common among many dropouts. Data shows the involvement of the dropouts (58.11%) in various deviant activities like 39.53% found to be involved in smoking, 46.51% in gambling and 13.95% in consumption of alcohol.

The table 8 shows the dropouts' perceptions on various factors at school environment. As such 27.16% ranked the teaching staff as good, while 45.95% ranked it as average and 27.03% as bad. Regarding the quality of mid-day meal 12.16% finds it good while 40.54% finds it average and a majority of 47.30% finds it bad. With regard to text book and uniform 12.16% ranked it good, 28.38% ranked it average and a majority of 41.89% ranked it as bad. 13.51% of the dropout respondent revealed that their school results were good, while 35.14% as average and a majority of 51.35% as bad. Data also shows the dropout respondent's relationship with their peer students where it was found that 25.68% had good relationship with their fellow students while 60.81% were found to have average and 13.51% were found to have bad relationship with their fellow students. On the category of teacher's regularity in the school 12.16% ranked it as good while 58.11% ranked it as average and 29.73% as bad. 25.14% of the respondents find the school infrastructure as good while a majority of 45.94% finds it average and 18.92% finds it bad. With regard to the maintenance of playground 6.76% respondent ranked it as good, while the rest 78.37% and 14.86% respondents' ranked it average and bad, respectively. Regarding the relationship of the dropout respondent with their teachers, 6.76% revealed to have good relation with their teachers, a majority of 78.37% revealed to have average relationship while 14.86% said their relationship with their teachers were bad. It further indicates the availability of separate washroom for male and female students, where 87.84% of the respondent revealed that their school had separate washroom and 12.16% revealed that there were no separate washroom. Regarding teacher's concern towards the student's studies 70.27%

respondent revealed that their teacher showed concern towards their studies while 29.73% revealed that their teacher showed no concern toward their studies.

Table 8: Dropouts’ Perspectives on Various Factors at Schools

Factors	Good	Average	Bad
Adequate teaching staff	20 (27.16%)	34 (45.95%)	20 (27.03%)
Mid-day meal	9 (12.16%)	30 (40.54%)	35 (47.30%)
Uniform	22 (12.16%)	21 (28.38%)	31 (41.89%)
Textbook	22 (12.16%)	21 (28.38%)	31 (41.89%)
School result	10 (13.51%)	26 (35.14%)	38 (51.35%)
Peer students	19 (25.68%)	45 (60.81%)	10 (13.51%)
Teachers regularity	9 (12.16%)	43 (58.11%)	22 (29.73%)
School infrastructure	26 (25.14%)	34 (45.94%)	14 (18.92%)
Playground	5 (6.76%)	58 (78.37%)	11 (14.86%)
Good Relationship with teachers	Yes 42 (56.76%)	No 32 (43.24%)	...
Separate washroom	Yes 65 (87.84%)	No 9 (12.16%)	...
Teacher’s concern	Yes 52 (70.27%)	No 22 (29.73%)	...

Table 9 shows the relationship between the dropouts and their home environment. When asked if their parents showed any interest in their school results, 70.27% of the respondents said YES while 29.73% said NO. 64.86% of the respondent revealed that they were encouraged by their family members to continue their studies while 35.14% did not. It was found that 68.91% of the dropout respondent’s parents had trouble in sending them to school mostly because of financial constraints.

When asked if they found education dull and boring 60.81% said YES while 39.18% said NO. It was further found that 41.89% of the respondents were still interested in studying while a majority of 58.11% showed no interest in studying again. Among the dropouts it was found that 40.54% repeated in a particular class while 59.46% did not repeat.

Table 9: Dropout and their home environment

Factors	Yes	No
Parent's interest in the child's result	52 (70.27%)	22 (29.73%)
Encouragement from the family members to continue studying	48 (64.86%)	26 (35.14%)
Trouble in sending the child to school	51 (68.91%)	23 (31.09%)
Education; dull and boring	45 (60.81%)	29 (39.18%)
Interest in studying	31 (41.89%)	43 (58.11%)
Repeated class	30 (40.54%)	44 (59.46%)

The perception of the teachers varied on the causes of dropout in the study area. A total of six (06) teachers were interviewed from two schools based on their availability and cooperation. These two schools were surveyed because majority of the students were found to have dropped out from these schools. Out of six teachers interviewed two were undergraduate, three graduates and one post graduate. Major causes of dropout in view of teacher respondents are parents' ignorance and poor school infrastructure. According to them the lack of school infrastructure fails to create suitable learning atmosphere leading to loss of interest among students. In view of two teacher respondents, SSA is not at all successful while four respondents thought SSA has some role to play in reducing the dropout rate to some extent.

Parents were interviewed from nine villages where it was found that each parents had different perspectives about different matters. It showed that out of 26 parent respondents 50.94% were male and 49.56% were female, 73.08% were found to be illiterate and 26.92%

literate. 42.86% were found to have studied up to class 5 while 57.14% were found to have studied from class 5 to 10. Further, 42.50% belonged to BPL while 57.69% belonged to APL. The monthly income of 53.85% was found to be below Rs. 5000, while the income of 30.77% families was between Rs. 5000–10,000 and it was also found that 15.38% of the families had income above Rs.10,000 per month.

Study has revealed that 38.46% each spends less than Rs. 50 per day and between Rs. 50–100 per day, while 23.07% spends more than Rs. 100 per day on food items. With regard to yearly expenditure on cloths majority (52.84%) revealed that they spend between Rs. 2000–4000 on cloths yearly. It is also found that a majority (65.38%) spends between Rs. 1000–2000 on health yearly. The yearly expenditure on education showed that 50% spends between Rs. 10,000–20,000 per year. It is found that 42.30% of parents consider economic constraint as the cause of their child's dropout while 57.69% considers loss of interest on education on the part of children as their cause of dropout.

Among the dropout families it was found that all the parents had voter's ID card while only 15.35% had access to ration card and 34.62% had MGNREGA cards as well as bank account. It can be speculated from the figure that in order to get the benefits of MGNREGA the beneficiaries had no choice but to open a bank account. Further 43.30% of the family had access to BPL card and out of which only 15.35% had access to ration card.

It was revealed by the parents of dropout respondents that 34.61% of them were indebted with loans from various financial institution such as 7.69% from bank, 11.54% from relatives and friends, and a majority of 38.46% of loans were provided by the self help group of the particular village to which they belong. It was found that the purpose of the loan is mostly for domestic purpose i.e., 46.67% while 40% of the family takes loan for children's education and 13.33% for cultivation purposes. About any savings for their child's future, 15.38% responded in affirmative while 84.62% responded in negative.

Regarding parents' effort to send their children to school again it was found that 65.38% tried to send their children to school again since

they considered education as an important aspect of life while 34.61% of the parents did not try to send their children to school, because they consider skill formation to be more important than education.

Major Findings:

The various factors identified responsible for dropout are:

- 1) Economic constraints,
- 2) Home related factors such as large family size and parents' ignorance,
- 3) Peer influence,
- 4) Lack of proper infrastructure and poor facilities leading to failure in motivating students,
- 5) Poor academic performance and failure in examination,
- 6) In some rare cases, health issues.

High school dropout is a silent epidemic which destroys the backbone of the nation. It leads to an increase in low skilled workers. State economy suffers when it has less-educated workers. A high school dropout is ill equipped to enter today's high-tech globally competitive workforce. A persistently high dropout rate increases the threat to our country's strength and prosperity. Dropping out of school impacts student's self esteem and psychological well-being, faced with the reality that they lack skills and knowledge to fulfil their desires. There is a high probability of dropouts to get involved in criminal or anti-social activities. The survey reveals that majority of the dropouts are unemployed, living on others' assistance, and the remaining are found to be engaged in low skilled works in cultivation, driving, small businesses in case of male respondents, and weaving and tailoring apart from household chores in case of female dropout respondents.

Conclusion:

This study is an attempt to understand the early school leaving phenomenon. The respondents were categorised into three categories – dropout respondents, teacher respondents, and parent respondents in order to determine the various personal, home and school related factors influencing the phenomenon. Personal characteristics form the first set

of factors where boredom, loss of interest and having friends who are dropouts themselves are found to be the major factors contributing to dropout. With regard to home environment socioeconomic factors are found to be highly predictive of dropout behaviour. Lack of encouragement from ignorant parents, large family size and financial constraints are found to be in vogue. School related variables like combinations of disliking and not attending school are found common among dropout students; factors such as improper facilities, lack of extracurricular activities, failure to cope up with friends, and failure in examination contribute to dropout. It is found that dropouts are more likely than non-dropouts to find school boring and dull, acquire low grades and experience difficulty in learning. The research findings validate the hypothesis which was framed beforehand based on the assumptions and literature review. The present study has revealed the perceptions and relationship between the dropouts and the surrounding environment. Hopefully, the findings and recommendations might probably shed some light about the dropout problem in general.

Suggestions and Recommendations:

A few of the important suggestions and recommendations are as follows:

- 1) There is a need for more facilities like an idle class room, well maintained playground, separate washrooms, and regular teachers. Need to create suitable learning atmosphere in order to make the learning process interesting. Further need to encourage the extracurricular activities so that the students can grow their interest in their respective field.
- 2) There is a need to formulate student oriented rules so that school itself becomes a place of interest for the student community, though some students advocated for strict rules and regulations to be maintained in the school system.
- 3) The education system should be simple and easy so that even illiterate parents can access and send their children to schools. The system and the teachers need to be student friendly so that the school does not become a place of fear to the children.
- 4) There is a need to establish parent-teacher and teacher-student relationships and encourage parents' involvement and

- participation in the student activities. In order to encourage parents' involvement, awareness programmes should be conducted occasionally.
- 5) The concerned government authority should establish policies and procedures that will facilitate the re-entry of dropouts into the educational system. The SSA may play an important role in this context.
 - 6) Academically weak students need to be identified and provided support, guided and counseled. Continued monitoring of at-risk children is also recommended. The school should also encourage programme to improve communication between teachers and students.
 - 7) Provision in the form of scholarship should be given to the meritorious students belonging to BPL category; proper guidance in the form of coaching should be given to the class X repeaters so as to motivate them to re-appear in the examination. There is a need to create awareness about distance and informal education system also which may be adopted by many dropouts to enhance their education and life skill training.

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Cultural learning needs of tribal women dropout: A study on literacy programme of Bolangir District of Odisha

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Abstract

The main objective of this paper was to study cultural learning needs of different Tribal women Groups dropout from literacy programmes in Bolangir district of Odisha. From the study it was observed that the variable like proper celebration of festivals as a learning needs, proper celebration of fairs as a learning needs were needed “frequently” to “usually” where as religious education “sometime” to “frequently” for the Kandha, Lodha, Saora and Bonda tribal women. Further it was found that there exist no significant difference in between the Total Literacy Campaign dropout, Post-Literacy Programme dropout and Continuing Education Programme dropout with relation to their learning needs for religious education, Proper Celebration of Festivals and Proper Celebration of Fairs.

Keywords: cultural learning needs, tribal women dropout, literacy programme

1. Introduction

Learning needs and the way of living are related with each other. Learning needs of the learners facilitates to the curriculum framework for the formulation of the curriculum. Tribal women’s learning needs are different from the other people. The learning needs of Tribal women are classified into (i) Individual development need (ii) Vocational and job oriented need (iii) Social awareness need (iv) Cultural need (v) Literacy and numeracy need (vi) Leisure time need (vii) Skill development need and (viii) Horticulture and floriculture need (Pradhan, 2015).

Cultural learning need is one of the most important learning needs of the tribal women. It refers to the learning facilitates for the smooth functioning of the cultural activities throughout the year. The animal and sacrifice should be stopped by organizing the traditional folk dances, songs through the media for creating the awareness in the tribal society. They should motivate in building their village in forming the different associations, youth forums, cultural forums and ladies forums. The literacy centre should organize different competitions and interaction among themselves in the various issues related to their interest and their betterment. The literacy centre should also organise the awareness programme in removing the bad habits including the gambling, inhuman acts like killing the child or animals for offering to the god as the part of the worship.

Saini (1978), Haque (1978), Deora(1979), Ali (1979), Mehta (1980), Kaur (1988), Goyal and Bhango (1990), Rani (1980), Malhotra (1991), Kaur (1992), Bhango and Kaur (1993), Dangi and Intodia (1999), Soundarapandian(2000), Seshukumari (2001), Bhatia and Kumar (2001), Manjeet and Anuradha (2002), Mathew (2002), Sharma (2002), Department of Adult and Continuing Education, Sri Venkateswara University, Tirupati (2006), Reddy *et al.* (2008), Sariput Landge *et al.* (2008), Zaman *et al.* (2010), Reddy (2011), Indian Adult Education Association, New Delhi (2011), Department of Adult and Continuing Education, Sri Venkateswara

University, Tirupati (2012), Coroline ital (2013) and Pradhan ital (2015) reported that cultural leaning need is very important for tribal adult women learner.

2. Objective of the study

To study cultural learning needs of different Tribal women Groups dropout from literacy programmes in Bolangir district of Odisha.

3. Hypothesis of the Study

There exist no significant differences of opinion among the programme wise Tribal women dropout learners with respect to cultural learning needs.

4. Method and Material

4.1 Method

Survey design was used for the purpose of this study.

4.2 Population

The total number of 18457, Tribal female dropout from the Total Literacy Campaign, Post-Literacy Programme and Continuing of Bolangir district of Odisha served as the population.

4.3 Sampling

800 respondents were drawn from the universe by using multistage Sampling Procedure.

Stage-1: Out of 14 blocks in Bolangir District, 8 blocks were selected on the basis of Random Sampling procedure.

Stage-2: From each block, 4 villages were selected again on the basis of Simple Random Sampling procedure.

Stage-3: Out of each selected block, 4 villages and 25 Tribal women dropout from different stage of literacy campaign belonging to four prominent tribal groups (Kandha, Lodha, Bonda, Saora) were selected purposively using Convenient Sampling Procedure. Thus the samples drawn from the universe for each of the selected tribal group works out to be

200. The total sample for the purpose of the study was 800.

4.4 Tools

Interview Schedule used for the purpose of data collection in this study.

4.5 Technique

‘t’ test and percentage(%) was used for the purpose of data analysis and interpretation in this study.

5. Analysis and interpretation of the study

The Item wise analysis was done for the purpose of analysis and interpretation of data

Table 1: Dropout Status of the Respondents

S. No	Dropout Status	Frequency	Percent
1	TLC	254	31.75
2	PLP	329	41.12
3	CEP	217	27.13
	Total	800	100.00

The Table shows dropout status of the respondents, 31.74% are dropout from the total literacy campaign, 41.12% are dropout from the post-literacy programme where as 27.13% respondents dropout from the continuing education.

Table 2: Proper Celebration of Festivals as a Learning Needs

S. No	Dropout	N	df	M	SD	SED	‘t’ value	Remarks
1	TLC	254	561	5.52	1.21	0.32	0.07	**
	Vs PLP	329		5.54	1.20			
2	TLC	254	491	5.52	1.21	0.11	1.69	**
	Vs CEP	217		5.52	1.21			
3	PLP	329	544	5.54	1.20	0.10	1.54	**
	Vs CEP	217		5.70	1.15			

*Significant at 0.05 level ** Insignificant at 0.05 level

Tribal society observes the festival throughout the year. In the festival, women play an important role. They needed the proper celebration way of the festival. In each and every festival are unique in nature. For the proper celebration they need some knowledge regarding what not to do during the festivals. To test the mean difference of opinion in this item the information was collected four tribal women group who subsequently dropped out from literacy campaign at different stages of its implementation. The mean score varies from a highest of 5.70 (Continuing Education Programme) to a lowest of 5.52 Total Literacy Campaign on the above mentioned item. The data analyses reveal that the mean difference between Total Literacy Campaign Vs Post-Literacy Programme was 0.02, Total Literacy Campaign Vs Continuing Education Programme was 0.18 and Post-Literacy Programme Vs Continuing Education Programme was 0.16. The ‘t’ statistics for Total Literacy Campaign Vs Post-Literacy Programme was 1.88, for Total Literacy Campaign Vs Continuing Education Programme was 1.69 and for Post-

Literacy Programme Vs Continuing Education Programme was 1.54 drop outs tribal women group from the literacy campaign which were less than the table value of 1.96 at 561, 491 and 544 degree of freedom at 0.05. The difference was insignificance. Hence the null hypothesis was accepted. This indicated that there exists no significant difference in between the Total Literacy Campaign Vs Post-Literacy Programme, Total Literacy Campaign Vs Continuing Education Programme and Post-Literacy Programme Vs Continuing Education Programme dropout opinion with regard to the above mentioned item.

Table 3: Proper Celebration of Fairs as a Learning Needs

S. No.	Dropout	N	df	M	SD	SED	‘t’ value	Remarks
1	TLC	254	561	4.86	1.76	0.32	0.07	**
	Vs PLP	329		4.88	1.67			
2	TLC	254	491	4.86	1.76	0.16	1.10	**
	Vs CEP	217		5.04	1.77			
3	PLP	329	544	4.88	1.67	0.15	1.05	**
	Vs CEP	217		5.04	1.77			

*Significant at 0.05 level ** Insignificant at 0.05 level

Odisha is a state where through out of the year only celebration of the fairs and festivals. Some of the researcher proved it was also major reason for poorness of that state. The tribal society they celebrate the fair in each and every year but the way of the celebration is not fairer. They understand fair means drinking liquor and dancing. They needed knowledge about the proper celebration of the fairs as the learning need. To test the mean difference of opinion in this item the information was collected four tribal women group who subsequently dropped out from literacy campaign at different stages of its implementation. The mean score varies from a highest of 5.04 (Continuing Education Programme) to a lowest of 4.86 (Total Literacy Campaign) on the above mentioned item. The data analysis reveals that the mean difference between Total Literacy Campaign Vs Post-Literacy Programme was 0.02, Total Literacy Campaign Vs Continuing Education Programme was 0.02 and Post-Literacy Programme Vs Continuing Education Programme was 0.04. The ‘t’ statistics for Total Literacy Campaign Vs Post-Literacy Programme was 0.07, for Total Literacy Campaign Vs Continuing Education Programme was 1.10 and for Post-Literacy Programme Vs Continuing Education Programme was 1.05 drop outs group from the literacy campaign which were less than the table value of 1.96 at 561, 491 and 544 degree of freedom at 0.05. The difference was insignificance. Hence the null hypothesis was accepted. This indicates that there exist no significant differences in between the Total Literacy Campaign Vs Post-Literacy Programme, Total Literacy Campaign Vs Continuing Education Programme and Post-Literacy Programme Vs Continuing Education Programme dropout opinion with regard to the above mentioned item.

Table 4: Religious Education as a Learning Needs

S. No.	Dropout	N	df	M	SD	SED	't' value	Remarks
1	TLC	254	561	3.50	1.29	0.24	0.27	**
	Vs PLP	329		3.57	1.33			
2	TLC	254	491	3.50	1.29	0.12	1.61	**
	Vs CEP	217		3.70	1.35			
3	PLP	329	544	3.57	1.33	0.12	1.13	**
	Vs CEP	217		3.70	1.35			

*Significant at 0.05 level ** Insignificant at 0.05 level

Religious education is important for the tribal women because they love more to their own culture. Secular religious education means paying respect to all the religious of the county and also develop positive attitude towards the other religion. The tribal women are feeling shy for observing other religious activity. They need to understand about knowledge of other non tribal religions. To test the mean difference of opinion in this item the information was collected four tribal women group who subsequently dropped out from literacy campaign at different stages of its implementation. The mean score varies from a highest of 3.70 (Continuing Education Programme) to a lowest of 3.50 Total Literacy Campaign on the above mentioned item. The data analysis reveals that the mean difference between Total Literacy Campaign Vs Post-Literacy Programme was 0.07, Total Literacy Campaign Vs Continuing Education Programme was 0.20 and Post-Literacy Programme Vs Continuing Education Programme was 0.13. The 't' statistics for Total Literacy Campaign Vs Post-Literacy Programme was 0.27, for Total Literacy Campaign Vs Continuing Education Programme was 1.61 and for Post-Literacy Programme Vs Continuing Education Programme was 1.13 drop outs from the literacy campaign which were less than the table value of 1.96 at 561, 491 and 544 degree of freedom at 0.05. The difference was insignificance. Hence the null hypothesis was accepted. This indicated that there exist no significant differences in between the Total Literacy Campaign Vs Post-Literacy Programme, Total Literacy Campaign Vs Continuing Education Programme and Post-Literacy Programme Vs Continuing Education Programme dropout opinion with regard to the above mentioned item.

6. Main findings

Item No. 1: Proper celebration of festivals as a learning needs

It was found from the item no. 1 that the four tribal women group who subsequently dropped out from literacy campaign i.e. Total Literacy Campaign, Post-Literacy Programme and Continuing Education Programme at different stages of its implementation perceives that their learning needs for proper celebration of festivals varies from 'frequently' to 'usually'. However there exist no significant difference in between the Total Literacy Campaign dropout, Post-Literacy Programme dropout and Continuing Education Programme dropout on above mentioned item.

Item No.2: Proper celebration of fairs as learning needs

It was found from the item no. 2 that the four tribal women group who subsequently dropped out from literacy campaign i.e. Total Literacy Campaign, Post-Literacy Programme and

Continuing Education Programme at different stages of its implementation perceives that their learning needs for proper celebration of fairs varies from "sometimes" to "frequently". However there exist no significant difference in between the Total Literacy Campaign dropout, Post-Literacy Programme dropout and Continuing Education Programme dropout on above mentioned item.

Item No. 3: Religious education as learning needs

It was found from the item no. 3 that four tribal women group who subsequently dropped out from literacy campaign i.e. Total Literacy Campaign, Post-Literacy Programme and Continuing Education Programme at different stages of its implementation perceives that their learning need for religious education varies from "occasionally" to "sometimes". Further it was found that there exist no significant difference in between the Total Literacy Campaign dropout, Post-Literacy Programme dropout and Continuing Education Programme dropout on their learning needs for religious education

7. Discussion of the study

Results of cultural needs shows that the variable like proper celebration of festivals as a learning needs, proper celebration of fairs as a learning needs, as a learning needs were needed "frequently" to "usually" where as religious education "sometime" to "frequently" for the Kandha, Lodha, Saora and Bonda tribal women. Population awareness learning needs and knowledge of current problems in the society are important learning needs for tribal women. It is clear that from the research social awareness learning needs necessary for the development of tribal society

8. Suggestion of the study

In the literacy centre the volunteer teacher should let the adults learn from their own culture. The volunteer teacher should arrange the learning programmes by means of cultural activities. He should also emphasize on the different cultural programme in the centre. The curriculum of the adult education must give emphasis on the cultural programmes of the tribal women.

9. Conclusion

It is also observed that with regard to learning needs of animal husbandry and the individual learning needs are two most important learning needs of the tribal women. There was poor arrangement for providing vocational education to the adult learners. Very few arrangement was made to provide vocational training, through women taught a bit of embroidery, kitting, tailoring, carpentry etc. due to the lack of

materials and equipment supplied to them it was not running properly.

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NUTRITIONAL STATUS OF MIDDAY MEAL IN PRIMARY SCHOOLS OF KAMRUP METRO URBAN DISTRICT, ASSAM

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ABSTRACT

Mid-Day Meal is a Centrally Sponsored Programme launched with the objective to boost “universalisation of primary education” by increasing enrolment, retention and attendance and simultaneously impacting on nutrition of children in primary level. This study focuses on the Nutritional Status of the Midday meal provided to primary Schools in Kamrup Metro Urban District, Assam. The survey method has been adopted in the proposed investigation. The data were gathered with the help of Questionnaire, Interview and participant-Observation technique. For secondary data, recent government and non-government reports on primary education, government websites, newspaper articles and journals were used. For primary data, random sample were taken from 50 primary schools of Kamrup Metro Urban District, Assam. The findings of the study were that midday meal for class I-V is free for all the schools and from class VI-VIII, 89% schools are taking contribution from students whereas 11% schools not taking contribution from students. It also suggested for proper utilization of this programme by the stake holders, the Government should make proper rules and regulations, and also the parents to be aware and concerned about this programme and teachers should maintain the above condition properly for sustainable education development.

KEY WORDS: Nutrition, Mid-day meal, primary education, Kamrup Metro Urban District, Assam.

INTRODUCTION:

Mid-Day Meal Programme in India was launched as the National Programme of Nutritional Support to Primary Education, a Centrally sponsored Scheme on 15th August, 1995 with the objective to boost “universalisation of primary education by increasing enrolment, retention and attendance and simultaneously impacting on nutrition of students in primary classes”. The scheme was implemented in 2408 blocks in the first year, and covered the whole country in a phased manner during 1997-98. The programme originally covered children of primary stage (Class I-V) in government, local body and government aided schools and was extended in October, 2002, to cover children studying in Education Guarantee Scheme (EGS) and Alternative and Innovative Education (AIE) centres also. Central Assistance under the scheme consisted of free supply of food grains @ 100 grams per child per school day, and subsidy for transportation of food grains up to a maximum of Rs.50 per quintal. The MDM Programme was further revised in 2004 and 2006 with the objectives given below:-

- i) Improving the nutritional status of children in class I-V in government, local body and government aided schools and EGS and AIE centres;
- ii) Encouraging poor children, belonging to disadvantaged sections, to attend schools more regularly and help them concentrate on class room activities; and
- iii) Providing nutritional support to children of primary stage in drought affected areas during summer vacation. (SCERT, Chhattisgarh, 2014)

In September 2004 the scheme was revised to provide cooked mid day meal with 300 calories and 8-12 grams of protein to all children studying in classes I-V in Government and aided schools and EGS/AIE centers. As per direction of the Hon'ble Supreme Court cooked meal at noon time is being provided to all students of all the Govt./Govt. Aided Primary Schools, EGS & AIE Centers w.e.f 01.09.2004. Each midday meal should contain 464 K calorie and 14.2 gms. of Protein in case of Class I-V and 681 K. calorie and 19.8 gms. of Protein in case of Class VI-VIII.

The government of India allocates food grains (rice) as per the list of students submitted by the State Govt. The State Govt. reallocates the rice in favour of the districts. The respective collectors lift the rice through the Storing and Transporting agents appointed by them through tender procedure from the nearest FCI Godown. The Block transporting agents carry the rice to the school point from the Godown. The WSHG/Teachers –in- charge of MDM receive the rice at the school level. This process has been streamlined and is also given in time. The collectors have been instructed to take care of proper storage of food grains.

Entitlement norm per child per day under MDM:

Item	Primary (class I-V)	Upper primary (class VI-VIII)
Calories	450	700
Protein (in grams)	12	20
Rice / wheat (in grams)	100	150
Dal (in grams)	20	30
Vegetables (in grams)	50	75
Oil and fat (in grams)	5	7.5

Source: Midday meal-Wikipedia, 2017

Midday Meal Scheme in Assam:

In Assam, Cooked Mid-day Meal Programme started with effect from January, 2005. The Assam Government had engaged 60,000 midday meal cooks and helpers in 30,000 lower primary (LP) schools in 2004. The midday meal cooks and helpers were selected by school managing committees and the school headmasters concerned. At present, a midday meal cook gets Rs 40 to Rs. 50 per month in the State. The All Assam LP School Midday Meal Cooks' and Helpers' Association were demanding for implementation of the Centre's November 24, 2009 notification that the midday meal cooks should be given a monthly wage of Rs 1,000 each.

More than a 100 children from a school in Assam were hospitalized after eating the meal provided under government's midday meal scheme with the condition of at least 10 students reported to be serious. 260 students at the Barbaruah Tea Estate LP School started to complain of problems soon after eating the food with over 120 students collapsing before being rushed to the Assam Medical College and Hospital (AMCH) following complaints of headache and vomiting.

Directorate of Elementary Education, Assam (2010) the programme originally covered children of Govt. and provincialised Primary Schools in Assam and has been extended to cover Govt. aided schools, EGS and AIE centers. Mallik (2008) found that the quality of dal supplied under the scheme is being tested by the mothers of student. The mothers are coming in turn to oversee the programme at the time of cooking and distribution of meals in school. Manpreet Kaur (2016) studied that the dropout rate in primary education schools fell on an average by 0.61 percent (1960-61 to 2000-01) and in the after period (2000-01 to 2013-14), the dropout rate fell on an average by 0.66 percent. Molla and Sheikh (2015) found that the Midday Meal programme helped to increase the school attendance children in primary level. So, it may be mention that the quantity of the school attendance children in primary level is increases but quality of the students falling down due to lack of management of this concerned programme. Nutan and Preja (2014) found that the consumption of mid day meals the nutritional status of the rural school going girls under study was lower than the recommended Indian levels. Deodhar and et al (2010) found that one option is to engage private agencies which would be expected to follow certain hygiene norms for food prep-

aration. Food inspectors may be deployed to periodically check quality of prepared meals. Uma (2013) found that the quality of education was absent as children were being passed to next class every year. The achievements of midday meal programs were being measured quantity wise rather than quality wise.

OBJECTIVE:

To find out the Nutritional Status of the Midday meal provided in Primary Schools of Kamrup Metro Urban District, Assam.

METHODOLOGY:

The survey method was adopted in the proposed investigation. The data were gathered with the help of Questionnaire prepared for the purpose. In addition to this, Interview and participant-Observation technique was used. For secondary data, recent government and nongovernment reports on primary education, government websites, newspaper articles and journals were relied upon. For primary data, random sample were taken from 50 primary schools of Kamrup metro urban, Assam.

FINDINGS AND DISCUSSION:

Table No.1.
(Percentage of Schools providing food items as per MDM Norm)

Class-wise	Food items									
	Rice		Protein		Dal		Vegetables		Oil & fat	
	Norm (%)	Not Norm (%)	Norm (%)	Not Norm (%)	Norm (%)	Not Norm (%)	Norm (%)	Not Norm (%)	Norm (%)	Not Norm (%)
I-V	20.7	79.3	9.4	90.6	24.5	75.5	15	85	5.5	94.5
VI-VIII	27.3	72.7	15.3	84.7	21.7	78.3	32.5	67.5	10.6	89.4

The Table No.1 shows percentage of sampled schools found providing Rice, Protein, Dal, Vegetables and Oil & Fat to class I-V children as per MDM Norm are 20.7%, 9.4%, 24.5, 15% and 5.5% respectively, whereas 79.3%, 90.6%, 75.5%, 85% and 94.5% of the sampled schools were found providing these food items respectively below MDM Norm to Class I-V children.

The Table No.1 also shows percentage of sampled schools found providing Rice, Protein, Dal, Vegetables and Oil & Fat to class VI-VIII children as per MDM Norm are 27.3%, 15.3%, 21.7%, 32.5% and 10.6% respectively, whereas 72.7%, 84.7%, 78.3%, 67.5% and 89.4% of the sampled schools were found providing these food items respectively below MDM Norm to Class VI-VIII students.

None of the sampled schools were found to provide fruits of any type to children of Class I-VIII.

Table No.2

Class-wise	Status	%
I-V	Free	100
VI-VIII	Contribution from students	89
	No Contribution from students	11

Table 2 shows that the status of midday meal from class I-V is free; and for class VI-VIII, 89% schools are taking contribution from students for MDM whereas 11% schools are found not taking contribution from students.

SUGGESTIONS:

- The teachers must be present during midday meal time with students.
- Often recess time is not enough for the teachers; they should be present while serving food and have their own lunch as well. Therefore, mealtime for students, though taking place at the cost of study-time meant for student-teacher engagement.
- It must be noted that the mandated midday meals are supposed to provide only a minimum of 700 calories out of the total requirement of about 2000 calories per day. Thus, at best, a massive MDM exercise may contribute the required nutrients in sufficient quantities, about a third of the daily requirement of a child.
- Therefore, efficacy of the nutrition delivery could be supplemented by offering fortified packaged foods. Such initiatives have been taken-up in other developing countries. For example, at the behest of Ministry of Health, triple fortified (Iodine, Iron, Vitamin A) noodle-seasonings and soya sauce have been commercially introduced in Thailand and China. Other fortified foods such as fortified sugar, milk and edible oil have been launched in Latin American countries (IE, 2010).

- Nutritional bar twice a week and a seasonal fruit (usually banana is the cheapest) once a week will bring variety to the menu. In addition, this will provide convenience both to children and the authorities in serving the food and they could focus more attention to studies. And, in doing so, one would also ensure that hygienically packed (a banana has a natural hygienic packing) and nutritious food is delivered and consumed by the students.
- While packaged fortified bar and fruit can complement the regular meal, nutritional quality of the cooked, warm meal itself can also be improved. Better storage and quicker turnover of food grains from FCI godowns may provide better grain quality in terms of safety and nutrition.
- MDM scheme does mention established quality checks. While food inspectors can be employed to check quality of existing meals, policy makers may give a serious consideration to introducing package food. Moreover, looking into future, there is a distinct possibility of introduction of genetically modified (GM) foods in the market.
- Golden rice is naturally fortified in terms of nutrients such as beta-carotene. Use of such rice in MDM scheme may improve nutritional delivery to the targeted children.
- Attention of the State Government is also drawn here to uplift the status of the cooks by meeting their meagre demand and to improve quality of their services. Moreover, proper care should be taken to maintain hygiene while preparing and serving the Midday meal.
- This type of study may be undertaken with more variable like effect of Mid Day meal on elementary school level that will surely change the attitude of the teacher and guardian in the positive manner.

CONCLUSION:

After going through this study, it has been concluded that the Midday Meal programme helped to increase the school attendance of children in primary level. So, it may be mention that the quantity of the school attendance of children in primary level increases but the decrease in quality of the students is due to lack of proper management of this concerned programme. For, suitable utilization of this programme, Government should make proper rules and regulations, and also all the parents must be aware and concerned about this programme and teachers should maintain the above condition properly for sustainable development of education.

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Mini Review

A COMPARATIVE STUDY ON PERFORMANCE OF PUBLIC AND PRIVATE TELECOMMUNICATION SECTORS WITH REFERENCE TO WIRELESS SERVICES IN ASSAM CIRCLE

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Abstract

Indian Telecom Sector is one of the fastest growing domains compared to other sectors of development, which has received extensive investments, both by government as well as private players in the recent years. The prime purpose of this study was to compare the performance of Public and Private Telecommunication sector with reference to wireless services in Assam Telecom Circle. The paper tried to explore and understand the major similarities and differences existing between the public and private cellular service providers in terms of market penetration effectiveness, their subscribers' base, revenue earned by them etc. in the above mentioned Circle. National and State level data of Telecom Sector was collected on a periodic basis over time. A critical evaluation had been done with the help of Applied Analytical Research, by using facts and information already available. The result showed that there were few common factors applicable to both Public and Private Telecom Sector; however significant differences in performance are there in these sectors in Assam Circle. The key findings from this study describe that visibly the Private Sector had better performance than Public Sector in terms of few parameters considered in this study, which might indicate a possible development direction for the effectiveness of Public Sector in this Circle.

Key words: Assam Telecom Circle; Private Telecom Sector; Public Telecom Sector; Wireless subscribers' base; Wireless Market share.

Introduction

In present times, Indian Telecommunication Sector is one of the fastest growing telecom sectors in the world and it has become the second largest network in the world, next only to China. This sector is a core infrastructure industry and acts as a catalyst for overall growth of the economy. Very exponential growth of Telecom Sector in Assam Circle has been observed only in the last decade, which helped the state in its economical development. This sector has really adopted the most structural, fundamental and institutional restructuring. It has created more job opportunities, both direct and indirect, supported trade and commerce and helped in enhancing the quality of civic life in the Assam Circle.

It is believed that a 1% improvement in telecom penetration results in more than 3% growth in GDP. According to Joshi (2014), World Bank believes that "A 10% increase in mobile penetration increases the per capita GDP by 0.81% in the developing countries" World Bank.

Assam Telecom Circle: Wireless services

Telecom sector in India has registered an exponential growth over last two decades. Most fundamental and structural restructuring has taken place in Indian Telecom Sector just after the liberalization. The country is divided

into multiple zones for effective performance and proper management of this sector. These zones are called 'Circles', roughly along state boundaries. The Assam circle is formed approximately along the boundaries of State of Assam. This circle is fully covered by Assam Licensed Service Area. Telecom industry is growing at a rapid pace in Assam Circle, as the demand is increasing day by day. Over the last decade, the circle has witnessed substantial growth related to subscriber base in both rural and urban areas, especially in wireless segment.

Public and Private sector in Assam Telecom Sector

The Telecom Sector of India has undergone a dramatic transformation from the government monopoly to a competitive environment after liberalization, where multiple private players could enter and started giving services to customers. The wireless telecommunications system in India is the second largest in the world and it was thrown open to private sector in 1990s. The Assam Telecom Circle consists of both Government and Private telecom companies. The joint effort of Government and private players of this sector has improved a lot and on its way of growth and development. These companies run local and long distance telephone services and there is a very healthy competition among the companies existing in Assam Circle. This competition is one of the main causes of dropping the

prices and hence the call rates in the circle are quite low. According to Kumar & Uma (2013), with the increase in network coverage and competition being very tough, has resulted in decline of tariffs acting as catalyst for the growth in subscriber base.

Major players in Assam Telecom Circle

The Assam circle has three types of telecom players presently in the year 2014, they are-

1. State Owned Company/ Public Sector Undertaking
 - Bharat Sanchar Nigam Limited, (BSNL).
2. Private Indian Owned Company--
 - Reliance Telecom Limited.
 - Idea Cellular Limited.
3. Private companies with majority stake by Foreign Investors
 - Bharti Airtel Limited.
 - Dishnet wireless Limited (AIRCEL).
 - Vodafone Spacetel Limited.

Literature Review

Kumar and Uma (2013), attempted to compare the public and private cellular service providers in Karnataka state and they explained that private cellular operators are proved to be the favorites of mobile users. During the study it was also revealed that BSNL is fading away from the minds of mobile and telephone users.

According to Yadav (2014), as the market matures and competition intensifies, wireless telephone service operators will have to differentiate their corporate strategies with respect to customer focus, personalization, marketing and delivering tailored offers. He concluded that during last few years most of the private telecom service providers have shown better performance than their public sector rivals in terms of network coverage, innovation, revenue share etc.

According to Verma et. all (2012), private sector Indian Organizations are doing much more better than Indian public sector organizations as private sector organizations have better team empowerment and so teamwork and team effectiveness compare to their counterparts.

Goel and Rekhi (2013), given their views that the public sector banks are not as profitable as private sector banks are, in terms of return on assets, return on equity etc.

However, Chaudhary (2014), concluded in his study of performance comparison of private sector and public sector

banks in India, most of the new private sector banks have shown better performance than their public sector counterparts.

Vazifehdost & Rahmani (2013), said that the private sector nurse were the most contented with their supervisor-nurse relationship and teamwork, so can give better performance.

Objectives of the Study

The objectives of the study are:

1. To review the performance of cellular operators of Public and Private Telecommunication sectors in Assam Circle.
2. To make a comparative study on the performance of these telecommunication players in Assam Circle.
3. To provide suggestions to cellular operators based on the key finding of the research.

Methodology

It is based on secondary data collected from the Department of Telecommunication, Telecom Regulatory Authority of India, Ministry of Communication, the reports from Government of India, research papers, articles and other sources. In order to study the specified objectives, statistical tools like year-wise Percentage of market share of different service providers, annual growth rate, percentage and ratio of different segments were calculated.

Discussion

This study has been drafted to compare the performance of service providers of public sector and private sector telecommunication in Assam Circle. Here, the researcher has also discussed about- different Service providers of Assam Circle, Wireless subscribers' base, Market share of these service providers, Market positions and their Gross revenues etc. It has been seen that the Telecom Circle of Assam has registered a phenomenal growth during the last few years, propelled largely by the unprecedented growth of the mobile telephony and infrastructure, which not only is beneficial for the telecom sector but has a multiplier effects over the entire economy of the circle.

Wireless subscribers' base of Public and Private Telecom sector in Assam Circle

The many fold growth of wireless subscribers can be seen in Assam Circle, where the Private sector has the maximum subscribers' base today. As on January 2015, out of 1,65,47,781 total number of subscribers in the circle, Private sector has 1,52,76,124 compared to 12,71,657 of Public sector's subscribers. In this case, the ratio of public-private sector is almost 1:12 (Table 1).

Table 1: Wireless subscribers’ base of public and private sector

S.N.	Operators in Assam	June'11 (Number)	Jan'12 (Number)	Jan'13 (Number)	Apr'13 (Number)	Jan'14 (Number)	Mar'14 (Number)	Jun'14 (Number)	Sep'14 (Number)	Jan'15 (Number)
1.	Public Sector	15,27,532	16,04,587	12,30,918	12,28,238	12,53,553	12,80,869	13,09,794	12,98,949	12,71,657
2.	Private Sector	1,11,61,692	1,24,04,896	1,30,43,093	1,33,04,421	1,39,57,006	1,39,97,339	1,42,56,405	1,46,08,251	1,52,76,124
Total		1,26,89,224	1,40,09,483	142,74,011	1,45,32,659	1,52,10,559	1,52,78,208	1,55,66,199	1,59,07,200	1,65,47,781

Source: TRAI Press Release, 2011, 2012, 2013, 2014 and 2015

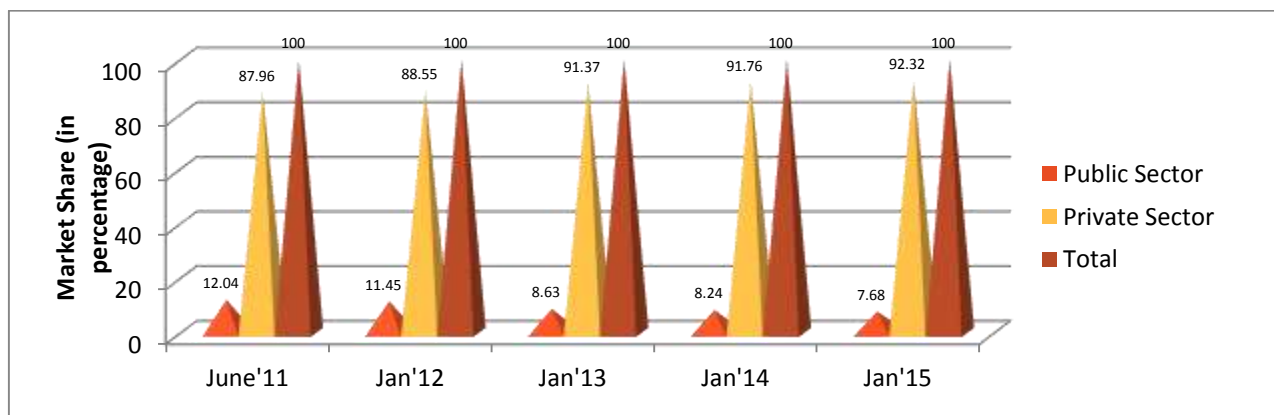


Fig. 1: Market Share of Public and Private Wireless Telecom Sector

Therefore, it is observed that last many years, Private sector is leading and moving ahead in the market of Assam Circle, while considered the performance of wireless subscribers’ base.

As per as “Brand” is concerned as on Jan’2015, Bharti Airtel Limited is having maximum subscriber base and then followed by Dishnet Wireless (Aircel), Vodafone Spacetel, Reliance Telecom, BSNL and then Idea Cellular Limited.

Market Share and position of Wireless Segment of Public and Private Telecom Sector in Assam Circle

The Private Sector of Assam Telecom Circle has maximum market share over the last few years which may be due to the improvement in quality of service delivery, concerning for customers’ feedback, increasing network coverage etc. From the Fig 1, it is observed that Private sector is leading in penetrating efficiently and effectively in the market of Assam Circle.

Private sector of Assam Telecom Circle has 87.96%, 88.55%, 91.37%, 91.76% and 92.32% of market share in the years 2011, 2012, 2013, 2014 and 2015 respectively, which reflects that there is a rapid positive growth of Private sector in the Circle, whereas Public sector has 12.04%, 11.45%, 8.63%, 8.24% and 7.68% respectively in these years. It gives a clear picture that the market share of Public sector is declining day by day in Assam Telecom Circle.

As on the year 2014-2015, Bharti Airtel Limited has maximum market share, followed by Dishnet Wireless (AIRCEL) Limited, Vodafone Spacetel Limited, Reliance

Telecom Limited and then Bharat Sanchar Nigam Limited (BSNL), which is the only Public Sector Unit (PSU) in the circle. Idea Cellular Limited has very less market share till now, as it has entered the Assam Circle very recently. Therefore, Airtel is leading and BSNL is holding 5th position in the circle (Fig. 1).

Proportion of Visitor Location Register (VLR) subscribers in Assam Circle

The proportion of VLR subscribers on the date of Peak VLR in Assam Circle is approximately 85.46%, 90.40%, and 94.35% of the total wireless subscriber base in the month of January of the year 2013, 2014 and 2015 respectively, reported by the service providers.

Table 2: Proportion of VLR subscriber

Sector	January'13	January'14	January'15
Public Sector	71.40	81.05	82.97
Private Sector	76.91	90.99	94.63

Source: Press Release, TRAI 2013, 2014 and 2015

From the above Table 2, it is observed that the Private sector leads by having the higher proportion of VLR subscriber compare to the VLR subscriber proportion of Public sector for all these years in Assam Telecom Circle. For enhancing the proportion of VLR subscribers, private cellular service providers are moving ahead by focusing more towards providing better network coverage.

Table 3: Gross Revenue of wireless segment of Public and Private Telecom sector in Assam Circle in the year 2014

Sl No	Sector	Name of the company	Gross Revenue (Rs in Crore) January-March'14		Gross Revenue (Rs in crore) April-June'14		Gross Revenue (Rs in crore) July- Sep'14		Gross Revenue (Rs in crore) Oct- Dec'14	
1.	Public Sector	Bharat Sanchar Nigam Limited	63.46	63.46	58.99	58.99	59.96	59.96	54.37	54.37
2.	Private Sector	Bharti Airtel Limited	257.51	697.46	273.00	717.8	268.40	704.85	298.28	753.4
		Dishnet Wireless Limited	168.93		168.95		169.21		173.11	
		Reliance Telecom Limited	102.70		99.24		93.12		96.08	
		Vodafone Spacetel Limited	142.60		148.51		146.37		155.32	
		Idea Cellular Limited	25.72		28.10		27.75		30.61	
			760.92		776.79		764.81		807.77	

Source: Report of Financial and Economic Analysis Division, TRAI (2014)

Gross Revenue Growths in the year 2014

As per a report by Telecom Regulatory Authority of India, wireless telecom service providers of Assam Circle recorded the Gross revenue of Rs. 760.92 crore, Rs. 776.79 crore, Rs. 764.81 crore and Rs. 807.77 crore in the months from January to March, April to June, July to September and lastly October to December' respectively in the year 2014.

From the Table 3, it is observed that the gross revenue made by the private sector in the year 2014 is much better than that of public sector in the circle.

From the above graph it is observed that private wireless operators of Assam Circle have increased their revenue share and earned more Gross revenue than public sector in the year 2014. In this case, Bhart Airtel Limited earned maximum gross revenue, followed by Dishnet Wireless, Vodafone Spacetel, Reliance Telecom, BSNL and Idea Cellular Limited.

Conclusion

In this study it has been attempted to compare the public and private cellular service providers of Assam Telecom Circle. With the maturity of markets, increase in network coverage and existence of more competition in Assam Circle, has resulted in declining of tariffs, so accelerating the growth of subscriber base and so market share in the sector. Under these circumstances, all the service providers both public and private sector of the circle required to construct their corporate planning related to customers' need.

In the study it was reflected that during the last few years, most of the private telecom service providers have revealed better performance than public sector counterparts in Assam Telecom Circle. It can also be concluded that Private Service providers are proved to be more liked by the mobile users of the circle and BSNL, the only public sector unit of the circle is vanishing away from the minds of the people. It shows a clear indicator of better performance by the private telecom sector of Assam Circle as this sector is holding the top position in terms of subscriber base, market share, gross revenue etc. in the circle.

Suggestions

Among cellular service providers, private sector is preferred and opted more by the customers in Assam Telecom Circle. Shah (2008), explained that in recent years, due to the bad management in public sector and immense competition in Telecom Sector, the only public sector state owned BSNL has been losing revenue and market share heavily. Kumar and Uma (2013) explained that Private cellular operators are proved to be the favorites of mobile users. According to Chaudhary (2014) and Yadav (2014), it has been witnessed that major area of concern for any bank and Telecom Company is the customer service and customer satisfaction. Thus, just like private telecom service providers, it is the high time for the BSNL, the only Public sector telecom company of Assam Telecom Circle, to start concentrating on quality service delivery to customers according to their needs and requirements and thereby satisfying the customers. It is only possible for public sector cellular service provider to get better performance and face competition if they give importance to show higher interest towards customer feedback, regular follow-up, promoting efficient management and thereby gaining proper networks and higher productivity throughout the Assam Circle.

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**RESEARCH ARTICLE****Family's Health Matters and Role of Women****Polakshi Bhattacharyya Baruah****University of Science and Technology Meghalaya, India.***Abstract**

The MDGs adopted by the United Nations in the year 2000 targeted 2015 as the year to achieve the millennium development goals which include eight goals framed to address the world's major development challenges with health and its related areas as the prime focus. Out of the eight goals to be achieved by 2015 three goals are directly related to health, the other goals are related to factors which have a significant influence on health. The main areas of focus are poverty, health, education, gender equality and sustainable development. Various poverty eradication programmes in the form of employment generation schemes has been implemented that emphasizes on participation of women, with a believed that their participation would lead to their empowerment. Evidence shows that resources in the hands of women boost household spending in areas that benefit family and children health. Women empowerment has been an important area of focus, various scheme has been launched with a prime focus on empowering the woman, as it has been acknowledged that women do have a very important role in the process of development. This paper intends to examine the role women in health related matters of the family. The study is mainly based on primary data collected in the Morigoan district of Assam.

Keywords: *Empowerment, Participation, Health-care.***Introduction**

Human health is a pivotal factor for a strong human resource; various measures have been undertaken by the policy makers to improve the health care system of the country. But unfortunately very few success have been achieved in this direction, one major reason for this is the lack of accessibility of proper health care facilities by the women. In India the women especially the women from the rural areas are deprived of proper education, occupation, freedom of movement which are actually term as important

parameters of women empowerment. Since the women of rural areas compared to urban areas are less empowered they also lack in proper knowledge about healthcare measures which not only affect their health but also the health of the family as a whole as it is mainly the women in the family who look after the children and the older and sick person at home. The main reason behind this is the low social status of the women in our society.

Various policies on women's empowerment exist at the national, state, and local (Panchayat) levels in many sectors, including health, education, economic opportunities, gender-based violence, and political participation. However, there are significant gaps between policy advancements and actual practice at the community level. One key factor for the gap in implementation of laws and policies to address discrimination, economic disadvantages, and violence against women at the community level is the largely patriarchal structure that governs the community and households in much of India. As such, women and girls have restricted mobility, access to education, access to health facilities, and lower decision-making power, and experience higher rates of violence. Political participation is also hindered at the Panchayat (local governing bodies) level and at the state and national levels, despite existing reservations for women.

Gender equity and women's empowerment has been advocated as prerequisites of social reform by different researchers and reform activists, mostly in the field of health reforms.

The study of Qureshi and Shaikh [1] highlight the factors that contribute to gender inequality which ultimately create barriers to women empowerment and their health status. The study reveals that lack of formal education, poor nutrition for girls; early marriage is the main factors responsible for their ill health. The women are always considered subordinate to men therefore they have a minimal say in matters related marriage, pregnancy and family size which have a negative impact on their health. The study stressed on empowering the women through more and more access to formal education.

The study of Vos *et al.* [2] spells out that the participation; empowerment and right based approach to health have much in common. Right –base approaches to health have evolved from empowerment concept and empowerment concept in turn, were built on the concept of participation. A participation approach draws

attention to issues of social class, that is the requirement of involving the poor and the other marginalizes groups in decision-makings in the policies that affect their communities. Empowerment approach highlights the role that power plays within communities. Human rights approach introduces the essential concept of accountability of the state. The study concludes that the three interrelated concepts of participation, empowerment and right based approach be combined together in a proportion so that it will achieve the desired end objective of sustainable rural development.

S. Chakravarty [3] highlighted the role of SHGs in the empowerment of women with a special emphasis on health status. The study stated that the SHGs have positively impact the empowerment level of the women especially with regard to deciding about the health care matters. The women who are associated with the SHGs are comparatively more aware about the improved health care measures, their children are likely to survive more, receive better care when they need. Healthy women actively participate in society and markets and take collective action to advance their own interest, which is of vital important for a nation to develop.

A study by Reecha Upadhyay [4] stated that the education levels and caste and class divisions prevailing in our society is one of the important factor that hinders the empowerment of women. Women from lower castes (the scheduled castes, other backward castes, and tribal communities) are particularly vulnerable to maternal mortality and infant mortality. They are often unable to access health and educational services, lack decision-making power, and face higher levels of violence.

Another study by Monika Pancahni [5] attempted to examine the accessibility of women to health care facilities. The study reveals that the women being properly aware of various health care measures will lead a step ahead to women empowerment, but unfortunately in our society women's accessibility to health care is

affected by and large by the prevailing social structure. The women in rural area particularly, faced lot of discrimination compared to men in the area of education, occupation and freedom of mobility which directly or indirectly affect their accessibility to proper health care. The study stressed on the women health because a healthy woman means a healthy family and a healthy community and thereby a healthy nation.

Objective and Methodology of the Study

Since health is an important factor that determines the quality of human resource, which is the core factor of economic development, so it can be, stated that health of the people is an important parameter of economic development. Various factors like availability of health care facilities, climate of the area, educational facilities etc, and influence the health of the people of an area. Apart from these factors the women participation in health care matters of the family is also equally important as it is the women who mainly take care of children and old sick person at home. It has been increasingly realised now a days that women empowerment and participation in all important decision making process is indispensable for

development. This study simply attempts to examine the role of women in health care matters of the family and to see whether caste and community to which the women belongs do have some influence in their decision making process.

The data was collected from the Chariabahi village of Kapili development block of Morigaon district. The village was selected among other villages of the panchayat as it has a population comprised of ST, SC, OBC, General and Minority (Muslim community). And a sample of 130 women was purposively selected to interact with a schedule, which belongs to different caste and community, but out of 130 sample 2 sample (who were from minority community refuse to interact). So the final sample size consisted of 128 women.

Distribution of Respondents According to their Caste and Age

The pie Figure 1, below shows that majority of the respondents are ST (29.6 %) followed by OBC (28.1 %) and SC (23.4%) the proportion of General and minority is (10.9%) and (7.8%) respectively.

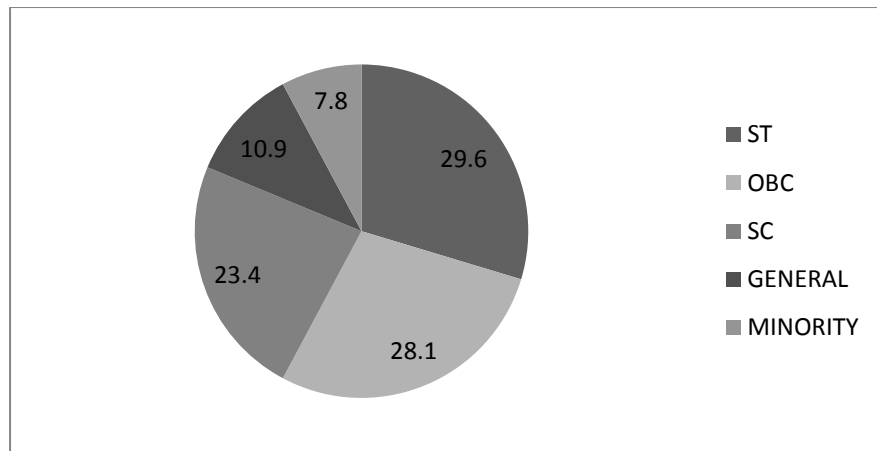


Figure 1: Caste of the respondents

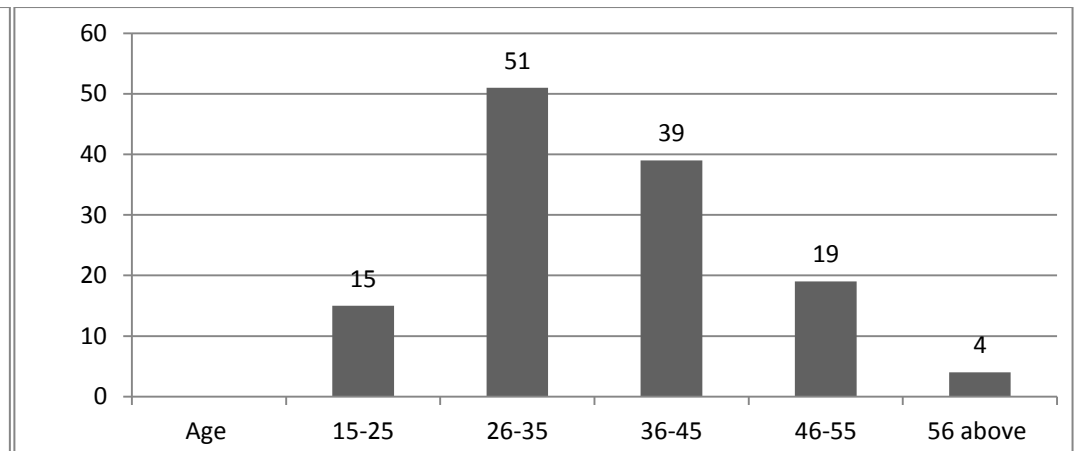


Figure 2: Age of the respondents

The bar Figure 2 of age distribution shows that most of the respondents (51 respondents) are from the age group of 26-35, followed by the age group of 36-45 with 39 respondents. There is 15 and 19 respondents from the age group of 15-25 and 46-55 respectively. The number of respondent is only 4 from the age group of 56 above. All the respondents are married.

Distribution of the Respondents According to their Occupation

From the table 1 and diagram 3 given below it can be revealed that majority of the respondents are housewife and unemployed (39.8 per cent) followed by domestic helper (22.6 per cent) and agricultural labour (20.3 per cent). Above 12.5 per cent are engaged in other occupations like mid-day meal cook, sale girls, tailoring etc. Only 4.6 percent are engaged as government employees who are mostly teacher in government school. A caste wise classification reveals that the majority of women from the general caste are unemployed. Looking at the women from other caste the same picture is reveals as majority of them belongs to unemployment category. Women are mostly employed as domestic helper and agricultural labourer where

the per day wage is at the most Rs 60 per day and the nature of the job is very seasonal which gives an impression that they are economically not much empowered. The income of the women from their occupation is very negligible expect for those engage in government sector and other occupations. The income of the women engaged as agricultural labour and domestic helper are very low and it is only a temporary source of income. But in rural areas majority of the women are agricultural labourer and domestic helper, with a very low level of income and hence less empowered to influence the decision making process at home.

Education is being considered as one of the important parameter of women empowerment, but here the educational level of the respondent is very poor. The educational qualification of the respondents reveals that the 22.6 per cent are illiterate and among the literate majority of them are below primary level of education (27.3 %). A caste wise analysis reveals that among the ST women majority of them (39.4) are illiterate followed by women from minority community (28.5 %).

Table 1: Distribution of the respondents according to their occupation

Categories	Agri Labour	Domestic	Housewife/ Unemployed	Govt services	Others	Total
SC	8 (27.0)	7 (23.0)	11 (37.0)	0 (00)	4 (13.3)	30(23.4)
ST	6 (15.7)	11 (30.0)	17 (44.7)	0 (00)	4 (10.5)	38(29.6)
OBC	7(19.4)	6 (16.6)	13 (36.1)	4 (11.1)	6 (16.6)	36(28.1)
MINORITY	3 (21.4)	4 (28.5)	5 (35.7)	1 (7.1)	1 (7.1)	14(10.9)
GENERAL	2 (20.0)	1 (10.0)	5 (50.0)	1 (10.0)	1 (10.0)	10(7.8)
TOTAL	26(20.3)	29 (22.6)	51 (39.8)	6 (4.6)	16 (12.5)	128

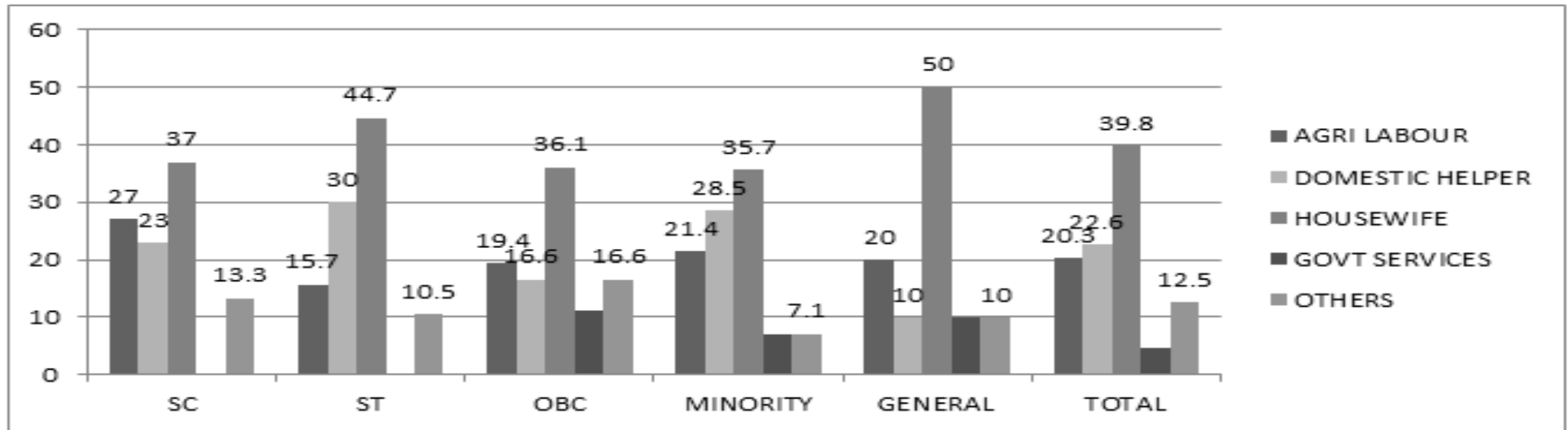


Figure 3: Distribution of the respondents according to education qualification

It can be seen from the table 2 and diagram 4 that the percentage of women from all most all the caste and community declines with the

increase in level of education. Only the women from general and OBC are comparatively more educated (HSLC passed) to women from other communities.

Table 2: Distribution of the respondents according to education qualification

Categories	Illiterate	Literate but less than primary level	Less than class viii	Less than madhyamic	Less than HSLC	Less than Graduate	Above Graduate	Total
OBC	2 (5.5)	5 (13.8)	10 (27.7)	7 (19.4)	6 (16.6)	5 (13.8)	1 (2.7)	36
SC	7 (23.3)	7 (23.3)	6 (20.0)	5 (16.6)	3 (10.0)	2 (6.6)	-	30
ST	15 (39.4)	14 (36.8)	2 (5.2)	4 (10.5)	2 (5.2)	1(2.6)	-	38
GEN	1 (10.0)	3 (30.0)	3 (30.0)	-	1(10.0)	1 (10.0)	1 (10.0)	10
MINORITY	4 (28.5)	6 (42.8)	1 (7.1)	1 (7.1)	1 (7.1)	1 (7.1)	-	14
TOTAL	29 (22.6)	35(27.3)	22 (17.1)	17 (13.2)	13 (10.1)	10 (7.8)	2 (1.5)	128

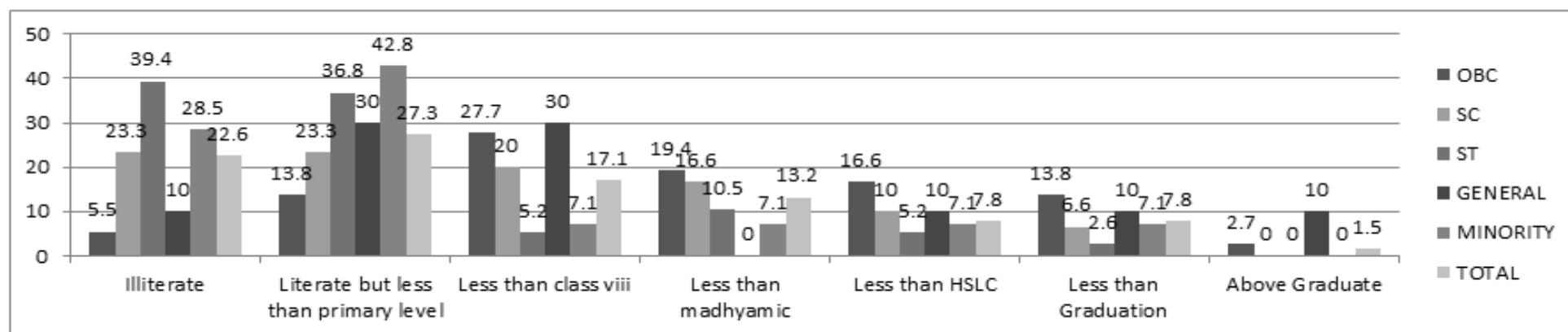


Figure 4: Distribution of the respondent according to education qualifications

Distribution of Respondents According to who Decides about the Treatment

An attempt has been made to evaluate role of women in deciding about the treatment for health care (table1.3, diagram 5). It has

been found that in majority of the cases it is the husband who solely decides about the treatment (33.4 %). About 31.2 per cent of the respondents stated that the elder member of the family has the power to decide regarding health care treatment.

Table 3: Distribution of respondents according to who decides about the treatment

Categories	Husband	Wife	Both	Elder member	Total
OBC	11 (30.5)	2 (5.5)	15 (41.6)	8 (22.2)	36
SC	12 (40.0)	3 (8.3)	7 (19.4)	8 (26.6)	30
ST	12 (31.5)	1 (2.6)	10 (26.3)	15 (39.4)	38
GEN	4 (40.0)	1 (10.0)	4(40.0)	1(10.0)	10
MINORITY	5 (35.7)	0 (00)	1 (7.1)	8 (57.1)	14
TOTAL	44 (34.3)	7 (5.4)	37 (30.0)	40 (31.2)	128

The percentage of women who agreed that both wife and husband jointly decide about treatment are 30.0% per cent and a very negligible number of respondent (5.4 %) stated that the wife alone decide about the health care matters. A caste wise analysis reveals

that in all most all the caste it is the husband who solely decide about health care, only in case of ST and minority it has been observed that the influence of elder member of the family is more than the other member of the family in deciding about health treatment.

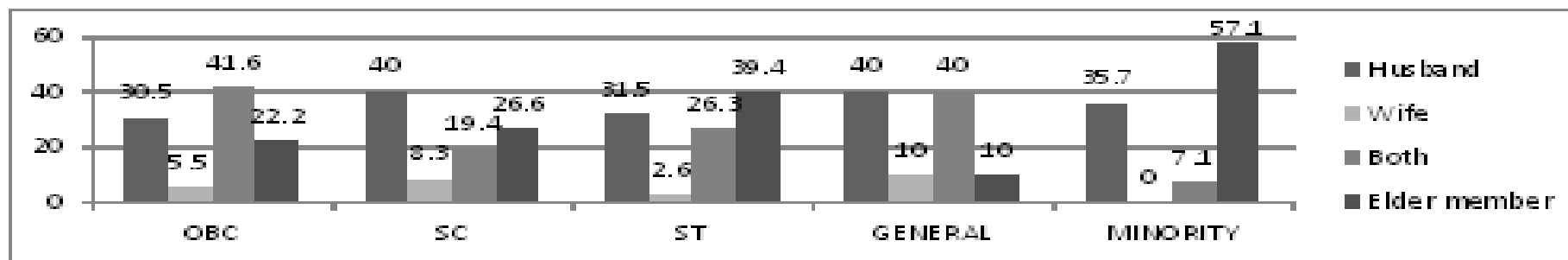


Figure 5: Distribution of respondent according to who decides about the treatment

Distribution of Respondents According to their Preference for types of Treatment

An attempt has also been made to highlight the respondents preference to the various type of health care namely, government hospital, Traditional methods and household medicine. It has been observed from table 1.4 and diagram 6, that of the total respondent majority of them about 32.8 % prefer household medicine, initially they go for household medicine and if the case is a serious one they prefer government hospital. A caste wise analysis reveals that a majority of the respondent from the Schedule Caste prefer

traditional methods and household medicine (23.6 %) and (31.5%) respectively. The percentage of ST going to government hospital for health care is very negligible only 5.2%. Among the minority community it has been observed that majority of them prefer traditional methods of treatment (35.7%) and the percentage of respondent opting government hospital as the sole health care centre is nil among the minority community. Among the various community it has been observed that the general, OBC and the SC, prefer government hospital and household medicine more than other methods of treatments.

Table 4: Distribution of respondents according to their preference for types of treatment

Categories	Government hospital	Traditional Methods	Household medicine	Government hospital & Household medicine	Household medicine & Traditional methods of treatment	Total
OBC	8 (22.2)	4 (11.1)	10 (27.7)	14 (38.8)	0 (00)	36
General	1 (10.0)	3 (30.0)	1 (10.0)	5 (50.0)	0 (00)	10
SC	7 (23.3)	1 (3.33)	5 (16.6)	11(36.6)	6 (20.0)	30
ST	2 (5.2)	9 (23.6)	12 (31.5)	8 (21.05)	7 (18.4)	38
Minority	0(00)	5(35.7)	2 (14.2)	4 (28.5)	3 (21.4)	14
Total	18 (14.06)	22 (17.1)	30 (23.4)	42 (32.8)	16 (12.5)	128



Figure 6: Distribution of respondents according to their preference for various types of treatment

The study also attempt to examine whether there is any connectivity between the educational level of the women, occupational level and their participation in deciding about the treatment, with the type of the treatment opted for health care in the family. It has been observed that the respondent from ST and minority community mostly prefer the traditional methods of treatment. Where majority of the women are illiterate and even if literate that too up to primary level only, majority of them are unemployed and they have no role in deciding about the treatment for health care of the family, which is mostly done by the elder member of the family and the husband alone in case of ST (39.4%) and (31.5%) respectively and for the minority it is (35.7 %) and (57.1%) respectively. In case of the other categories namely general, OBC and SC, the percentage of respondents preferring traditional methods of treatment is comparatively low. Again it has also been observed that women respondent from this group are comparatively

more educated even though majority of them are unemployed and among these communities decision regarding the health care is mostly taken jointly by husband and wife. Thus it has been observed in the study area that cultural values are embedded deeply in the family traditions, of some communities especially the minority community making female member access to health care limited and most of the time dependent on the family's decision

Conclusion

The role of women cannot be underestimated in any field of life, so also in the field of family health care. In this study it has been found that the women from the general and OBC community are comparatively more educated and seems to have a decision making role in the family regarding health care than the women from ST and minority community. It is the women how is the person mainly looking after the family (children to aged sick person at home),

without any recognition and appreciation in the decision making power in the family, which is a major hindrance to the progress of the society as it is well realised by many research that the women have an important role in the path of the society's progress. Hence educating the women is a factor to be addressed with top priority. Education is the pillar of women empowerment, and an empowered women do have the power to influence the decision making process

in the family especially in the field of child health care and education which is the future of the society. Regular awareness programme regarding health care (like proper hygiene, cleanliness and sanitation) should be conducted with more and more involvement of women. Proper awareness of the women about cleanliness can prevent many diseases.

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Does Health Policies and Infrastructure Ensure a Better Health Status? A Study on Women's Health of Meghalaya

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Abstract:

Inequalities in the social and economic status of men and women disproportionately deprive women and children of good health. Health is an important factor that contributes to human wellbeing and economic growth. The slogan "Promoting women's health" denotes the significance to fundamental human rights such as the Right to Education, the Right to Employment and Equal pay for work, and the Right to participate in the political life of one's community. The present study was carried out to study the health policies and infrastructure in reference to women health care. The objective of the study was to study the health status of women, to assess the medical infrastructure available in the study areas, and to determine the government aided schemes on rural women health care. The hypothesis considered includes arena of unawareness of the women folk on government aided health schemes and ignorance of the women on their health results in poor health and ultimately lead to poor status of women. The study area was selected from Umsning Block, Jirang Block, and Umling Block of Ri-Bhoi District, Meghalaya. Two villages each from the three blocks were randomly selected. The villages are Myrdon Village, Raitong Village, Old Jirang Village, Paham Village, Hatimara Village and Umlengpur killing Village. Simple Random Sampling method was adopted for the study and the sample size is 100. The findings of the study reveal that there is an acute shortage of medical specialist and paramedical staff in most of the CHCs, PHCs and Sub-Centre's. The study urges the importance of an awareness programmes and seminars on women health issues covering pre-natal and post-natal check-ups in this unexplored district of Meghalaya.

1. Introduction

Women's health in rural areas affects everything in their environment from their families to their economies and vice-versa. Rural Women in India are among the most disadvantaged people in the world in terms of their health status and access to accurate and appropriate health information and comprehensive, adequate and affordable health services. Sexual and reproductive health is a particular concern for rural women, as a host of social, cultural, political, and economic factors increase Indian rural women's vulnerabilities to pregnancy and child birth-related deaths and disabilities, unsafe abortions, HIV/AIDS, and reproductive cancers. Closely related to this, are the personal, relational and institutional barriers, to rural women achieving their fundamental sexual and reproductive rights, their right to exercise control over their bodies and sexual and reproductive lives, which encompasses their right to decide upon such issues as contraception, marriage and abortion. Further, their overall health status is diminished by the lives they are forced to lead – lives that pivot around the harsh realities of malnutrition, illness, injury, and fatigue, frequently the consequence of long hours of demanding physical labor in unhygienic and dangerous conditions; the strains of childbirth and caring for multiple children; and not having enough to eat, which is often the result of more and better food going to male household members.

Indian rural women are especially vulnerable to pregnancy and childbirth-related deaths. With limited access to modern contraception, women are impacted by too early, too frequent, too many, and too late pregnancies. The issue of unsafe abortion, the consequences of which – infection, infertility, disability, and, in certain cases, death are well documented. The twin factors of distance to and cost of adequate care also increase rural women's chances of dying as a result of pregnancy and childbirth complications. Rural women are also less likely to have a skilled birth attendant present at their birth, a critical presence when complications arise.

Another pressing health concern impacting rural women is the alarming spread of HIV/AIDS. The migration of poor, rural people to urban centre's plays a significant role in transmission. Spending time away from home and family, removed from societal norms and lacking in knowledge of and access to measures to prevent infection, many individuals, particularly men, engage sexual encounters and become infected, which often results in their regular female partner becoming infected upon home return. Rural women are also exposed to infection through their involvement with the sex industry, as many women and young girls across India are trafficked from

rural areas to the cities. They are also at an elevated risk of HIV infection due to chronic presence of Reproductive Tract Infections (RTIs).

The Health care scenario of the North Eastern Region, particularly of the rural areas, is not very encouraging. This is primary due to inadequacy in Health Institutions and other Health Infrastructure, lack of Doctors and Health Assistants, shortage of medicines and other essential items. The Geographic condition of the hilly states of this region is also not very congenial for the development of healthcare infrastructure in the rural areas. The healthcare services of North Eastern Region are predominantly urban based. Due to the absence of basic amenities like proper road communication, transportation, housing, accommodation, electricity, water supply, sanitation, social environment, etc. Doctors and Health Workers are reluctant to go to the rural areas. On the other hand, many of the rural people prefer to go for the traditional method of treatment and as such, even when, health centers exist, people do not make full use of these centers. However, there is an overall shortage of modern medical diagnostic and therapeutic aids, super special services, specialized Doctors etc. even in the existing institutions of the urban areas. Moreover, the few laboratories and ancillary diagnostic facilities that exist in some of the North Eastern States are fairly primitive.

The general health conditions of women in the state of Meghalaya are drastically poor. The common ailments suffered by women are gastroenteritis, tuberculosis, malaria, anemia and general debility. It is common to see many women in the rural areas of the state having 8-10 children. Repeated and frequent pregnancies have been detrimental to the health of women. There is a deep-rooted belief in having large families. The debility due to pregnancies, extreme hard work and low nutritional levels have paved the way for an alarming rise in tuberculosis in women especially in the Garo Hills. A significant portion of women do not receive any antenatal/postnatal care and a large percentage of deliveries are conducted by untrained birth attendants or relatives. The district hospitals are distant and inaccessible to most villagers. When faced with obstetric complications like hemorrhage or obstructed labor, there is considerable delay in reaching these hospitals which results in maternal deaths.

Contraception is generally not popular but there are cases of women using indigenous medicines for the purpose. Women are also more likely to seek help from traditional practitioners for treatment of Reproductive Tract Infections (RTIs) and Sexually Transmitted Diseases (STDs) etc. Local health traditions, 'DAWAI KYNBAT' in Khasi Hills and 'ACHIKSAM' in Garo Hills are in fact practiced with a fairly good success all over the State. These practitioners enjoy a high degree of acceptance and respect and they consequently exert considerable influence on health beliefs and practices.

Women's health is devoted to facilitating the preservation of wellness and prevention of illness and includes screening, diagnosis and management of conditions which are unique to women, are more common in women, are more serious in women and have manifestations, risk factors or interventions which are different in women. (National Academy of women's Health Medical Education, 1996)

Women health also recognizes the importance of the study of gender differences, recognizes multidisciplinary team approaches, the values and knowledge of women and their own experience of health and illness; recognizes the diversity of women's health needs over the life cycle and how these needs reflect differences in race, class ethnicity, culture, sexual preference and levels of education and access to medical care; includes the empowerment of women, as for all patients to be informed participants in their own health care. (National Academy of women's Health Medical Education, 1996)

Utilization of maternal and child health services is very poor among the tribes of central India. Clinically acceptable maternal and newborn care practices for delivery, cord cutting and care, bathing of mother and newborn and skin massage are uncommon. Therefore, newborns remain at high risk of hypothermia, sepsis and other infections. Prolacteals, supplementary feeding practices and delay in breastfeeding are very common, although colostrum's is less frequently discard. Malnutrition is a severe problem among tribes and many tribal children and women are severely malnourished as well as anemic. (Ravendra k. et al., 2010)

Maternal survival can be improved by posting of midwives at village level, if they are given proper training, means, supervision, and back-up. The inputs for such a programme to succeed and the constraints of its replication on a large scale should not be underestimated. (Fecuveare V. et al, 1991)

2. Materials and Methods

India is the second most populous country of the world and has changing socio-political-demographic and morbidity patterns that have been drawing global attention in recent years. Despite several growth-orientated policies adopted by the government, the widening economic, regional and gender disparities are posing challenges for the health sector. About 75% of health infrastructure is concentrated in urban areas where 27% of the population lives. A significant portion of the country's medical needs, in the rural areas have been attended to by the indigenous health systems such as Ayurveda, Homeopathy, *Unani*, Naturopathy, and folk medicine, it has been conveniently neglected by the policy makers, and planners.

The following table is show casing the health facilities of the study area for the year 2009-10.

Sl. No.	Health Facilities	Ri-Bhoi District	Blocks of Ri-bhoi		
			Umsning Block	Umling Block	Jirang Block
1	District Hospital	1	0	1	0
2	Sub-Divisional Hospital	0	0	0	0
3	Community Health Centre's	3	2	0	1
4	Primary Health Centre's	8	4	3	1
5	State Dispensary	2	1	1	0
6	Sub-Centre's	27	17	9	1
7	Urban Health Centres	0	0	0	0

Table 1: Health Facility in Bi-bhoi District 2009-10

Source: NRHM Meghalaya (negpied.gov.in/.../evaluation_NRHM.pd...)

The table depicts the health facilities such as District Hospital, Sub-Divisional Hospital, Community Health Centre's, Primary Health Centre's, State Dispensary, Sub-Centre's, Urban Health Centre's has been given according to the blocks.

The data shows that, in the year 2009-10, there were 27 Sub Centre's, 8 PHCs, 3 CHCs, 2 State Dispensary and 1 District Hospital. The highest number of sub- Centre's (17), PHCs (4) and CHCs (2) has been established in the Umsning Block. Not even a single Sub-Divisional Hospital and Urban Health Centre's have been established in Ri-bhoi District.

Particulars	Blocks Ri-Bhoi District		
	Umsning Block	Umling Block	Jirang Block
	Bhoilymbong CHC	Nongpoh CHC	Patharkmah CHC
Status of Building			
Own Building	1	1	1
Regular Electricity Supply	1	1	0
Beds	1	1	1
Generator	1	1	0
Telephone	0	1	0
Running Vehicle/ Ambulance	1	1	1
Investigative Facilities			
OPD rooms	1	1	1
Consulting Rooms (AYUSH)	1	1	1
Consulting Rooms (Specialist) CHC	0	1	0
Fully Equipped Labor Room	1	1	1
Minor OT	1	1	0
General OT	1	1	0
Separate wards for male and female	1	1	1
Separate public utilities (toilets) for male & female	0	1	1
Sitting arrangements for patients	1	1	0
Facility for food	0	1	0
Storage of medicine	1	1	1
Linkage with Blood Banks	0	0	0
Waste Disposal System	0	0	0

Table 2: Coverage and Availability of Infrastructure of Ri-Bhoi District

Source: NRHM Meghalaya (negpied.gov.in/.../evaluation_NRHM.pd...)

Community Health Centre's (CHCs), the secondary level health care designed for health care institutions acts primarily as referral centre (for neighboring PHCs) for the patients requiring specialized health care services accessible to the rural people. However, the above table shows that, the infrastructure availability at the CHCs is fairly good. None of the CHCs has any linkage with blood banks and also none has a proper waste disposal system, in most cases medicines are being burnt or thrown in open space. There are no telephones in Bhoilymbong and Patharkmah CHCs, which create lots of hurdles during emergency situation.

The study comprises of primary and secondary data. The primary data was collected through the in-depth interview of the respondent and through spot observation. The secondary data were collected through published works in form of books, articles, journals and internet resources.

The schedules were used as the tool for collecting the data accompanied by spot observation. The research scholars adopted home-visited method and group discussion method.

In this backdrop the research aims to make a study by keeping the following aims and objectives.

- To study the health status of women
- To assess the medical infrastructure available in the study area
- To determine the government aided scheme on rural women health

2.1. Survey Area

- Jirang Block, Ri-Bhoi District, Meghalaya
Old Jirang Village (15 respondents) & Paham Village (15 respondents)
- Umling Block, Ri-Bhoi District, Meghalaya
Hatimara Village (20 respondents) & Umlengpur Kiling Village (20 respondents)
- Umsning Block, Ri-Bhoi District, Meghalaya
Myrdon Village (15 respondents) & Raitong Village (15 respondents)

The research design was carried out in the state of Meghalaya from the District of Ri-bhoi. Simple Random Sampling technique was applied in order to obtain a representative sample. A total number of 100 respondents were randomly selected from six villages of Ri-Bhoi District - Umsning Block, Jirang Block, and Umling Block. Two villages each from the three blocks of Ri-Bhoi District were randomly selected. The villages are Myrdon Village, Raitong Village, Old Jirang Village, Paham Village, Hatimara Village and Umlangpur Village.

3. Results & Discussions

Women health in the study areas is found to be very poor; illiteracy and improper attainment of education has an impact on the health of the women folk. The finding shows that women between the age group of 51 years and above are mostly found to be illiterate and did not acquire any pre-natal and post-natal check-ups.

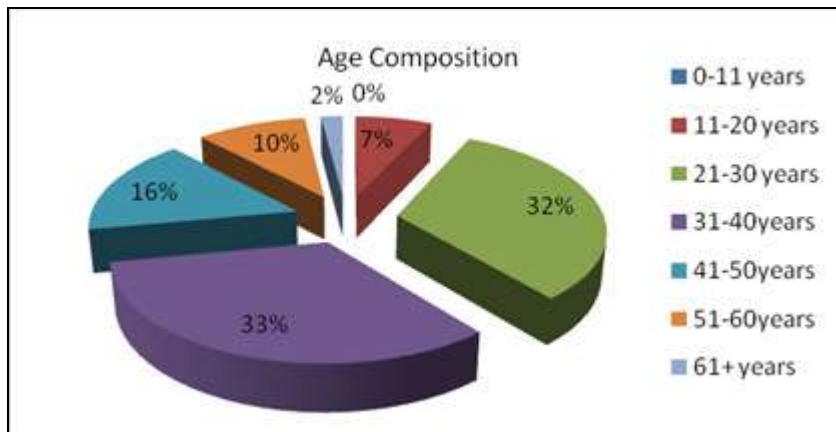


Figure 1: Age composition of the respondents:
Source: Data compiled from the field survey, 2015

The data shows the age composition of the respondents. Most of the respondents were from the age group of between 31- 40 years, which composed of 33% and 32% from the age group of 21- 30 years. The least was from the age group of 61 years and above, which composed of 2%.

Illiterate	Primary	High School	Secondary	Higher Studies
39%	50%	5%	6%	0%

Table 3: Education Status of the Respondents:
Source: Data compiled from the field survey, 2015

The table shows that 61% of the respondents were literate, whereas 39% of the total respondents were found to be illiterate. Of which 50% of the respondents were seen to have acquired primary school and 5% of the respondents have acquired high school. 6% of the respondents were found to have acquired secondary and none have acquired higher studies. This indicates that, most of the respondents of the study areas have acquired formal education. However, it has been observed that they are not in a state to understand the importance of acquiring a proper pre-natal and post-natal health care, vaccination, intake of nutritious food, regular check-up of their health, their children’s health etc.

0-2 children	3-5 children	6-8 children	More than 9 children
37%	39%	20%	4%

Table 4: Total Number of Children:
Source: Data compiled from the field survey, 2015

The table shows that 39% of the respondents have 3-5 children's and 37% of the respondents have 1-2 children's. whereas 20% of the respondents have 6-8 children's and 4% of the respondents have more than 9 children's. In comparison to the educational status, it has been observed that those women who have attended formal education and few of the illiterate women have less than 5 children. Whereas most of those women who did not acquire formal education and few of those women who had acquire formal education were seen to have more than 6 children. Most women who have more than 6 children responded that they take more children as they like to have big families, while some responded that they take more children as they need more manpower in their dairy farms.

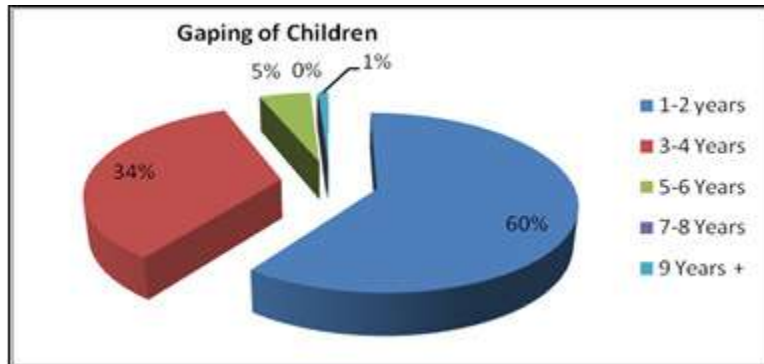


Figure 2: Pie-chart showing the Gaping of Children
Source: Data compiled from the field survey, 2015

The above pie shows the gaping of the children's; it is shown that 60% of women took a gap of 1-2 years. 34% of the women took a gap of 3-4 years, and 1% of women took a gap of 9 years. Repeated and frequent pregnancies results in detrimental to the health of women, however most of the women being ignorant and unaware of this fact gets pregnant frequently with the mindset that complications will arise.

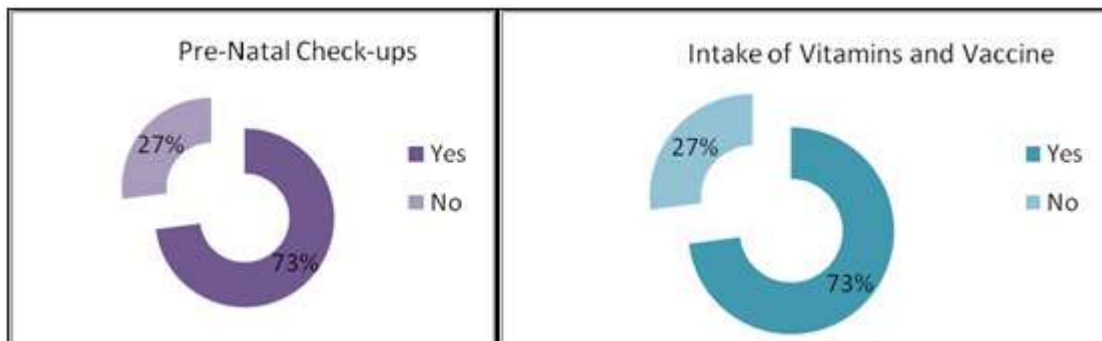


Figure 3: Showing the pre-natal check-up and intake of vitamins and vaccine
Source: Data compiled from the field survey, 2015

The above pie shows that 73% of the women had an access to pre-natal check-ups during their pregnancy and they also had an access to intake of vitamins and tetanus vaccine during their pregnancy. Whereas 27% of the respondents mostly between the age group of 51 years and above were found that they did not had an access to pre-natal check-ups nor had an access to intake of vitamins and vaccine. This is so because of their ignorance of the importance of pre-natal check-ups and intake of vitamins and vaccine.

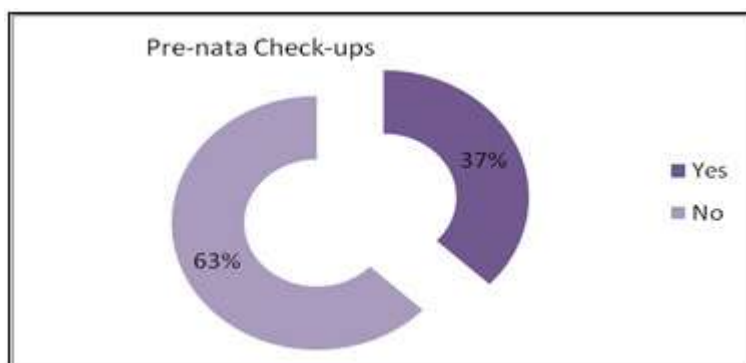


Figure 4: Doughnut Chart Showing the Post-Natal Check-up:

Source: Data compiled from the field survey, 2015

The pie 1.4 shows that only 37% of the women had an access to post-natal check-ups. This comprises of those women who gave birth in the hospitals and those who had complications in their pregnancy and had a caesarian. It is found that 60% of the women did not have an access to post-natal check-ups after their delivery. It is because most of the women gave birth from home and they are ignorant of the importance of post-natal check-ups. The other reason behind is the distance of the health care centre's from their villages, improper equipments, poor facilities and absence of gynecology specialist in the nearby health centre's.

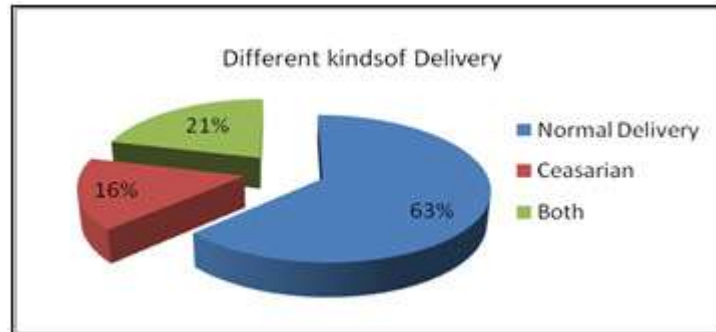


Figure 5: Pie chart showing the different kinds of delivery method
Source: Data compiled from the field survey, 2015

The data shows that during the delivery gestation 63% of the women had a normal delivery, whereas 16% of the women had a caesarian because of some complications. 21% of the women had a normal delivery as well as caesarian.

Home Delivery	Hospital Delivery
62%	42%

Table 5: Preference of Delivery method:
Source: Data compiled from the field survey, 2015

The table shows that 62% of the women delivered from home as they feel safer and secure, while some responded that due to financial problems, poor transportation facility, and poor medical facility in the near health centre's or distance of health centre's (in some village), they prefer to deliver from home with the help of elder women who knows how to deliver (untrained). Whereas 42% of the women responded that, they prefer to deliver from the hospitals in the cities (Guwahati & Shillong), as there is no trained midwifery or nurse in their village. As in the hospitals gynecology specialist doctors are available and they receive a proper care and treatment.

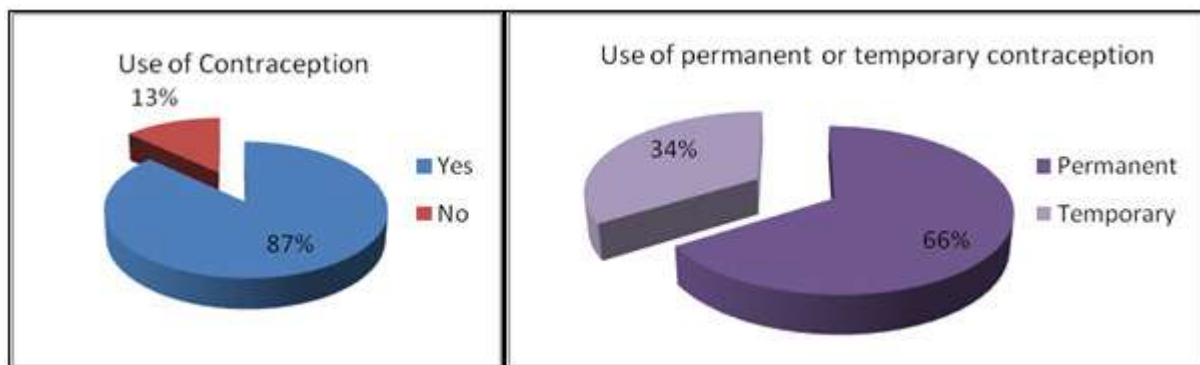


Figure 6: Pie-chart showing the use of contraception
Source: Data compiled from the field survey, 2015

The pie-chart shows that 87% of the women use contraception, of which 66% of them use permanent contraception like, surgical sterilization and 34% of the women use temporary contraception as like, Intra Uterine Device (IUD), pills as prescribed by doctors, pharmacist, condoms etc. Whereas 13% of the women responded that they do not use any contraception and they adopt traditional method of period abstinence.

Yes	No
36%	64%

Table 6: Awareness of HIV/AIDS
Source: Data compiled from the field survey, 2015

The table shows that 36% of the women are aware of the HIV/AIDS disease. It was found that in all the six villages of the study area, awareness or seminar programs on HIV/AIDS have not been organized. Those women who are aware of it came to know through doctors during their pre-natal check-ups, televisions, relatives and friends. Whereas 64% of the women are found to be unaware of the HIV/AIDS disease, and because of this ignorance the percentage of persons infected with this disease is increasing rampantly.

Headache	Gastric	Body ache	Cold flu	Back ache
33%	23%	17%	21%	6%

Table 7: Respondents Prone to:
Source: Data compiled from the field survey, 2015

The table shows that 33% of the women are mostly prone to headache and 23% of the women suffer from gastric. Whereas 21% of them are prone to cold flu frequently and 17% used to suffer from body ache. 6% of the women are prone to back pain. In times of all this sickness some women prefer to take tablets as it reliefs them quickly; while most of them responded that they prefer traditional practice like massage (head ache, back ache, body ache), herbs like tulsi, aloe vera and other local medicinal plants (gastric and cold flu). However, it was found that, in all the six villages there was not even a single professional traditional healer who has been practicing for a long period of time or someone whom all the people prefer to go to. Hence, the people practice in their own according to the knowledge they have about indigenous herbs and medicines.

Community Health Centre's (CHCs), Primary Health Centre's (PHC), and Sub-Centre's institutions acts primarily as referral centre for the rural population. Thus an adequate health care service is essential to establish in the rural areas. The following table highlights the scenario of medical infrastructure available in the villages of Ri-bhoi District.

Old Jirang Village	0
Paham Village	0
Myrdong Village	0
Ritong Village	0
Hatimara Village	0
Umlengpur Kiling Village	0

Table 8: Total Number of Midwifery:
Source: Data compiled from the field survey, 2015

The finding shows that 62% of the women preferred to give birth from home but in all the six villages not even a single midwifery that has been trained or supervised was found. During home delivery women are helped by elder women, mother or relative who knows to deliver through experience. The ignorance of the importance and necessity to have a skilled birth attendant present at their birth, results to a critical presence or maternity death when complications arise.

	Old Jirang	Paham	Myrdon	Raitong	Hatimara	Umlangpur Kiling
PHC	1 km	3 kms	4 kms	3 kms	12 kms	12 kms
CHC	8 kms	10 kms	10 kms	3 kms	40-45 kms	40-45 kms
Hospital	15-20 kms approx.	15-20 kms approx.	45 kms approx.	30 kms approx.	8-10 kms approx.	8-10 kms approx.
Pharmacy	1 km approx.	3 kms approx.	10 kms approx.	3 kms approx.	2 kms approx.	2 kms approx.

Table 9: Distance of Health Care:
Source: Data compiled from the field survey, 2015

The table shows that in all the villages the PHCs, CHCs, pharmacy and hospitals are distant and inaccessible to most women. When faced with obstetric complications like hemorrhage or obstructed labor, there is considerable delay in reaching the health centre's and hospitals which results in maternal deaths. The twin factors of distance to and cost of adequate care also increase rural women's chances of dying as a result of pregnancy and childbirth complications.

The government of India has implemented various programmes and schemes on Women Health Care in order to improve the health status of the rural women. Of which only two schemes – NHM (earlier NRHM) and ICDS have been introduced in the study areas.

1) National Health Mission (NHM):

The National Health Mission (NHM) was implemented in the all six villages in the late 2000, with an aim to improve the health status of the people with special reference to women and child health care. In all the six villages of the study area, there is only one ASHA worker, an initiative under NHM which seek to enhance the health status of the women. The ASHA worker helps in taking the pregnant women to the hospital for check-ups and delivery. However, ASHA workers are found to be inactive in all the six villages. None of the respondents have received any help from the ASHA workers. This could be the reason of ignorance of the ASHA worker or the mindset of the women folk of not wanting to approach to seek help from ASHA, as they are of the view that all the expenses are not free of cost and they have to pay by themselves even if the ASHA worker accompanies them.

2) Integrated Child Development Scheme (ICDS)

The Integrated Child Development Scheme (ICDS) was implemented in all the six villages in the mid-2000, with an aim to improve the health status of women and children by providing nutritious food through Angawadi. In all the villages there are one or two workers and they distribute the food to the pregnant women and children between the age group of 0-6 years. The food items distributed are rice, flour, sugar, suji, milk powder, snacks and pulses. The beneficiaries receive subsidies once in three months.

4. Conclusion

61% of the respondents in the study areas were found to have acquired formal education. However, it has been observed that they lack in understanding the importance of acquiring an adequate pre-natal and post-natal check-up, vaccination, intake of nutritious food, regular check-up of their health, their children's health etc. 34% of the respondents have an access to BPL card, whereas, 66% of the respondents are deprived from acquiring BPL card and they are considered as APL. The reason among some of the respondents is because they are non-ST. 55% of the respondents are housewives. Whereas 45% of the respondents are found to be employed; as wage earners, vegetable vendors, business women (grocery shop etc.), dairy farmers, teaching staff and non-teaching staff. 13% of the women responded that they do not use any contraception and they adopt traditional method of period abstinence. 64% of the women are found to be unaware of the HIV/AIDS disease, and because of this ignorance the percentage of persons infected with this disease is increasing rampantly. In all the villages the PHCs, CHCs, pharmacy and hospitals are distant and inaccessible to most women. When faced with obstetric complications like hemorrhage or obstructed labor, there is considerable delay in reaching the health centre's and hospitals which results in maternal deaths. There is also an acute shortage of medical specialist and paramedical staff in all the PHCs, CHCs and sub-centre's. The ASHA workers are found to be inactive in all the villages.

An effort towards organizing an adequate awareness and seminar programs on women health care with special reference to pre-natal and post-natal check-ups and the importance of a skilled attendant during delivery is required.

An awareness and seminar programs on the use of modern contraception and its impact of preventing HIV/AIDS, Reproductive Tract Infections (RTIs) and Sexually Transmitted Diseases (STDs) are the need of the hour.

In all PHCs, CHCs and Sub-Centre's in the nearby villages or within the villages are required to be manned by four medical specialists i.e., surgeon, physician, gynecologist and pediatrician supported by 21 paramedical and other staff, in order to enable the villagers to have an adequate access to health facilities.

There is a need to organize an awareness program or seminar on HIV/AIDS as majority of the women folk in the rural villages are unaware of it. The ASHA workers are also required to be trained adequately and to be more active in the society.

The finding depicts that all the villages of Ri-bhoi District – Myrdon Village, Raitong Village (Umsning Block), Old Jirang Village, Paham Village (Jirang Block), and Hatimara Village and Umlengpur Kiling Village (Umling Block) are at the initial stage of development so there is not much progress in the health sector and the people are deprived of adequate health facilities. Thus there is a need to impart an awareness programme on various aspects of women health and the importance of acquiring adequate health facilities rather than indigenous practices. Limited access to education and employment are making health improvements more difficult. Further, there is a need for the parents to understand the importance of providing proper and higher education to their daughters, as educated girls can brighten the future of their country by the good upbringing of their children. The progress of a country depends on girls' education. So girls' education should be encouraged.

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