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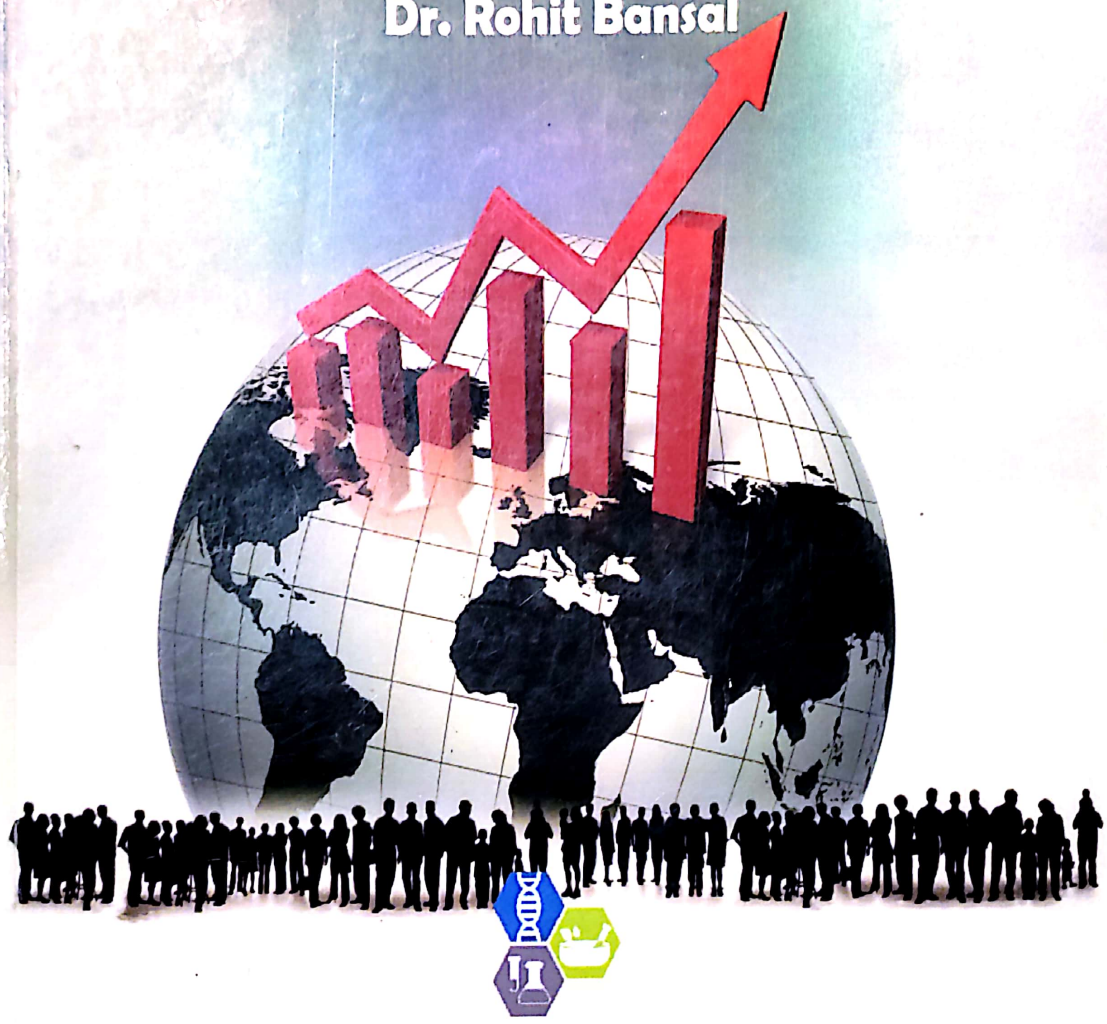
Volume - 5

Chief editor
Dr. Rohit Bansal



AKINIK PUBLICATIONS

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Chapter - 6

Human Capital and Labour Productivity: Evidence from Unregistered Manufacturing Unit in Goa

Rajesh V. Shetgaokar

Abstract

The paper examines the role of human capital in determining the labour productivity in unregistered units in Goa. The study is based on primary data collected from 200 units from five different industrial estates. In our analysis we have employed the model developed by Corvers (1996, 1997) based on Cobb-Douglas production function. The cross regression model was developed to find the relationship between the labour productivity and human capital. The productivity analysis indicates a positive, strong relationship between human capital and labour productivity. It is found that investment in education, skill and training is very important and has a significant positive long run effect on labour productivity. The most important policy recommendation emerge from this paper is that a well balance allocation of investment sources over different components of human capital is important in order to provide workers with the skills needed to make them productive.

Keywords: human capital, labour productivity, unregistered sector, skill, training, wage

Introduction

In a labour-abundant country like India, productivity issue has received a significant deliberation from the economic and political communities, due to its importance in raising the standard of living. There is enormous substantiation in theory and empirical literature about the nexus between productivity and economic growth. Eminent studies have shown that economic growth accomplished through a sustained increase in labour productivity can raise per capita income (Bandophadhya, 2008). Higher productivity is considered as conceivable route to support competitiveness and place the country on a strong growth path. Labour productivity-wage rate link stimulates workers to be productive by influencing their willingness

and ability to work. Further, advancement in labour productivity is recognized as indispensable to seize the lead, emanating from opening of the economy (Badrinarayan, 2008).

The surge in labour productivity is indispensable for enhancing the standard of living (ibid). No doubt, the gravity of labour productivity has been perceived by policymakers and researchers in India but failed to provide satisfactory justice to this indispensable topic. Labour productivity measurement serves as a useful tool for showing saving generated overtime in the utilization of inputs per unit of output. Importantly, labour productivity is a better measure of scrutinizing the trends over the period due to given biases in obtaining the capital stock. It can be applied in investigating the causes of stagnation and the slowdown of economic growth especially in developing countries (Ahluwalia, 1991). Further, higher labour productivity reveals a better utilization of capital. It is highly correlated with the standard of living and welfare of society. It is further argued that per capita income and profitability in the economy are determined by labour productivity. Also, labour input forms a comparatively large share of labour cost, and statistics is often available for labour in terms of the total number of labour engaged, hours of works, etc. (Almas Heshmati, 2009).

India is labour surplus country yet productivity of labour is significantly low as compared to many of its competitors. Between 1950 and 1980, labour productivity average growth was a meager 1.7%. The two decades of the reforms saw that average productivity double to 3.8%. This was the period when India's manufacturing and services sectors took off, leaching labour from the lower productivity agricultural sector. Labour productivity growth peaked at 10.2% in 2010 and has been on the decline since, making India part of the global productivity slowdown enigma. The labour productivity fell to 7.4 per cent for the period of 2011-15 and furthers to low level of 3.7 percent in 2016 -2018. Furthers, the performance of India in comparison to other countries is also not satisfactory. For instance the China recorded the average growth in labour productivity of 9 per cent for the period 2002 - 2016. Similarly the Magnolia recorded the average growth rate of 6.5 per cent in same period. However, the India average growth in labour productivity was around 3.2 per cent. This does not bode well for achieving the growth targets that are needed to raise living standards. The concerned of policy makers, planners and government is to how the labour productivity can be raised to higher level. If India have to achieve the growth rate of 8 per cent, than the labour productivity growth must be around 6.3 percent (India Ratings and Research). The major challenge on the productivity front for

India is two-fold. "First, how to raise the overall labour productivity to a level that delivers the required GDP growth rate, and secondly how to lift the labour productivity in the lagging sectors so that growth is more evenly balanced and sustainable over the medium- to long-term (Ibid)."Among several factors, the investment in human capital is prime importance to increase the labour productivity. There is well developed empirical support to shows that human capital can contribute substantial to achieve higher economic growth and productivity. The main objective of this study is to investigate, the factors influencing the labour productivity in unorganised manufacturing sector with an emphasis on education, skill development programme and training provided by the enterprises to the employees. Thus this paper will be a potentially useful addition to the existing literature and policy debate for highlighting the issue of labour productivity in India.

The arrangement of the remaining paper is as follows. Section II provides the review of existing study. Section III brings details of data, variables and methodology adopted in the study. Section VI gives the main results of relation of labour productivity and independent variables. Section V discusses the major interpretation and policy implication while the last section VI deals with the conclusion.

Review of literature

A considerable study have focus on exploring the relation between human capital and labour productivity after the seminal work of Schultz (1961) and Becker (1981). The study by Cover (1996) of manufacturing sector in seven member states of European Union found that intermediate and highly skilled labour force had a significant positive correlation on labour productivity. Tan and Batra (1995) using industrial data of developing countries have shown that education level and training provided by the firm have positive and significant effect on labour productivity. In other study Aggrey *et al.* (2010) also shows positive and significance effect of education and training on labour productivity on African countries. The result of Tan and Batra (1995) and Aggrey *et al.* (2010) was supported by Nielsen and Rosholm (2002). In their study using panel data it was found that there exists a positive relationship between education training and labour productivity. Sandra and Lynch (1996) reveal significance positive relationship between labour productivity and number of year of schooling of the workers. Rahmah (2002) found skill of the workers have positive impact on labour productivity. The study reveals the workers that had higher education and better skills are able to contribute significantly to productivity growth. Manson and Finecold (1997) supported the positive relationship of education

and performance of firm. They found that in the manufacturing sector of United State and Britain, the education and training were more important than physical capital in determinant of labour productivity. Hall (1982) reveals that investment in human capital have positive impact on labour productivity and suggested that firms should focus on investment in human capital particular in the training as both the form and labour over the positive return over period of time. The finding of Hall (1982) was supported by Barrett and O'Connell (2001) where they found the effect training on labour productivity was positive and statically significant.

In Indian context, there is dearth of studies explaining the relationship between labour productivity and human capital. This is mainly because, the gravity of labour productivity has been perceived by policymakers and researchers in India but failed to provide satisfactory justice to this indispensable topic. Sharma and Mishra (2009), Kathuria *et al.* (2010), point out that labour productivity issues are ordinarily underestimated in India. However several researchers have made an attempt to study the positive relationship between the wages and labour productivity. Narayan and Smyth (2009) using the co investigated the long run relationship between labour integration technique investigated the relationship between productivity and real wages for Indian manufacturing sector inflation, real wages and growth of labour productivity in at two-digit level of disaggregation by using ASI data for the seven counties in 19960-2004. And they found a period 1973-74 to 1999-2000 and found long run positive statistically significant relationship between real relationships between labour productivity and wage as well wages and productivity growth. Das *et al.* (2017) investigated explored the relationship between labour productivity wage rate across the industry groups at two - digit NIC for the period 1998-2013. The study found a causal relation between employments, wage rate, labour productivity. M.M Dadi (1970) made an attempt to estimate the relationship between the labour productivity and wage rate based on cross section ASI data for the year 1962 in organized manufacturing sector. He used SMAC production sunction (Solow, Minhas, Arrow, Chenery) which assume constant elasticity of substitution. The function was applied for 17 two digit industries to test the hypothesis that value added and wage rate are correlated. The regression result shows that 10 industries have a significant co-relationship and therefore study rejected the hypothesis that the value added and wage trade are not related. Mita Bhattacharya *et al.* (2009) focus on establishing long run relationship between real wages and labour productivity in organized manufacturing sector of India. The finding shows that employment growth and increase in money wages in the early 1990s

have improved labour productivity in organized manufacturing sector. The finding also shoe that after liberalization, competition have increase have increased from Asia countries which have favorable impact on employment opportunity and wage rate in domestic and export oriented industries.

Data

The study is based on primary data. The population of study includes unregistered small scale unit in different district of Goa. A sample of 200 units were taken from industrial estate Dattawadi, Karaswada Industrial estate, Pilerne from North Goa and Sancoale Industrial estate and Verna industrial estate from south Goa. Since, data was not available on unregistered unit in Goa, the non-`probability sampling technique of 'snowball' method were used. The pilot survey was conducted. Based on pilot survey, structured questionnaire was developed. Addition to this, interview method and observation method was used in data collection. The data was collected from those industrial units which have completed 10 year of establishment. Data were collected on various characteristic of the firm which includes wages, cost, education, output, profit, age of units etc. Collected data was process and arranged in tabular form. After processing data, the econometrics model was built by using ordinary least square method. We have estimated the model as cross section regression. The Eveiews 5 software was used. The models were checked for autocorrelation, multicollinearity and heteroscedasticity.

Empirical framework

In literature, two approaches are commonly used to estimate the relationship between human capital and labour productivity. A first, conventional approach developed Becker (1964) and Mincer (1974) has adopted earning as proxy for productivity. The second approach developed by Cover (1997) used a production analysis for estimating the relationship between labour productivity and human capital. Aggrey *et al.* (2010) considered production function analysis as superior approach for estimating the relationship between human capital labour productivity. When labour productivity is estimated through the production function, we can part always with assumption of equality of wages and value of marginal product. Secondly, production function allows a great flexibility in including the non-wage workers or family members or apprenticeship who contributes to the production but does not earn wage. Lastly, production function approach incorporate the technological change in production process, which is difficult in conventional semi-logarithmic function.

In our analysis we have employed the model developed by Corvers (1996, 1997) which is based on Cobb-Douglas production function. The Covers Human capital model can be specified as follows:

$$Y = AK^{\propto} L^{*\beta} \text{ Equation 1}$$

Equation one shows that output is dependent on capital and effective labor. The effective labour means the labour with different education level. Generally three types of education are classified: primary education, secondary education and higher education. The modified form of equation 1 can be written as

$$Y = \frac{AK^{\propto} L^{\beta} L^{\beta 1} L2^{\beta 2} L3^{\beta 3}}{L} \text{ Equation 2}$$

When we divide the equation 2 by the numbers of workers (L) and substituting the effective labour we derive the labour productivity equation which can be estimated using ordinary least square method. The equation of labour productivity can be written as

$$\frac{Y}{L} = A\left\{\binom{K}{L} L^{\propto+\beta} [L - L_2 - L_3] \left[L_2^{\beta 2} L_3^{\beta 3}\right] | \right\} \text{ Equation 3}$$

Empirical model and Results

In this study, several variables have been identified for estimating the model. These variables are assumed to be linearly related to depended variables. We propose the following model for estimations.

$$lnLP_i = \alpha_0 + \beta_i EL_i + \beta_2 TR_i + \beta_3 LnK/l_i + \beta_4 R_i + \beta_5 LnW_i + \mu_i$$

The variable was selected with assumptions that these variables exert positive influence on labour productivity. LnLP is the logarithm of labour productivity. Labour productivity has been derived by measure partial method of estimation of productivity. It is obtained by total output of the firm with total number of educated workers. EL represents the educated labour in the firms. Education labour will contributes positively in production process and therefore priori expectation is that it will have positive effect on productivity. The education expenditures are measured by fees of technical education that workers have paid during their tenure of study.

Wages have positive relationship with labour productivity. There is plethora of literature showing the positive relationship between higher wage rate and labour productivity. When higher wages are paid for workers, labour force will be motivated to keep their job and will try to increase the labour productivity. Employee will be more attached to firms and put his

greater efforts in production. Wages are measured in terms of current monthly salaries drawn by workers. Further, the expenditure on training is expected to have direct relationship with labour productivity. Trained labours are expected to lead rapid and successful adoption of innovation and technology in production. They are also likely to bring positive dividend for firms with maximum output with minimum inputs and time. The form of ownership, private or cooperative is also assumed to be significantly affecting the labour productivity. The organized private sector generally have better workers condition with higher level of modernization and capital intensity which likely will provides incentives for workers contribute positively for output. Ownership has been included as dummy variable in our model where unit is private sector is assigned value equal to one and if cooperative is assigned equal to zero.

Table 1: Determinant of labour Productivity in small scale unit (registered and unregistered)

Dependent variable= Log of labour productivity

Variables	Coefficient
Constant	1.098 (7.723)**
Proportions of Educated labour to total workers (EL)	0.439(6.723)**
Training Expenditure (TR)	0.359 (7.623)**
Capital intensity (K/L)	−0.159 (7.733)**
Wages (W)	0.359 (2.453)***
Research and Development (R)	0.329 (2.453)**
R^2	0.82
F- Statistics	114.01
Number of Observation	200

Source: Computed using primary survey data

**significant at 5% level ***significant at 10% level

The F-statics confirms that model is correctly specified. In model all variables are found statistically significant. The coefficients of independent variable are found significant at 5 per cent level. The value of R indicates the association between the dependent variables and independent variables. The value of R is found 0.82, which can be interpreted that 82 per cent of variation in labour productivity is explained by explanatory variables. Coefficient of education expenditure is positive and significantly related to labour productivity. It shows that when ratio of number of educated person to total workers increased, the labour productivity also increased. The result shows every increase of 1 per cent of educated workers to total workers

increases, the labour productivity get accelerated 43 per cent. This result is consistent with the findings of (World Bank, 1993: Jorgenson *et al.* 1987) which shows that accumulation of human capital and per capita growth are positively related. The results reveal that expenditure on training and skill development is highly significant. Every 1 per cent increased in training and skill development expenditure will lead to rise in labour productivity by 35 per cent. This is consistent with arguments that training enhances diffusion of new technology and acquainted labour with new technique of production. However, the capital intensity is found to be negativity associated with labour productivity. It does not exert statistically significant effect on labour productivity. The negative coefficient of capital intensity shows that there is lack of mechanization and diffusion of technology in unregistered manufacturing sector.

Similarly wage exerts powerful influence on labour productivity. Increase in wages by 1 per cent, can increase the labour productivity by 35 per cent. The results acclaim the validity of wage-efficiency hypotheses in unregistered unit. The coefficient of dummy variable for research and development status is positive and indicates that higher expenditure on research and development promotes technology and labour productivity.

Policy implication

The most important policy implication about this study emerges that well balance investment in different components of human capital is necessary to increase the productivity. In our analysis more than 70 per cent variation in labour productivity is influence by human capital. These suggest that public expenditure on education and health is an important policy instruments for realizing higher labour productivity. To incase the contribution of human capital further and sustain the labour productivity, there should be corroborative measure from government and private firms. The result of negative relationship of capital intensity with labour productivity is a serious issue. The capital intensity represents the proxy to modernization of firms. It also shows availability of capital per labour. In economic literature it is argued that the higher capital intensity will bolster the labour productivity by increasing the availability of capital per labour. However, the result shows that there is lack of investment in capital goods in unregistered sector. This may be mainly due to unability of firms to access the credit, government schemes and lack of infrastructure.

Suggestions

- Consistent with the human capital theory, average education variable has shown to be positively associated with labour productivity. Therefore, human capital should be given top priority by allocating more resources to education, training, health and skill development programs along with physical capital.
- Educations polices should be devised to the requirement of the economy. There is urgent requirement to bring the reforms in education sector. The more emphasize should be given on technical, vocational and experimental learning in education.
- Since the capital intensity which is taken as a proxy to level of mechanization have shown insignificant result on labour productivity, it is suggested that efforts should be made to attract large investment in unregistered unit.
- Perhaps the present level machinery used by unregistered unit is outdated and warranted technological progress and advance modern machinery for increasing the value of output per labour. Again, these require a large amount of investment.
- There is a necessity to restructure labour reforms and earmark funds for the development of skill intensity and training.
- Spurring private and foreign investment in the these sector, assimilated with key infrastructure facilities will go long way in augmenting labour productivity

Conclusion

In this study, an attempt has been made to examine the role of human capital on labour productivity in unregistered unit of manufacturing in Goa. The questionnaire was designed to collect the primary data on relevant model for estimating the cross section regression model. The productivity analysis indicates a positive, strong relationship between human capital and labour productivity. It is found that investment in education, skill and training is very important and has a significant positive long run effect on labour productivity.

The study has survey few numbers of unregistered units and therefore the relative sample is small. Despite data limitations, the study made a significant contribution in illustrating the usefulness of this precisely not much exploited source of data. This study only focus on impact of human capital in unregistered units and therefore additional studies are required at

the specific sub-sectors of the economy. In the light of empirical result, there is also urgent need to restructure the labour reforms to improve the performance of labour. The most important policy recommendation to emerge from this paper is that a well balance allocation of investment sources over different components of human capital is important in order to provide workers with the skills needed to make them productive. Further, recognizing the contribution of education to economic development and keeping in line with the human capital, government and private sector should spend heavily in education, training and skill development. Attracting a qualified, trained and skill labour into unregistered along with on-the-job training would be useful strategies to boost the labour productivity of the sector.

Present work can be extended in certain directions. Unorganized sector of economy being the largest employer of labour force where 436 million (92.8%) workers were engaged in the informal sector, as per NSS 2011-12 in our economy. A comparative study of labour productivity in the organized and unorganized sector of our economy will help in bringing a balanced perspective of this issue. Another area is to identify the determinants of labour productivity, principally utilizing the plant-level data for attaining a comprehensive understanding of labour productivity at ground level. Finally, the researchers can also examine the significance of skill development programs and investment schemes on labour productivity at the aggregate level or the sub-sector level.

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Chapter - 8

Self-Employment and Women Empowerment: A Case Study of Schedule Cast Women's in Goa

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Chapter - 8

Self-Employment and Women Empowerment: A Case Study of Schedule Cast Women's in Goa

Rajesh V. Shetgaokar

Abstract

The paper examines the role of self-employment in empowering schedule cast women in Goa. The study is based on primary data collected from 200 self-employed women employed in different entrepreneurial activities. The data was collected using a simple random sampling method. To obtain accurate quantitative information, a questionnaire was prepared for a sum of 200 respondents. The questionnaire was translated into the local language and was explained to the respondents for easy understanding and better feedback. In addition to this, the interview method and observation method was used in data collection. In our analysis, we found that self-employment has served as a powerful tool for women empowerment. The study found the empowerment of women in the economic, social, and political sphere. The result reveals that self-employment has to lead to an increase in income, saving, and assets of women which in turn have raised the standard of living and help in alleviating poverty. Thus, we should focus on providing the opportunity for women where all-round efforts should be made to empower women by providing resources, training, market information, and support for enhancing the self-confidence of women.

Keywords: women empowerment, self-employment, income, saving, skill, training, wage

Introduction

There is an increasing realization that if the nation wants to build a successful economy, there is a need for women participation in economic activities. According to the UNDP report, 67 percent of work in the world is done by women. However, only 10 percent of global income is earned by women and a mere one percent of the global property is owned by them. Women work in full potentials, ability, dedication, and involvement but do not get the same reorganizations as men in society. This is even after,

women possessing an equal quality of entrepreneurial skills like men in society. Even after 7 decades of independence of our country, the wide discrimination between men and women exits in society leading to gender disparity. As per the UNDP report, India ranks 132 out of 187 countries on the gender inequality index (GII). The disparity exists in all spheres where women were supposed to play a dominating role such as political, social, and economic front. At present, women make up only 14.6% of the members in the lower house of India's Parliament. This is the strongest progression rate of that number (+3 percentage points) since 1984. In terms of education, women's education is not equally attained. Literacy for females stands at 65.46%, compared to 82.14% for males (Census, 2011). Further, there are disparities in wage differentials, with Indian women on average earning 64% of what their male counterparts earn for the same occupation and level of qualification. Studies relating to women empowerment are being engaged mostly in unpaid work which is highly invisible and marginalized (Sharma, 2003). The women which comprise around 50 percent of the population, ideally work 70 percent more than men (Marks, 2007), but are found to be discriminating in wage rate, literacy, hold on resources and decision making.

The widening disparities on several parameters have resulted in a discussion on women empowerment. Empowerment is a process of creating awareness and capacity building in the sphere of greater participation, decision making, and the transformation of power. The empowerment provides a greater role to the women in decision making. The parameters such as education, income, freedom of expression, participation in social and economic activities, and involvement in decision making are treated as a proxy for women empowerment. Women empowerment serves as a tool to improve the health, nutrition, economic and social status of women in society. Further, empowerment enables women to exert larger control of resources.

Receiving cognizance of this, we offer to fill this void by understanding from field works the status of women empowerment among the Schedule cast women in Goa. Our study is precisely limited to backward strata of society as we recognize that, that there is a wide disparity of women group in Goa. Policy measures based on the macro level will fail to transmit a rewarding outcome due to a significant contradiction in policies of each state, the sectors, and deviation in the performance of each industry. The in-depth study of this issue will be of enormous value to validate the implication. Thus this paper will be a potentially useful addition to the existing literature and policy debate for highlighting the issue of women empowerment in Goa.

The arrangement of the remaining paper is as follows. The review of the literature is presented in section II. Section III highlights the methodology utilized in the study. Section IV brings details of data and variables adopted in the study. The status of schedule cast women in Goa is detailed in section V. Section VI provides the result of the study. Section VI discusses the major interpretation and policy implication while the last section VII deal with the conclusion.

Review of literature

Khandekar (1998) finds a positive relationship between 56 women's education and labour force participation in Bangladesh. His study finds that the husband's education is likely to reduce his wife's labour force participation rate because of the positive wealth effects of potential earnings.

Muhammad (2009) attempted to understand the nature and extent of the corporate success of Grameen Banks and Microcredit enterprises and its claim about poverty reduction and women empowerment. He reviews the success of the Grameen Bank Model how it has crowned as a panacea for poverty eradication and empowerment of women.

Sriram (2010) in his article titled "Microfinance: a Fairy tale turns into a nightmare" mentioned that it was inevitable that the commercial model of microfinance in India, with its minimalist and standardized model of lending, would grow into a bubble and run into trouble. Many microfinance commercial organizations have entered the market in search of profits and are competing to lend to the poor.

Golla *et al.* (2011) observed that women's economic empowerment requires her to have both the ability to succeed and advance economically, and the power to make and act on economic decisions. Having power and agency to benefit from economic activities requires that women can make and act on decisions, as well as to control resources and profits.

Objectives of the study

1. To understand the concept of economic empowerment of women and the different frameworks involved in measuring it
2. To analyze the importance of the unorganized retail sector in bringing women empowerment
3. To find out the constraints and problems faced by the women entrepreneur for their empowerment
4. To offer suggestions for enhancing the women empowerment based on the findings of the study

Sample design and methodology

The data has been collected from the North Goa district and South Goa district. The self-employed women were selected for the study. The research is carried out using simple random sampling. To obtain accurate quantitative information, a questionnaire was prepared for a sum of 200 respondents. The questionnaire was translated into the local language and was explained to the respondents for easy understanding and better feedback. In addition to this, the interview method and observation method was used in data collection. The data collected from the beneficiaries are scored, tabulated and analyzed by using statistical tools such as percentage and ratio-proportion.

Status of schedule caste women in Goa

Over the last seven decades, an effort has been made by the Government of the country to bring all-round development of various section of society. Despite government efforts at the grass-root level for the upliftment of various communities some section remains deprived of mainstream development. Schedule Caste is one such community which has been deprived of social rights and economic opportunities during the pre and post-independence period. This community is lagging in the process of development even after implementing different schemes and social welfare programs to raise their standard of living. The schedule caste constitutes significant demographic strength in India. According to the 2011 census, schedule caste constitutes 16.2% of the total population in the nation. The overall sex ratio of the SC population in Goa is 975 females per 1000 males which are higher than the national average of 936 for the total SC population. The overall literacy rate of the SCs is 71.9 percent at the 2001 census, showing an improvement from 58.7 percent recorded at the 1991 census (Census, 2001). This is higher than the national average of 54.7 percent aggregated for all SCs. Male literacy has increased from 69.6 percent to 81.6 percent while female literacy has gone up from 47.5 percent to 62.1 percent in 1991- 2001(ibid). Further, The Work Participation Rate (WPR) of the SC population is 41.1 percent at the 2001 census, showing an increase from 38.1 percent recorded at the 1991 census. This is marginally higher that of the national average (40.4 percent). Both the male as well as female WPR has increased from 49.6 percent to 53.1 percent and from 26.1 percent to 28.9 percent respectively during 1991-2001(ibid).

The general observation shows that the SC community is mostly confined to the rural areas and are resource-poor, exhibit low literacy rate and lack of access to formal credits. They virtually live as agricultural

laborers, tenants and marginal farmers. In addition to the majority of agricultural laborers, we also find among them a good number of leather workers, weavers, fishermen, toddy-tappers, basket/rope makers, watermen, scavengers, artisans, fruit vegetable sellers, shoemakers, liquor manufacturers, drummers, carpenters, ironsmiths and some others following petty occupations (Chanabasappa, 2000).

The fruits of development do not always reach to marginalized and downtrodden section of the society. There has been observed concerning SC women who were the entrepreneur at one time but are presently forced to change their occupation and adopt another low-paid income job for their survival. The study shows that the SC women at one time were engaged in making various handmade artifacts from bamboo which was widely used for domestic, agricultural, and religious purposes. They were earning sufficient income by selling these goods to meet the requirement of the family.

The impact of economic growth and development has not been a trickle down to these women who are now struggling with various problems such as poverty, debt, low saving, exploitation and social exclusion in society. The objective of mainstreaming the marginalizing section of the society cannot be achieved without empowering the women of lower strata of society. This research paper provides an insight into the ground realities of the SC women community and possible measures that can be implemented to improve the conditions of this population in Goa.

Empirical result

Classification of women micro-enterprises: Women were selected who have started the economic activity independently. The classification in below table clearly shows that women are promoting diversified types of economic activities in rural areas.

Table 1: Classification of Women Microenterprise

Sr. No	Nature of retailing	Number of respondents	Percentage
1.	Kirana Shops	86	43
2.	Chemist	23	11.50
3.	Footwear shop	10	9.5
4.	Clothing	26	13
5.	Home Appliance	22	5.5
6.	Vegetable and Fruit Vendors	23	11.50
7.	Stationary	12	6
	Total	200	100

Source: Primary data

Change in income per month of the family: Change in income is an important parameter to understand the impact on women empowerment. An increase in income is necessary for empowering women.

Table 2: Change in Income per Month

Sr. No	Income (in Rs)	Number of Respondents	Percentage
1.	2000-10000	93	46.50
2.	10000-20000	74	37
3.	20000-25000	23	11.50
4.	More than 25000	10	5
	Total	200	100

Source: Primary data

The result in Table number 2 provides a very encouraging fact about the change in the level of income of women entrepreneur. The income-earning capacity has changed significantly after the establishment of the retail business. 46.50 percent of women entrepreneurs have registered an increase in income between Rs. 2000 to Rs. 10000 and 37 percent have registered the change in income between Rs. 10000 to Rs. 20000.

Amount of annual saving and value of household assets: The amount saved by women entrepreneur is significant as it is important to meet the uncertainty, providing financial security, improving standards of living, etc.

Table 3: Amount of Annual Saving

Sr. No	Amount of Saving (in Rs.)	Number of Respondents	Percentage
1.	Nil	8	4
2.	10000-20000	105	52.50
3.	20000-30000	62	31
4.	30000-40000	19	9.5
5.	40000-50000	4	2
6.	More than 50000	2	1
	Total	200	100

Source: Primary data

It is clear from Table Number: 3 that the majority of women (52.50 percent) save between Rs 10000 to Rs. 20000 per month. There is also 31 percent of women who do the saving between Rs 20000 to Rs. 30000 per month from their earning.

Table 4: Value of Household Assets

Sr. No	Value of house hold assets	No. of respondent	Percent
1	<10,000	16	8
2	10,000-20000	26	13
3	20000-30000	35	17.50
4	30000-40000	39	19.50
5	40000-50000	74	37
6	>50000	10	5
	Total	200	100

Source: Primary data

The value of the household asset has increased substantially. The analysis reveals the fact that 8 percent of women have assets of < Rs.10000, 26 percent of women have the assets of Rs. 10000-Rs. 20000, 17.50 of women have the assets of Rs. 20000-Rs.30000. The analysis makes it very clear that there is a substantial increase in the household assets of women as 37 percent possessed household assets more than Rs. 40000.

Social empowerment

Economic empowerment provides a greater role for women in family and society. Women's empowerment can be judged from collective factors such as her power in decision making, weightage for her decision and opinion, participation in social activities, etc. The table below shows the analyses of certain important indicators of social empowerment.

Table 5: Indicators of social empowerment

Variables	Significantly Changed	Marginally Changed	Not Change At all	Can't Say	Total
Self Confidence & Self Esteemed	142 (71)	28 (14)	22 (11)	08 (4)	200 (100)
Participation in Decision Making	50 (25)	120 (60)	24 (12)	06 (03)	200 (100)
Participation in Social Activities	35 (17.5)	129 (64.5)	25 (12.5)	11 (5.5)	(200) 100

Source: Primary data *Figures in the bracket shows the percentage

The greater role in decision making allows women to exercise their power in the family and society. However, the study shows that 12 percent believed that their position in decision making has not changed and 60 percent believe that even if it is changed it has change marginally. The women cannot be empowered in a real sense if they lack self-confidence and self-esteemed. The self-confidence helps the women to overcome the hurdles

in economic and social life. The increased economic prosperity must ensure a boost in their self-confidence. The result can be encouraging as 71percent of women believe that their self-confidence and self-esteemed have increased significantly due to participation in economic activity. The study shows that participation in social activities has change marginal as they have to wait for their family decision in participating in social activities.

Major constraints of women empowerment

The women encounter several problems in their way of empowerment. It was felt necessary to investigate the main causes which come in way of empowerment.

Table 6: Constraints of Women Empowerment

Sr. No	Constraints	No of Respondent	Percent
1.	Lack of Self Confidence	16	8
2.	Family Encouragement	32	16
3.	Attitude of the Society	18	9
4.	Lack of skill	45	22.50
5.	Lack of Financial Resources	95	47.50
6.	Lack of Exposure	12	6
	Total	200	100

Source: Primary data

The above table reveals the fact that 47.50 percent of women believe that a lack of financial resources is a major problem. The 22.50 percent considered lack of skill, 16 percent considered lack of family encouragement, 6 percent believed that lack of exposure and no risk-bearing capacity while 8 believed that lack of confidence as a major hurdle in their empowerment.

Suggestions

- Measures should be taken to spread awareness and provide information for women empowerment. The information center can be set up in a village school, health center, panchayat, Anganwadi, etc.
- The banking procedure must be simplified to have easy access to credit. The banks should take more effort and initiative to develop the skill, training, and support to start the enterprises by the women
- The technical training should be extended to the women's. The training can be imparted through NGO, associations and social organizations

- The grievance of the women should be carefully handled and action must take against those who make complications in the government department
- There should be identification and innovation of high income-generating activities suitable for women's

Conclusion

The study clearly shows that the retail business has an important role in the economic empowerment of women. The retailing has to lead to an increase in income, saving, and assets of poor women which in turn have raised the standard of living and help in alleviating poverty. The effort should be made to empower women socially and politically. Women are a potent force to reckon with the nation-building process. The success of the nation will be recognized if we can empower the women in all respects and bring them in main streams of development. We can look forward to women entrepreneurs to achieve this goal. The future of the nation will be decided as to how far we can achieve the empowerment of women since no nation can march forward if the women are left behind.

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