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Modernization, Coir Worker & the Labour; A Case of Work Alienation

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Abstract: The coir industry in Kerala has changed its nature and structure of work after 1990's when the industry enhanced efficiency through modernization. In the traditional mode of production, the worker himself was engaged in each aspect of coir production; from coir fiber extraction to the manufacturing of varied value added products using coir yarn. But modernization brings division of labour (Capitalist Mode of Production) in its fullest extent and specialization alienated the worker from the labour. Because of modernization and resultant changes, the workers lost 'the ability to determine life and destiny when deprived of the right to think (conceive) of themselves as the director of their own actions; to define relationships with other people and to own those items of value from goods and services, produced by their own labour'. Here, the workers are alienated from their labour. Mechanization and modern division of labour totally reduced the role of coir worker to a mere facilitator for machines.

Keywords: Coir Worker, Modernization, Mechanization, Mechanical Solidarity, Organic Solidarity, Division of Labour

INTRODUCTION

Coconut fibre popularly known in the name of one of its products viz. coir has got immense potential with its biodegradable and eco-friendly nature (NCRMI, 2005). In the early days, people generally discarded the husk as a waste material, which from the early initiatives in Kerala, became the raw materials for the present day coir industry. Coir Industry in Kerala has a very long history. Even the 11th century Arab writers have mentioned about coir and referred to the use of this material for ships, cables, fenders and rigging. It was in the second half of the 19th century that James Darragh and Henry Smail, two Europeans who had been in Bengal and familiar with the woven products of jute, having heard about the coir yarn came to Alappuzha with two Bengali technicians - Mukherjee and Chatterjee (Kerala Calling, 2005). In 1859, they set up the 'Darrah Smail & Co' in Alappuzha to produce the innovative products out of coir fiber. The success of this company brought many other Europeans into Alappuzha and coir factories like Pierce Lesley & Co, Willom Goodacre &Sons, Madura Co, Coir Yaran Textiles, Bombay Co, Volkart Brothers, Aspinwall &Co came into existence.

Though the neo-liberal policies implemented in 1991 had resulted in positive advancements in most of the sectors of Indian economy, small and cottage industry were affected badly with the introduction of New Economic Policy from 1991 (Sreeja. A, 2019). In order to cope up with international market, the traditional industries in India were forced to adopt mechanization. With a view to make coir industry more productive and competitive, the government started modernization measures since 1990's even though there were strong protests from the side of trade unions.

REVIEW OF LITERATURE

K. R. Gouri Amma (2005) in 'Modernization of Coir Industry' stated that in the financial year 2003-04, the industry earned more than Rs.450 crore as foreign exchange and created more employment in the rural areas. The industry had its root in the rural area and since mostly women workers were involved at different stages of production, this industry had an added relevance in the national income. She concluded that for strengthening the industry, small and large manufacturers in the industry and exporters should work together and render their whole hearted support to the government.

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Prof. Sreeja. A (2019) in her article 'Impact of Mechanisation of Coir Units on Income Generation and Employment of Labour in Alappuzha' states that the neo-liberal policies implemented in 1991 had resulted in positive advancements in most of the sectors of Indian economy, small and cottage industry were affected badly with the introduction of New Economic Policy from 1991. She added that to cope up with global firms, the traditional units in India were forced to adopt mechanization. This paper attempts to look into the actual process of mechanization in coir units and maps out its consequences in its multiple dimensions. The article concludes that mechanization implemented in the coir units helped the owners in achieving a better revenue return and also shown a positive impact on job structure of coir units.

Vanita Chawadha in 'The Relevance of Marx's Alienation in Contemporary Labour Society- A Case Study of Labor Community in Amarkantak' points that 'Work Alienation' is very old concept given by Marx based on economical and psychological state of the people. It explains the division of labor and shows a relationship between poverty and a labor in terms of discussing vicious circle of poverty. The article explains concepts of 'anomie' and 'alienation' with special reference to E. Durkheim and Marx.

Farzin Farahbod, Mohammad Reza Azadehdel and Azam Noyan Ashraf in their article 'Work Alienation Historical Backgrounds, Concepts, Reasons and Effects' discusses that inter-organizational relations are in such a way that destroy moral and human aspects of work and result in work alienation. In this study, they checked the historical backgrounds, concepts, reasons and effects of work alienation. They concluded that the most common feathers of alienation are five variables, i.e. powerlessness, meaninglessness, social estrangement and self-hatred and the lack of productivity is the main indicator of work alienation.

Dr. E. Sambasivan and Dr. S.Vennilaashree in the article 'A Study on Quality and Production Recital of Coir Industry' point that coir industry has greater potential to enhance exports by value addition through technological interventions and diversified products like Coir Geotextiles etc. The acceptability of Coir products has increased rapidly due to its 'environment friendly' image. Dr.K Sabarinath in his work 'Modernisation of Coir Industry in Kerala: a Multidimensional Impact Analysis' evaluated the different aspects of modernization and mechanization of the coir industry. It viewed modernization as a positive factor of development and discuss the disadvantages of coir workers due to mechanization.

METHODOLOGY

The present study is based descriptive and analytical method. The study used both primary as well as secondary data. For collecting required primary data from the veteran and present coir workers and owners of coir units, questionnaire and interview techniques are used. The study focused on the nature and structure of labour in the coir industry. It evaluated the changes in the nature and structure of labour from traditional to modern coir industry in light of the concept Work Alienation.

Coir Industry- Current Status

After 1947, there was large coir factories concentrated in Alappuzha region, were closed one by one by when the foreign company proprietors and left the coir field. Some of these factories were purchased by local business men but they could not revive the industry. The thrown out workers of these factories, mobilized capital and purchased the looms of the closed units and established production units with 5 – 7 looms in work sheds erected in their house premises. Thus coir industry emerges as the largest employment generating industry employing a staggering more than half a million people in the country (K.Manoharan and R. Ramesh chandran, 2004). Equally momentous is the fact that most of them are from the economically poor classes and as much as 80 % of the workers are women in the industry. Moreover, thousands of entrepreneurs are directly and indirectly involved in activities ranging from the manufacture of coir fibre to producing and marketing of value-added products of coir (Dr.P.Mohanasundaram).

By 2000, in Alappuzha district, there are 39 major coir factories with more than 200 power looms and electrically driven machines (Coir Board, 2015). Apart from these big factories, around 450 Registered Coir units and hundreds of Unregistered Coir units are functioning in Small Scale and Household pattern. But this was a very small number when compared to 1970's and a sharp tendency of decline in is visible. When the large companies demanded mechanization to reduce manpower and increase productivity and efficiency to manage their foreign orders, the government agreed

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that the process of modernization is a vital issue for developing the industry. This modernization and mechanization gradually intensified and it decreased the number of small scale and household coir units in Alappuzha. Now there is only few registered small scale coir units are functioning. Other small scale and household units were abandoned and the workers were migrated to other industries. The following table shows the comparative difference in the number of small scale and household coir units in Alappuzha from 1950 to 2019.

Table 1: Statistics of coir units from 1950 to 2019 (Alappuzha)

Year (10 Year Units)	No of Small Scale Units functioning	No of Household Units functioning	No Small Scale /Household Units Newly established	No Small Scale /Household Units Abandoned
1950-1959	120	600	200	0
1960-1969	520	900	600	0
1970-1979	860	1450	290	0
1980-1989	1200	2700	1090	210
1990-1999	1810	3180	780	940
2000-2009	1070	1830	480	1450
2010-2019	214	109	30	1577

Based on Field Survey, interview and document analysis

From the table, it is very clear that small scale and household units had a very fast rate of growth until 2000. The establishment of new small scale and household units is at its highest in 1990 and then diminishing year by year. Another inference is that since 1980, small scale and household units have been on a downward trend. Gradually the abandon rate increased than the number of small scale and household units in operation. It may be due to the influx of mechanization and economic problems faced by the units. From the table, it can also infer that the labour force in the industry in increased upto 1990 and then it shows decreasing tendency. It reveals the labour migration process from the industry.

The following table contains the workforce in coir industry from 1950 to 2019. The number of workers in coconut husk retting and defibering are approximate and sometimes both the works were carried by the same worker as there was no strict division of labour until modernization.

Table 2: Comparative table of workforce in coir industry (Alappuzha)

Year	No of workers in coconut husk retting	No of workers in defibering	No of workers is coir yarm	No of workers in Loom	Total
1950-1959	10,000	22,000	30,000	15,000	77,000
1960-1969	16,000	25,000	36,000	20,000	97,000
1970-1979	20,000	30,000	40,000	23,000	1,13,000
1980-1989	12,000	18,000	34,000	27,000	91,000
1990-1999	7,000	9,000	40,000	30,000	86,000
2000-2009	900	2,000	32,000	37,000	71,900
2010-2019	200	500	26,000	32, 000	58,700

**Based on the reports of Coirfed, Coir Corporation, Coir Board and District Industrial Centre*

The above table shows the decreasing tendency of workforce in the industry after modernization. The industry marks highest labour intensity during 1970-1979 decade. Till then the number of workers increased gradually but after that turns declined. The coconut husk retting and defibering sharply decreased after 1980 because of the pollution problems and resulted control measures taken by the government. But coir yarn spinning sector survived even though there was the introduction of 'ratt' and electronic 'ratt'. The women folk employed in the sector speedily adapted modernization and they started using electronic 'ratt' after training. The number of loom workers shows

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gradual increase but when compared to the population growth, it is not significant. In short, the total production and export value of coir products increased heavily but the workforce is dramatically reduced in the industry.

MODERNIZATION & THE COIR INDUSTRY

Through a series of measures taken by the government after 1991, the coir sector is just about to change. On the agenda is a spread of new machines to make the yarn and mats. There is also a need for modern production technologies in the coir sector for the entrepreneurs to run the units in a viable manner. Till 2000, husk retting (soaking coconut husk in water for over six months to soften it) was the ordinary method of fibre extraction. After the invention of defibering machines, it directly separates the fiber from the husk. At present, there are big units with a capacity of defibring 8,000 husks a day is in operation. After the defibering mechanization, spinning wheel, to which the fibre is fed to make the golden yarn, was automated. The efforts to maximize the productivity of the coir yarn resulted in the introduction of automatic yarn spinning machine units (Coir Board, Project Profile for Automatic Coir Spinning Unit). The automatic yarn spinning machine is capable of spinning of any variety of yarn according to the requirement of coir industry.

Soon after, the weaving-spinning loom also automated. The mechanization ranges from semi automatic to fully automatic weaving machines and from household units up to big factories. The array of machines has been able to increase the productivity and speed, and significantly reduce human labour and labour cost. The metallic handloom "ANUGRAHA" has been developed to make it suitable for the women workers for earning better wages (Central Coir Research Institute). It was followed by "ANUPAM" loom developed by CCRI during 2006. Other major machines used in coir industry are Buster/Disintegrator, Beater/Decorticator, Crusher, Turbo Cleaner, Revolving Screener, Bailing Press, Conveyor, Curling Machine, Hackling Machine, Slivering Machine, Automatic 2 Ply Yarn Spinning machine (Single &Double Head), Automatic 3 Ply Yarn Spinning machine (Single Head), Conveyor type 2 Ply Yarn Spinning Machine (Single/ Double Head), Conveyor type 3 ply yarn spinning machine (Single Head), Willowing Machine, Winding machine (Coir Board).

In short, productivity and production speed have increased because of mechanization but it made the coir industry a technical workplace now. The justification for mechanization is that it intended to compete with the neighboring states. Experts are of the view that the phase of modernization of different sectors of industry needs to be accelerated and pave way for cost effective and productive equipment and machinery to replace the age old tradition and outmoded production and processing equipment (Kavitha Menon, The Golden Fiber). As per the report of Coir Board (2016), 15 % units are engaged in fibre extraction / defibring activity while 9.4 % industries are engaged in coir yarn production through traditional methods while 25.1 % units are modernized / automatic coir yarn production units. 36.5% industries are engaged in Coir Mats (Frame Type), followed by Coir Pith Processing (3.4%), Coir geo-textiles (1.8%), Semi Automatic Power looms (6.2%) and Automatic Power looms (2.6%). It is also found that the units following traditional mode of production falls into debt or running short of profit. All existing coir industries adopted modernization is running on profit.

Today, 41.7% coir industries are fully mechanized, while 39.3% industries are partially mechanized, and 19% industries are not mechanized and following traditional methods. Only household units and small scale units are still running in traditional method. The reported reason for not opting for modernization is that the partial and non-mechanized industries lacks of finance and unavailability of working capital.

DIVISION OF LABOUR

According to Classical Sociologist Emile Durkheim, 'division of labour is not to be regarded as a mere luxury, desirable perhaps, but not indispensable to society'. 'Social life is derived from a double source: from a similarity of minds and from the division of labour. The division of labour gives birth to regulations and laws which determine the nature and relations of the divided functions'. In the traditional mode of production in coir industry, we can observe a sort of 'mechanical solidarity' among the coir workers because all people are generalists. Being a member of one group or same collectivity they resemble each other, feel the same emotion, and cherish the same values. There is solidarity of resemblance as each one knows the entire production process from husk retting up to the manufacturing of varied coir products. The bond among coir workers is that they are all engaged in similar activities and have similar responsibilities. This is happened perhaps of the structure and nature of 'division of labour' exists there. Except the

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factory production, coir and coir product manufacturing was carried in household fashion in which existed an absence of indispensible division of labour or instances of division only on the basis of capacity and interest.

But in the modern mechanized coir industry, division of labour becomes indispensable and the coir worker is 'alienated' form the process of production. There is strict division of labour and based on specialization each segment of production becomes a separate field of production. In the coir industry, we have coconut husk 'defibering' industry clustered in Palakkad (Kerala), Pollachi and Tanjavoor (Tamil Nadu). Consequently, coir spinning, coir loom work and other allied works were become separated each other today. In such a situation, the worker is estranged from the 'labour' and hence alienated; the 'labour' is handled by machines run by techno-man. The work in these each field is done by machines supervised by man and the coir workers have been lost the integrated knowledge of production except to operate the machines. The division of labour gives rise to regulations and rules which determine the nature and relations of the divided functions among the workers and machines.

Mechanical Solidarity Vs Organic Solidarity

As pointed by Durkheim, the mechanical solidarity prevailed in traditional coir industry to the extent that; "ideas and tendencies common to all members of the industry are greater in number and intensity than those which pertain personality to each member". Here solidarity which comes from likeness "is at its maximum when the collective conscience completely envelops our whole conscience and coincides in all points with it". This solidarity can grow only in inverse ratio to personality and individual differences are minimized. In mechanical solidarity we find the strong states of the collective conscience among the coir workers. Collective conscience refers to "the sum total of beliefs and sentiments common to the average of the member of the industry." In contrast to 'mechanical solidarity', the modern coir industry where the likeness and the resemblance among the worker is missing, the coherent unity of the collectivity is expressed by differentiation; the solidarity that exists is organic solidarity. The modern coir industry is characterized by an advanced form of division of labour. As Durkheim thought increasing density of population as the major factor, here increased mechanization is the key of development of division of labour. This 'organic solidarity' is characterized by specialization and individualism. The workers are no long similar; they differentiated in terms of technical knowledge, Techno skills, emotions and values. They may have lost collective conscience. In short, the course of industrial evolution is marked by a transition from small, household, simple, homogeneous traditional industry with integrated by likenesses and a powerful collective conscience, is changed to a modern, differentiated and mechanized industry integrated by the interdependence of individuals, machines and structures created by division of labour.

Work Alienation in Modern Coir Industry

As per 'Ansoff Matrix', modernization and 'research and development' are the keys in promoting product development, operational efficiency and cost reduction. The political economy of Kerala, the cradle of coir industry, has for some reason or another did not respond proactively to mechanization of coir industry in the initial years (Christy Fernandez, 2003). This defense has adversely affected modernization efforts including the work culture in the industry. Finally, the situation has changed and the industry has now started accepting mechanization and modern technologies and methods of production. Subsequently, the traditional mode of production was replaced with mechanical mode of production and the net work culture in the production process marginalized the coir worker in the industry. Now the workers lost 'the ability to determine life and destiny when deprived of the right to think (conceive) of themselves as the director of their own actions; to define relationships with other people and to own those items of value from goods and services, produced by their own labour'. Mechanization and modern division of labour totally reduced the role of coir worker to a mere facilitator for machines. Consequently, the workers are alienated from their labour in the industry. Let's check the issue of alienation from the aspect of worker's participation in the production process. The part of labour is managing through machines than man and the coir workers is now reduced the status from weaver to a mere 'an operator' of the machines.

Table 3: Details of Automation in Labour

Sl. No	Stages of production	Mode of production	Role of machines	Machines	Role of worker
1	De-husking	Mechanical	Semi Automated	KCI, Oats, SVRGM, Newtech etc	Operator
2	Husk retting	Mechanical	Full Automation	KCI-HR. ESSAR, URR	Facilitator/Operator

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3	Defibering	Mechanical	Full Automation	RJSE, MCDM, Linga TA,	Operator
4	Coir yarn spinning	Mechanical	Semi Automated	RJSAF, Phoenix, TPCRM	Facilitator/Operator
5	Coir fiber processing	Mechanical	Semi Automated	Fiber Baler, MINI, DyeM	Facilitator/Operator
6	Drum filling "Paav"	Mechanical	Semi Automated	Coir Roller, PAAV, DrumX	Facilitator/Operator
7	Loom works	Mechanical	Full Automation	ANUGRAHA, ANUPAM,UDAY, LoomX, LoomEM	Operator
8	Stenciling work	Mechanical	Full Automation	M-Graph, N-Graph	Operator
9	Rubber fabrication	Mechanical	Full Automation	Cutter, Sharper, Fisher	Facilitator/Operator
10	Packing	Mechanical	Semi Automated	General packing machines	Facilitator/Operator

Based on reports of CoirFed & Coir Board

There are different levels of labour power used in the coir industry ranging from skilled/semi-skilled traditional labour to Automated/semi-Automated machines (information on types of labor is based on field based observation and interviews). Viewed as a whole, the general perception in the industry is that skilled labor power is concentrated in traditional finished goods sector for exhibition whereas the mechanized sector for commercial production. From the above table, it is evident that in modern coir industry, the 'labour' is taken away from the worker. All the work, that is, mode of production is managed through machines.

Alienation in the workplace happens when a worker can't express individuality when they are producing labour. The worker is a piece of a whole, and they begin to lose their essence when they are subordinated with machines. They lose their independence and become just another cog in the wheel. Marx believes the history of human being has dual dimension. It means, on one hand history has observed the creative role of human in nature, and on the other hand history has shown that human is getting alienated from his work more and more (Coser, 1999). They are powerless and unconscious and act under the influence of any forces which motivate them, and actually they are affected by work alienation (AdibiSadeand, Moazzeni, 2003). Every coir worker has potentials that if they have been employed appropriately, they will enhance the one's motivation for working, but unfortunately in modern mechanized coir industry, coir workers would not be assigned in accordance with their potentials and competences. In most of the cases, the traditional skilled coir workers are employed as machine helpers after giving short term training. It would result in a situation in which the coir worker has no interest in his labor. Organizational relationships, particularly in the third world are in such a way that ignore or destroy human and moral aspects of labor, and result in work alienation (Sabridashti, 2001). Work Alienation is a key factor which may practice an atmosphere in which workers would lose their mental health. In workers who are affected by work alienation, more likely to observe their absence, delay and misconduct in their work, finally the lack of productivity is the main indicator of work alienation emergence (Rezapour and Mousavian, 2007).

CONCLUSION

From the findings of this study we can conclude that the case of work alienation is not restricted to modern coir industry alone, but it's something that has been along with all modern industries being since mechanization; of course, its type and amount change based on the nature and structure of the industries. During years of 1990s, when liberalization and modernization about starts, work alienation appeared in coir industry. After 2000, when the defense of trade unions against mechanization slowly dissolving, mechanization reaches all fields of coir industry and work alienation reached to its peak point. The concept of work alienation was first represented by Karl for the purpose of criticizing capitalistic societies. Among theories of alienation, it seems that Seeman (1959) has presents more up-to-date interpretation about work alienation which is consisting of: a sense of powerlessness, meaninglessness, Abnormalities, social estrangement and self estrangement.

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When the traditional coir industry adopted mechanization, the worst affected segment was the coir worker. They lost their venues of work other than mechanized factories, household and small scale units were abandoned because of the inability to afford costly machines. The first stage of alienation was the division of labour in the modern coir industry. There is strict division of labour in modern coir industry and based on specialization each segment of production becomes a separate field of production. The division of labour gives rise to regulations and rules which determine the nature and relations of the divided functions among the workers and machines. The workers are no long similar; they differentiated in terms of technical knowledge, techno skills, emotions and values. Now the workers lost 'the ability to determine life and destiny when deprived of the right to think (conceive) of themselves as the director of their own actions; to define relationships with other people and to own those items of value from goods and services, produced by their own labour'. Gradually mechanization and modern division of labour totally reduced the role of coir worker from a skilled labour to a mere facilitator for machines. It results in emergence of some emotions and trends which their signs are the absence of interest towards labor, hatred from environment, the sense of vanity, powerlessness and generally dissatisfaction from work. Consequently, conscious study about work alienation in the modern coir industry is essential. In general we can say that coir workers are not mere factors of production but conscious social entities with essence and individual identity.

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