ISSN: 2249-4804

Business Spectrum

*** Volume – V No. 2 July – December, 2015 ***

The Bi-annual Journal of

Indian Accounting Association

Midnapore Branch, West Bengal

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EDITORIAL

Merry Christmas and happy new year to you all. It gives me great pleasure to present before you Vol –V, No-2 of *Business Spectrum*, the e-journal of IAA Midnapore Branch. This issue contains five articles by researchers and academicians on diverse issues relating to Business.

Supravat Bagli in his article discusses the problem of financial exclusion of cycle rickshaw pullers in Purulia town of West Bengal. On the basis of field survey the author seeks to explore the nature and causes of financial exclusion. He uses a binary logit regression model in his analysis. He also considers the socio-economic and demographic status of cycle rickshaw pullers in Purulia town. On the basis of empirical investigation the author tries to identify the factors affecting financial exclusion.

Sanjib Bandyopadhyay in his article discusses about the dynamics of transition in a tribal community , namely , Birhor which is a primitive tribal group of West Bengal. The author tries to assess the socio-economic changes of the Birhors inhabiting the jungles and hilly tracts of the Purulia district of West Bengal. He makes a sample survey of five villages in three blocks of Purulia district, viz.Balarampur, Bagmundi and Jhalda-I. He analyses changes in the socio-economic conditions of the Birhor community in the study area.

Jyoti Prakash Mondal makes a SWOT analysis of lac industry in Purulia district of West Bengal .He tries to identify and analyze the problems and prospects of lac industry in Purulia district with the help of data collected from primary and secondary sources. He identifies the strengths of the industry and the weaknesses of the industry. He also points out the opportunities open for the industry and also the threats faced by the industry.

Nibedita Roy makes an empirical analysis of working capital management of some FMCG companies in India. She analyzes the trend of working capital of the sample companies, evaluates the management of working capital of the companies and analyses the liquidity position of each company.

Supriyo Chakraborty discusses about the sericulture industry in Purulia district. In particular the author analyzes the role of women in sericulture industry in Purulia district in terms of physical and economic contribution. He makes a case study of Raghunathpur-I and Manbazar-I blocks and finds that women are playing a very important role in the sericulture industry in the study area.

Before I end I thank the paper –writers, reviewers, desk editor and executive editor for their cooperation in bringing out this issue of *Business Spectrum.*

Jaydeb Sarkhel

A Study of Financial Exclusion of Cycle-Rickshaw Pullers in Purulia Town, West Bengal

Supravat Bagli[1]

Abstract

This paper seeks to explore the nature and causes of financial exclusion of the cycle-rickshaw pullers of Purulia town in West Bengal. The cycle-rickshaw puller having no (at least one) active bank account is considered as financially excluded (included). In order to examine the factors affecting the probability of financial exclusion for the cycle-rickshaw pullers a binary logit regression has been formulated. This empirical study is based on a set of primary data of one hundred rickshaw pullers who earn livelihood mainly from rickshaw pulling. During field survey we have observed that majority of the cycle-rickshaw pullers in Purulia town do not have own rickshaw. This study explores that a large section of the cycle-rickshaw pullers has no bank account at all. The incidence of financial exclusion is more serious in respect of the access to formal credit, insurance policy regarding their life and wealth. Almost all the rickshaw pullers have no information regarding the schemes for financial inclusion. Low daily income, low level worker population ratio, high marginal propensity to consume, other informal occupation are significant causes of financial exclusion of the rickshaw pullers in Purulia town.

Keywords: *Financial exclusion, Logit model, Rickshaw puller.*

1. Introduction

The financial exclusion refers to the situation where people, in general, have no access to basic formal financial services. A person is said to be financial excluded if the person has no easy access to formal financial services like savings, credit, insurance, remittance facility and pension facility. In recent times, India has emphasized on financial inclusion of the marginalised section of population to accelerate the inclusive development. The Government of India has launched several projects like Jan Dhan Yojana, Pradhan Mantri Suraskha Bima Yojana, and Atal Pension Yojana for financial inclusion of the marginalised section of people. Among

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them Pradhan Mantri Jan Dhan Yojana, started on 15 August 2014, is the primary project for financial inclusion of all. The main aim of this program is to bring the unbanked population under the purview of formal financial institutions. Several reports and studies have revealed that financial exclusion is severe among the marginal section of population in our country. The community of rickshaw puller is no doubt a marginal section of population in our country. Majority of them earn daily and spend daily to maintain livelihood. This paper seeks to examine the nature and causes of financial exclusion of the rickshaw puller community in Purulia town of West Bengal.

2. Relevance and Objectives

Cycle Rickshaws play a vital role in local transportation of towns and semi-towns in India. They are environmental-friendly and play an important role in today's chaotic transportation system in every Indian towns. Purulia is the head quarter of Purulia district in the state of West Bengal. It is a small town where fifteen thousand populations live permanently. This town is connected with the cities of Kolkata, Kharagpur, Asansol, Jamshedpur and Ranchi by rail and bus. A large number of people go and fro Purulia daily for business or services. Local public transport system is not so developed in this town, even; there is no city bus or bus route passing through railway station. Rickshaw is the common transport system which connects different important places like the railway station, the bus stand, market, hospital, government office, court, colleges and University and the door steps of the inhabitants in Purulia town.

In Purulia town more or less 600 rickshaw pullers work in a common day. The rickshaw pullers in Purulia town have union but there is no any fare chart for rickshaw riding. In Purulia district 57 percent of households do not have access to banking services. (Census, 2011). In Purulia -1 block 55.6 percent households have no access to formal financial services. No doubt this figure will be more disappointing if one considers the poor households, particularly, the households of cycle-rickshaw puller in Purulia town. Access to formal financial services includes the affordable access to formal savings, credit, insurance, payment, remittance facilities. A few relevant studies are cited here.

Nandhi (2010 & 2011) has conducted an empirical study of money management of 176 rickshaw pullers in the state of Delhi. The study has found that most of the sample rickshaw pullers are migrated from Bihar, Uttar Pradesh and Madhya Pradesh. They are mostly illiterate and asset poor. Most of the sample rickshaw pullers save a portion of their earnings. But only 1% of cycle-rickshaw pullers have a savings bank account. Many rickshaw pullers borrow from informal commercial sources like private lenders and moneylenders, as well as non-commercial sources like interest-free loans from friends, relatives and other pullers. No one borrow from bank. Only 16% of the sample pullers use formal remittance channels like bank accounts of own or friends or relatives, or through the post offices. Most of the rickshaw pullers prefer to remit money personally. Because awareness of the rickshaw pullers regarding formal remittance mechanisms like bank draft and

electronic money transfers is at very low level. However, half of the sample pullers know about post office remittance system. Thus, the financial inclusion of cycle rickshaw pullers of Delhi state is not at a satisfactory level. Bose (2014) in a project of UNDP has assessed the necessity of financial inclusion of the rickshaw pullers for livelihood promotion. Based on primary data collected from the states of Assam, Rajasthan and Jharkhand, Bose (2014) concludes that most of the cycle rickshaw pullers are single earner in the family and they have hardly access to formal financial services like formal savings, credit and insurance and remittance are poor. A large section of rickshaw pullers are migrant poor. This project report recommend that first and foremost the rickshaw pullers need to have access to financial services, have improved asset base, employment of their women, facilities of food security for livelihood promotion. In literature we find several factors affecting the access to formal financial services. These are; lack of awareness, lack of identity due to migration, low level income, illiteracy. The participation in SHG ensures the access to formal savings and credit for the rural poor women (Varman, 2005; Meher, 2007; Adhikary and Bagli, 2010; 2012; Bagli and Adhikary, 2015). Datta (2003) revealed that operational land holding, involvement in local level organisation, familiarity with important personalities and income from trade and business are favourable for getting access to formal credit.

However, the study of financial inclusion/exclusion and its determinant for rickshaw pullers in West Bengal is rare in literature. In order to study the nature and causes of financial exclusion of the rickshaw pullers in Purulia town the study has following objectives.

First, this study explores the socio-economic and demographic status of the cycle-rickshaw pullers in Purulia town.

Second, we examine the nature of incidence of financial exclusion of the cycle-rickshaw pullers.

Third, an attempt has been taken to assess the factors affecting the incidence of financial exclusion of the cycle-rickshaw pullers.

3. Methodology and Data

There is no specific measure of financial inclusion/exclusion in literature, at aggregate level as well as at individual level. At aggregate level, the common measure of financial inclusion refers to the percentage of adult population having savings bank account or number of bank branches functioning per thousand populations. Financial inclusion is usually measured, at the individual level, by the fact whether or not the individual has savings bank account, or number of bank accounts held by the individual. The information 'whether the rickshaw puller has a bank account or not' has been taken as a measure of financial exclusion. If the rickshaw puller has no bank account he is considered as a financially excluded. The rickshaw puller is financially included if he has at least an active bank. Value '1' has been attached if the cycle-rickshaw puller is financially excluded '0' otherwise.

Therefore, financial exclusion (FIEX) of the cycle-rickshaw puller is a binary variable indicating values 1 and 0. As financial exclusion is a binary variable binary logit model is suitable to investigate the responsible factors affecting the probability of financial exclusion for the rickshaw pullers of Purulia town.

The literature of financial inclusion in India and abroad explores different socio-economic factors which affect the banking habit of a person. This study has considered some individual and household level characteristics of the rickshaw puller as determinant of financial exclusion. These are; education level (LIT), daily income (DINC), worker population ratio of the family (WPR), secondary occupation of the rickshaw puller (SOC), marginal propensity to consume (MPC), working experience (EXP), age (AGE) and caste (CAST) of rickshaw puller. The specified logit regression model has been shown in following equation.

$$FIEX_i = \beta_0 + \beta_1 LIT + \beta_2 DINC + \beta_3 WPR + \beta_4 SOC + \beta_5 MPC + \beta_6 EXP + \beta_7 AGE + \beta_8 CAST + U_i \quad (1)$$

where, *FIEX* =1, when the cycle-rickshaw puller does not have bank account
= 0 when the cycle-rickshaw puller has at least one bank account
LIT captures the information whether the rickshaw-puller is literate or not. Thus it is a binary variable such that
LIT = 1, if the cycle-rickshaw puller is literate
= 0, if the cycle-rickshaw puller is illiterate
DINC stands for average daily income of the cycle-rickshaw puller measured in rupee.
WPR denotes the worker population ratio in the family expressed as percentage.
SOC is used to gauge the information regarding secondary occupation of the rickshaw puller. It is a dummy variable taking value '1' if the cycle-rickshaw puller has secondary occupation and '0' otherwise.
MPC indicates marginal propensity to consume of food. It is calculated in 100 rupees of daily income of the rickshaw pullers. Thus marginal propensity to consume of food for the rickshaw puller is a quantitative variable expressed as percentage.
EXP denotes the experience or how many years the person does the rickshaw pulling job. It is a continuous variable counted in years.
AGE stands for physical age of the cycle-rickshaw puller measured in years
CAST stands for caste of rickshaw puller; this study has considered only one dummy for caste, because very few numbers of rickshaw pullers are belonging to general caste, and ST communities.
CAST =1, if the rickshaw puller is belonging to scheduled castes
= 0, if the rickshaw puller is belonging to other castes
U_i stands for random disturbance term in model-1. β_i is the coefficient of i^{th} independent variable and β_0 is intercept term in model-1.

In view of the above objectives and methodology a field survey on cycle-rickshaw pullers in Purulia town has been conducted with a structured questionnaire during the month of April in 2015. The study considers a random sample of one hundred cycle-rickshaw pullers who reside in Purulia town or nearby villages during the year

2014-15. The primary survey has covered the cycle-rickshaw pullers of four points of Purulia town, namely, railway station, city bus stand, Chakbazar and Goshala more. The data have been collected through personal interview method from each selected cycle-rickshaw puller.

4. Results and Discussion

Basic socio-economic status of the sample cycle-rickshaw pullers have been reported in Table 1. The literacy rate is 58 percent among the sample rickshaw pullers in Purulia town. Moreover, most of the literates have below primary level education. Only a handful of the sample rickshaw pullers passed eighth class. No one has passed secondary level examination. In sample 87 percent rickshaw pullers belong to Hindu religion. Thus, as compared to the people of religion like Muslim, Christian, the people of Hindu religion are more likely to pull rickshaw in Purulia. It is noted that 73 percent (19 percent) are belonging to scheduled caste (OBC) community. A very few cycle-rickshaw pullers have come from tribal community. Majority of the rickshaw pullers in Purulia live at village areas and all of the respondent rickshaw pullers live in kutcha house. We find that 22% of the sample rickshaw pullers, who are migrated from remote villages of Purulia and Jharkhand state, live at slum area of Purulia town. This study reveals that a very few of the cycle-rickshaw pullers in Purulia town have licence for driving rickshaw. Majority of the rickshaw pullers do not have own rickshaw. They pull rickshaw on daily rent basis from the owners who are rich businessmen and reside in Purulia town. More than half of the sample rickshaw pullers have secondary occupations which are of sometimes higher in status as compared to rickshaw pulling. However, 89 percent sample rickshaw pullers like to quit this occupation if they have an alternative occupation. Thus most of the rickshaw pullers are compelled to remain in this occupation.

Table 1: Socio-economic Status of the Sample Cycle-Rickshaw Pullers in Purulia (N=100)

Status	**Percentage**
Literate	58
Belonging to Religion	87
Scheduled caste	73
Scheduled Tribe	6
OBC	19
General caste	2
Residence (Town)	22
Poor housing condition	100
Have a secondary occupation	55
Ownership of cycle-rickshaw	54
Prefer to quit Cycle Rickshaw Pulling job	89

Source: field survey, April 2015

Table 2: Socio-Economic Profile of the Sample Cycle-Rickshaw Pullers

Variable	Mean	Median	S. D	CV	Min	Max
Age (Year)	39.57	40	8.53	21.54	19.00	65.00
Experience in rickshaw pulling (year)	17.66	16	8.77	49.68	5.00	48.00
Family size (number)	6.20	6	2.11	34.08	12.00	3.00
Daily income (Rs)	126.40	120	32.98	26.09	60.00	200.00
Expenditure for food (Rs per day per hundred rupees income)	82.5	85	9.54	11.56	90	65
Expenditure for drug or smoking (Rs)	33.33	35	9.54	28.65	50	10
Worker Population Ratio (WPR)	29.59	28.57	10.78	36.44	12.50	66.67
Rent for Rickshaw (Rs) (N=56)	24.9	20	2.47	0.09	30.00	20.00
Years of having bank account (N=41)	4.34	2	2.13	49.24	1.00	10.00

Source: field survey, April 2015

Table 2 depicts the descriptions of the socio-economic-demographic status of the rickshaw pullers. Age of the sample rickshaw pullers varies from19 years to 65 years. The average of rickshaw pulling experience of the rickshaw pullers is 17 years ranges from 5 to 48 years. Average family size of the sample rickshaw pullers is high as compared to Purulia or West Bengal as a whole (Census, 2011). Average daily income of the rickshaw puller is Rs 126 which varies from Rs 60 to Rs 200. So, there is a low mean and high fluctuation in daily income of the sample rickshaw pullers. In other words, daily income of the rickshaw puller has huge uncertainty. Not only that the majority of the rickshaw pullers spend Rs. 35 per day for drug or smoking. It is a vital drainage of their income. In average worker population ratio in their family is only 29.59 percent. It has been already mentioned that 54 per cent rickshaw pullers hire rickshaw from their masters. The daily rent for rickshaw varies from Rs 20/- to Rs30/- per day depending on condition of the rickshaw.

Table 3: Percentage Distribution of Categorical Variables

Attributes towards financial Inclusion	% of Rickshaw puller having the attributes
Having bank account	41
Access to formal credit	0
No loan at the time of survey	24
Borrow from moneylender	38
Borrow from relatives or friends	38
Have a Life insurance policy	0
Awareness about JDY	16
Enrolled in JDY	1
Enrolled in RSBY	0

Source: field survey, April 2015

Table 3 depicts that 59% of cycle-rickshaw pullers have no bank account. It indicates that major portion of the rickshaw pullers is not financially included. No one rickshaw puller in sample has access to formal credit. Thus problem is worst if the access to formal credit is considered as measure of financial inclusion. It is reported that 38 per cent of the sample rickshaw pullers borrow from relatives or friends or from masters during the time of crisis. Other 38 per cent of the sample rickshaw pullers take loan from moneylenders and from the relatives or friends or from the masters. However, one fourth of the sample members have reported that they have no loan anywhere. A few number of rickshaw pullers did not want to disclose the fact regarding their loan statements. No one of the rickshaw pullers have life insurance policy. It is interesting to note that only 16% of the sample rickshaw pullers have information about Jan Dan Yojana and only 1% is enrolled under Jan Dan Yojana. No one sample rickshaw puller in Purulia town is enrolled in Rastriya Shasta Bima Yojana.

Therefore, incidence of financial exclusion is rampant among the rickshaw pullers in Purulia town. In order to examine the factors causing financial exclusion of the rickshaw pullers in Purulia town the specified logit model has been estimated and the results have been depicted in table IV.

Table 4: Determinants of Financial Exclusion of Cycle-Rickshaw Pullers in Purulia

Method :Logistic regression Sample size 100 Dependent variable: Financial exclusion of the rickshaw puller (1= financial exclusion and 0 = financial inclusion) Mean of the dependent variable = 0.59				LR chi2(8) =30.23 Prob > chi2 =0.0002 Log likelihood = -52.568 Pseudo R2 =0.2233 Pr(Financial exclusion) (predict) = 0.628		
Independent Variables	Coefficient	Std. Err.	z	P>z	Marginal effects after logit*	Mean of the Variable
CONSTANT	4.512	2.537	1.78	0.075		
LIT	0.368	0.528	0.70	0.486	0.086	0.58
DINC	-0.025	0.008	-2.96	0.003	-0.006	126.4
WPR	-0.111	0.035	-3.11	0.002	-0.026	28.59
SOC	1.557	0.749	2.08	0.038	0.355	0.55
MPC	0.049	0.028	1.73	0.083	0.011	66.7
EXP	0.034	0.044	0.76	0.446	0.008	17.66
AGE	-0.040	0.051	-0.80	0.423	-0.009	39.57
CAST	-1.413	0.646	-2.19	0.029	-0.289	0.73

(*)Marginal effects for discrete change of dummy variable from 0 to 1
Source: Authors' estimation using STATA 9.2 based on primary data, 2015

The study reveals that illiteracy of the rickshaw pullers, experience in rickshaw pulling and age of the cycle-rickshaw puller are immaterial in the determination of the incidence of financial exclusion. It may happen due to low level education of the

literate rickshaw pullers. The coefficient of daily income is highly significant. The regression coefficient suggest that if daily income of the rickshaw puller becomes 10 rupees higher the probability of financial exclusion will reduce by 6 percentage points. Therefore, income is a primary condition for having a bank account. Low income of the rickshaw pullers causes financial exclusion. The worker population ratio is a significant cause of financial exclusion of the rickshaw pullers. One percent higher worker population ratio reduces the probability of financial exclusion by 26 per cent. Low level of worker population refers to the higher number of dependent persons for the rickshaw pullers' households. It increases consumption expenditure and reduces probability of banking habits. However, one interesting result is that if the rickshaw puller has secondary occupation the incidence of financial exclusion increases by 35 per cent. This finding is statistically significant. It is observed that the secondary occupations are usually casual labour, contract labour or other informal activities. In most of the cases the rickshaw pullers are compel to search a secondary occupation just to survive. These are not favourable for opening a bank account. Estimated impact of MPC on banking habits shows if MPC increases by one per cent the probability of financial exclusion increases by 1.1 percent. However, this result is statistically significant at 8 per cent level. Majority of the rickshaw pullers in Purulia town are belonging SC community. The logit regression estimation confirms that the rickshaw pullers belonging to SC community compared to other castes are more likely to have a bank account. The probability of financial exclusion is 29 percent lower for the rickshaw puller belonging to scheduled castes compared to rickshaw pullers belonging to other castes. It refers to the pangs of financial exclusion is low among the SC rickshaw pullers relative to OBC or ST rickshaw pullers.

5. Conclusion

This study has made a close look of the nature and causes of financial inclusion of the rickshaw pullers in Purulia town. In spite of the introduction of several programs and policies regarding financial inclusion a major section of rickshaw pullers has no bank account at all. The incidence of financial exclusion is more serious in respect of the access to formal credit, insurance policy regarding their life and wealth. Despite the wide spread of advertisement and initiatives regarding Pradhan Mantri Jan Dhan Yojana (PMJDY) and Rastriya Shasta Bima Yojana almost all the rickshaw pullers have no information regarding these schemes. Finally, it is conclusive that low daily income, low level worker population ratio, high marginal propensity to consume, other informal occupation are significant causes of financial exclusion of the rickshaw pullers in Purulia town. Finally, lack of awareness regarding financial inclusion is a basic cause of financial exclusion for the rickshaw pullers in Purulia town. This study suggests that the government or appropriate authority have to take exclusive policy to inculcate awareness of financial inclusion for the rickshaw pullers in Purulia town. The government should recommend the banking sector to launch an affordable loan program for purchasing rickshaw.

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Dynamics of Tribal Economy: A Study on a Primitive Tribal Group (Birhor) of West Bengal

Dr. Sanjib Bandyopadhyay[1]

Abstract

During Fifth Plan period Birhor has been identified as a Primitive Tribal Group. Birhor, particularly their economy is still in transitional mode. Their transformation in educational achievements since last few decades lead their transformation in economic activities (occupational pattern).These transformations has been gradually strengthening their economic power also. As a result, steadily but gradually their communicational network has been widening and they are being able to scattered themselves in different occupations for earning their livelihood which has been leading towards the continuous change in the economic life of this Particularly Vulnerable Tribal Group (Primitive Tribal Group).Accordingly, their willingness to invest more effort in education is in increasing trend. Thus, the economic strength, literacy attainment and occupational proficiency of the Birhors have been moving in cyclic order with the same direction. The all concerned should take special care of this Primitive Tribal Group during this transitional phase.

Key Words: *Education brings economic power and in turns economic power accelerates education*

1. Introduction

There are 38 scheduled tribes as recorded in the 2001 census of the state (West Bengal). Among them, only three tribes have been considered as Primitive Tribal Group. They are Birhor, Lodha and Toto.

The Shilu Ao committee had constituted by the Planning Commission in 1969 for reviewing the tribal situation in India. They had observed that a large number of

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tribal communities continued to be extremely backward and some of them were still in primitive food gathering stage. These tribal groups are given a name of "Primitive Tribal Groups". Initially, the following three criteria have been followed for identification of Primitive Tribal Groups (PTGs).

(i) Pre- agricultural level of technology.
(ii) Low level of literacy.
(iii) A stagnant or diminishing population.

On the basis of these three criteria, state Government identified and proposed the names of tribal groups to the Government of India and by examining these proposals Government of India identified 52 scheduled Tribe communities of 13 states and one Union Territory as Primitive Tribal Groups. During the Sixth Plan period additional 20 scheduled tribe communities were identified as Primitive Tribal Groups. Later, some more tribal groups are identified as PrimitiveTribalGroups. At present seventy five tribal groups are identified as Primitive Tribal Groups. Though, presently they are renamed as Particularly Vulnerable Tribal Groups (PVTGs).

It is suggested that as the problems and needs of these Primitive Tribal Groups are quite different from other scheduled tribes and are the most vulnerable among tribal groups, they are in great need of priority to be accorded to their protection and development. As these tribal groups are in a very poor state of economy, a separate special Central Assistance is provided to the states for their development.

In West Bengal, the Totos are concentrated in North Bengal and other two tribes viz. Birhor and Lodha are concentrated in western part of West Bengal, popularly the tracts are known as JungleMahal. This account is an attempted to assess the socio-economic changes of the Birhors inhabiting in the forest and hill fringe areas of West Bengal during last few decades.

2. Socio- Economic and Cultural Profile of Birhor

The name 'Birhor' includes the word 'Bir' which means jungle and 'Hor' which indicates man .So the word meant jungle man. Birhors, jungle men or foresters, woodman or chop cutters as he name signifies are found to live in the hilly areas of central and eastern India, namely Madhya Pradesh, Orissa, Bihar (Jharkhand) and West Bengal. They are known as "Birhut" in Madhya Pradesh and "Birhor" in Bihar (Jharkhand) "Mankari" in Orissa and in West Bengal, they are known as 'Sikari'. The distinct traits of nomadism are quite evident today particularly amongst 'the Uthulu' section. The other sections, have accepted settled life called them 'Jhanghi'. In the Purulia district of West Bengal they are settled in different blocks. It has also been learnt that they generally have close contact with Birhor living in Ranchi, Hazaribag, Chandil, district of Jharkhand.

The earlier scholars presented much information about the Birhor. Of them E.T.Dalton (1872), L.R. Forbes (1872), H.H. Risley (1891), S.C. Roy (1925) may specially be mentioned. Col. Dalton wrote that "the Birhors are generally found in the hilly and jungle areas and they are supposed to be allied to the Kharias".

L.R. Fobes wrote "The Birhors are the earlier settlers in the hilly and jungle areas in Chhotonagpur. They are numerous in number at Palamou. Birhor are foresters but they are very gentle and timid in nature. They do not have any knowledge in cultivation. They are food gathers and hunters". Risely described Birhor as 'Woodman'. He wrote "the Birhors prefer to live in leaf made hut and depend upon hunting and gathering activities." S.C. Roy in the year 1925 published a complete Monograph about the Birhor of Ranchi.

In the year 1971, Nirmal Kumar Basu in his book (in Bengali) "Bharater upajati jiban" wrote that Birhor is a nomadic tribe who lives in the hilly areas of Chhotonagpur. Some Birhor are also found in Mayurbhanj and keonjhar areas of Orissa. In Orissa they are called "Makharkhiya Kulha". They prefer to eat monkey and use to sell their skins, which are generally used as covering of Drum or Tom-Tom (Madal) i.e. Musical instrument of the tribes. L.R. Forbes wrote (1872) that though the Birhor are wild, they are very harmless race. They are to be found living only on the tops and spurs of the hills, cultivating absolutely nothing and living exclusively on monkeys, birds, jungle roots and herbs .These people are very clever at monkey catching.

Sarat Chandra Roy wrote in the year 1925 in his book "The Birhors "-The hills and Jungles that fringe the Chhotanagpur plateau on its east and north-east, form the principal home of the Birhors. This line of hills runs from the Ramgarh Thana in the Hazaribagh district on the north along the Ormanjhi, Angara, Ranchi, and Bundu thanas on the east of the Ranchi plateau up to beyond the Tamar Thana which marks the south-eastern limit of the Ranchi district. Here and there in these hills and jungles extending roughly over an area of over seventy miles in length and twenty miles in breadth, the Birhors move about either in small scattered communities snaring monkeys, tracking hare, deer or other game and collecting rope fibers, honey and bees wax, or camp in tiny leaf-huts making rude wooden vessels and plaiting ropes and weaving them into hunting-nets and carrying nets. Several groups of Birhors are also met with beyond the north-eastern margin of the plateau into the jungles and hills further north in the Hazaribagh district north of the Damodar, where they muster strong, and a few scattered groups have strayed into the Manbhum district (Now Purulia W.B.) on the east and in to the Singhbhum district on the South.

In the Purulia district Birhor speak among themselves in their own language. They have no script. They can understand Bengali well. They can speak with the Santals in a mixed language of Santali and Birhorsi. It has also been learnt that many Munda words and some Santali words are infused in their dialect 'Birhors'.

The principal deities of the Birhors besides Singbonga are the Creator, and Devi Mai or the Earth goddess. For the supreme God Sing bonga, there is no special season or special ritual for sacrificing to him. When some serious calamity threatens or visits to a family, the head of the family with his face turned to the east and offers a white fowl or white goat to him and prays for the restoration of peace and happiness of the

family. A white fowl is also offered to him by the Naya on the Occasion of the annual sangi-puja for the protection of the tanda (Tanda means local group of Birhor families and Naya means the headman of this group) from harm. Devi ma and others Mother-Goddesses also received sacrifices at the sangi- puja besides special offerings to avert some special calamity.
Consumption of liquor is the traditional habit of the tribal people and the Birhors are of no exception.

In earlier days, the marital age of the Birhors was 16 years to 18 years for male and 11 years for female. Birhors marriage, monogamy is always preferred but there is no taboo for polygamy. Widows are permitted for remarriage.

3. Data Base and Methodology

The Birhors are the Primitive Tribal Groups (PTGs) and their socio-economic status is not so advanced in compare to the Santal and Munda etc. communities. The Birhors, they are only concentrated in three adjacent blocks of Purulia district viz. Balarampur, Bagmundi and Jhalda-I. The study had been conducted in the block areas of Bagmundi, Jhalda -I and Balarampur in Purulia district.

3.1. Sample Design: Five villages from three blocks of Purulia district viz. Bagmundi, Balarampur and Jhalda-1 have been selected for sample study for Birhor tribal community. These five villages have high concentration of Birhors. From each village almost all households have been selected for constitution the sample for the study of the socio-economic condition of this scheduled tribe.

Table-1: The Brief Sketch of the Study Area

Purulia District		
Bagmundi Block	**Balarampur Block**	**Jhalda –I Block**
Village	**Village**	**Village**
Bhupatipally Baredi Bareria	Bersa	Chhota Bhagat

3.2. Sources of Data: The data have been collected from both primary and secondary sources.
3.2.1. Primary Sources: The primary data on the socio -economic conditions of the Birhor have been collected through personal interview at the field study.
3.2.2. Secondary Sources: The secondary data have been collected from various publication and report of the Government organization like census report published by Bureau of applied economics and development statistics of the Govt. of India, Reports on SC & ST development if any, bulletin published by Cultural Research Institute, Backward classes welfare Department , Government of West Bengal.

4. Objectives of the Study

During 1989-90 a socio-economic survey was conducted by the Cultural Research Institute(BCW department, GOVT. of W.B.) among the Birhors of Purulia district in Bagmundi, Balarampur and Jhalda-I block areas. This institute published the findings of the study in1991.In course of time 2000-2001 another study had been conducted on the Birhors of the same areas by the Cultural Research Institute to measures the changes of the socio- economic status of the said tribe during last decade. A parallel study has been conducted by us on the Birhors of the same areas in the year 2010 aimed at to assess the decadal changes of the socio-economic life of this Primitive Tribal Group. Here, decadal changes have been examined taking the previous studies as the base line.

5. Analysis and Interpretations

The data collected and arranged for the particular purpose hints at the following things:

5.1. Analysis of Changes in the Socio-Economic Conditions of the Birhor Community in the Study Areas

It is observed from census data that the Birhors in West Bengal is concentrated in Puruliya (as per 1991 census report- 31.70%) district. It is remarkable to note from different surveys that the concentration of Birhors is noticed only in three Blocks of Purulia district. These are Bagmundi, Balarampur and Jhalda-I block. This nomadic primitive tribal folk were preferred to live in the inaccessible forest and hill areas of Purulia district and also preferred to live leaf huts. The main source of livelihood of this Primitive Tribal Group was the natural resources of forest and hill. The Government of West Bengal has been initiating various developmental programmes and welfare activities time to time to develop their socio-economic status. During 1990-91 and 2001-02 two socio-economic studies was conducted by the Cultural Research Institute (an organization of Backward Classes Welfare Department, Govt. of West Bengal) on the Birhors of Purulia district. The studies were conducted in Bhupatipally, Bareriya and Baredi in Bagmundi Block, Bersa in Balarampur block and Chhota Bhagat of Jhalda – I Block. A study was also conducted by us on the Birhors in the same villages during 2010 to assess the socio-economic changes among this Primitive Tribal Group. The Following table reflects the total households and population covered during different studies.

Table 2: Households and Total Population Covered during Three Studies

1990-91(CRI)		2001-02(CRI)		2010 (Our Study)	
Households	**Total Population**	**Households**	**Total Population**	**Households**	**Total Population**
61	**217**	**71**	**258**	**80**	**282**

Sources: *(i) Bulletin, Cultural Research Institute, Backward Classeswelfare Department, Govt. Of W.B., Volume xxi, Special Issue: 2002, (ii) Field Study (2010)*

5.2. Analysis of Changes in the Social Conditions (Educational Achievement) of the Birhor Community

To assess the impact of various educational schemes on Birhors three studies were conducted (two by CRI and one by us) in the Purulia District during 1990 to 2010.The following table reflects the comparative analysis on literacy rates and educational achievement of the Birhors inhabiting in Purulia district during last three decades i.e. in the course of 1990 to 2010.

Table 3: Percentage of Literate and Educational Achievements of the Birhors Inhabiting in Purulia District during Last Three Decades

year	Primary	Middle	Secondary	College (Post-Secondary -level)	Total Literacy including Informal Education	Informal Education	Total Literacy excluding Informal Education
1990-91	18.02	2.91	-	-	24.42	3.49	20.93
2001-02	23.98	-	0.90	-	32.58	7.69	24.89
Increase	5.96	-	0.90	-	8.16	4.20	3.96
2010	28.09	16.86	2.24	2.25	-	-	49.44

Sources: (i) Bulletin, Cultural Research Institute, Backward Classes Welfare Department, Govt. of W.B., Volume xxi, Special Issue: 2002, (ii) Field Study (2010).

It is observed from the above table that the literacy rate has been increased 3.96% in the course of time 1990-91 to 2001-02 whereas this percentage has been increased by 24.55% i.e. from 24.89% to 49.44% during 2001-02 to 2010. It is also observed that their enrolment in middle school is significantly increased i.e. from 2.91% to 16.86% during 1990-91 to 2010. It also observed that a few percentages of the Birhors (2.25%) in our study area has enrolled their names for college level education (Higher Secondary Level).

5.3. Analysis on Age-Group Wise Educational Achievements of Birhors as per Our Study (2010)

The following table reflects the age-group wise educational achievements of Birhors inhabiting in our study area.

Table 4: Age-Group Wise Distribution of Educational Achievements of Birhors in the Study Area

Age Groups	Literate	Illiterate	Pre-primary & primary level	Secondary level	College level (post-secondary level)
0-5	-	-	25.00	-	-
`6-15	100.00	-	100.00	-	-
16-55	47.27	52.73	27.27	16.36	3.64
56 and Above	07.70	92.30	07.70	-	-

Source: Field Study

From the above analysis on the educational achievement of the Birhors the following points emerges.

a) During 1900-91 to 2001-02, the literacy rate among Birhors in our study area has been increased by 3.96%, whereas 2001-02 to 2010 the literacy rate among Birhors increased by 24.55%.In above 55 years of age, a large numbers of Birhors(92.30%) are still remain illiterates.

b) During 1990-91, 18.02% Birhors achieved primary level education and that was increased to 23.98 % in 2001-02. From 1990-91 to 2001-02 the Primary level education among Birhors of Purulia increased by 5.96 %. But, during our study it was observed that cent percent of 6-15 years age group children of Birhor community enrolled their names in Primary level Schools. In the age group 16 to 55years, 27.27% achieved primary level education. Above 55 years age, only 07.70 % achieved Primary level Education.

c) In course of time 1990-91, none achieved secondary level education and only 0.90% achieved secondary level education during 2001-02. In our study it was found that 16.36% enrolled or achieved secondary level education. Thus, a significant number of Birhors are now within the preview of secondary level education .The said Percentage increased by 15.46% during last decades.

d) During 1990-91 to 2001-02, none of total Birhor community had achieved college level education. But, in 2010 a very little proportion of Birhors entered in to the college campus (Higher Secondary Level). In my study it was found that a very few Birhor youth Passed madhymik level education recently and enrolled their name for post madhymik level education. Obviously, it is a very bright sing of the development in context to education of this Primitive Tribal Group.

e) From the above table it is found that only 25% children in the age group of 0-5 years enrolled in any Anganwadi centre (Pre-primary school).Thus , it is evident that a significant proportion i.e. 75% are still beyond the Anganwadi Centers and naturally they are still deprived from pre-primary level education and others benefits.

5.4. Analysis of Changes in the Economical Conditions of the Birhor Community

To assess the changes in economic conditions of this Primitive Tribal Group we throw light on the changes in occupational pattern and changes in income pattern.

5.4.1. Assessment of Changes in the Occupational Pattern of Birhor Community

Once the Birhors of Purulia district leads nomadic life but presently they are settled in different villages. Consequently, it is anticipated that their occupational pattern during last three decades has been changed. In this context, the CRI (Cultural Research Institute, BCW department, govt. of W.B.) conducted two studies in 1990-91 and 2001-02 to assess the impact of different developmental programmes on the

socio- economic life of this Primitive Tribal Group. It is fact that the Birhors mainly belonged to Pre-agricultural economy i.e. their economy revolves around hunting, collection and gathering of forest produces.

The two studies of Cultural Research Institute reflect their occupational pattern during 1990 to 2002.In 2010; a study was done by us to see the impact of different developmental programmes on the occupational pattern of this Primitive Tribal Group. A comparative chart on the change in occupational pattern of the Birhors is given below.

Table 5: Comparative Chart of Occupations of Birhor Community

Year	Primary Source	Secondary Source
1990-91	Rope making	Cultivation, Day labouring job, Animal Husbandry, Contract labour, Collection and Hunting of forest produces.
2001-02	Agricultural day labouring job	Cultivation ,Rope making ,Animal Husbandry ,Lac cultivation ,Contract labour+brick field worker, Collection and hunting.
2010	Daily Wage Labourer and Agricultural day labouring job	Rope making, Forest Produces collection, Craftsmanship, Casual worker in Govt. School, SHG Motivator, Agriculture.

Sources: *(i) Bulletin, Cultural Research Institute, Backward Classes Welfare Department, Govt. of W.B., Volume xxi, Special Issue: 2002, (ii) Field Study (2010).*

It is observed from the above table that the Birhors has been diversified from their traditional rope- making activity to agricultural day labouring jobs during cultivation period and rest of the year daily wage laboring jobs as primary source of income in course of time 1990-91 to2010. It is also observed that they became gradually efficient labour for brick fields, construction works etc. during this period. At present, they are working in different organization as casual worker. They are now formed self-help group for their own economic development. It is also observed that a few of them are engaged in craftsman profession. The following table reflects the detail occupational pattern of Birhors as per our study (2010).

Table 6: Distribution of Sex-Wise Occupational Pattern of the Birhors

Occupations	% on Total Male	% on Total Female
1. Forest Produces Collection – Rope making – Agri. Labourer-Wage Labourer.	22.92	5.88
2. House wife – Rope making	-	25.49
3. Wage Labourer	18.75	-
4. Forest Produces Collection – Rope Marking	16.67	15.68

5. Craftsman	2.08	-
6. Casual worker in Govt.School – Agriculture	2.08	-
7. Casual worker in school	-	3.92
8. Student	20.83	21.58
9. Rope -making	-	19.61
10.SHG Motivator- Rope making	2.08	-
11.Unemployed	14.59	7.84
Total	100.00	100.00

Source: *Our Field Study (2010)*

It is observed from the above table that a large number of Birhors are engaged themselves in various economic activities throughout the years to subsist. It is evident that the tribal's economy is multi-dimensional i.e. the tribal's depends on various economic activities for subsistence. Most of the Birhors are still depend on their traditional occupation i.e. forest produce collection and produce rope from "Chihorlata" and other creepers. Along with these traditional activities, they also performed agriculture work as agricultural day labour in neighborhood areas. Particularly, in Bengali calendar month viz. Asar, Shraban, Aghrahayan, Pous, Magh they involved themselves in agricultural work as a day labour and rest of the month they involved themselves in labouring job as day wage labour in local or neighboring areas in different types of job as per opportunities available to them. It is observed that only males are engaged solely on daily labouring jobs and 18.75% Birhors in our study area are wage labourer.

A large number of females involved them in agricultural work as a day labour during paddy cultivation period and rest of the month they involved themselves in labouring job as day wage labour in local or neighboring areas in different types of job as per opportunities available to them.

A large number of females are (19.61%) involved themselves solely on rope making activity along with routine domestic work at home. The old aged Birhor females are only made rope, they usually not involved in other works.

It is observed a remarkable proportion Birhors (male-16.67% & female-15.68%) collect forest produces like honey, tuber, wood and also creeper from nearby forests. They also prepare rope from creeper like chihorlata, jute, babui grass and nylon at home. They sell these forest products to middlemen and neighbourers through local market. It is observed that the nylon which they presently started to use as raw material to make rope most of the times supplied by the middlemen.

It is also observed from the above table that a few proportion Birhors of our study are engaged in occupation like craftsman, casual worker in school along with agriculture and self-help group motivator. Besides, they engage in rope making also.

From the above table it is observed that a significant number of Birhors are unemployed. The proportion of male unemployed is double in compare to female unemployed (male-14.59% & female-7.84%).

The following findings have been emerged in context to above analysis on the occupational pattern of Bihors in our study area.

a) It is observed that the occupational pattern of Birhors in our study area has been diversified from their traditional occupation (Rope Making) to other occupations especially like agricultural labour, daily wage labour and other jobs during 1990-91 to 2010. It is observed that their skilled in different jobs has been gradually improving. In 2010, it was found that they were started to adopting other occupations like craftsmanship, SHG motivator and casual worker in govt. organization along with day labouring jobs. Though the proportion is very small those who are able to scattered themselves in these types occupation. Nevertheless, the economy of this Primitive Tribal Group is now in transitional mode i.e. from forest based economy to other economic activities.

b) From the three studies, it is observed that the Birhors has been very slowly adopting agriculture as a source of livelihood .A very few percentage of them are doing agriculture on their own agricultural land. Most of them are engaged themselves as agricultural labourer in the other communities 'agricultural field during cultivation period.

c) Still remarkable percentage of Birhor is engaged in collection of forest produces and rope- making for subsistence. Particularly a significant number of female of this community still earns money through rope making.

5.4.2. Assessment of Changes in the Income Pattern of Birhors Inhabiting in Our Study Area

Government has been initiating different types of developmental programmes aimed at the increase of income level of this Primitive Tribal Group. The cultural Research Institute conducted two Studies in 1990-91 and 2001-02 to assess the impacts of these programmes. Simultaneously, a study was also conducted by us in the same area in 2010 on the Birhors to account the impact of different developmental programmes. The following table reflects the annual income in 1990-91 and 2001-02 of Birhors families as per CRI studies.

Table 7: Distribution of Annual Income of Birhor Families in 1990-91

Annual Income (Rs.)	No of Families`
1000-2000	32 (51.61%)
2001-3000	24(38.71%)
3001-4000	06 (9.68%)
Total	62 (100%)

***Source**s: Bulletin, Cultural Research Institute, Backward Classes Welfare Department, Govt. Of W.B., Volume xxi, Special Issue: 2002*

Table 8: Distribution of Annual Income of Birhor Families in 2001-02

Annual Income (Rs.)	No. of Families`
Below 5000	17 (23.94%)
5000-10,000	42(59.61%)
10,000-15,000	11 (15.49%)
Above 15,000	01 (1.41%)
Total	71 (100%)

Sources*: Bulletin, Cultural Research Institute, Backward Classes Welfare Department, Govt. of W.B., Volume xxi, Special Issue: 2002*

From the above tables some important findings emerge. These are:

a) The number of families under lower income range had been decreased in 2001-02 as compared with the number of families in 1990-91.

b) During1990-91, the number of families under middle income ranges was 48.39%; whereas the said proportion increased to 75% in the year 2001-02. It may easily be said that the economic conditions of these Birhors has been gradually improving in the course of 1990-91 to 2001-02.

c) From the above analysis of these two studies of Cultural Research Institute, it is observed that a significant number of Birhors of the study area except one Birhor of Bhupatipally are ceaselessly struggling with poverty.

Table 9: Average Annual Income of Birhor Family as per Studies of C.R.I. in the Year 1990-91 & 2001-02

Year	No. of Families	Total Annual Income (Rs.)	Average Annual per Family Income (Rs.)
1990-91	62	1,20,528=00	1944=00
2001-02	71	5,85,678=00	8249=00

Sources: *Bulletin, Cultural Research Institute, Backward Classes Welfare Department, Govt. of W.B., Volume xxi, Special Issue: 2002*

The average annual income of per family had been increased more than four times in between 1990-91 to 2001-02. It proves that the average income of Birhor had been increasing rapidly. As per our study, the Per-capita monthly incomes of the Birhors are as follows:

Table 10: Distribution of per-capita Monthly Income of Birhors in the Study Area (2010)

Per-Capita Monthly Income Groups (Rs.)		Percentage of Total Population of Birhors
0 -333.00	Below Poverty Level	13.73
334.00-500.00	Poverty Level	22.55
501.00 - 700.00	Tolerance Level	10.78
701.00 -1500.00		50.00
1501.00-2500.00		02.94

2501.00 & above	Moderate Level	Nil
Total		100.00

Source: *Field Study (2010)*

In order to determine per-capita monthly income of a family, the total monthly income of a family has been divided by the total number of family members. For a fruitful analysis of economic position of individuals, four levels have been determined as the yard stick. These are below poverty level, poverty level, tolerance level and moderate level. That whose per-capita monthly income is below Rs.334.00 has been considered as living Below Poverty Level. Those who earn between Rs.334 and Rs.500 have been considered in Poverty Level. Those who earn more than Rs. 500.00 per month but less than Rs.1500 have been considered as if belonging to the Tolerance Level. Individuals earning more than Rs. 1500 come under Moderate Level.

From the above table it is observed that a remarkable proportion of Birhors i.e. 36.28% belong to Below Poverty Level and Poverty Level. Thus it is evident that a significant number of Birhors have been struggling ceaselessly with the poverty.

It is also observed that most of the Birhors i.e. 60.78% belongs to Tolerance Level. Those who are belong to tolerance level they are also struggling to meet up the domestic needs smoothly. The Proportion of Birhors belong to Moderate level is significantly low i.e. just 2.94%. Thus, it is apparent that a very few number of Birhor in our study area are maintaining a fair standard of living.

6. Major Findings

From above discourse it is found that some findings arise above us. These are as follows:

- Near about 36% of total Birhor belongs to Poverty Level and Below Poverty Level. Thus, 64% of total Birhors are able get rid of from the clutches of Poverty. It is also observed that more than 60 % of total Population of Birhor now earns more than the average per family annual income of the year 2001-02. Perhaps, the transitional trends in their occupational pattern galvanize their income level steadily.
- It is observed that a few percent Birhor of our study area presently earn more than 18,000.00 but within Rs. 30,000.00 annually. It is also observed that they are engaged in SHG, working in government organizations (casual basis) along with their traditional occupation.

7. Conclusion

Birhor one of the most backward tribe, particularly concentrated in the hill and forest areas of Chottonagpur plateau. In West Bengal they are scattered in the hill and forest areas of Purulia district. As their low literacy rate and belongs to the hunting-gathering stage of economy they have been identified as a Primitive Tribal Group (Particularly vulnerable Tribal Group). It is observed that the Birhors was Primitive stage of economy i.e. they were solely depending on forest produces. They

were collecting creepers like "chihorlata" from nearby forests and making rope through these creepers. Besides, they were also collecting honey, yam etc. and sell it to the nearby market. It is observed from different studies that the dependency propensity on forest produces of the Birhors in our study area has been steadily declined. During the study (1990-1991) of Cultural Research Institute (under Backward Classes Welfare Department, Government of West Bengal) has been observed that the Birhors primarily depends on rope making. They are mainly depends on forest produces at that time. Besides, they have been starting day labouring jobs and cultivation as secondary sources of income. In the course of time 2001-02, the study of CRI reflects quite different picture. Their dependency on forest produces as the primary source of income steadily declined during 1990-1991 to 2000-2001. They have been transited from forest based economy to daily wage based labouring jobs as primary source of income. They were starting to engage themselves as labour to others' agricultural fields during cultivation period. Besides, they have been transforming to scattered themselves in secondary sector of economy. Though, forest produces are still one of the sources of income of the Birhor families. During our study (2010), it is observed that the Birhors of Purulia primarily depend on labouring jobs. During cultivation period they are engaged in agricultural activities and other times they are engaged themselves in daily wage based labouring jobs. It is also observed that they have been starting to be skilled in different occupation like craftsmanship, worker in government organization etc. Perhaps; they have been standing on another economical juncture i.e. from unskilled to be skilled. It is evident that the occupational pattern of the Birhors of the study area has been transforming from forest based economy towards others jobs in secondary and tertiary sectors of economy. In that course of time, the educational achievement scenario of this Particularly Vulnerable Group (or Primitive Tribal Group) has been gradually changing. An important proportion of youths of this group have been continuing secondary level of education. Recently, a few of them are also passed Madhyamik examination and enrolled their names for college level education. Overall literacy percentage has been increased to double during last two decades in compare to the year 1990-91. Most of the children of the Birhors have been enrolled their names in primary schools. Education is the key catalyst to the development of human resources. Their transformation in educational achievement leads their transformation in economic activities (occupational pattern).These transformations have been gradually strengthening their economic power also. As a result, steadily but gradually their communicational network has been widening and they are being eager to adopt or learn about the other sources of livelihood which has been leading to a continuous transformation in the economic life of this Particularly Vulnerable Tribal Group (Primitive Tribal Group).Consequently, their willingness to invest more effort in education is in increasing trend. Thus, the economic strength, literacy attainment and occupational proficiency of the Birhors have been moving in cyclic order with the same direction. The all concerned should take special care of this tribal group during this transitional phase.

8. Suggestions

Economic status of a person or a group is determined by the literacy attainment and occupational proficiency. There is an element of feedback as this, in turn, better economic status assure the scope for higher investment on literacy and occupational achievement. Thus, the economic strength, literacy attainment and occupational proficiency move in cyclic order with the same direction. Any dynamic breakthrough on the any parameter out of three definite brings positive changes to others. Nevertheless, the first strike should be bringing on education. At first, motivate guardians to send their children to schools and provide them more incentives to retain them in the school for a long period. To control the dropout rates in secondary section the Government should organize" Parents Motivation Camp" in regular basis as in most of the dropout cases we observed that the parents had an important role to involved them in economic activities in schooling age. Besides formal education, vocational education must be imparted to the Birhor children. Local educated youth from this community should be recruited as teacher in the primary school. Perhaps, they can motivate the Birhor children more efficiently towards education. As they are standing on transitional mode from forest based economy to other sectors of economy, it is the mean time to impart vocational training to the Birhors to direct them towards others occupations.

There are many traditional skills and technologies practiced by scheduled tribe people for generations. The tribal people usually learn these through informal education. Birhors are also well expert in rope making. Generally they use creepers as raw material in rope making which they are collected from the local forests. But, at present they are facing a lot of problems due to scarcity of creepers in the nearby forests. The government should supply synthetic fiber and jute and provide necessary training to revamping the art and turned this traditional skill as a source of income of the Birhor families. Besides, financial support must be stretched to them to develop their traditional skill. Now, Birhors are interested to rear animals like cow, pig, hen, duck etc. The government should initiate special animal husbandry schemes according to their willingness to develop their economic status. Regular vigilance and follow up programme on the every developmental scheme which are aimed at the development of this Primitive Tribe is inevitable. The entire areas where the Birhors are concentrated covered with forests and hills. Ajoydha hill is a well-known spot to tourists is located in this area.

Despite, several places are awaiting to be explored as tourist spots. The Birhors are more familiar to the nearest tourist spots to their living area which are still unknown to tourists. The old age Birhors are illiterate but known better about forests, hills and attractive spots, the periods to tour. Tourist guides occupy an important place in tourism industry. The government may initiate proper steps to impart training to old age Birhors to improve their communicating languages so that they become tourist guides and being an important part of tourism industry. The government should using tourism industry as a strategy for rural tribal development. Lastly, the government should take care of this Primitive Tribal Group because they are in transition.

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SWOT Analysis of Lac Industry in Purulia District

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Abstract

Lac culture is generally located in elevated terrains ranging between 300 to 900 meters above sea level having rainfall of about 100- 150 millimeters and temperature ranging between 20-30 ^{o}C. Purulia district is falling in this category. Lac cultivation was once the main economic activity of the district and it was the main source of income for villagers because the land and its texture and climate were not congenial for traditional cultivation of paddy etc. In the present analysis I also focus on the strength of the lac industry and looking forward about its opportunity in the year come. On the other hand due to advent of developed technology and its application in the agricultural and irrigation arena more and more land is being cultivated with paddy and other traditional crops. This like there is so many threat of lac culture as It has a good number of weakness in taking means of livelihood. As a result, the prominence of lac cultivation has lost its position as main economic activity. Now it plays the role of supporting economic activity. Though supporting, still it remains as an important economic activity. Thousands of villagers undertake lac cultivation throughout the year and earn sizeable income to support their families. This is the strength of lac cultivation till now. In order to make the result of the analysis concise and significant I make the point wise arrangement of SWOT analysis.

Key Words: Purulia District; Lac Culture; SWOT

1. Introduction

The district of Purulia possesses a huge untapped potentiality for lac production and it is possible to achieve a multifold increase in lac production by employing unutilized human resources. Moreover the climatic and topographical condition in this district is not favourable for cultivation of traditional cereals instead, the

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cultivation of lac is easy with least input and labours resulting in four crops in a year.

2. Materials and Methods

The main purpose of this study is to identify & analyse the problems and prospects of lac industry in the district of Purulia. The present study is based on data collected from primary as well as secondary sources. For the collection of primary data surveys have been conducted in the lac growing areas of the district of Purulia and in a few lac processing units- in Balarampur, Jhalda and Tulin. The secondary sources are-Annual Report of Shellac Export Promotion Council, Kolkata; Annual report of the Institute of Forest Productivity, Annual reports of Indian Lac Research Institute.

With a careful and thorough survey of lac agriculture and lac industry of Purulia district, it is being noticed that there are many problems in both of these. Still at the same time, it may also be said that, if solution of the problems can be achieved, there are much possibilities and prospects of lac industry of Purulia. In this perspective I am trying to discuss the SWOT (Strength, Weakness, Opportunity and Threat) analysis.

3. Results and Discussion

3.1. Strength

- The district is the world's largest processing centre thereby reflecting 25% of world's total raw material consumption which is equivalent to 43% of India's total consumption.
- Major cultivating states such as Jharkhand, Chhatishgarh, Madhya Pradesh are in close proximity of the district. Best quality of sticklac of Baisakhi variety (famous as Manbhum variety) is produced in the district.
- There is no scarcity of skilled labour in both forms of lac activities: cultivation and industry. Motivated employees also try to give their best effort in maintaining quality of their produce.
- Natural environment of this district is suitable for lac cultivation and the use of lac product is eco-friendly.
- There is a strong market demand of lac products in India and abroad. Demand of seedlac and shellac in domestic and export market is growing.
- The district is well connected by road and rail. So processing units face no problem in getting sticklac from neighbouring states and to dispose of its lac products to different sea ports and air ports. Improved communication facilities are the strength of this district.
- The district town Purulia is situated in proximity of Kolkata, the major sea-port for export market. The distance is about 270 km. More than 90% of the processed lac of the district is exported through the port. The nearest lac research institute IIINRG has the infrastructure to arrange for training of lac cultivators on improved method of lac cultivation and processing.
- India is the global leader in lac production. Indian lac has a high potential of export market. The marketing channels have been developed traditionally in

favour of Indian traders. Reliability of payments from traders is also ensured. The Shellac and Forest Products Export Promotion Council, Kolkata promotes and regulates the export of lac products from India.

- Since 17th century India has been engaged in the export of lac. Existing knowledge on processing methods and on risks related to the business of the Purulia district is superior to that of other states traders.
- Government is committed to promote shellac industry. Lac Development Office Purulia has been bearing the responsibility of development of different lac schemes and extension of lac cultivation. The nationalized commercial banks in the district along with West Bengal Financial Corporation (WBFC) provide term loan, working capital loan to the lac firms. Margin money loan has also been availed under Rural Employment Generation Programme (REGP) of KVIC. These credit supports plays a vital role for the promotion and extension of shellac and button lac.

3.2. Weakness

- Lower range of local sticklac production in the Purulia district. Purulia district contributed on an average only 0.77% in national production during last ten years. For processing, now district's industrialists are to depend on supply coming from other districts as well as other states' production.
- Production of raw lac is seasonal in nature. Mainly Baisakhi lac is cultivated. There is longer production cycle and a higher inventory level is maintained. During the months of January-February the production of seedlac and shellac hampers badly due to meager supply of Baisakhi lac. Inadequate extension facilities for lac cultivation and marketing are responsible for that.
- There is lack of scientific method to determine the 'chouri parta' content in stick lac. Lac content in sticklac varies between 40-60%. Price of sticklac depends on lac content which the cultivators, because of lack of proper education & training, find difficult to assess. Middlemen, having comparatively better understanding of the matter, influence the cultivators. Consequently cultivators quite often are deprived of the right price for the sticklac produced by them.
- Average education level of cultivators is low. They usually habituated with traditional method of cultivation. Obsolete and inadequate technical information is available with the cultivators in respect of lac cultivation.
- Testing facilities are not available in Purulia district. In order to examine whether there is resin in the shellac or buttonlac manufacturers have to bring products in testing facility centre in Kolkata. It is also evident that processors are not worried about the resin adulteration in their product.
- Inadequate storage infrastructure. Sticklac, specially fresh *Ari*, if kept in a heap or in bags is liable to coalesce into big lumps which become very difficult to work with in subsequent processing.
- Major processors are financially weak. The lending institutions such as KVIC, NABARD are found uninterested in providing financial assistance to the smaller lac manufacturers due to the reasons of hidden market, gambling trade as also high fluctuation in market price.

- Due to gambling, unstable and speculative market price of sticklac fluctuated abruptly. Price fluctuating compels the growers to dispose their products at the prevailing rate.
- Closed auction method is followed for raw material buying. In this process receipt of non-remunerative price for sticklac is a disheartening factor for the lac cultivators.
- Restricted marketing channels are resulting in exploitation of cultivators by the middlemen. Exploitation of growers during purchase at primary level took place in the form of less price, improper weighing, allowances of poor quality, distress sale etc.
- There is a lack of adequate market information collection and dissemination system. The processors are also negligent in creating a healthy marketing system (both forward and backward). Unhealthy competitive trade practices are ruling here due to non-existence of professional management and control in the marketing system.
- Adequate labour welfare measures (such as accidental benefit, pay holiday, puja bonus) are not provided in hand-made shellac manufacturing factories in this district. It is observed that the labourers engaged in production of hand-made shellac have been leaving these *bhatas* gradually and engaging themselves in the *bhatas* at other states like Chhatishgarh and Jharkhand at a higher wage rate. Thus the units in Purulia have been facing labour crisis day by day.
- Lac Industry association, Balarampur Kshudra Lakksha Silpa Baybasayee Samity, was constituted to promote fair trade practices amongst the traders and to fulfill the interest of lac growers. The association could not fulfill these purposes due to financial constraints.

3.3. Opportunity

- *Government initiatives to develop sticklac cultivation and processing*: Zilla Parishad of this district gives a part of money from its "Grant in Aid" fund to the Lac Development Officer as grant for the distribution of free broodlac and instruments to the lac growers. Govt. has formed "West Bengal Lac Artisan's Co-operative Society" to purchase sticklac from the lac growers at reasonable prices. To encourage the lac growers, Govt. has arranged specimen farming in demonstration plots of farmers' fields. Govt. has arranged incentives to lac industry (under the cottage and small scale categories) in the form of sanction of subsidized loan and some discount in interest on fixed capital investment for five years.
- *Various Central Government projects to promote village infrastructure*: NABARD has also different schemes in this district in order to support various promotional interventions in the Rural Non-farm sector aiming at creation of employment opportunities. These schemes cover rural entrepreneurship development programme with a view to promote and strengthen the SHG's in the district through the NGOs.
- *Building Infrastructure Facilities*: NABARD's involvement in the lac cluster development programme at Balarampur has also been thought for setting up

of common facility center for storage of raw material as well as finished products, testing facilities, information access, e-marketing and capacity building. It is also active in setting up of value added products manufacturing unit with public private partnership.

- *Wide application of value added products*: Lac basically yields three useful materials- resin, dye and wax. These are natural, renewable, nontoxic and eco-friendly and can be put to a unbelievably wide range of applications: 1) wood finishing, 2) printing ink, 3) electrical industries, 4) leather and foot wear industries, 5) pharmaceutical, confectionary and fruit coating, 6) cosmetic industry, 7) hat industry, 8) photography industry, 9) rubber industry, 10) paint industry, 11) automobile industry, 12) grinding wheels, 13) paper varnish etc.
- *Tremendous scope for increasing the global demand for lac*: A definite demand already exists for lac derived materials. Besides there also exists a tremendous potential for much higher consumption due to global trend for safer natural products. Great scope of value-addition for export market is also noticed. There is a scope for achieving reasonable and steady price level by adopting production and marketing strategies to strengthen demand in the global market.
- *Huge potential for boosting domestic lac consumption* : From the survey (2011) conducted by Transfer of Technology Division, IIINRG, Ranchi we see that domestic consumption of lac and its value added products is about 3000 M.T. which was 46% of total export in this year. IIINRG initiates strong measures to boost internal lac consumption in order to stabilize the domestic price of lac.
- *A sizeable unutilized infrastructure for lac processing*: In the year 2011-12 lac processing units in this district is 143. Once upon time it was 500 in the decade of sixties. Numbers of causes are there for shut down. But they can be again revived by concerted efforts of GOs and NGOs under the prevailing production and industrial scenario.
- *Untapped potential for greater utilization of by-products like lac dye, wax etc*: From processing of 40 kg sticklac we can obtain 5 kg of by-products. This can again be used in further preparation of shellac by common effluent treatment plant. But unfortunately these by-products of this industry remain unexploited due to lack of technological know-how, commercial application and short sightedness of the existing entrepreneurs.

3.4. Threat

- *Seasonal production of raw material*: The raw lac appears in the market generally in two seasons (May-June and October- November). Consequently, the local factories depend for about six months in a year on lac brought from adjacent areas. In the slack seasons small factories are forced to close for six months. They re-opened when local lac is available.
- *Shelf life problems of sticklac and finished products*: The sticklac can be stored upto three years. But the quality of lac resin (melting power, adhesive power, colour etc) is going to deteriorate after few months. The tendency to form

lumps, forming hard blocks of lac is being noticed due to improper storage of sticklac, which is very difficult to work for subsequent processing. Inadequate storage infrastructure creates problem in the storage of lac products and the essential properties of these products are deteriorated due to loss of fusibility and solubility.

- *Import of sticklac*: Import of sticklac to meet export requirement of seedlac and shellac has been increasing since the beginning of the 21st century. The import of lac starting with 600 M.T. in the year 2001-02 now reached 6797 M.T. in the year 2014-15.
- *Manual processing and inadequacy of processing knowledge:* In every step of lac industry, there are still old methods in practice. Though some improved technologies have been discovered, these could not be introduced for various reasons. Old methods are labour intensive. Unit cost of production by using labour intensive technology is higher than that by using capital intensive technology. Growers and small manufacturers face the problem of lack of dissemination of the correct knowledge with regard to lac cultivation and processing.
- *Low productivity*: Traditional cultivation practices have not been sustainable due to high pest infestation and over exploitation of host plants. The cultivators do not adopt any new scientific method which can enhance the intensity of lac cultivation. In this method production of lac is small quantity and there is absence of constant impetus for lac growers to produce more.
- *Lack of quality awareness of broodlac*: The old method does not give sustained supply of broodlac which is required twice in a year and thus resulting non-availability or low availability of broodlac of proper quality. Quality of sticklac is also hampered.
- *Quality inconsistency*: One of the major threats of the processes of the indigenous factories is the non uniformity of qualities of the products. Moreover there is a tendency of admixture seedlac with rosin in the preparation of button lac and shellac and made the product as low graded quality. The good-will of Indian traders has been decreasing.

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Negative Working Capital – A Boon or Bane: An Empirical Analysis of FMCG Companies in India

Dr. Nibedita Roy[1]

Abstract

Liquidity is the amount by which the current assets of an entity exceed the current liabilities of that entity. Every stakeholder has interest in the liquidity position of a company ascertained from the value of working capital. An efficient finance manager would ensure that too much capital is not circulating in the business in the form of working capital nor will he allow the working capital to fall below a particular level. Both the extreme situations will invite difficulties in the smooth and profitable functioning of the firm. Thus, an endeavour has been made in this article to analyze the working capital position maintained by the Fast Moving Consumer Goods (FMCG) companies in India. The analysis indicates that a few FMCG companies, within the sample, have negative working capital because of their strong brand loyalty which helps them to maintain a low inventory as well as generate speedy sales. This negative working capital, in turn, generates fund for growth of the company. Thus, keeping in mind both the factors of reduction in liquidity and generation of fund a company should adopt that policy by which it can comfortably balance risk with return without hampering the interests of any of the stakeholders.

Keywords: *Working Capital, Liquidity, FMCG, Free Cash Profile.*

1. Introduction

Liquidity, in finance or business, is the amount by which the current assets of an entity exceed the current liabilities of that entity. It can also be described as the ability of a corporation to meet its short-term obligations. Every stakeholder has interest in the liquidity position of a company. One can understand the liquidity position of a company by analysing the financial statements. The balance sheet of any company provides information on current assets and current liabilities and the difference between the two leads us to a term called *working capital*. Current assets are such assets which can be converted into cash within one accounting year (viz. stock, sundry debtors, temporary advances, investments, cash etc.). Current

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liabilities on the other hand are those liabilities which are to be liquidated within one year normally out of current assets or funds from operations (viz. trade creditors, bills payable, outstanding expenses, bank overdraft etc.). Conventionally, it is accepted that higher the positive working capital, better is the liquidity position. The rationale of this is that the company will always be at a position to pay off its short-term liabilities at any point of time. Investment in current assets may take three approaches. One of such approaches is *conservative approach* where a high level of investment is made to support a given volume of activity. Another is *aggressive approach* where for supporting the same volume of output a lower level of current assets is maintained. The last type is *moderate approach* where a firm decides to strike a balance between a very high level and a very low level of current assets.

The liquidity is a vital factor in business operations. An efficient finance manager would ensure that too much capital is not circulating in the business in the form of working capital nor will he allow the working capital to fall below a particular level. Both the extreme situations will invite difficulties in the smooth and profitable functioning of the firm. The demerits associated with shortage of working capital are reducing the rate of return, influencing the credit rating adversely, preventing attractive opportunities from materializing and influencing dividend policy adversely. In case the working capital is excessive it results in unjustified expansion, liberal dividend policy and total investment may be working inefficiently. Accordingly, it can be stated that to ensure optimum utilisation of working capital, it should be minimum in relation to output and the requirement of working capital by a firm should increase at a rate lower than that of increase in output.

Thus, an endeavour has been made in this article to analyze the working capital position maintained by the Fast Moving Consumer Goods (FMCG) companies in India. The remainder of the paper is organized as follows. *Section 2* narrates the objectives of the present study. *Section 3* deals with sample selection and research methodology. The findings of the case study are discussed in *Section 4*. Finally, summary and conclusion is given in *Section 5*.

2. Objectives

Each organisation will have its own set of norms for maintenance of working capital depending upon whether it is a manufacturing concern, a trading concern or a service provider and a plethora of external factors within which it operates. Though the ultimate aim of any company is to maximise profit but a company should always try to maintain a balance between profitability and liquidity. Sacrificing liquidity for earning higher profits can prove to be a risky and hazardous proposition for the overall financial health of a company in the long run.

Thus, an attempt has been made in this paper to form an idea on the working capital management of the sample companies. More specifically, the objectives of the study are—

(i) outlining the trend of working capital of the sample companies;
(ii) evaluate the management of working capital of the companies;

(iii) analyze the liquidity position of each company and determination of the effect on the overall fund of the company.

3. Sample Selection and Research Methodology

A variety of statistical tools has been adopted to examine the above-mentioned objectives. The tools have been applied on various information and data collected from secondary sources which are summarized and tabulated in order to achieve the stated objectives. The case analysis has been conducted taking into consideration a ten year period commencing from 1st April 2004 to 31st March 2014. The study encompasses around 8 leading Fast Moving Consumer Goods (FMCG) companies in India. FMCG are products that have a quick shelf turnover at relatively low cost that do not entail a significant amount of thought, time and financial investment to purchase. Thus, such companies are always associated with high sales and high inventory turnover. Maintenance of a particular level of inventory at any point of time would have an impact on the liquidity of such companies. Accordingly, this study concentrates on the working capital and liquidity aspect of such FMCG companies. In order to select the sample, net profit figures of all the FMCG Companies in India for the period ending 31st March 2005 have been collected and arranged in the order from highest to lowest. The eight FMCG companies in India which have the highest net profit for that period have been selected as sample for the current study. The reason behind considering 31st March 2005 as the guiding factor for sample selection is that as the study covers a period of 10 years (from 1st April 2004 to 31st March 2014) with the base year as 2004-2005 so the companies which had the highest profit in that year have been selected. The sample includes companies (in order of their net profits figure) viz. Indian Tobacco Company (ITC), Hindustan Unilever Limited (HUL), Dabur India, Colgate Palmolive (India), Procter & Gamble India (P & G), Godrej Consumer, Marico and Emami. This would enable a proper analysis to be made on the working capital management of the sample companies within the above-stated time period.

For the purpose of establishing *objective (i)* detailed data on working capital of the sample companies has been collected from the Centre for Monitoring Indian Economy (CMIE) Prowess database. Such data is being compared over the different years across the sample companies to ascertain the level of working capital maintained by such companies. Accordingly, their average, standard deviation and co-efficient of variation (%) is computed to identify the trend of working capital movement. For deducing *objective (ii)* the trend of working capital, as indicated by the findings of objective (i), has been analyzed so as to identify the way by which such sample companies manage their working capital. As such companies are characterized by high turnover ratio accordingly, they need to manage their working capital efficiently so that they do not end up in carrying high levels of stock or in not meeting the customers' desires. In order to present *objective (iii)* the fund generating capacity of the sample companies have been determined to ascertain the impact of different levels of working capital on the generation of fund and accordingly, the growth of the sample companies.

4. Findings

The objectives and the research methodology ultimately lead us to the summarized information that is indispensable in order to deduce the ultimate conclusion.

For *objective (i)* the net working capital data are tabulated in *table-1* along with the calculation of standard deviation and co-efficient of variation (C. V.).

Table 1: Position of Net Working Capital of the Sample Companies (Amount in Rs. Crore)

	ITC	HUL	Dabur India	Colgate Palmolive (India)	P & G	Godrej Consumer	Marico	Emami
Mar-05	129.38	-183.3	-81.82	-57.8	136.65	-45.41	141.08	78.27
Mar-06	1,102.50	-1,269.69	-38.44	-42.03	136.65	-48.87	155.96	77.12
Mar-07	1,695.22	-1,237.14	18.52	-40.56	163.7	-35.95	165.8	93.14
Mar-08	2,041.90	-1,621.20	-33.76	-104.68	210.68	-21.55	333.21	129.94
Mar-09	2,588.91	71.99	276.5	4.05	283.23	329.62	402.11	46.94
Mar-10	-706.17	-1,116.63	29.94	56.56	337.81	151.59	499.54	244.89
Mar-11	819.34	-1,059.01	242.9	78.05	402.6	202.53	687.27	410.88
Mar-12	875.65	-1,288.20	359.5	64.48	469.75	308.96	718.48	241.95
Mar-13	2,596.83	-2,165.18	473.3	59.86	549.21	304.94	850.58	238.67
Mar-14	3,181.26	-2,558.91	157.8	-134.68	665.22	-394.83	518.51	266.62
Average	**1432.48**	**-1242.73**	**140.4**	**-11.68**	**335.55**	**75.10**	**447.25**	**182.84**
Std. Deviation	**1213.74**	**790.91**	**190.6**	**75.67**	**183.74**	**227.74**	**252.66**	**115.91**
C. V. (%)	**84.73**	**-63.64**	**135.71**	**-648.14**	**54.76**	**303.24**	**56.49**	**63.39**

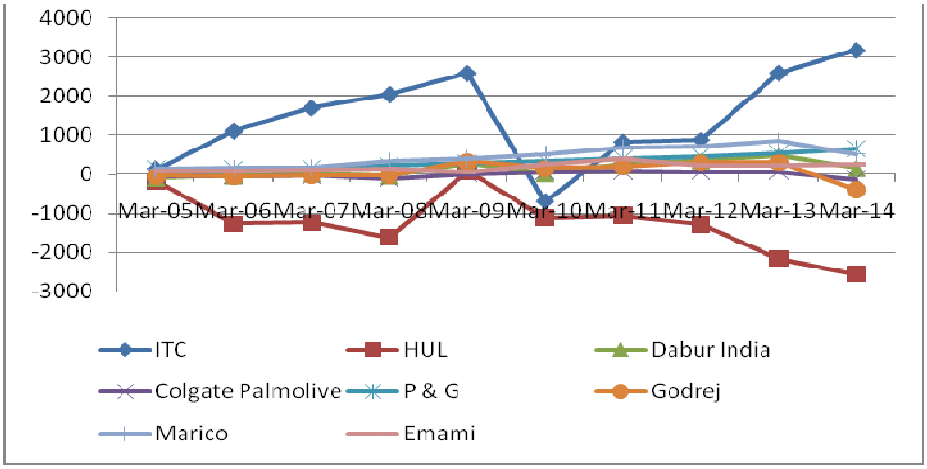
As can be seen from the above table, HUL is the company which operated over the entire sample period with heavy amount of negative working capital and accordingly the mean of the series is also negative. It is followed by Colgate-Palmolive (India) which also had negative working capital in the first 4 years of the sample period and again at the last year i.e. as on 31st March 2014. The average of the data series shows a negative figure. On the other hand, companies like P & G, Marico and Emami have maintained a positive working capital during the years taken for consideration. Dabur India and Godrej have a positive mean of their net working capital data however there are certain years in which these companies had showcased negative figures of working capital. ITC had a positive working capital throughout excepting as on 31st March, 2010.

With an analysis of the standard deviation and coefficient of variation statistics of the different sample companies over the time-series it is apparent that there are substantial fluctuations in the working capital figure as indicted by these statistics. Standard deviation measures the amount of variation from the mean or average. While, coefficient of variation measures the amount of variability in relation to the mean from one data series to another, even if the means are drastically different from each other. The higher the coefficient of variation, the greater is the level of dispersion around the mean. While standard deviation quantifies variability, coefficient of variation is known as relative variability. A comparison of the mean of the data series across the sample companies reveals that ITC had the highest average

net working capital in comparison to other companies. When the standard deviation statistics is taken for consideration it can be seen that the deviation is least in case of Colgate-Palmolive (India) while it is the highest in case of ITC. However, when the calculated C.V. is observed from the above table it is evident that Godrej Consumer had the highest dispersion around the mean while it had the lowest positive mean of net working capital. Colgate-Palmolive and HUL have a negative C.V. in respect to its data series. ITC which had the highest standard deviation had showcased a considerably less C.V. When the results of companies like Marico, Emami and P & G are examined it can be observed that all the three have comparatively less C.V., the standard deviation is also within a range and the mean working capital is also significantly positive.

From the above discussion, it can be inferred that HUL and Colgate-Palmolive (India) operate strictly under cash basis where final products are sold upfront on cash but the suppliers extend liberal terms in respect of their payments. Accordingly, the current liabilities tend to be higher than the current assets. As majority of the sales are in cash the amount involved in sundry debtors is negligible. Moreover, the inventory turnover being higher, in other words, sales being extensive, the value of stock is also much lower. Such a scenario indicates that the cash that is generated out of the process of sale is utilized for other long-term purposes. Accordingly, the result is working capital being negative. In respect to Godrej Consumer and Dabur India, there is no stability in the working capital over the different years as indicated by their high C. V. percentage. P & G, Marico and Emami have shown a comparatively stable position in this respect. ITC has a high standard deviation which shows that it does not have a consistent policy of maintaining its working capital.
The working capital figures when plotted on a line chart shows the following result—

Figure-1 Line Chart showing Working Capital Position of Sample Companies



As can be seen from the above diagram, that HUL and ITC have shown the maximum fluctuation in comparison to the other companies. This is as per the results indicated by standard deviation which shows that these two companies have

the highest deviation. This, however only measure the quantitative aspect of the variation in working capital. When the C.V. percentage is taken into consideration these two companies do not show the maximum deviation. Thus, the working capital position is analyzed taking both standard deviation and C.V. (%) into consideration.

From the results of objective (i) the trend of working capital as maintained by the sample companies have been examined and interpreted for the purpose of *objective (ii)*. When the tendency of the working capital movement of ITC and HUL, being the two top FMCG companies in India, is examined it may be noted that in both the cases there are substantial fluctuations in the working capital figures. In case of ITC the working capital figure rose to Rs. 1102.50 crore in March 2006 from Rs. 129.38 crore in March 2005 as the short-term fixed deposits and inventory level were increased in March 2006. While in March 2010 the figure became negative as the provision kept aside for tax and dividend had increased by more than double than that in March 2009. In the last two sample years working capital position improved as cash and bank balance were retained for short-term purposes instead of being utilized for long-term usage. Thus, it can be inferred that the company operated mainly on cash basis as indicated by the balance of sundry debtors. But the cash generated from the sale of goods have been also used for purposes other than short-term obligations as reflected by the balance of cash in the different years. However, the company obtained goods from its suppliers on liberal credit terms. Thus, oscillations can be observed in the course of working capital due to increased current liability and maintenance of low cash and debtors balance.

In case of HUL, the company has insistently operated with negative working capital with heavy amounts outstanding to creditors. It being an FMCG company enjoys quick turnover of stock and conversion of stock into cash. Furthermore, the vendors are paid taking a little longer than the average time. The basic intention of this company is that it will reduce the holding cost of inventory and accounts receivable and at the same time carry over the creditors over a longer period. As such it can maintain negative working capital but still can manage to meet the short-term obligations thereby, increasing both return and risk.

Dabur India has maintained a more or less significant level of positive working capital over the different sample years excepting in the years ending March 2005, 2006 and 2008 due to increased provisions kept for tax and dividend and rise in the level of creditors. Colgate Palmolive (India) showed heavy fluctuations in its working capital trend as indicated by its coefficient of variation. The reason for it being gradual decline in the amount of sundry debtors during the initial sample years coupled with steady increase in creditors and provisions. Though the company managed to maintain positive working capital in the later part of the sample years but for the year ending March 2014 the figure of working capital was again negative owing to decrease in cash and bank balance and fixed deposits amount reducing to nil. Thus, it indicated the utilization of short-term cash for long-term purposes.

In respect to companies like P & G, Marico and Emami, the working capital amounts over the different sample years have been positive, with a comparatively better coefficient of variation indicating less fluctuation and a significantly less standard deviation as compared to other sample companies. In case of all the three companies, one point is common i.e. the cash recovered from the customers are being retained for short-term usage either in the form of cash and bank balance or fixed deposits or short-term loans and advances. The working capital of Godrej Consumer has also varied over the years as indicated by the high C. V. (%) with negative figures in some of the years. The main reason for the oscillation is deployment of cash for long-term purposes as a result of which the total value of current assets had decreased in respect to the total figure for current liability and provisions.

From objective (i) and objective (ii) it is evident that the various FMCG companies constituting the sample have reflected variations over the different years in respect to its working capital and except the companies like P & G, Emami and Marico the other sample companies had negative working capital figure. Theoretically, negative working capital implies that the company is inefficient in maintaining its short-term financial health which if continued over a long-term can lead to bankruptcy. However, when the sample FMCG companies' data are being analyzed it was perceivable that the companies operated on a strictly cash basis, enjoyed liberal credit terms from the creditors, had high stock turnover, very low debtors level and in many cases the cash realized from the customers and debtors were used for other than short-term purposes. Thus, in order to study whether a negative working capital is in itself deteriorating for the company a different viewpoint and technique has been adopted.

Dr. Charles W. Mulford, Director, Georgia Tech Financial Analysis Lab and Matthew Madsen, Research Assistant in their research journal '*The Free Cash Profile: Insight into the Cash Flow Implications of Growth- An analysis using 2013 data*', identified the term *free cash profile* as the measure of the ability of the company to generate free cash flow as revenues grow. According to them, a company with negative operating working capital can effectively borrow from its vendors or customers as they grow, since it is being financed with customer funds. Having negative operating working capital is rather a prerequisite to having an exceptional free cash profile, the reason being the company delays payments to its creditors and obtains cash quickly from its customers. The Free Cash Profile is reported as a percentage of revenue. A firm with a positive Profile will produce increasing amounts of cash flow as it grows. A firm with a negative Profile will generate less cash and may require other sources of cash to support growth. It comprises of a few components viz. core cash profile, operating cushion percentage and operating working capital percentage. *Core Cash Profile* measures the capacity of a firm to generate core operating cash flow as it grows. Operating cash flow is cash flow provided by operations, but excludes non-core sources of cash flow, financing costs and taxes. It is computed as the difference between operating cushion to revenue percentage and operating working capital to revenue percentage. *Operating cushion* is the percentage of operating profit to revenue from core operations. Operating working capital to revenue percentage is

the percentage calculated of operating working capital to revenue from core operations.

Operating working capital is determined by taking the difference between inventory and accounts receivables on the one hand and accounts payable on the other. From the core cash profile, tax measured as a percentage of revenue and capital expenditure measured as percentage of revenue is deducted to obtain the value of free cash profile. It incorporates taxes and capital expenditure into consideration, as these two expenditures are typically expected to grow with revenue. The value of free cash profile that is obtained will be available for meeting the cost of financing—both interest and dividend. In simple terms, the calculation goes as follows—

Core Cash Profile= Operating Cushion percentage – Operating Working Capital Percentage

Free Cash Profile= Core Cash Profile – (tax as percentage of revenue + capital expenditure as percentage of revenue)

Accordingly, the free cash profile has been computed (as shown in *table*-2) for all the sample companies over the different years to ascertain whether negative working capital, in turn, leads to enhancement of cash flow as the revenue of the company grows.

Table 2: Free Cash Profile (as % of revenue) of the Sample Companies

	ITC	HUL	Dabur India	Colgate Palmolive (India)	P & G	Godrej Consumer	Marico	Emami
Mar-05	2.86	18.11	69.76	14.89	14.03	25.27	0.79	-34.01
Mar-06	10.71	20.84	73.92	26.63	19.78	22.11	-12.72	-10.63
Mar-07	4.10	20.17	95.32	31.61	-8.99	15.98	-3.89	3.18
Mar-08	0.30	22.03	51.15	30.80	32.52	20.26	-0.37	6.78
Mar-09	4.08	17.18	14.12	33.04	5.83	22.33	0.34	-52.23
Mar-10	-0.58	19.76	49.39	36.06	33.07	10.93	-7.71	12.42
Mar-11	16.39	19.16	-115.6	28.70	13.05	-24.56	-15.53	8.67
Mar-12	9.81	19.74	-47.89	25.25	21.68	-10.20	-6.44	10.18
Mar-13	8.10	22.25	23.32	28.27	13.41	17.44	-26.72	9.08
Mar-14	9.49	22.00	24.28	22.60	10.64	20.57	8.89	12.12
Average	6.53	20.12	23.78	27.79	15.50	12.01	-6.34	-3.44
Median	6.10	19.97	36.84	28.49	13.72	18.85	-5.17	7.73

5. Summary and Conclusion

An analysis of the Free Cash Profile of the sample companies shows a different result in comparison to the working capital position. From *table-1* it is apparent that companies like HUL, Dabur India and Colgate Palmolive (India) had showed fluctuating working capital figures and in many cases the net working capital figure was negative which was associated with high standard deviation and a greater level of dispersion around the mean as shown by the coefficient of variation percentage. This indicated that the companies, preferred to operate with negative working

capital which reduced their cost of holding inventory and accounts receivable and at the same time could retain the creditors for a longer duration. When Free Cash Profile is computed, which denotes the level of cash generated during the operation of the company those companies with negative operating working capital scored well in this respect. All the three companies HUL, Dabur India and Colgate Palmolive (India) had high free cash profile with significant mean. Colgate Palmolive (India) has the highest average of free cash profile with 27.79% of revenue. In case of Dabur India, the operating working capital for the year ending March 2011 and March 2012 was significantly positive and accordingly the free cash profile is negative. On the other hand, companies like Marico and Emami which had consistently positive working capital over the different sample years reported negative and a widely varying cash profile over the years with a negative mean. ITC, though had a high average of working capital in comparison to other sample companies, but the free cash profile in the different years is quite low as the company had positive operating working capital.

This comparison between working capital and free cash profile underlines the fact that there are certain companies which generate cash as they grow rather than requiring cash for growth. They work with negative working capital by way of which they enhance the availability of funds in the business. The inventories are converted into cash while supplies are obtained on credit which needs to be paid after a significant time. This leverage helps in funding the growth with the help of customer's funds. This has been typically possible for an FMCG company where the stocks are generally sold for cash and there is a high turnover of stock, owing to the type of goods that are being dealt with. Thus, the company is able to create funds that are required for its growth rather than depend on other sources for funding its growth. A company with positive free cash profile generates cash flow as it grows. While a company with negative free cash profile requires cash to support its growth. Thus, a company can increase its return by reducing its current assets and utilize the funds for increasing revenue that become free for reduction in the carrying cost of inventory and accounts receivable. However, in order to take advantage of this positive free cash profile the companies need to have a proper planning by way of which they can efficiently and effectively utilize the time gap between receipts of cash by sale of goods on the one hand and payment to the creditors on the other.

In this respect it may be mentioned that liquidity plays a vital role in the survival of a business. The study clearly indicates that companies like HUL, Dabur India and Colgate Palmolive (India) had resorted to highly aggressive financing mechanism. This mechanism invariably has a positive impact on the profit position of the company but, in turn, increases the associated risk factor. Though by internally generating funds in the form of positive free cash profile a company can significantly improve growth but at the same time the liquidity is affected. Utilizing such highly aggressive fund management can prove to be detrimental in the long run. Thus, the companies with negative working capital should put some stress on the maintenance of liquidity and also safeguarding the interest of creditors. Keeping negative working capital and taking the advantage of leverage between payments to the

creditors and receipts from the debtors is a profitable financing option but should not be the only means of financing the growth of a company. There should always be a balance in respect to liquidity and profitability. Importance of maintaining sufficient liquidity cannot be overemphasized. At the same time one fact cannot be ignored that typically large companies tend to have a consistent negative working capital since they have the brand image and can demand longer credit periods from their fragmented suppliers. They are also able to make sales in cash or collect payments within a few days. Such companies find themselves in a beneficial position with negative working capital as it results in positive free cash profile and increased growth.

Specifically, FMCG companies have negative working capital because their strong brand loyalty which helps them to maintain a low inventory as well as generate speedy sales. Since these large companies have a high bargaining power, they are also able to extract favourable terms from their suppliers. The products are sold to the customers and the cash is generated even before the company pays its suppliers. The additional cash generated are utilized for other purposes. Thus, keeping in mind both the factors of reduction in liquidity and availability of positive free cash profile the company should adopt that policy by which it can comfortably balance risk with return without hampering the interests of any of the stakeholders. In other words, if a company can effectively manage the risk-return aspect even with negative working capital then it can utilize such financing mechanism by way of which it can create fund for its growth by keeping its inventory and debtors at a lower level. Thus, though liquidity is essential for the survival of a business it can be compromised by keeping the risk factor into consideration and thereby creating positive free cash profile and enhancing growth.

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Sericulture Industry - A Women Dominated Industry: Case Study in Purulia District

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Abstract

Purulia district has years old heritage of sericulture industry. Likewise other countries and other parts of our country sericulture industry are also women dominated in the district. In present write up the role of women in sericulture industry in Purulia district has been highlighted in terms of physical and economic contribution in different stages of activities of the industries.

Keywords: *Sericulture, women dominance, net income***.**

The reduction of rural poverty continues to be a mission and goal of the developing countries like India as the majority of the poor population still resides in the countryside. The World Bank, for example, estimates that more than 70 % of the world's poor live in rural areas[1].

The main reasons for backwardness are lack of application of technology, higher rate of illiteracy, small land holding size, insufficient capital, low rate of investments, poor incentives, the inadequate farm infrastructure, limited market, stagnant prices of agricultural products, over dependence on climate and lack of information network etc. It is therefore necessary to focus on a broader spectrum of the rural economy. The establishment of rural based industries like sericulture, in particular, can be very effective in creating new job opportunities and providing supplemental income. Being a rural agro-based labour intensive industry sericulture industry can play vibrant role in improving a rural economy and society.

Sericulture, among other counter parts of weaving industry has its origin in our ancient history. Rearing of silkworms in order to get silk and silk items is gone through several phases. These are cultivation of food plants for silk worms, rearing of silk worms, and production of cocoons (Pre-Cocoon stage), reeling of silk yarns, weaving of silk cloths and finally marketing of silk products(Post Cocoon stage). The activities involved in above mentioned phases are known as sericulture industry. In simple words the activities involved in order to get silk items is known as sericulture industry.

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Generation of employment is a burning issue to the national planners. Since our early days of independence sericulture industry has become a moderate source of employment generation.

Numerous studies have brought out the vital role that women have been playing in all farm-related activities—ranging from land preparation to marketing. They constitute a higher proportion of the labour force in the agricultural sector than men. However, they are generally not active in decision making in the community

Sericulture, as a crop enterprise, has emerged as one of the dominant fields in the theoretical and methodological understanding in the disciplines of sociology and social anthropology in India. Thus, sociological analysis of sericulture and its emergence in the development literature gives us an idea of the activity which would trigger further theoretical and critical studies. Here an attempt has been made to understand the sociological view of sericulture and women's role in the development of the enterprise and also the community.

It has been seen that the sericulture activity brings regular income to the community without any bias of caste, creed, gender, or religion. A remarkable feature of this activity is its egalitarianism—sericulture farmers, rich and poor, earn the same income from it. As women have a crucial role in the activities of sericulture, it equally creates opportunities and make them independent socially, economically, politically, and otherwise.

Sericulture is an agro-based cottage industry involving interdependent rural, semi-urban and urban-based activities in which estimated participation of women is about 60 %. Thus, in contrast to any other agro-based profession the role of women in sericulture industry is dominating which will be helpful for improving the status of women in family enterprises. Thus another burning issue of the day, empowerment of women can be moved forward to a reasonable extent with the development of sericulture industry.

Reeling silk and spinning were always considered household duties for women, while weaving and embroidery were carried out in workshops as well as the home. In every silk-producing province the daughters, mothers and grandmothers of every family devoted a large part of the day for six months in a year to the feeding, tending and supervision of silkworms and to the unraveling, spinning, weaving, dyeing and embroidering of silk.

As per nature of activities basically four types of engagements are found in sericulture industry viz. farmer cum rearer, reeler, weaver and traders. Engagement of women as farmer cum rearer, reeler and even weaver is years old practice all over the globe. There is also ample scope for women to be directly involved in the industry as traders as sales girl if not otherwise. On the other hand, differently able persons are engaged in the industry as rearer, reeler and weaver form ancient days.

We may refer 1st sloka of 23rd chapter named as Textile Officer of Arthya sastrya written by Channkya the minister of Chandra Gupta Mourya at about 300 B.C. In the said sloka the great minister directs the textile officer that widow, physically challenged women, temple lady,saint,convict,prostitutes, old aged maid servant of king and unfit as well as sent away temple ladies are to be engaged in reeling from wool, fine silk, cotton, rough mulberry silk etc.

The district, Purulia has proven track record of rich expertise in this industry. The district, Purulia is basically a tasar silk district. A negligible engagement is found in mulberry culture only in Government plants. Out of twenty blocks of the district 16 blocks have engagement in sericulture either in pre-cocoon stage or in post cocoon stage. In 2014-15 respective total plantation area, production of commercial cocoons and production of raw tasar silk were 5516.18 acres (2nd in the state following Bankura), 8254.36 kahan (3rd in the state following Bankura and Midnapore), and 8.833 M.T. (3rd in the state following Bankura and Birbhum).[2]

Against this unique feature of the industry in the following table we would like to show employment in different stages of the industry and employment of women and differently able persons as obtained from our field survey among the units in two blocks of Purulia District, viz, Raghunathpur-I and Manbazar-I. Respective joint engagement of Raghunathpur-I and Manbazar -I in pre-cocoon and post-cocoon stage are 62% and 96%. It signifies that these two areas may be considered as representative of the district.

Table No. 1: Table Showing Engagement of Human Resources in Different Stages in 2014-15[3] (Unit: Man Days/Acre)

Years / Stages	Functions	RAGHUNATHPUR-I			MANBAZAR-I		
		Total	Women	Differently - abled men	Total	Women	Differently -abled persons
Pre-cocoon	Land preparation	27	13	0	27	12	0
	Planting saplings	9	5	0	9	4	0
	Application of fertilizers	9	0	0	9	4	0
	Irrigation	23	0	0	0	0	0
	Upkeep	16	8	4	12	7	3
	Collection of cocoon	43	22	0	34	18	0
	Sorting of cocoon	27	10	4	22	11	5
Post-cocoon	Boiling of cocoon	283	150	20	237	142	18

	Reeling of silk yarn	567	425	65	473	355	55
	Dyeing of silk yarn	57	12	0	47	10	0
	Spinning	38	20	7	32	17	5
	Weaving	47	5	7	39	4	5
	Printing and stitching	15	7	4	13	6	3
	Marketing	25	0	0	21	4	.0
Total		1186	677	111	975	594	94
% age			57%	9.35%		60.92%	9.64%

Source: Field Survey by the Author

The above table shows that women dominate the activities like preparation of land, planting of saplings, upkeep, collection of cocoon, sorting of cocoon, boiling of cocoon, reeling of silk yarn and spinning of the same. It is not the inability of women which restricts their dominance over other activities, but the male dominance over the social structure and conservativeness of the society of Purulia.

The above mentioned table also shows that total man days generated per acre is considerably moderate. Engagement of women and differently able persons are notably high. Highlighting this unique feature of the industry it is appealed to the policy makers to make necessary arrangements for increasing involvement of women and differently able person in the industry. This can be used as an effective tool for providing economic independence to this section of the society.

Women engaged in sericulture make a considerable contribution in family income. The under mentioned table portrays the same:

Table No. 2: Table Showing Net Income of the Families Engaged In Sericulture in Sample Areas from Rearing, Reeling, Weaving And Trading In Last Five Years[3] (Unit: Rs)

Year	Rearing	Reeling	Weaving	Trading
2010-11	521169	677613	2331364	2847080
2011-12	552555	755346	2569421	3271948
2012-13	755955	833687	2878146	3728753
2013-14	863298	918646	3156497	4211959
2014-15	1273947	1030662	3574643	4721007

Source: Field Survey by the Author

The above table shows a steady increase in the net income of the families engaged in sericulture in Raghunathpu-I and Manbazar-I. In spite of several hurdles the tasar culture of Purulia District is approaching its' golden era owing to following facts;

- Adoption of new technologies.

- Continuous support from both state and central government.
- Free supply of dfls at a larger volume.
- Reduction in the death ratio of dfls.
- Government intervention in the post cocoon stages in form of strengthening co-operative societies, establishing tasar cluster, running cocoon huts and direct purchase of cocoon, reeled yarns, weaved cloths and finished silk products.
- Export promotion.
- Stoppage of intervention of Chinese silk.
- Encouraging Afghans (popularly known as Kabuliwala) to come to the land of tasar as earlier.

In conclusion it may be said that women can generally be trusted to perform their duties with utmost care and attention. This is more so in the case of agriculture and allied activities. No wonder women are playing a very important role in the sericulture industry as we have observed in the sample areas chosen. Their qualities like maternal instincts and loving care of those under their charge prove to be very helpful in the successful breeding of silk worms, reeling of tender threads, weaving and also trading.

The sericulture industry has opened up phenomenal employment avenues and helped women to become important players in the decision-making process, whether in the household or in the community at large. The active involvement of women is very essential for the success of the any community development initiative. This has been proved on many occasions all over the world—more so in the developing countries. Sericulture is an important means for generating employment, income enhancement crop enterprises, and is a most appropriate household activity. In all these activities, women have shown their mettle and performed their tasks most skillfully. In the sample area under study, women are playing an important role in silk rearing and processing activities.

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