

From Performance Appraisal to Performance Management

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ABSTRACT: Performance appraisal and performance management were one of the emerging issues since last decade. Many organizations have shifted from employee's performance appraisal system to employee's performance management system. This paper has focused to study the evolution of employee's performance appraisal system, critics the system suffered and how the performance management system came to the practice. The main purpose of this paper is to differentiate these two systems, employee's performance appraisal and management system. This paper uses a review of the literature to evaluate the development of appraisal system and argues the critic areas of appraisal system. The review identified as advancement in the management field and growing complexity in corporate sectors demand more capable HR, so mere appraisal of employee's performance is not sufficient. Employee's contribution should be aligned with organizational objectives and strategy. Performance management eliminates the shortcomings of performance appraisal system to the some extent.

Keywords: Human resource (HR), HR development, performance appraisal, performance management, performance evaluation.

I. INTRODUCTION

Organizations are run and steered by people. It is through people that goals are set and objectives are realized. The performance of an organization is thus dependent upon the sum total of performance of its members. The success of an organization will therefore depend on its ability to measure accurately the performance of its members and use it objectively to optimize them as a vital resource (Biswajeet 2009). In the present highly competitive environment, organizations have to ensure peak performance of their employees continuously in order to compete and survive at the market place effectively (Prasad 2005). Performance of an individual can be defined as the record of outcomes produced as specified job functions or activities during a specified time period (Bernardin 2007). The term performance refers to a set of outcome produced during a certain period of their job time and does not refer to the traits, personal characteristics, or competencies of the performer. The evaluation of employee's performance reveals the contribution of an individual in the organization's objectives. People do not learn unless they are given feedback on the results of their actions. For corrective actions to take place feedback must be provided regularly and it should register both successes and failures (Biswajeet 2009).

Appraisal is the evaluation of worth, quality or merit, so performance appraisal of employees means the evaluation of their performance performed during a certain period of time. In the organizational context, performance appraisal is a systematic evaluation of personnel by supervisors or others familiar with their performance (L.M. Prasad). Performance appraisal is also described as merit rating in which an individual is rated as better or worse in comparison to others. This is one of the oldest and most universal practices of management (Tripathi 2005). This is a process which reveals that how well employees perform their jobs when the performance compared with the predetermine set of standards (L Mathis & John H. Jackson). Merit rating is used basically for promotion of employees. However performance appraisal is more comprehensive term for such activities, because its use extends beyond ascertaining eligibility for promotion. Such activities may be training and development, salary increase, transfer, discharge, etc. besides promotion (Prasad, 2005). According to Beach (1980),

"Performance appraisal is a systematic evaluation of the individual with regard to his or her performance on the job and his potential for development."

Worldwide, performance appraisals are used in nearly all organizations. There are different tools and number of goals that performance appraisals focus to examine individual's performance and potential of development. So at its core, the performance appraisal process allows an organization to measure and evaluate individually the employee's behaviour and accomplishments over a specific period of time (De Vries et al. 1981). By using a formal system performance appraisals have many advantages if they are designed and implemented properly. Not only in reward allocation, promotion/demotions, layoffs/recalls, transfers and selecting training and development program for employees but it may also assist individual employee's decisions regarding career choices and the subsequent direction of individual time and effort. Additionally, performance appraisals may increase employee's commitment and satisfaction (Wiese and Buckley, 1998). At a glance the main objectives of performance appraisal point out the following:

1. Provide inputs to (a) system of rewards comprising salary increment, appreciations, additional responsibilities, promotions, etc., and (b) salary administration.
2. Generate adequate feedback and guidance from the reporting officers to the employee.
3. Enhancing employee's effectiveness: helps the employee to overcome his weaknesses and improve his performance by providing appropriate training and development program.
4. Help identifying employee for the purpose of motivating, training and developing them.
5. Generate significant, relevant, free and valid information about employees.

II. Early History

Somewhere or other, everyone had the experience of performance appraisal in some context. This can be traced back for thousands of years. As we go through the history of performance appraisal in an informal sense, performance appraisal is as old as mankind itself. Although not called performance appraisal, the Bible has many examples where the evaluation of individual performance is an important issue. "The Lord has filled him (Bezalel) with the spirit of God, in wisdom and understanding, in knowledge and all manner of workmanship to design artistic works, to work in gold and silver and bronze, in carving wood, and to work in all manner of artistic workmanship" (Exodus, 35, pp. 31-3). In this instance, Moses selected men who were known to be most skilled craftsmen from the tribes of Israel to build and furnish the tabernacle of the Lord in about 1350 BC (Wiese and Buckley 1998). Thus, proving that individual performance and appraisal of performance are important to bring out the effectiveness of the work performed as a goal. In a formal sense, performance appraisal of an individual began in the Wei dynasty (A. D. 261-265) in China, where an Imperial Rater appraisal the performance of members of the official family (Monappa and Mirza, 1997). Further, that in 1648 it was reported that the Dublin (Ireland) Evening Post evaluated legislators by using a rating scale based upon personal qualities (Hackett, 1928). In 1800s the New York City Civil Service in USA introduced a formal appraisal program shortly before First World War. However, formal appraisal of employee's performance is believed to have been started for the first time during the First World War, when at the instance of Walter Dill Scott, the US Army: adopted the "Man-to-man" rating system for evaluating military personnel (Oberg, 1972). This early employee's appraisal system was called 'merit rating'. From the army this concept entered the business field and was restricted to hourly-paid workers. During 1920s, relational wage structures for hourly-paid workers were adopted in industrial units and each worker was used to be rated in comparison to others for determining wage rates. In the 1940s behavioural methods were developed using a motivational approach. These included behavioural anchored rating scales (BARS), behavioural observation scales (BOS), behavioural evaluation scales (BES), critical incident, and job simulation. All these judgments were used to determine the specific levels of performance criteria to specific issues such as customer service and rated in factors such as "excellent", "average", "need to improve" or "poor". Post-1945 developed into the results-oriented approaches and led to the development of management by objectives (MBO) (Prowse & Prowse, 2009).

In the 1960s the development of self-appraisal by discussion led to specific time and opportunity for the appraisee to evaluate their performance reflectively in the discussion and the interview developed into a conversation on a range of topics that the appraisee needed to discuss in the interview. In the 1990s 360-degree appraisal developed, where information was sought from a wider range of sources and the feedback was no longer dependent on the manager-subordinate power relationship but included groups appraising the performance of line managers and peer feedback from peer groups on individual performance (Redman and Snape, 1992).

So Since 1940s, the philosophy of performance appraisal has undergone tremendous changes (Beach, 1975). The common terms used include merit rating, behavioural assessment, employee evaluation, personnel review, staff assessment, progress report and performance appraisal. However the most widely used term is performance appraisal (Prasad, 2005).

III. Criticism of Performance Appraisal

In the present era almost all the organization have some kind of employees appraisal system, though the systems are not free from critics. First dominant critique is the management framework using appraisal as an "orthodox" technique that seeks remedies the weakness and proposal of appraisals as a system to develop performance (Beach 2005). The orthodox approach argues about the purpose of performance appraisal system. In the system appraisal helps the employees to overcome his weakness and help identifying employees for the purpose of motivating, training and development (Rao and Pareek 2006). This conflicts with evaluation of past performance and distribution of rewards based on past performance. As to evaluate appraisers' performance the appraiser challenges to play opposite roles as both monitors and judges of performance and as an understanding counsellor (Randell 1994). Here, the managers are reluctant to make negative judgments on individual's performance as it could be de-motivating leading to appraise accusations of lack of managerial support and contribution to an individual's poor performance (McGregor, 1957).

To avoid this conflict appraiser can rate an employee with the technique “central tendency” in which managers rate all criterions in the middle rating point. But this rating system is influenced by the organizational politics. Politics involved deliberate attempts by individuals to enhance or self-interests when conflicting courses of action are possible, and ratings and decision were affected by potential sources of bias or inaccuracy in their appraisal ratings (Longenecker and Ludwig, 1990). Political judgment influenced further more by over-rating some clear competencies in performance rather than being critical across the range of measures, known as the “halo effect”, and some competencies are lower they may prejudice the judgement across the positive review, known as the “horns effect” (Advisory, Conciliation and Arbitration Service, 1996).

Some ratings may only include recent events, and these are known as “recency effects”. In this case only recent events are noted compared to managers gathering and using evidence throughout the appraisal period (Prowse and Prowse 2009). Another very common critic is the performance rating suffer from many biases like age, ethnicity, gender, physical appearance, attitudes and values, in-group/out-group, personal like/dislike and so on (Cook Mark, 1995).

In spite of many criticisms performance appraisal counted as a very important instrument to evaluate the performance of employees. Most organization have some type of employees appraisal or review system and most are ill equipped to appreciate the short comings of these systems (Potgieter Lyle 2002).

IV. Performance appraisal and Performance management

In the late 20th century, a great change in approaches to performance appraisal systems across the world was seen. There has been a great realization that it is more important to focus on defining, planning and managing performance than merely appraising performance (Pareek and Rao, 2006). Performance appraisal is the traditional approach to evaluating the performance of an employee. As many people think that performance management (some call it performance development) is a new name given to well-established term performance appraisal and there is no difference between the two (Prasad 2005) most of the organizations take performance management synonymously of performance appraisal. Yet performance management is clearly more than a new name for performance appraisal (Edmonstone, 1996). The increased competitive nature of the economy and rapid changes in the external environment has forced many organizations to shift from reactive performance appraisals to the proactive performance management to boost productivity and improve organizational performance (Nayab, May, 2011). Most organizations prefer to call their systems as performance management system rather than performance appraisal systems. This is most welcome change of the last fifteen years (Pareek and Rao, 2006).

Day to day corporate environment is becoming more competitive and comprehensive. For survival and competition the market environment organizations need well competent employees who can face present and uncertain future challenges. So organizations always try to seek the new ways to improve employee's performance. Traditionally, this objective was attempted to achieve through employees performance appraisal which was more concerned with telling employees where they lacked in their performance. Though performance appraisal served the purpose to some extent, but not considered enough to raise the employee performance at the most desirable level (Prasad 2005).

Snell and Bohlander defines (2007) performance appraisal as a process, typically performed/delivered by a supervisor to a subordinate, designed to help employees understand their roles, objectives, expectations and performance success. Further he explains performance management is the process of creating a work environment in which people can perform to the best of their abilities. It is a whole work system that begins when a job is defined. So performance appraisal is a way, by which senior officers keeps some periodic objective (for specific period) to his subordinates, clears the expected role and explain his performance success by his actual performance with pre-determined standard, and performance management is the way to creating the whole working environment so the people can perform their best.

Dessler (2008) defines performance appraisal means evaluating an employee's current and /or past performance relative to his/her performance standards. He explains performance appraisal always assumes that the employees understood what his/her performance standards were, and that the supervisor also provides the employees with the feedback, development, and incentives required to help the person eliminate performance deficiencies or to continue to perform above par. This aims at improving employee's performance.

Further he explains performance management as an integrated process, may defined as a process that consolidates goal setting, performance appraisal, and development into a single, common system, the aim of which is to ensure that the employee's performance is supporting the company's strategic aims. Prasad (2005) defines performance management is the process of planning performance, appraising performance, giving its feedback, and counselling an employee to improve his performance. So performance appraisal is considered as the key ingredient or an important step of whole performance management system (Prasad 2005, Dessler 2008). Potgieter (2002) conclude performance appraisal systems were the precursor to today's performance management.

Performance management is a systematic process for improving organizational performance by developing the performance of individuals and teams (Armstrong 2006). The overall aim of performance management is to establish a high performance culture in which individuals and team take responsibility for the continuous improvement of business processes and for their own skills and contributions within a framework provided by effective leadership. So the objectives of both performance appraisal and performance management, to develop the capacity of employees so that the performance of every individual can be improve is same, so both systems can be counted as a human resources developing instrument, with differences in scope. While the interest in measuring performance and linking with rewards remains the same (Pareek and Rao 2006).

V. Performance management overtaking Performance appraisal

Maximizing performance is a priority for most organizations today, and performance management is a part of a link between organizational strategy and results (Bhatia, 2006). As Potgieter (2005) conclude that performance appraisal systems were the precursor to today's performance management. He explains performance appraisal systems typically based on a review of how a person completed their job for the year, conducted annually or twice less frequently, for review of salary payment, bonus, or for promotion, typically paper based where HR is the custodian of the information, or they are conducted less formally and without any documentation.

Further he explains performance management as a definition which is specific objectives for an employee for the next performance period (normally the next quarter or half a year), backed up by a job description which takes into account the normal expectation for that position. If objectives are met a review made for personal development objective, remuneration/bonus etc. performance management system is usually fully automated where the information is accessible to all any time, has features such a Performance Diary. Here the explanations reveal performance management system trying to meet the short comings of performance appraisal system.

The increasing use of performance management by employers reflects several things. Dessler (2008) describe three important points that compel employers to use performance management system than performance appraisal system.

1. Growing importance of the total quality management (TQM), the term performance management gained its popularity in early 1980's when total quality management programs received utmost importance for achievement of supervisor standards and quality performance. Tools such as job design, leadership development, training and reward system received an equal impetus along with the traditional performance appraisal process in the new comprehensive and a much wider framework. Performance management is an ongoing communication process which is carried between the supervisors and the employees throughout the year.
2. Performance management as a process explicitly recognizes that in today's globally competitive industrial environment, every employee's efforts must focus like a laser on helping the company to achieve its strategic goals. In that regard, adopting an integrated, performance management approach to guiding development, and appraising employees also aids the employer's continues important efforts.
3. Various studies reflect the fact that traditional performance appraisal are often not just useless but counterproductive (Lee and Son, 1998; Antonioni, 1994).

One of the important reasons of most of the organizations shifting from performance appraisal to performance management is the short coming of performance appraisal system, even though the main objectives of performance appraisal and performance management is to improve the performance of employees. The main objective of a performance appraisal is to improve the employee performance by identifying the strengths and weakness of an employee to guide for formulation of suitable training and development program (Tripathi 2005). The other hand the main objective of performance management system is to achieve the capacity of the employees to the full potential in favour of both the employee and the organization, by defining the expectations in terms of roles, responsibilities and accountabilities, required competencies and the expected behaviours. In comparison of performance appraisal and performance management, performance appraisal sets job standards and evaluates past performance based on such set standards, it mainly used as a tool for employee evaluation in which the managers were impelled to make subjective judgment about the performance and behaviour of the employees against the predetermined job standards. Whereas performance management aims at managing performance real-time to ensure performance reaches the desired levels. It is a continuous and on-going proactive mechanism to manage the performance of an employee achieves the set targets on a real-time basis, without reviews or corrective actions at some point in the future. It is line activity and remains ingrained in the employee's day to day work.

1. Focus

Performance appraisal were mostly narrowly focused for measuring the degree of accomplishment of on individual where supervisors had a major role to play in judging the past performance of an employee without soliciting active involvement of the employee. Performance management focused on front end planning instead of looking backward, the focus is on ongoing dialogue instead of ratings.

2. Alignment

Very often, the annual appraisal is performance on the employee anniversary which does not coincide with any particular performance period. This makes it near impossible to align the employee objectives with the organizations strategic goals as they are released or modified. If appraisals are conducted annually on the anniversary date, it is only possible to align at best only 50% of staff with future objectives.

As expectations are modified when a performance management system is introduced, most organizations switch to defined performance periods this means that the performance reviews are conducted quarterly or half yearly and enable management to direct effort to those objectives that need to be performance according to the strategic or operating plan.

3. Approach

Performance Appraisal considered as a retrospective journey in the individual's previous working year, where managers, where managers, very often perfunctorily, "judge" the performance of staff, the supervisor acts as a judge. Whereas performance management aims of the relationship based on it being to coach and to contribute to the development and growth of individual, a supervisor assumes the role of a coach or mentor. PM is inspired to the concept of "management by agreement or contract", PA is instead based on the concert of "management by command" (Armstrong, 2006).

VI. Conclusion

In any organization each individual's performance keeps its own importance in the success of organization. With the changing competitive business environment the effective and efficient use of resources is very important for the survival of organization in market. And evaluation of the performance of all the resources involved in organizational operation is also very essential in order to achieve organizational goal. As human resource is considered the most valuable and complicated resource in an organization, appraisal of the HR is also complicated and very essential. Employee performance appraisal practice is not the new concept. In a work group, members, consciously or unconsciously, make opinion about others. The opinion may be about their quality, behaviours, way of working etc. such an opinion becomes the basis for interpersonal interaction. In the same way, when supervisors give opinion about their subordinate it becomes basis for evaluation of their performance (Prasad 2007). With the increasing comprehensiveness in business field performance appraisal has became more formal and structured. Although performance appraisal evaluate the past performance of employees and helps in eliminating the shortcoming this system only is not sufficient to bring out the results what today's competitive world demands, because this system emphasis on evaluation of individuals or team task. As Mondy and Noe (2007) define "Performance Appraisal is a formal system of review and evaluation of individual or team task performance." The focus of performance appraisal system in most firms remains on the individual employees. Regardless of the emphasis, an effective employee's appraisal system evaluates accomplishments and initiates plans for development, goals and objectives.

Performance management consists of all organizational process that determine how well employees, teams and ultimately, the organization perform. The process includes HR planning, employee recruitment and selection, T&D, career planning and development and compensation. Performance appraisal is especially critical to its success. An organization must have some means of assessing the level of individual and team performance in order to make appropriate development plans. While performance appraisal is but one component of performance management it is vital in that it directly reflects the organization's strategic plan (Mondy and Noe, 2007). So as many people considered that the PM and PA are different name of same system is not true but performance appraisal is the precursor for performance management system. Performance management has wider scope than performance appraisal that came out to fulfil the short coming PA (Prasad, 2007). Performance management is integrated process of performance planning, performance appraisal, performance feedback performance counselling (Prasad 2005) or consolidates goal setting, performance appraisal, development in to a single, common system, the aim of which is to ensure that employee's performance is supporting the company's strategic aim (Desselor 2008).

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Studies on the implementation of System Application Product (SAP) Materials Management (MM Module) for financial support in Sugar cane cultivation

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Abstract: In traditional mode of cane cultivation, harvesting and transportation of cane from the plot to the factory involves various steps and lot of paper work and requires more man power. In addition to this, farmers also facing lot of problems to provide all the information's throughout the course of cultivation. In order to provide financial assistance, the sugar industries are providing loan facility tie-up with Bankers. All these process is adopting System Application Product (SAP) Materials Management (MM-MODULE) to monitor in a single window. This will helps the farmers and factories are able to get benefitted and in the mean time Bank will also mutually benefitted by getting interest and increase their business volume. Hence by implementing System Application Product (SAP), once entering the data in the system it is continued further deletion of data from the system administrator. Due to this farmers need not required to submit all the stipulated forms in all the times. More over the lead time required is very less.

Keywords -System Application Product , Materials Management, Tie up letter, Trip Sheet, Cane weighment ticket

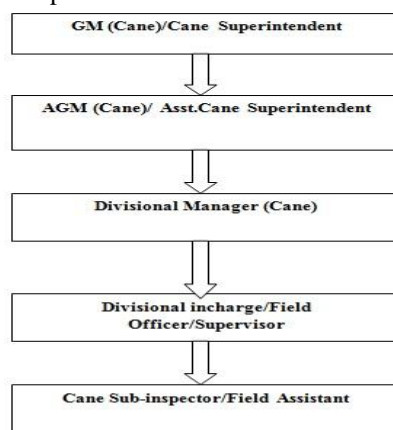
I. Introduction

India is mainly constituted with villages and Agriculture is the main occupation. Sugar cane cultivation is one of the important commercial crops adopted by the farmers. The demand of sugar consumption is regularly increasing day by day as a result more and more sugar industries are coming up in turn there is a scope for further increase in the sugar cane cultivation throughout the country. But the farmers cannot afford to bear the expenditure incurred for the cultivation of sugarcane due to hike in cultivation cost such as increase in fertilizer price, manual labour, pesticides, insecticides, transportation etc. As a result the farmers are badly needed the financial support. In this regard sugar industries are tie up with financial institutions, Bank to get the financial assistance to farmers under the guarantee of the company. The banks provide financial support to the farmers and recover the principal amount with interest while factory is made the payment to the farmers after the supply of cane. In order to obtain financial support from the Bank, various procedures/steps to be followed.

II. Material And Methods

2.1 Organization chart of cane section

The field Assistant of Sugar industry contacts the farmers and takes the measurement of area of plantation of sugar cane by individual farmers and made the agreement between the farmers and the sugar industry. Then the action will be taken to provide financial assistance tie-up with Banks.



Procedure for extending the loan facility to farmers by Sugar industry is as follows.

2.2 Agreement for sale and procurement of sugar cane

This is a type of binding between the farmer and the factory for supply of cane from the farmers or procurement/purchase of cane from the factory. This is a mutual understanding in the form of written document. The format of Agreement for sale and procurement of sugar cane is as follows.

AGREEMENT FOR SALE AND PROCREMENT OF SUGAR CANE

Ryot No () Year of plantation
 Section: Year of crushing
 Part: Hobli:
 Taluk: Hobli code:
 Taluk code:

SCHEDULE

Plo t No.	Plac e of crop & code	Surve y No.		Breed	Registered Area in acre		Date of cane cuiltivat ed	Agreed cane qty. In MTs	Dista nce	Method of cultivat ion
					Fresh	Second				

FOR OFFICE USE ONLY

Ryot No.	<input type="text"/>						
Ryot's Name:	<input type="text"/>						
Fathers Name:	<input type="text"/>						
Residential Address:	<input type="text"/>						
	<table border="0"> <tr> <td>Post:</td> <td>Taluk:</td> <td>Dist:</td> </tr> <tr> <td>Pin code</td> <td></td> <td></td> </tr> </table>	Post:	Taluk:	Dist:	Pin code		
Post:	Taluk:	Dist:					
Pin code							
Bank Name:	<input type="text"/>						
	BRANCH:						
Bank Code:	<input type="text"/>						
S.B A/c No.	<input type="text"/>						
Previous							
Plot No.							
Plot over Date and	<input type="text"/>						
Yield/Ac.							

Previous Seasons-Cane Regn.& Supply Particulars

Sl.No	Cr.Season	Regd/U.R Cane		Cane Supply(in MTS)	Perished/Diverted
		Plot Nos	Extent		

Cane Sub-Inspector/Cane Inspector

Divisional clerk

Keened on:

Registration Clerk

2.3 On demand pronote

This is type of demand/request from the farmer for getting crop loan from the factory for the purpose of growing the crop in a healthy manner by way of to purchase mainly chemical manures. The format is attached below.

ON DEMAND PRONOTE

Year-----date-----to Managing Director, XYZ Sugar Co.-----

-----that I heeby agreed to
 refund the amount Rs.-----wth interest @ the rate of -----received towards agricultural expenses
 whenever you called for.

Rs,-----

Signature of Witness

(Ryot No.-----)

(Ryot No.-----)

Signature of the farmer

2.4 Tie-Up letter

After agreement, filled loan form is submitted to factory for approval (tie-up letter).after obtaining tie-up approval letter from the factory,it is submitted to Bank for further procedures.

Format of Tie-up letter.

Ryo No./Name : _____

F/H Name : _____

Resi.Village :

Planting village	Plot No.	Survey No.	Variety	P(Extent)R	Date of P/R

SUPPLIES MADE BY XYZ SUGARS.LTD.

CROP LOAN RECOMMENDED

Details	Uom	Qty	Rate	Cost(Rs.)	Credit to XYZ Ltd	Cash to Ryot	Total(Rs)

MANAGER-CANE

2.5 Shifting of cane

After completion of cutting process,there also some procedures for lifting of cane to the factory.i.e the farmer has to come to Divisional office to collect trip sheet with cutting order and make arrangement for lorry/trucks. Then it will go to weigh bridge to get weighmentticket(2 Nos) one for lorry and other one for farmers.

The specimen copy of trip.

LORRY TRIP SHEET

No.

Section:

Ryot No-Plot No.-Name

Date:

Ryot No	Plot No.	Name

Sending Time from section:

G.L.No. :

Cutting Rate :

Senders Name :

Reaching Time :

Sign. Of Transport clerk

2.6 Cane weighment ticket

This is a type of token issued at cane weighment section regarding total quantity of cane supplied by the farmer. Based n this only the payment is calculated and remitted to bank/formers. The format is attached below.

CANE WEIGHMENT TICKET

XYZ SUGARS LTD.

PLACE:

SEASON:

Serial No.	Division	Section:	Date:
Ryot No :	Plot No. : Extent Acres: P/R Date : Variety : Plant/Ratoon		WEIGHMENT DETAILS Tonnes IN-Weight : _____ Out- Weight: (-) _____ Gross Weight : _____ Binders Weight : _____ Net Weight : _____
Ryot Name :			
Father Name :			
Village :			
Field Name :			
Gang leader No :	LR/TR/ADV. No :		
Cutting Rate Rs.	Transport Rate Rs. :		
	Distance Kms:		

2.7 Sugar cane supply Bill

This is a type of voucher for making the payment to the farmers for supply of sugar cane supplied to the factory through bank which is tie-up to the factory. Once payment is received from the factory, the crop loan recovered along with interest and balance amount is issued to the concerned farmer.

Format of sugar cane supply bill

XYZ sugars Ltd

SUGAR CANE SUPPLY BILL

Ryot No/Plot No: BL03049/HRD 0208		Season: 2011-12	
Division/Section: BANG/HRD		Bill No/Bill Date: 12340/05-01-2012	
Ryot Name: ABCD		Dt. of plant/Ratoon: 15-05-2010 Variety: 8371	
Father/Husband's Name: ABC123		Extent: 3.0 Acre P/R: P	
Village: PQRST		Plot over Date: 17-04-2011 Distance: 6	
Bank Code/Name: INB0002/ABCD BANK		S.B.A/c No. *****	
Branch Name: INB-BANG			
CANE SUPPLIED DETAILS		SEEDCANE SUPPLIED DETAILS	
Cane Proceeds/Mt(Rs): 2000.00	Gross Wt. 120.00	Seedcane Proceeds/Mt(Rs): 150.00/MT	
	Less Binders Wt. 1.120		
	Net Wt. 118.88	Seedcane Supplied Qty:	
CREDIT		RATE Rs.	AMOUNT Rs.
1. Sugar cane proceeds incl. purchase tax subsidy and all other statutory payments		2000.00/MT	237760.00
2. Diverted Cane Supply Credit			
3. Seedcane Proceeds			
4. Cane Transport Subsidy			
5. Amount received			
6. Dues adjusted of other Season			
7. Cash receipt of Seedcane/other dues			
8. Others			
TOTAL			237760.00
DEBIT		RATE Rs,	AMOUNT Rs.
1. Seedcane Debit		150.00/MT	18000.00
2. Amount received through crop loan		15000/Acre	45000.00
3. Cane Transport charges		71.00/MT	8520.00
4. Low Tonnage Wt.			
5. Harvesting Advance			25000.00
6. Fertilizer Debit			
7. Chemicals Debit			
8. Last/Next Season Dues Transferred			
9. Bank interest charges		9 % PA	4050.00
10. Misc. Amount			
11. Payment already Made			
Total			100570.00
Net Paid			137190.00
Rupees: One lakh Thirty Seven thousand one hundred ninety only.			
Prepared by ACCOUNTS	PAYMENT THROUGH BANK		MANAGER-

All these are managed/maintained in a transparent way by single window.

III. Results

3.1 Implementation of SAP in cane cultivation Harvesting and shifting of cane

In order to overcome all the above mentioned traditional methods of cane harvesting, cane cutting and shifting of cane to the factory by way of modernized/computerized by implementing SAP (MM-module).

Once the agreement has made between the farmer and the company all the information are uploaded in the system and the data has been transferred to all the cane sections which is shown in the organization chart above. In the meantime ID number is allotted to each ryot who made the agreement. This is the unique ID number given to particular ryot which is non-transferrable and this will be continued till the death of the farmer unless the rights/ documents are transferred to party's wife or children.

By feeding this unique ID number, all the details/information of the particular ryot is displayed on the system. This information comprises of

1. Village
2. Sector
3. Area of the land
4. Date of Agreement
5. Date of Cultivation
6. Fresh/Ratoon cane
7. Crop loan details if availed

IV. DISCUSSIONS

The solution from SAP is bound to get the following advantages in sugar industries.

Total integrated reliable and real time solution

SAP is user friendly i.e information will be obtained as and when required.

Continues maintaining and evaluation of performances

The complete process of cane cultivation to shifting of cane can be monitored and evaluate by system only.

Effective inventory control

The holding stock can be accessed and based on this; action can be taken for procurement of needy items.

Maximize the utilization of resource

With the help of SAP solution we can utilize the existing resources in the company and avoid unnecessary losses.

Gain edge in global competence

By implementing of SAP, losses can be avoided, recovery has been improved and the company can compete in global level.

TOTAL ADVANTAGES BY IMPLEMENTING SAP

- ❖ Increase in yield by timely crushing good quality and matured cane.
- ❖ Benefits from the supply of the inputs to the farmers.
- ❖ Farmer's loyalty increase.
- ❖ Planning, budgeting and achievement have meager deviation.
- ❖ Re-deployment of the human resources.
- ❖ Staggered plantation helps the factory to crush throughout the crushing season.

V. Conclusion

Any module in the ERP system is implemented by the consultants engaged by the company. After the implementation (installation), the system has to be used by the employees of the company who are called the end-users. They have to be accustomed to the way the system works to get optimum benefit from the system. Using the software at the end or after the implementation is an End User is the one who performs transactions in SAP after it goes live.

Since the financial position of Indian farmers is very weak, the loan facility provided by the industries through Bank encourages the farmers to grow more cane and also motivates the farmers. The loan amount is paid immediately to the Bankers from the farmers through factory will also increase the transactions of the Bank in turn both bankers and farmers are mutually benefitted.

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Retention of Adept Employees: Preliminary Study on PTC-Pakistan

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Abstract : *The employees go on probing better employment and environment. Organizations, on the other hand exploit new strategies for retention of best employees due to severe competition. Organizations focal point shifted from turnover to retention because of outlay efficiency. Research intention leads diverse factors including motivational, environmental and succession planning that compel employees to stay. Selecting the Pakistan Tobacco Company-Jhelum for our study because of negative job turnover rate. For this purpose, adopt interview and observation strategies for gaining depth knowledge and why zero job turnover ratio in MNCs and not in local industry. From extensive literature review, we come to point that each factor has constructive relationship with retention but in reality, not possible in split form. From observations and in-depth knowledge from interview, concluded that employee retention only possible by adopting cluster of factors and not in split form. Research is limited with time and number, putting less time on observation method that is why same study can be further explore on the basis of longitudinal while empirical analysis can extend this study.*

Keywords : *Best employees, Extrinsic motivation, Intrinsic benefits, Work Environment, Work life balance*

I. Introduction

Employees' mobility among the organizations has been escalated due to healthier benefits. Edification has augmented the stipulation for healthier benefits that is why mobility is amplified. Not only educations elevate mobility but as well environment, extrinsic, intrinsic, career development, balance in work life issues involved [1-3]. Organizations focal point shifted from turnover to retention because of outlay efficiency [4-5] Enlighten that organization desires to retain superb performing employees but it become complicated because of [6] employees go on with probing better employment and environment. Organizational operation executed by the talented employees, whose not only achieve the organizational goals and objectives as well as bring satisfaction in their team members [6-7]. The war of best employees retention has been started and organizations made huge investments in this context [8] for competing and leading the market [9]. Right retention strategy required for the growth but slightly errorous strategy hurt the profitability and growth [10] that is why no space for gaffe. The stability of good workforce is offered guarantees of success and intensification in the market [11] otherwise letdown aspects attached with your organization.

The scholars come to point that organization confronted with shortage of employees those have knowledge, abilities and skills in their field. No doubt, organization triumph dais on talented employees [12]. Despite vast literature is available on those factors which cause employees to quit [13] but scant on those factors which compel employee to stay. Prior researches highlighted only extrinsic and intrinsic factors relationship with employee performance [14-15] but lacuna other factors. Organizations confronted with the problems of frequent turnover due to diverse reasons for example wrong recruitment strategies [16-17] weak work environment [18] slow career growth [19] not having balance in work life [11] feeble organisational commitment [20] and lack intrinsic motivation [10]. Earlier organizations focused on extrinsic factors to retain workforce, in this way financial incentives heightened such as increment in salary, commissions, and bonuses [21] but ignoring other retention factors including intrinsic, balance in work life, training and development. Undoubtedly these issues affect the employee's retention but in Pakistan many other factors compel employee toward retention such as bad market situation, shifting of different companies to other countries, scant job opportunities, growth of uncertainty, and etc. that is why employees do not want to leave their job even offering double golden shake hand. In this study, we focused on a cluster of factors including environment, motivation and career development in order to retain the talent employees in context of Pakistan Tobacco Company Limited- Jhelum but further exploration on these diverse problems rapport with retention will be presented later. The study imparts the knowledge on achievement of organizational goals and objectives more efficiently to managers and practitioners through retaining of best employees.

II. Literature Review

Keeping the best employees helps in providing better quality to customers and achieving the goals [10] while retention becomes more imperative for the organization when least number of talented employees on job. Success of organization is based on retention of experienced workforces [11]. Retention starts from day first with recruitment of the employees [22]. Organization's priority to retain the employees has revolutionized. Competition among the organizations has increased and talented employee's retention has become the first priority of the organization [9]. Not only organizations confronted of furious competition of products but as well as faced problem of best employee retention [8]. Right retentions strategy made possible for the organizations to survive and grow in the market [10] and complementary for more profit.

The extrinsic motivators comprises with diverse factors including pay, bonus and the job security of the employees [23] and used to retain the best and talented employees [24]. Many scholarly [25-27] conduct research on impact of extrinsic benefits on employee turnover and come to know that substantial satisfaction factor is monetary reward [10]. Prior study of [28] claimed that substantial competition decreased the impact of financial rewards because of increase in turnover. For better performance, organizations need to motivate workforces intrinsically rather than only extrinsic motivation [24] because open communication, discussion on new ideas and removal frustration bring satisfaction [4]. Encourage is the most imperative element of intrinsic reward which have diverse form for example in form of certificates, appreciation words in public place, appreciation letter, and many more [4]. Task completion in an interesting way enhance the process of creativity and learning that effect employees intrinsically [23] therefore appreciation on completion and bringing new idea enhance the learning process as well. Organizations used extrinsic benefits as a strategy to retain the employees [29] but having wide range of responsibilities is itself a non financial reward to bring organizational commitment [30]. Motivation of workforce in both extrinsic and intrinsic angles required to achieve tasks and goals effectively [31]. For better implementation, organization have to understand each worker profile before applying motivational factors because right reward for right person complementary for retention.

Workforce motivation has constructive link with environment [32] and beneficial for both workforce and organization. For better and more outcome performance, organizations have provide time to employee to relax for example in the form of relaxation rooms, gym, entertainment or some other sport activity [4]. Organization with an open environment in which information is shared with the employees is successful in retention. intrinsic motivation in an organization is a social beginning that creates a supportive environment for the employees [33]. The individual's abilities to perform work actively, by having rhythm in work and life [34]. The work-life-balance strategies retain the skilled worker which reduces the turnover cost and improves the productivity and efficiency of the organization [35]. The work life balance strategies helps the organizations to increase their productivity and performance of the employee with increased intention to stay in the organization [36]. Normal working hours with flexible time has constructive impact on organizational performance [26]. supportive environment [37] is more suitable than others in manufacturing industry but [38] employees at night shifts or longer working hours must be a compulsion for the employees to join entertaining activities to perform well at work. [39] and [37] belief makes the employees to contribute more and the supportive relationship is built. The conflict in the work and life is increasing due to increase in demand of work and decrease in time for social life [24]. Managers in an organization have to play a key role for implementation of work life balance strategies by reducing the conflicts of employees between work and life, with the introduction of flexible timings and support at work [40].

Training bring positive consequences in the organization [11] but have to manage effectively because it enhance the skill and ability of workforce. Not only enhance the skills and abilities but as well trained to deal with the challenges involved during the task and remain flexible and tolerant in the organization [41]. For better performance and achievement of goal and objective of organization effectively, made possible by effective training. The willingness of employee to get trained in the new area is due to the flexibility and learning process [1]. Development of employees provides the road map to the organization and employees to transfer the knowledge and experience to next generation [42]. Employee need to grow, for growth in the career organizations invest, and develop them. According to researchers [43] and [24] career development is considered as an important factor of the employee retention. The increase in the experienced workforce will not only increase the profits of the organization but also the trained workforce will be available at the time of need [24]. Development factor brings more satisfaction than that of monetary factor [44]. The growth and advancement in the career of employees brings satisfaction, the organizations can retain the employees by positioning them according to their potential [4]. The development factor is more for such employees which are seen as the future of the organization.

III. Research Schema

The area of study is confined to employees in Pakistan tobacco company, Jhelum. The interview and observation method applied for obtaining the information. We breakdown our team members into two groups; First group has responsibility of conducting interview while second group has responsibility of observation. Interview questions asked in four phases; demographic information, knowledge on motivational factors, environment flexibility and career growth in the company. This dissect creates ease for the participants to provide clear information. For observation purpose, group visited the company five times to gain the right awareness.

IV. Discussion & Conclusion

Both extrinsic and intrinsic motivational factors applied for retention of the employees. The salary of normal employee is greater than the Government BPS-17 employee (Gazetted Officer) Shift In-charge (manager) has authority to award employee at the spot who perform marvellous as well as creative and new idea take reward. No one in private sector gives pension to their employees except PTC. Best performer's name has written a board for encouragement. These rewards motivate the employees for better performance. Environment of PTC relax and comfortable while health care is first priority. Balance light for work and for noise control plug in ear complementary for all in production zone. Well established Cafe for the employees to get relax during flexible working hours. Recycling is used for fully utilization of resources. For guidance, everywhere indication placed on the ground. PTC sends their employees for training to that country, from production machinery imported because of better understanding and knowledge. Mentoring concept is used at low level for improve of employee knowledge. Training laced the employees with new skills and become valuable asset for organization. Employee's made growth in company through training. Company offers golden shake-hand to approx. 100 employees while golden shake-hand comprises with remain salary and other benefits. The least amount of golden shake-hand is approx. Rs. 4.7millions but no one wants to leave the company because of diverse benefits and flexible environment. Leaving the job ratio is zero due to motivational factors, environment and career development. We come to point through literature and analysis that here are numerous opportunities for foreign investors in Pakistan especially in the engineering, power, horticulture and manufacturing sectors. No doubt, enormous MNCs settle their businesses in Pakistan and now become leader of market for example Unilever, PTC, Proctor & Gamble, Nestle, Toyota motors, Mobilink, and etc. because MNCs implemented motivational strategy, flexible environment and career development strategies at once that is why now leader of market.

How is it possible a company offer such benefits and environment in Pakistan? Because of multinational company and that is why national companies unable to compete MNCs. No one others companies provide such high extrinsic benefits, tranquil environment, superior training and development to their employees except MNCs because of massive resources. Most imperative factor of employee retention is extrinsic benefits in the shape of remuneration because in reality people prefer wealth over intrinsic benefits, flexible environment and career development. On the other side, due to up-to-date production units reduce the numbers of workers and now required 1.5 employees to operate two production units that is why PTC reducing the people through golden shake-hand strategy. Career development is complementary for retention otherwise employees probing new opportunity for better career growth which adversely affect the retention. Intrinsic benefits, healthier environment and career development has less compelling to stay than extrinsic benefits. Presence of this cluster (balanced extrinsic and intrinsic benefits, balance work in life and career growth) compels the workforce toward stay and this cause the zero quit job ratio. Literature, discussion with PTC employees and analysis take us on conclusion that each factor has constructive relationship with retention but not in split form. Effective for employee retention, when used in unifie form. Empirical analysis can be applied for further exploration.

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Corporate Social Responsibility: A Case Study Of TATA Group

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Abstract: Starting from the times of barter system to today's modern era of plastic money, the mankind has trodden a remarkably long path. Undoubtedly "profitability" has always been the driving force and an undercurrent behind all this development; but as every coin has two facets; growing cut throat competition and business rivalries started taking heavy toll on the quality, transparency, environment and the society in general endangering the peaceful coexistence of business and society. The businesses houses started realizing that they would have to rise over and above the profitability and take care of all those associated with their survival in the society directly or indirectly. This realization resulted into the concept of Corporate Social Responsibility (CSR). This research paper moves around developing an understanding about the corporate social responsibility (CSR), delving into its concept and finding out its scope taking the case study of the TATA Group under Mr. Ratan Tata who has exemplified the sense of responsibility towards the upliftment of common masses and protection of the environment and development of the nation.

Keywords: Corporate citizenship, Corporate social responsibility, Employee, Productivity, Profitability, Society, Stakeholders.

I. Introduction

1.1 Literature Review

The concept of CSR originated in the 1950's in the USA but it became prevalent in early 1970s . At that time US had lots of social problems like poverty, unemployment and pollution. Consequently a huge fall in the prices of Dollar was witnessed. Corporate Social Responsibility became a matter of utmost importance for diverse groups demanding change in the business. During the 1980's to 2000, corporations recognized and started accepting a responsibility towards society. Corporate social responsibility (CSR) focuses on the wealth creation for the optimal benefit of all *stakeholders* – including shareholders, employees, customers, environment and society. The term stakeholder, means all those on whom an organization's performance and activities have some impact either directly or indirectly. This term was used to describe corporate owners beyond shareholders as a result of a book titled *Strategic management: a stakeholder approach* by R. Edward Freeman in the year 1984.¹

According to Bowen, "CSR refers to the obligations of businessmen to pursue those policies to make those decisions or to follow those lines of relations which are desirable in terms of the objectives and values of our society. " ² Frederick (1960) stated 'Social responsibility means that businessmen should oversee the operation of an economic system that fulfills the expectations of the people.' ³ Davis (1960) argued that social responsibility is a nebulous idea but should be seen in a managerial context. He asserted that some socially responsible business decisions can be justified by a long, complicated process of reasoning as having a good chance of bringing long-run economic gain to the firm, thus paying it back for its socially responsible outlook (p. 70). ⁴ An ideal CSR has both ethical and philosophical dimensions, particularly in India where there exists a wide gap between sections of people in terms of income and standards as well as socio-economic status (Bajpai, 2001)⁵. Goyder(2003) argues: "Industry in the 20th century can no longer be regarded as a private arrangement for enriching shareholders. It has become a joint enterprise in which workers, management, consumers, the locality, govt. and trade union officials all play a part. If the system which we know by the name private enterprise is to continue, some way must be found to embrace many interests whom we go to make up industry in a common purpose." ⁶ CSR implies some sort of commitment, through corporate policies and action. This operational view of CSR is reflected in a firm's social performance, which can be assessed by how a firm manages its societal relationships, its social impact and the outcomes of its CSR policies and actions (Wood, 1991).⁷

1.2 Purpose

To understand the concept and scope of corporate social responsibility and getting an insight in CSR practices in the light of the case study of the TATA Group.

1.3 Objectives of the study

- To understand the concept of CSR
- To find out the scope of CSR
- To know how the Tata group has fulfilled its responsibility towards all stakeholders; what specific activities, programs and strategies it has set, devised and implemented for the same.

1.4 Research Methodology

Exhaustive literature survey regarding the topic and related concepts has been done. Secondary data inclusive of quantitative and qualitative data as well collected from various sources including books, research papers, newspapers, magazines, and websites is used for the purpose of study.

II. Concentric Circle & CSR

In 1971, the Committee for Economic Development issued a report throwing light on different dimensions of responsibilities to be fulfilled by the corporate. The responsibilities of corporations are described consisting of three concentric circles.

(a) Inner Circle: Clear cut, basic responsibilities for the efficient execution of the economic function, products, jobs and economic growth.

(b) Intermediate Circle: Encompasses responsibility to exercise this economic function with a sensitive awareness of changing social values and priorities.

Eg. With respect to environmental conservation, hiring and relations with employees, expectation of customers for information, safety factors, etc.

(c) The Outer Circle: Newly emerging and still amorphous responsibilities that business should assume to become more broadly involved in actively improving the social environment.

III. Classification of Social Responsibility

3.1 Responsibility towards itself

It is the responsibility of each corporate entity run business and to work towards growth, expansion and stability and thus earn profits. If the corporation is to achieve social and economic ends, organizational efficiency should be boosted up.

3.2 Responsibility towards Employees

Employees are the most important part of an organization. Following are some of the responsibilities which a business entity has towards its employees-

- Timely payment
- Hygienic environment
- Good and impartial behavior
- Health care through yoga
- Recreational activities
- Encouraging them to take part in managerial decisions

3.3 Responsibility towards shareholders

It is the responsibility of corporate entity to safeguard the shareholders' investment and make efforts to provide a reasonable return on their investment.

3.4 Responsibility towards state

Out of the profit available, the state is entitled to a certain share as per the income tax laws. Utmost transparency has to be exerted regarding the profit & loss account and the balance sheet.

3.5 Responsibility towards consumers

The Company should maintain high quality standards at reasonable prices. It should not resort to malpractices such as hoarding and blackmarketing.

3.6 Responsibility towards environment

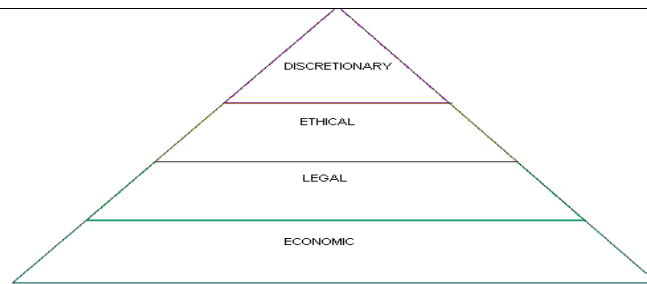
It is the responsibility of the organization to contribute to the protection of environment. It should produce eco-friendly products. Moreover, industrial waste management must be taken care of.

4. Social Responsibility Models

There are some models which describe the evolution and scope of social orientation of companies. Notable ones include Carroll's model,⁸ Halal's model⁹ and Ackerman's model¹⁰.

(a) Carroll's Model

Archie B. Carroll has defined CSR as the complete range of duties business has towards the society. He has proposed a *3-d conceptual model of corporate performance*. According to Carroll, a firm has the following four categories of obligations of corporate performance.-



HIERARCHY OF RESPONSIBILITIES OF BUSINESS

- **Economic:** The firm being an economic entity, its primary responsibility is to satisfy economic needs of the society and generation of surplus for rewarding the investors and further expansion and diversification.
- **Legal:** The laws of the land and international laws of trade and commerce has to be followed and complied with.
- **Ethical:** Ethical responsibilities are norms which the society expects the business to observe like not resorting to hoarding and other malpractices.
- **Discretionary:** Discretionary responsibilities refer to the voluntary contribution of the business to the social cause like involvement in community development or other social projects pertaining to health and awareness of the masses.

(b) Halal's model

Halal's return on resource model of corporate performance recognizes the fact that the corporate social responsiveness is a quite difficult task as no corporate posture is value free. A firm can only attempt to form a workable coalition among groups having diverse interests, engaged in creating value for distribution among members of coalition. The social issues may become conflicting beyond a certain level of economic activity. The coordination between economic and ethical decisions is necessary so that the future of the firm and shareholders may be safeguarded.

(c) Ackerman's model

This model defines CSR in three different phases

First phase - Top management recognizes social problem

Second phase – The company appoints staff specialists to look into the issue and find measures to tackle it

Third phase - Implementation of the strategy derived by the specialists

IV. Corporate Social Responsibility as a Strategy

CSR needs a proper and step by step implementation. Andrew (1980)¹¹ has developed an approach to the question of strategic choice. His four key questions suggest the approach that companies may follow in determining their level of CSR activity.

Those four questions are following :

- Determining Organizational Competencies:** what can we do?
- Looking at Industry threats and opportunities:** what might we do?
- Examining the values of key implementers:** what do we want to do?
- Determining the social responsibility:** what ought we to be doing?⁵

By finding out answers to these questions managerial decisions can be molded towards serving a strategic need. This means CSR in practical terms is an ongoing process, constantly monitoring the environment and inter and intra firm relationships. Burke Lee and Jeanne M. Logsdon (1996)¹² suggest that there are five dimensions of corporate strategy that are critical to the success of CSR process in terms of value creation by the firm. They are :

- Centrality** - CSR initiative activities should be close to the firm's mission and objectives.
- Specificity**- Strategic CSR initiatives should specifically benefit the firm. The firm should be able to capture the benefits of CSR initiatives.
- Proactivity**- CSR initiatives should focus on the dynamics of stakeholder expectations i.e. to capture the changes in socio-environmental , political and technological factors.
- Voluntarism**- CSR decisions should be discretionary and thus they should be taken up by the firm voluntarily.
- Visibility**- Strategic CSR initiative should build firm's image and add up to the goodwill by creating positive media attention. It can also mitigate negative image of the firm.

The linkage between strategy and CSR is quite noticeable. As strategy implies choice there exists many opportunities to not only generate multiple options but also the choice between different modes of action, in a manner to attain corporate objectives more effectively. The question of trade-off rests between a body corporate defining a path of action that is governed by the need and desire for profits and social responsibility as well. A managerial decision-making grid can be thought of to help corporate generate multiple options.

Corporate Social Responsibility becomes strategic when it fetches substantial economic benefits to the firm, in particular, supporting the core business activities and thereby contributing to the accomplishment of its mission in the optimal manner enriching the firm and the society as well.

V. Tata Group & CSR

6.1 Introduction

Ranging from steel, automobiles and software to consumer goods and telecommunications the Tata Group operates more than 80 companies. It has around 200,000 employees across India and thus has the pride to be nation's largest private employer. Mr. Ratan N. Tata has led the eminent Tata Group successfully. He was trained as an architect at New York's Cornell University but he chose to enter the family business. He assumed the Chairmanship of the Group in 1991. Named Business Man of the Year for Asia by Forbes in 2004, Mr. Ratan Tata serves on the board of the Ford Foundation and the program board of the Bill & Melinda Gates Foundation's India AIDS initiative. Tata Group chairman Ratan Naval Tata has stepped down to pass on the entire responsibility to Cyrus Mistry. Under Tata, the group went through major organisational phases — rationalisation, globalisation, and now innovation, as it attempts to reach a reported \$500 billion in revenues by 2020-21, roughly the size of what Walmart is today.¹³

Approximately two third of the equity of the parent firm, Tata Sons Ltd., is held by philanthropic trusts endowed by Sir Dorabji Tata and Sir Ratan Tata, sons of Jamsetji Tata, the founder of today's Tata empire in the 1860s. Through these trusts, Tata Sons Ltd. utilizes on average between 8 to 14 percent of its net profit every year for various social causes. Even when economic conditions were adverse, as in the late 1990s, the financial commitment of the group towards social activities kept on increasing, from Rs 670 million in 1997-98 to Rs 1.36 billion in 1999-2000. In the fiscal year 2004 Tata Steel alone spent Rs 45 crore on social services.¹⁴

Tata is accredited to initiate various labor welfare laws. For example- the establishment of Welfare Department was introduced in 1917 and enforced by law in 1948; Maternity Benefit was introduced in 1928 and enforced by law in 1946. A pioneer in several areas, the Tata group has got the credit of pioneering India's steel industry, civil aviation and starting the country's first power plant. It had the world's largest integrated tea operation. It is world's sixth largest manufacturer of watches (Titan).

6.2 Recognition of CSR

"In a free enterprise, the community is not just another stakeholder in business but is in fact the very purpose of its existence."

- Jamsetji Nusserwanji, Tata Founder, Tata Group.

"Corporate Social Responsibility should be in the DNA of every organization. Our processes should be aligned so as to benefit the society. If society prospers, so shall the organization..."

- Manoj Chakravarti, G M - Corporate Affairs & Corporate Head - Social Responsibility, Titan Industries Limited in 2004.

Corporate Social Responsibility has always been taken care of by the Tata group. The founder Mr. Jamshedji Tata used to grant scholarships for further studies abroad in 1892. He also supported Gandhiji's campaign for racial equality in South Africa. Tata group has given country its first science center and atomic research center. "The wealth gathered by Jamsetji Tata and his sons in half a century of industrial pioneering formed but a minute fraction of the amount by which they enriched the nation. Jamshed Irani, Director, Tata Sons Ltd, says, "The Tata credo is that 'give back to the people what you have earned from them'. So from the very inception, Jamshetji Tata and his family have been following this principle." (a statement on the Tata group's website www.tata.com).

In July 2004, B. Muthuraman, Managing Director, Tata Steel Limited (TISCO) announced that in future TISCO would not deal with companies, which do not conform to the company's Corporate Social Responsibility (CSR) standards. Speaking at the annual general meeting of the Madras Chamber of Commerce and Industry, He stated, "We will not either buy from or sell to companies that do not measure up to Tata Steel's social responsibility standards."

6.3 Introducing Changes in the Company's Article and Rules for Sustaining CSR

Clause No. 10 of Tata Group

"A Tata Company shall be committed to be a good corporate citizen not only in compliance with all relevant laws and regulations but also by actively assisting in the improvement of the quality of life of the people in the communities in which it operates with the objective of making them self reliant. Such social responsibility would comprise, to initiate and support community initiatives in the field of community health and family welfare, water management, vocational training, education and literacy and encourage application of modern scientific and managerial techniques and expertise. This will be reviewed periodically in consonance with national and regional priorities. The company would also not treat these activities as optional ones but would strive to incorporate them as integral part of its business plan. The company would also encourage volunteering amongst its employees and help them to work in the communities. Tata companies are encouraged to develop social accounting systems and to carry out social audit of their operations."

Amendments were made to the Articles of Association of the major Tata group companies in the 1970s. Newly included was an article stating that the "company shall be mindful of its social and moral responsibilities to consumers, employees, shareholders, society and the local community. To institutionalize the CSR charter, a clause on this was put into the group's 'Code of Conduct.' This clause states that group companies had to actively assist in improving quality of life in the communities in which they operated. All the group companies were signatories to this code. CSR was included as one of the key business processes in TISCO. It was one of the eight key business processes identified by TISCO's management and considered critical to the success of the company.

6.4 CSR Activities of Tata Companies & Societies

Through the following companies and societies Tata group keeps on heading towards the fulfillment of corporate social responsibility –

6.4. 1. Tata Steel

Tata Steel has adopted the Corporate Citizenship Index, Tata Business Excellence Model and the Tata Index for Sustainable Development. Tata Steel spends 5-7 per cent of its profit after tax on several CSR initiatives.

(a) Self-Help Groups (SHG's)

Over 500 self-help groups are currently operating under various poverty alleviation programs; out of which over 200 are engaged in activities of income generation through micro enterprises. Women empowerment programs through Self-Help Groups have been extended to 700 villages. From the year 2003 to 2006, the maternal and infant survival project had a coverage area of 42 villages in Gamharia block in Seraikela Kharsawa and a replication project was taken up in Rajnagar block. For providing portable water to rural communities 2,600 tube wells have been installed for the benefit of over four Lakh people.

(b) Supports Social Welfare Organizations

Tata Steel supports various social welfare organizations. They include;

- Tata Steel Rural Development Society
- Tribal Cultural Society
- Tata Steel Foundation for Family Initiatives
- National Association for the Blind
- Shishu Niketan School of Hope
- Centre for Hearing Impaired Children
- Indian Red Cross Society, East Singhbhum

(c) Healthcare Projects

In its 100th year, the Tata Steel Centenary Project has just been announced. The healthcare projects of Tata Steel include facilitation of child education, immunization and childcare, plantation activities, creation of awareness of AIDS and other healthcare projects.

(d) Economic Empowerment

A program aiming at economic empowerment through improvised agriculture has been taken up in three backward tribal blocks in Jharkhand, Orissa and Chhattisgarh. An expenditure of Rs 100 crore has been estimated for the purpose and this program is expected to benefit 40,000 tribal living in over 400 villages in these three States.

(e) Assistance to government

Tata Steel has hosted 12 Lifeline Expresses in association with the Ministry of Railways, Impact India Foundation and the Government of Jharkhand. It has served over 50,000 people. Five thousand people have got surgical facilities and over 1,000 people received aids and appliances. Over seven lac rural and another seven Lac urban population have been benefited by the CSR activities of Tata Steel.

The National Horticulture Mission program that has been taken up in collaboration with the Government of Jharkhand has benefited more than a thousand households. In collaboration with the Ministry of Non Conventional Energy and the Confederation of Indian Industry, focus is laid on renewable energy aiming at enhancing rural livelihood.

6.4.2 Tata Motors :**(a) Pollution Control**

Tata Motors is the first Indian Company to introduce vehicles with Euro norms. Tata Motors' joint venture with Cummins Engine Company, USA, in 1992, was a major effort to introduce emission control technology in India. To make environment friendly engines it has taken the help of world-renowned engine consultants like Ricardo and AVL. It has manufactured CNG version of buses and also launched a CNG version of its passenger car, the Indica. Over the years, Tata Motors has also made investments in the establishment of an advanced emission-testing laboratory.

(b) Restoring Ecological Balance

Tata Motors has planted 80,000 trees in the works and the township and more than 2.4 million trees have been planted in Jamshedpur region. Over half a million trees have been planted in the Poona region. The company has directed all its suppliers to package their products in alternate material instead of wood. In Pune, the treated water is conserved in lakes attracting various species of birds from around the world.

(c) Employment Generation

Relatives the employees at Pune have been encouraged to make various industrial co-operatives engaged in productive activities like re-cycling of scrap wood into furniture, welding, steel scrap baling, battery cable assembly etc. The Tata Motors Grihini Social Welfare Society assists employees' women dependents; they make a variety of products, ranging from pickles to electrical cable harnesses etc ; thereby making them financially secure.

(d) Economic Capital

In Lucknow, two Societies - Samaj Vikas Kendra & Jan Parivar Kalyan Santhan have been formed for rural development & for providing healthcare to the rural areas. These societies have made great efforts for health, education and women empowerment in rural areas.

(e) Human Capital

Tata motors has introduced many scholarship programs for the higher education of the children. Through a scholarship program Vidyadhanam, the company supports 211 students. Out of these students 132 students are from the marginalized sections of the society. These students get books, copies and other study materials. They also undergo different kinds of workshops, creative & outdoor sessions and residential camps as well.

The company has entered into Public-Private Partnership (PPP) for upgrading 10 Industrial Technical Institutes (ITI) across the country.

(f) Natural Capital

On the World Environment Day, Tata Motors has launched a tree plantation drive across India and countries in the SAARC region, Middle East Russia and Africa. As many as 25,000 trees were planted on the day. Apart from this more than 100,000 saplings were planted throughout the monsoon.¹⁵

6.4.3 Tata Chemicals Ltd (TCL)

Tata Chemicals is making an effort for sustainability. Sustainability for the group means honesty and transparency towards stakeholders, environmental protection , generating economic value, promoting human rights and creating social capital. Tata Chemicals supports the UN Global Compact and is committed to reporting its sustainability performance in accordance with GRI (Global Reporting Initiatives) guidelines. Its main operations for environment protection include optimal use of resource, finding and/or generating

alternative sources of fuel and raw materials, and maximizing reuse and recycling . All in all they have the policy of 'avoid, reduce and reuse'. The company runs a rural development program at Okhamandal and Babrala.

Tata Chemicals Limited was one of the first organizations to hold an Impact camp, which was held at Mithapur in the year 1982, providing eye care to hundreds of patients at the Mithapur Hospital. Tata Chemicals Limited was also the first organization to run world's first hospital on wheels - the Life Line Express, through Jamnagar district for the first time between November 21, 2004 and December 21, 2004.¹⁶

6.4.4 Tata Tea

Tata Tea has been working hard since the 1980s to fulfill the needs of specially-abled people. It has set up the **Srishti Welfare Centre at Munnar, Kerala**; its various programs provide education, training and rehabilitation of children and young adults with special needs.

Srishti has four projects:

- a. The DARE School
- b. The DARE strawberry preserve unit
- c. Athulya
- d. Aranya.

Tata Tea's welfare officers help identify and encourage relatives or children of employees who are handicapped to join the Welfare Centre for special education and rehabilitation.

a.The DARE

It provides the students with training in basic academics, self-help skills and skills like gardening, cooking, weaving etc. Children are taught to paint and some of the paintings are printed and sold as greeting cards. The sales proceeds of which are used back into the units.

b.The DARE strawberry

It preserves unit trains youngsters to make natural strawberry preserve. The trainees are paid for the work; they receive social cover, free medical aid and other benefits.

c.Athulya

It has two units -

- (i) A vocational training center that imparts training in stationery-making
- (ii) A handmade paper-making unit which trains physically challenged persons in the art of making recycled paper

d.Aranya

This project was started to nurture the lives of the disabled and also to revive the ancient art of natural dye. Individuals are given training in various natural dyeing techniques including block printing, tie and dye, batik work, etc. Their products are sold in and outside the country .¹⁷

Tata Tea's Jaago Re! Campaign exemplifies the Social-Cause Marketing Initiatives .

6.4.5 Titan

Corporate social responsibility is a basic element of TITAN Group's governing objective and one of its corporate values. In its corporate philosophy CSR is defined as doing less harm and more good by adopting the following practices :

- Respecting and supporting local communities
- Caring for the employees
- Being an active member of society
- Committed to sustainable development
- Putting safety(at work) first

Titan has employed 169 disabled people in blue collar workforce at Hosur.

6.4.6 TISCO

TISCO was awarded The Energy Research Institute (TERI) award for Corporate Social Responsibility (CSR) for the fiscal year 2002-03 in recognition of its corporate citizenship and sustainability initiatives. As the only Indian company trying to put into practice the Global Compact principles on human rights, labor and environment, TISCO was also conferred the Global Business Coalition Award in 2003 for its efforts in spreading awareness about HIV/AIDS.

6.4.7 TELCO

TELCO, Puna has started community development activities for the benefit of TELCO families and local residents in 1973 with the following objectives:

-
1. To create social awareness in all the employees and their families, to promote congenial mutual relations amongst them, to improve personal and environmental hygiene and health
 2. To help the families of employees develop better living standards by organizing extension education programs, training in various trades/skills and providing opportunities to earn additional income.
- TELCO is fighting against Leprosy at Jamshedpur.

6.4.8 Tata Consultancy Services (TCS)

TCS aims at the Tata group's philosophy of building strong sustainable businesses community. The elements that make for strong corporate sustainability at TCS include the following: A fair, transparent corporate governance, a strong strategy for long-term growth, Best-in-class HR processes, initiatives for community betterment and welfare.

In 2010-11, TCS supported its local communities in the United States: supported the victims of the 2010 Chilean earthquake, conducted IT educational programs for high school students in Cincinnati, raised support and awareness for diabetes prevention through a series of marathon sponsorships

Tata Consultancy Services runs an adult literacy program. Indian government launched Saakshar Bharat, an adult education programme in 2009 and the programme will now go online via TCS' partnership. The scheme, aimed at female literacy aims to make literate 70 million people, of which at least 85 percent are women literate and the program has already been rolled out in 167 districts across 19 states.¹⁸

6.4.9 Tata Archery Academy

The Tata Archery Academy was established in Jamshedpur in 1996. The academy has all the training facilities like highly efficient coaches, archery grounds, equipment from India and abroad. It also provides hostel and multi gymnasium facilities for its cadets.

After a rigorous selection process being carried all over India, the Academy selects boys and girls between the age group of 13 to 18 years for the four years course and it provides the training during which the cadets are also imparted with formal education. Some of the major championships where the of the Tata Archery Academy cadets have participated and have won several medals are Junior world Archery Championship, Senior World Archery Championship, Asian Archery Championship, Commonwealth Games and Asian Games.

6.4.10 TQMS

Tata Quality Management Services (TQMS - a division of Tata Sons) had been entrusted with the task of institutionalizing the Tata Business Excellence Model (TBEM). The TBEM provides each company with a wide outline to help it improve business performance and attain higher levels of efficiency and productivity. It aims to facilitate the understanding of business dynamics and organizational learning. TBEM is a 'customized-to-Tata' adaptation of the globally renowned Malcolm Baldrige model. TBEM model focuses on seven core aspects of operations: leadership, strategic planning, customer and market focus, measurement, analysis and knowledge management, human resource focus, process management and business results. Performance is measured in absolute points; companies have to achieve a minimum of 500 points (out of 1,000) within four years of signing the BEBP agreement.. TQMS helps Tata companies use the model to gain insights on their business strengths and opportunities for improvement. This is managed through an annual process of assessment and assurance. The model, through its regular and calibrated updates, is used by Tata companies to stay in step with the ever-changing business environment.

TBEM based performance excellence goals:

Basically TBEM Criteria is designed to help organizations use an integrated approach to performance management that results in delivery of ever-improving value to customers and stakeholders, contributing to organizational sustainability improvement of overall organizational effectiveness organizational and personal learning.

6.4.11 TCSR

Tata Chemicals Limited (TCL) set up the Tata Chemicals Society for Rural Development (TCSR) in 1980 to promote its social objectives for the communities in and around Mithapur, where its facility is located. This service was further extended to the communities in and around its Babrala and Haldia facilities.

Through Tata Chemicals Society for Rural Development (TCSR) Tata Chemicals works to improve the quality of life of the people and communities. It also aims at supporting sustainable development, which is the central theme of the company's corporate philosophy. It works to protect and nurture the rural populations in and around TCL's facilities, and assists people in attaining self-sufficiency in natural resource management, livelihood support. It also aims at the building of health and education infrastructure i.e. schools and hospitals, maternity centers etc.

The initiatives that TCSR is involved in include:

- a) Agricultural development
- b) Animal husbandry
- c) Watershed development
- d) Education
- e) Rural energy
- f) Women's programs
- g) Relief work

6.4.12 Tata Relief Committee

Tata Relief Committee (TRC) works to provide relief at disaster affected areas. During natural calamities there are two phases of assistance - (a) relief measures and (b) rehabilitation program.

After the Gujarat earthquake the group built 200 schools in two years and they rendered help during the Orissa floods when people lost cattle. Even after the Tsunami disaster members of TRC immediately reached the places and supplied the things required.

6.4.13 Tata Council for Community Initiatives (TCCI)

TCCI was established in 1994. TCCI's mission states: "We will work together to be, and to be seen as, a group which strives to serve our communities and the society at large". TCCI is also involved in assisting Tata companies maintain sustainability reporting the guidelines of Global Reporting Initiative (GRI). It is the focal point for the UN Global Compact in India, which has 42 Tata companies as signatories, the highest in the world from a single business group.

In collaboration with the United Nations Development Programme (India), TCCI has crafted the Tata Index for Sustainable Human Development, aiming at directing, measuring and enhancing the community work that Tata enterprises is undertaking for the upliftment and welfare of the people.

6.5 Tata Corporate Sustainability Policy

"No success or achievement in material terms is worthwhile unless it serves the needs or interests of the country and its people."

- J R D Tata

The corporate policy of the group encompasses the sustainable development of all the stakeholders. The major points included in the corporate policy are following:

- Demonstrate responsibility and sensitivity to biodiversity and the environment
- Comply with rules and regulations relating to environment
- constantly upgrade technology and apply state-of-the-art processes and practices with institutional arrangements that will combat larger issues like climate change and global warming
- Create sustainable livelihoods and build community through social program pertaining to health, education, empowerment of women and youth, employee volunteering,
- Find ways to enhance economic, human, social and natural capital for bringing and maintaining a balance among business, society and environment.

6.6 Dedications to the Nation at a Glance

6.6.1 Tata Health Infrastructure

- Tata main hospital at Jamshedpur
- ICU in Joda and Balangpur
- CHC in Bari and Kuhika
- Hospitals in Gobarghati, Sukinda, Joda, Belpahar, Belipada and Bamnimal
- "Lifeline Express"- the hospital on wheels
- Mobile health clinics
- Centre for hearing impaired children

6.6.2 Tata Educational Infrastructure

- Institute of mathematics
- Sukinda college
- Joda college centenary Learning centre at XIMB
- J N Tata Technical Education centre
- School of hope
- Shishu Niketan

6.6.3 Tata Sports Infrastructure

- Tata athletics academy
- Tata archery academy
- Tata Football academy
- Tata steel adventure foundation
- Sports feeder centres
- Stadium at Keonjhar

6.6.4 Preservation of culture & Heritage

- Contribution to setting up national Center for performing arts Mumbai
- Tribal cultural centers showcases legacy of nine tribes Jharkhand and Orissa
- Gramshree mela activities

VI. Conclusion

For bringing back and maintaining the general balance in the economic and social arena it is evident to think deeply and act wisely about CSR. Every business house owes some responsibility towards the society, nation and world in general which provide it with all human, material and natural resources. Considering the long run growth and sustainable development following the norms of CSR, devising new policies and effective implementation is inevitable to bring and sustain a balance between corporate world and society, present generation and upcoming generation, man and nature.

As far as the Tata group is concerned, it has gone a long way in fulfilling its duty and responsibility towards the society and the nation. It has reached the masses to elevate their lives, to nurture their dreams and to hone their skills justifying the statement of the founder "We do not claim to be more unselfish, more generous and more philanthropic than other people. But we think we started on sound and straightforward business principles, considering the interests of the shareholder, our own, and the health and welfare of the employees, the sure foundation of our prosperity".

7.1 Findings

- As business is an integral part of the social system it has to care for varied needs of the society
- Business which is resourceful has a special responsibility to the society.
- Social involvement of business would enhance a harmonious and healthy relationship between the society and business seeking mutual benefit for the both.
- Social involvement may create a better public image and goodwill for the company which further becomes instrumental in attracting customers, efficient personnel and investors.

7.2 Limitations

While preparing this research paper legal aspects like corporate governance, labor and employee welfare related laws have not been undertaken.

7.3 Significance of the study

A. To the Policy Makers

- This study encourages Private Public Partnership (PPP) for CSR promotion encompassing infrastructure, pollution, child labor, labor productivity & morale.
- It may become helpful to make the policy makers at political and corporate level as well consider CSR an investment and not an expense as it can become instrumental in increasing goodwill and corporate image.

B. To the Society

- Development of infrastructure i.e. parks, water purification, education etc.
- Environment protection
- Uplifting of the rural populace
- Bringing the tribes into the mainstream of the country

C. To the Economy as a whole

- Increase in the growth rate
- Strategic CSR at political and corporate level can make the country a better investment destination.
- Cumulative results may improve Human Development Index (H.D.I.) of the country.

7.4 Recommendations

- The concept of private-public partnership (PPP) should be applied in the effective implementation of CSR i.e. government and business houses should act in collaboration for the cause.
- The Human Resource department (at the political and private level both) should be entrusted with the responsibility of measuring and evaluating in CSR activities . It can be done in two forms –
 - (a) direct results, such as, economic and financial savings
 - (b) indirect results like increase in employee satisfaction, less absenteeism, less employee turnover evaluated by staff surveys
- Periodic review of the CSR activities should be conducted by every business entity so as to identify the pitfalls and the areas left out.
- Innovation should essentially be a matter of concern ; be it searching the untouched areas and scope of CSR or the formulation of CSR strategy or the implementation thereof.
- NGOs should be encouraged to act in collaboration for the CSR activities under different schemes and projects as they play a crucial role in the upliftment of the masses.

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A Critical Review of Multinational Companies, Their Structures and Strategies and Their Link with International Human Resource Management

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ABSTRACT: *This review paper critically examines multinational company; discuss its merits and demerits for host countries and debates on its various types of structures and strategies. The main part of this critical review relates about the various types of structures and strategies which multinational companies adopt while conducting business across borders. It starts by defining Multinational Company discussing its merits and demerits, analysing the various components of its strategies and structures and comparing the merits and demerits of these different types of structures and strategies. A thematic approach rather than chronological approach has been used mainly due to the purpose and approach necessary for such type of review. The thematic approach enables an analysis of a specific topic or theme without considering the chronological order of which the research has been conducted. In latter part this review discusses the relationship of these strategies with international human resource management and also highlights the implications of different companies' strategies and structures for the international human resource management (IHRM). And at end we concluded that the role of IHRM varies in different types of organizational structures and therefore the implications of these structures are also vary for international HRM.*

Keywords- *International Human Resource Management, Models, Structures and Strategies, Multinational Companies*

I. Introduction

Over the past thirty years, the conceptualization of global strategies by Multinational Corporation has developed dramatically (Adler, 1997; Bartlett, & Ghoshal 1998), and the implication of these global strategic models for international human resource processes and practices has no less dramatic (Black et al., 1999). Despite these important developments, however, major discontinuities between these global structures and the international human resource processes that are required to implement them remain (Heidenreich, 2012). The main players in a global knowledge-based economy are multinational companies (MNCs). No one can deny the importance of MNCs in the current global business environment. Multinational Companies coordinate and control subsidiaries across national boundaries and are thus obliged to operate in different national contexts (Heidenreich, 2012).

Objectives Of The Study

The objectives of this study are:

- to critically examine multinational company; discuss its merits and demerits for host countries and debates on its various types of structures and strategies.
- to critical analyze various types of structures and strategies which multinational companies adopt while conducting business across borders.
- To study the relationship of these strategies with international human resource management
- To highlights the implications of different companies' strategies and structures for the international human resource management (IHRM).

A thematic approach rather than chronological approach has been used mainly due to the purpose and approach necessary for such type of review. The thematic approach enables an analysis of a specific topic or theme without considering the chronological order of which the research has been conducted.

II. Definition Of Mnc

There is no universally accepted definition of a multinational company available. Multinational Corporations have been broadly defined as business firms that uphold value added-holdings overseas. According to Spero and Hart (1999) a multinational corporation (MNC) as a business enterprise that maintains direct investments overseas and that upholds value-added holdings in more than one country. An enterprise is not truly multinational if it only operates in overseas or as a contractor to foreign firms. A multinational firm sends abroad a package of capital, technology, managerial talent, and marketing skills to carry out production in foreign countries. Dunning (2008) supports the same view and defining MNC as an enterprise that engages in foreign direct investment (FDI) and owns or, in some way, controls value added holdings in more than one country.

Hennart (2008) defines MNC in a different way that they are a privately owned institution devised to organise, through employment contracts, interdependencies between individuals located in more than one country. while Multinational Corporations according to Kogut and Zander (2003) are economic organisations that grow from its national origins to spanning across borders. As an ILO (2010) report observe “The essential nature of a multinational company lies in the fact that its managerial headquarter is located in one country while the company carries out operation in a number of other countries as well.”

Merits Of Mncs

According to Heidenreich, (2012) and ILO (2010) the main merits and demerits of MNCs are:

- Help to increase investment, income and employment in host country.
- Transfer technology to developing countries.
- Make a commendable contribution to inventions and innovations

DEMERITS OF Mncs

It is true that MNCs have some advantages for host countries however; MNCs have been criticised on the following grounds.

- MNCs technology is designed for world wide profit maximisation, not for the development need of poor countries.
- Through power and flexibility, MNCs can evade national economic autonomy and control, and their activities inimical to the national interest of particular countries.
- MNCS cause fast depletion of some of the non-renewable natural resources in the host country

Strategic Objectives

In this part of the review we will discuss strategic objectives of MNCs and will show how MNCs follow different competitive strategies to achieve these objectives.

(Bartlett & Ghoshal, 1992), suggest that, there are three strategic objectives of MNCs.

- Global efficiency
- Flexibility
- Organizational learning (transfer of information)

As Bartlett & Ghoshal suggest, these objectives are very important for MNCs, although their degree of importance vary from company to company. For global efficiency it is necessary to realize that every possible source of competitive advantage has been identified and utilized. It is important to realize that global efficiency can be enhanced both by increasing revenues and by lowering costs. Important factors influencing efficiency include labour, productivity, capital intensity, economies of scale, learning-curve effects and a company cost culture generally (john et al., 1997)

Multinational flexibility according to Bartlett and Ghoshal (2000) means “the ability of a company to manage the risks and explore the opportunities that arise from the diversity and volatility of the global environment.” Lastly, a major objective of MNCs is facilitating learning across units. In addition to encouraging new learning, MNCs also encourage and facilitate the transfer and sharing of new knowledge.

III. Definition Of Strategy

According to chandler (1962) “strategy is the determination of the basic long-term goals and objectives of an enterprise and the adoption of courses of action and the allocation of the resources necessary for carrying out these goals”

Bartlett and Ghoshal (2000), distinguish four different strategic approaches that focus on the different combinations of the sources of competitive advantage (the means) and strategic objectives (the ends).

IV. Multidomestic/ Multinational Strategy

To achieve different strategic objectives this strategy gives prime importance to one of the means, national differences. This strategy is a collection of relatively independent subsidiaries, each focusing on specific domestic market. The company manages its business with minimal direction from headquarter. By differentiating their products and services to respond to differences in consumer's tastes and preferences and government regulations, these companies achieve global efficiency and increase revenues. Through this responsiveness to national differences they also realize the opportunities associated with multinational flexibility. This is a country-centred strategy therefore, learning remains within country borders: subsidiaries identify local needs, but also use their own resources to meet these needs. Bartlett & Ghoshal (2000) call this local-for-local innovation (Harzing & Ruysseveldt, 2005)

In short, main characteristics of this strategy are below.

- Decentralised and nationally self sufficient.
- Sensing and exploiting local opportunities.
- Knowledge developed and retained within each units.

Example of multidomestic industries includes consumer packaged goods e.g. washing powder and retailing

Advantages

- Decentralization helps local motivation and morale, therefore, increase the firm's effectiveness.
- Customise product offerings and marketing in according with local responsiveness satisfy customer's taste.
- By responding to local differences these companies also achieve global efficiency and increase revenues.

Disadvantages

It is true that this strategy has some advantages but some criticism is also levelled against this strategy.

- Inability to realise location economies.
- Failure to exploit experience curve effect.
- Failure to transfer core competencies to foreign markets.
- Lost economies of scale.

International Strategy

Companies follow an international strategy focus primarily on one of the ends worldwide learning. This kind of strategy is well designed to serve the need for learning through worldwide sharing of innovation. This strategy is effective if a firm faces weak pressures for local responsive and cost reductions, but it does not do a very good job in achieving either global efficiency or flexibility. In this kind of strategy the knowledge and competencies transfer to foreign markets (Marbey & Salaman, 1995)

Shortly the main characteristics of this strategy are below.

- Sources of core competencies centralized, other's decentralized.
- Weak pressures for local responsiveness and cost reductions.
- Knowledge developed at the centre and transferred to overseas units.

Example of this strategy is Mc Donald's.

Advantages

- Worldwide sharing of innovation.
- This strategy is very efficient at transferring knowledge across borders.
- Centralization of core competencies.

Disadvantages

The following is the main criticism levelled against this strategy.

- Lack of local responsiveness.
- Inability to realise location economy.
- Failure to exploit experience curve effect.
- Due to centralized system it harms local motivation and morale, therefore reducing efficiency and flexibility.

V. Global Strategy

In this kind of strategy the global corporations use all of their resources in a very integrated fashion. All of their foreign subsidiaries and divisions are highly interdependent in both operations and strategy. This strategy is based on an integration of productions to produce standardized products in a highly cost-efficient way. This strategy is good at achieving the need for efficiency through global integration. The concentration

and centralization of productions and R&D activities associated with global strategy limit flexibility and leave companies that follow this strategy vulnerable to political and currency risk. They also limit their ability to learn from foreign markets. Therefore, where as in a multi-domestic strategy the managers in each country react to competition without considering what is taking place in other countries, in a global strategy, competitive moves are integrated across nations. The same kind of move is made in different countries at the same time or in a systematic fashion (Albrecht, M.H. (2001)

In short, the following are the main characteristics.

- Centralized and globally scaled.
 - Implementation of parent company strategies.
 - Knowledge develops and retains in the centre.
 - Minimal pressure for local responsiveness.
 - Strong pressure for cost reductions.
- Example: semi conductor industry, Intel and Motorola.

Advantages

- By pooling production or other activities for two or more nations, a firm can increase the benefits derives from the economies of scale.
- A firm that is able to switch production among different nations can reduce costs by increasing its bargaining power over suppliers, workers and host governments.
- By locating production in low-cost countries and making standardize product a company can cut costs.
- Worldwide availability, serviceability and recognition can increase performance through reinforcement.
- The company is provided with more points from which to attack and counterattack competition.

Disadvantages

It is true that this strategy has some advantages but some disadvantages of this strategy are below.

- Through increased, reporting requirements and added staff, substantial management cost can be incurred.
- Over centralization can harm local motivation and morale, therefore reducing the firm's effectiveness.
- Standardization can result in a product that does not totally satisfy any customer.
- Incurring costs and revenues in multiple countries increase risk.
- This strategy also limits the ability to learn from the foreign markets.

Transnational Strategy

To remain competitive this strategy tries to achieve all strategic objectives at the same time. The transnation strategy provides global coordination (like the global strategy) and at the same time it allows local autonomy (like the multidomestic strategy). It is a kind of combination of global strategy and multidomestic strategy. Transnational strategy offers solution to the competing pressures and involves the creation of an integrated network of units each with a distinct role. It meets all three pressures of local responsiveness, flexibility and global efficiency.

It is based on a combination of location-bound and non-location bound firm-specific advantages.

In short, following are the main characteristics of this strategy.

- High pressure for local responsiveness.
 - High pressure for cost reduction.
 - Knowledge develops and shares worldwide.
 - Transfer of core competences.
- Example of this type of strategy is caterpillar.

Advantages

- Exploitation of experience curve effects and location economies.
- Customise products offering and marketing in accordance with local responsiveness.
- Reap benefits of global learning.

Disadvantages

This strategy is criticised on the following grounds.

- It is a kind of difficult task due to contradictory demands placed on the organization.
- Due to complexity in nature, difficult to implement.
- Lost of economies of scale.
- Units may have power to block initiatives and preserve their own autonomy.

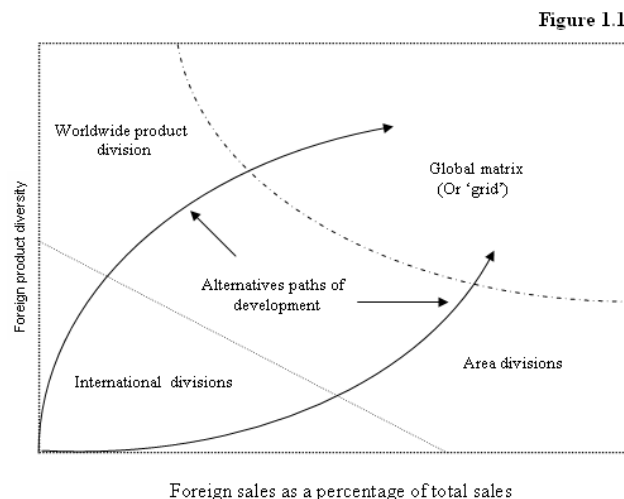
VI. STRUCTURING OF MULTINATIONAL COMPANIES

Designing an organisation's structure that achieves the multiple strategic objectives of international business is one of the greatest challenges faced by multinational companies in recent decades. The selection of a good competitive strategy is no doubt very important, but a successful implementation of this strategy depends on the structure and processes of the company in question (Harzing & Ruysseveldt, 2005). In this section we will discuss MNC's structures focussing on the classic approach (classic stages models) of Stopford and Wells and Bartlett and Ghoshal new approach (four models) and also their advantages and disadvantages.

Early Studies

Chandler (1962) work on the structure of MNCs is considered the early studies on the structure of MNCs. Chandler (1962) distinguished four growth strategies: expansion of volume, geographic dispersion, vertical integration and product diversification. These strategies are called for different structures; hence his adage structure follows strategy. Stopford and Wells's (1972) classic study investigated this relationship in an international context. Stopford and Wells (1972) structural stages model was based on empirical investigation of the strategy/structure linkages in 187 large US corporations that define the relationship in terms of two variables (see the figure 1.1).

- The number of products sold internally (foreign product diversity, shown vertically in figure 1.1) and
 - The proportional importance of foreign sales to total sales (percentage foreign sales, shown horizontally)
- A model was constructed that shows how MNCs adopt different organisational structures at different stages of international expansion (see figure 1.1)



Stopford and Wells's international structural stages model (adapted from Stopford and Wells, 1972)

International Division Structure

This type of structure is to be used when both product diversity and foreign sales are low. All the international activities are simply concentrated in one international division and the domestic organizational structure is left untouched. It is a simple and understandable structure and it does not need a complete overhaul of the organization.

ADVANTAGES

- It creates a central pool of international; experience and expertise.
- It is effective in cost reduction.

Disadvantages

- Isolation of domestic and international activities limits the transfer of knowledge.
- Lack of coordination.
- Division between domestic and international activities hinders the company's effectiveness and efficiency.

Area Division Structure

This structure prioritizes the geographic or territorial dimension and the MNC's primary division which are based on area. This structure is good for a company with narrow product line (low level of foreign product

diversity). In this case the world is divided into separate areas, depending on the size of the market. Each area operates rather in an autonomous way.

Advantages

- Responsive to local differences and taste.
- This structure works well if a company has a narrow product line.

Disadvantages

- Lack of coordination.
- Failure to transfer information and experience.

VII. Product Division Structure

This structure is to be particularly suitable for diversified MNCs with wide products range. In this kind of structure the divisions are created for each product or group of products, and these division are relatively independent and autonomous and are responsible for their own value-creating activities (production, R&D, marketing etc)

Advantages

- Due to coordination & rationalization within product group, efficiency is improved.
- High degree of integration and economies of scale.
- Transfer of core competence and knowledge.

Disadvantages

- Less responsive to local conditions and differences.
- Corporate level strategy may be weak in this structure.

Global Matrix Structure

When a company enters into a stage, where both foreign sales and product diversity are high, then global matrix is the ideal structure. This structure combines the advantages of both of the area and product structure, local responsiveness and global efficiency. In this structure the responsibility for a particular product is shared by both product and area managers (Harzing & Ruysseveldt, 2005).

Advantages

- This structure helps a company to balance product and area requirements and achieve both efficiency and responsiveness.
- Transfer of learning and knowledge

Disadvantages

- Decision making processes become slow and bureaucracy increased.
- Lack of responsibility and flexibility.

Recent Development

Nowadays some recent and sophisticated approaches have been developed. Here we will discuss these recent develop structures described by Bartlett and Ghoshal (2000), multinational, international, global, and transnational.

VIII. Multinational Organizational Model

This was the classic organization pattern adopted by companies in pre-war period. Economic, political and social forces encouraged multinational companies to decentralize their organisational assets and capabilities to allow foreign operations to respond differences that distinguish national markets. So the foreign operations were relatively independent of the headquarters. Control and coordination were achieved primarily through the personal relationship between top corporate management and subsidiary managers. Products were customised to meet differing local demands. This structure gives prime importance to local responsiveness. Decentralized federation is the main characteristic of this structure. Example of a multidomestic industry is the branded packaged products industry e.g. food and laundry detergents.

Advantages

The main advantage of this structure is that it gives prime importance to local responsiveness, and through this achieves global efficiency.

Disadvantages

The main disadvantages of this structure are the inability to realize location economies and also failure to exploit experience curve effect.

IX. International Organizational Model

This type of organizational structure developed in the early post-war decades. The main objective for the companies in those days was to transfer knowledge and expertise to overseas environments that were less advanced in technology or market development. Local do still have some freedom to adopt new products or strategies, but more important than in the multidomestic type. Some functions in the international model are centralized and others are decentralized, in particular knowledge, research and development take place at the centre and are subsequently transferred to subsidiaries. A classic example of an international industry is telecommunications switching.

Advantages

The main advantages of this structure are sharing of worldwide innovation and transfer of knowledge from centre to subsidiaries.

Disadvantages

The main disadvantages are the lack of local responsiveness and inability to realise location economy.

X. Global Organizational Model

This type of structure emphasises on efficiency, centralization and control. In global industry, standardize consumer needs and scale efficiencies make centralization and integration profitable. In this kind of industry a firm competitive position is significantly influenced by its position in other countries and rivals compete against each other on truly worldwide basis. In this type of structure the role of offshore subsidiaries is limited, only to assemble and sell products and implement plans and policies developed at headquarters. As compared with multidomestic and international organizational mode the subsidiaries in this organizational model have much less freedom of action. The structural configuration of this organization is called central hub. The example of a global industry is consumer electronics (Jain, 1989)

Advantages

By locating production in low cost countries and making standardize product a company keeps costs low.

Disadvantage

This structure limits the ability to learn from the foreign markets and over centralization harms the motivation and therefore, reducing the firm's effectiveness.

XI. Transnational Organization Model

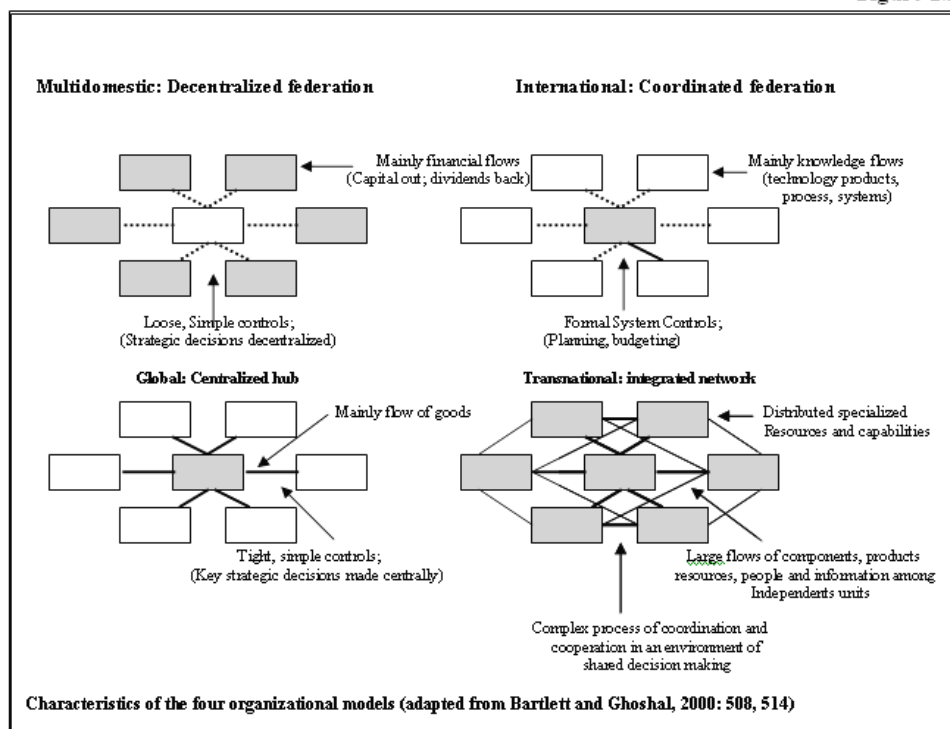
To remain competitive this model achieves all three strengths (efficiency, flexibility and local responsiveness) simultaneously. In 1980s many worldwide industries have adopted transnational form. This type of structure is a complex configuration of assets and capabilities in which some functions and resources are centralized and others decentralized, creating an independent network of specialized units. Expertise is spread throughout the organization and subsidiaries can serve as a strategic centre for particular product-market combination. This concept is against the traditional concept of having one headquarter and many dependant subsidiaries. In this type of structure the company becomes a kind of network with different centres for different activities. Each centre has a strategic role for a particular area. Example of this kind of structure is caterpillar.

Advantages

The main advantage of this structure is exploitation of experience curve effect and location economies.

Due to its complex nature this structure is difficult to implement.

Figure 1.2



XII. Implications Of Different Company Strategies And Structures For International HRM

To operate in an international environment a human resource department must engage in a number of activities like, human resource planning, staffing, training and development, compensation, performance management and industrial relations. In this portion of literature review we will discuss the role of IHRM or implications for IHRM in context of different types of strategies and structures.

Human Resource Planning

We use the concept of HR policy in generic sense for a wide range of policies, procedures and processes, which aim at managing, discipline, motivating and rewarding employees in work organization. IHRM here link the understanding of HR policy to a wide range of company values & strategies, i.e. HR is more or less integrated in the company culture. It suggests that HR policy not only is a question about education and training of employees, but also aim at managing the relation between employer and employees and development of reflexive workforce (Kettunen, 1998). Moreover, it suggests, that success of HR policy is closely connected to organization and competence development.

The challenge is to establish an agenda that motivates employees to become involved and committed to company strategies. The main task of IHRM is making and implementation of HR programme which enable a firm to be successful globally.

STAFFING (Recruitment, Selection And Placement)

The difference between failure and success depends how well organizations select, train and manage their employees. For international staffing Perlmutter's (1969) classic study has described three different approaches, ethnocentric, polycentric and geocentric. Companies follow ethnocentric staffing approach would mostly appoint parent company nationals. In this type of approach the nationals from parent company dominate the organisation at home and abroad. While companies follow the polycentric approach appoint mostly nationals from host countries, and companies follow geocentric approach appoint the best persons regardless of their nationality.

Now linking these different types of staffing approaches to Bartlett and Ghoshal (2000) organizational models as discussed earlier. Global and (up to some extent) international organisational models follow ethnocentric approach, multidomestic polycentric and transnational geocentric approach.

International HRM is concerned with ethnocentric staffing policy because in ethnocentric policy the recruitment and selection are made at headquarters and subsidiaries have limited autonomy. So, in global and international models the selection of expatriates, their training, preparation and placement for international role and the

control of human resource in diverse and dispersed population of host countries is the main and crucial role of IHRM. In this processes the IHRM faces a lot of implications like cultural differences, communication problem, relocation and remuneration.

Training And Development

Multinational companies recognize that human resources play an important role in developing and sustaining a competitive advantage in today's highly competitive global business environment (Brewster, 2000). The training and development of the human resources perform a variety of purposes such as to acquire and transfer knowledge, to manage foreign subsidiary and to maintain communication coordination and control between subsidiaries and headquarters. In global and a bit in international organisational models training originates at headquarters and corporate trainers travel to subsidiaries. To remain globally competitive the IHRM must identify employees with global potential and provide them various training and development opportunities. While in multidomestic and transnational organizational models the training and developments activities carry out on local basis.

Compensation & Reward

After selection, training and development of employees, another implication for IHRM is how to compensate employees in multinational companies. International compensation can be defined as the provision of monetary and non monetary rewards, including base salary, benefits, long and short-term incentives, valued by employees in accordance with their relative contributions to MNC performance. Its broad HRM purpose is to attract, retain and motivate those personnel throughout the MNC currently and in the future (Harzing & Ruysseveldt, 2005). In multinational companies the IHRM is mainly concerned with the compensation and reward of employees in global and international structure models, because in global and international models the compensation and reward system is develop and administer in headquarters. While in multidomestic and transnational structures compensation and reward system is develop in different units and regulated by local HRM. Compensation and reward system for international expatriate is much more complex. The IHRM looks into various things like foreign services premium, hardship, relocation, education and home leave etc, when giving compensation to international expatriate.

Performance Management

Performance management in different types of strategies and structures is another implication for IHRM. Performance management means systematic appraisal of employee's performance within an organization.

In multidomestic and transnational organizational models this is the duty of local HRM, while in global and (to some extent) in international models for performance management the IHRM uses different practice base on different theories like expectancy theory and goal setting theory. In MNC the performance management is more complex as it occurs across national and cultural boundaries.

Industrial Relation

Industrial Relation identifies and defines the roles of management and workers in workplace. Managing industrial relation is another task for IHRM. In global and a little bit in international models the IHRM manage the industrial relation taking into account the governmental regulations and role of trade unions in different countries.

In addition to these, international taxation, international relocations and language problem etc are also some others important implications for IHRM.

XIII. Conclusion

Bartlett & Ghoshal (2000) prescribed four different strategic approaches that focus on the different combinations of the sources of competitive advantage (the means) and strategic objectives (the ends).

To compete effectively, achieve global advantages and remain globally competitive Multinational Companies follow different strategies and structures. In this literature review we have defined MNC, critically analysed its different strategies and structures and compared strengths and weaknesses of these strategies and structures with each others.

In latter part of this review we have mentioned that that international HRM has crossed the early stage of development and through strategic IHRM a multinational company can achieve competitive advantage. In this literature review we have also discussed that the role of IHRM varies in different types of organizational structures and therefore the implications of these structures are also vary for international HRM.

In last section of this review we have prescribed some general implications of a company's different strategies and structures for IHRM and have discussed how IHRM faces these implications and manages the human resources worldwide.

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Present Status of Garment workers in Bangladesh: An analysis

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Abstract: Garments sector is the life blood of Bangladesh as the agricultural land has there been turned to a country of garments industries. Employment in the Ready-made garment sector in Bangladesh provides workers with economic benefits and some empowerment. More than 3.2 millions people are working in this sector and about 5000 garments factories are scattered across the country. 78 per cent of our foreign earnings come from this sector. So it will not be an overstatement to say that, we earn our bread from garments industries. The study attempts to explore the present socio-economic status of the garments workers. The study based mainly on economic and social status of 100 garments workers from Rampura and Badda areas of Dhaka City. It was found that the socio-economic condition of the Garments workers is not in a lofty stage. Amongst the workers about 70 per cent are women, who work dawn to dusk even up to late night when their wages are not in the satisfactory level. They cannot afford their foods, cloths, housing, medicines, and educations of their wards as they are ill paid. On the contrary, their children are deprived from their care; they suffer from malnutrition and unhygienic complexities. They have no time or scope for recreation. During the study it was found that, worldwide economic meltdown has affected RMG sector of Bangladesh as some workers have lost their jobs and trend of works have been declined. At the end of the study, some recommendations were placed to improve the present conditions of the garments workers as well as garments sector of the country.

I. Bangladesh is the country of Garments Industries:

Bangladesh is a developing country. Most of the people are still occupied in agriculture sector. But per capita land is very scant. Most of our farmers are the marginal farmers. Others rural workforce is involved with day labors, nonetheless some people are engaged in others small scale industries like handicrafts which are yet to booming to earn huge currency to involve the enormous unemployed persons. The Successful export oriented readymade garments (RMG) industry of Bangladesh has observed remarkable growth since its beginning late 1970s. Paradoxically, this flagship industry of Bangladeshi private entrepreneurial talent took roots through the first export consignment of shirts from Bangladesh made by state trading agency, the Trading Corporation of Bangladesh (TCB) in the mid -1970s (Rashid, 2006), under the country trade administration & the destination was some East European Countries. Subsequently, however, private entrepreneurs entered the industry and phenomenal growth took place in RMG exports from Bangladesh. Export of RMG increased from US \$40 thousand in 1978-79 to US \$6.4 billion in 2004-05. The industry has also provided employment to nearly 2.8 million workers (BGMEA, 2009) most of them women drawn from the rural areas.

Explosive growth of RMG exports is of not inimitable to Bangladesh. The annual compound growth rate of RMG export industries in Indonesia (31.2%), Mauritius (23.8%) & Dominican Republic (21.1%) compares favorably with that of Bangladesh (81.3%) over the 1980-87 periods. However, while the initial conditions were favorable for export growth in the countries noted above, this was far from the truth in case our country. This makes research into the factors responsible for the observed outstanding growth of RMG exports from Bangladesh-a persuasive case study in economic development.

Academics and researchers have generally attributed the remarkable growth of RMG export from Bangladesh to favorable external conditions, notably the Multi-Fiber Arrangement (MFA) bilateral quota system imposed by developed apparel countries, and low wages in Bangladesh. The role played by supportive government policy has also been noted in these studies. This noticeable incredulity in the dynamics and creativity of Bangladeshi RMG entrepreneurs seems to have sprung from the more general conception, widely held by many scholars during the 1970s and 1980s, that Bangladesh lacks industrial possessions.

As we have seen above that, rising of RMG industry in Bangladesh occurred during a time when the economy's health was poor shaped and it was plagued by various problems both structural and policy-induced in nature, which inhibited, among other things, growth of manufacturing industries in the country, the work forces related to this, including govt. had to fight a lots to peruse these from the each corner, while inappropriate government policy can spell digester for an industry, by the same logic, sound economic policy of the government can stimulate industrial growth. There is unanimity of opinion among scholars that the changing structure of the global apparel industry has been uniquely fashioned by the MFA Quota system used by the developed importing countries which restricted export supplies of garments to these markets from the established supplying countries and thereby paved the way for the emergence of new garments exporting

countries. This migration of the export oriented garments industry from the established suppliers to the new suppliers was, as one would expect, directed by the existence of the wages in the new exporting countries.

Before the innovation of Garments industry of late 1970s the unemployed were the burden to the Agro based economy of Bangladesh. Then the following social problems were found in the rural areas of Bangladesh which used lead the country as a country of poor, poorly developed infra structures, lack of education, Social unrest, Malnutrition, Marriage in underage, Polygamy, Dirty village politics.

1.1. THE RISE OF READYMADE GARMENTS IN BANGLADESH:

Generally an industry initially develops to domestic demand, and then subsequently turns to export once it becomes matured. The evolution of garments industry in Bangladesh, as in most CBI and Sub-Saharan countries, has not followed this pattern. Instead of growth being supplied by domestic demand, the rise of RMG industry in Bangladesh can be attributed to growing demand in developed countries for cheap apparel. But it should be noted that there was a small domestic garments industry in the - then East Pakistan in 1960s which created demand in West Pakistan. The mercury shirt, a company located in Karachi, sourced a few consignments of shirts during 1965-68 made by some tailoring outfits operating in Dhaka and the exported these to some European countries. There were few tailoring shops in Dhaka who made garments a small quantity of export-quality shirts and children wears on specific orders. Mainly they received orders from West Pakistan (Karachi -based firm) & supply thereafter. However there was very little investment in that time. Of course, the involvement was also very little as it was in the initial stage.

During the early eighties, the government issued licenses to many entrepreneurs for the duty free importation of machinery to produce garments for export for export purposes. Consequently, the number of firms in the garments industry increased rapidly and reached 632 in 1984-85, a phenomenal growth in deed as shown in the table 1. Bangladesh exported its garments to the North American and European Markets in the early eighties; at that time, its export were not subject to MFA Quotas in these markets, hence the spectacular growth. However, the very rapid growth of imports of apparel from Bangladesh prompted the US, Canada and the European countries to impose the MFA Quotas on Bangladesh's garments export.

This had temporarily showed down growth of RMG industry in Bangladesh; there was a restrained increase in the number of firms from 744 in 1985-86 to 804 in 1989-90. Export growth had also slowed down somewhat during 1985-90 period. However, the industry bounced back from 1990 onwards.

According to the BGMEA, there were 4300 member firms in 2004-05 which 2275 were woven garments units, 700 were knitted factories, and 525 were sweaters; however, 133 of these were closed .in addition, there were 560 units which were exclusive members of the Bangladesh Knitwear Exporters and Manufacturers Association (BKMEA). Thus the total number of active firms producing garments in Bangladesh was woven units, 42 percents knit units, and 11 percent producing sweaters. Total employment generated by these enterprises is estimated to be 1.9 million production workers, or 2 million if all employees are included .Most of these workers (an estimated 80 percent) are women from the rural areas.

The number of garments factories shot up to some 3000 in 2002 and by 2005 it reached 3560. By 2004-05 exports had reached US\$ 6.4 billion. The average growth rate of export during 1990/91-1997/98 was almost 21 percent per year. However, the growth rate of export declined in the 1998/99-2004/05 period mainly due to exogenous factors like flood in 1988, the global recession in 2000, and the 11 September incidents in the US the garments following year. The share of garments export earnings of Bangladesh climbed from 3.89 percent in 1983-84 to 75.67 percent in 1998-99 and has stayed around this level since then.

An important development in RMG sector of Bangladesh was the growth of knitted garments export in the early 1990s .The garments industry was almost completely dominated by woven garments during the 1980s. Export of knit wear to the tune of US \$ 131.20 million was the first major consignment of knit RMG export from Bangladesh. After this knitwear export from Bangladesh grew rapidly; during the ten year period 1993/94-2003/04 the annual growth rate of knitwear export was about 23 percent, which was higher than the annual growth rate of 10.6 percent achieved by the woven garment during this period.

II. Favorable Trade Environment In Bangladesh /Causes Of Mushrooming The Garments In Bangladesh:

Two factors which played very important roles in the growth of the RMG industry in Bangladesh were:

- A favorable condition created by the MFA Quota system.
- Low wages of Bangladesh.

How these two factors have contributed in this sector will be discussed here.

Up until the early 1960s, the apparel industry in the developed countries like the US and UK relied on domestic subcontracting; cutting & stitching operations were subcontracted to the small garment factories mostly relying on the use of cheap female labor, while large scale merchandising was undertaken by larger firms. Subsequently, as industrial wages began to raise, the apparel retailers in the developed countries; in most cases, such out sourcing took the form of subcontracting arrangement between the retailer in the developed

countries & garments manufacturer in the developing countries. The retailer in the developed countries placed work orders to the off-shore garment manufacturers often through buying agents, and they also helped the garments makers in various ways to produce and ship the merchandises. Such subcontracting reduced the risk of doing business with foreign partners since it did not require any direct investment. In essence, it was a triangular trade between the garment manufacturers and the foreign buying agent on the one hand, and the retailer and the buying agent on the other.

As an LDC Bangladesh enjoyed the quota-free status in the 1970s and wages were also low. These two features attracted quota-hopping foreign producers to Bangladesh who collaborated with Bangladeshi entrepreneurs to export garments to North America, The EU and elsewhere. Daewoo, a major South Korean apparel exporter, collaborated with *Desh* Garments of Bangladesh in 1980 and this resulted in the first major consignment of RMG export from Bangladesh. The simple technology of making garments, basically involving 'cutting & making' (CM), together with relatively low investment cost, made easier for the Bangladeshi entrepreneurs to move into this industry, and rapid growth took place, as mentioned earlier.

These favorable external market conditions, together with low labor cost, were two important factors which favored the rise of the RMG industry in Bangladesh. As noted above, both the number of firms in the industry and of export grew rapidly.

Even though Bangladesh enjoyed the quota free status in the North American market, its exports were subject to the payment of import duties. However, in the EU market, Bangladesh was not only exempted from MFA quotas but also enjoyed preferential market access to Bangladesh garments Exports. Thus, Bangladesh export of garments enjoyed quota –free and duty free access to the EU market. This was another important factor which contributed to the emergence of the RMG sector in Bangladesh.

However the favorable market situation was jolted in 1985 when several importing countries, most notably the US, imposed MFA quotas on Bangladesh's Garments exports. This resulted in a temporary slow-down in the growth of the number firms in the industry and also the export value. Between 1985-86 and 1988-89 the number of firms increased from 744 to 754, which is a much slower growth compared to 1979/80-1984/85 period when the number of the firm increased from 47 to 632.

Since RMG industry catered to the demand of a global market, its growth was not constrained by the limited size of the domestic market. Unlike the jute goods and tea, world demand for Bangladesh's garments was growing rather than declining. This was particularly true when Bangladeshi garments export were not restrained by MFA quotas.

2.1: METHODOLOGY USED IN THE STUDY:

This content discusses about the present socio-economic status of the garments workers of Bangladesh. Of course we got some secondary data with particular references from internet and various publications. But only primary data have been used in this study. 100 garments workers have taken as random sampling basis from Rampura and Badda areas of Dhaka. A detailed questionnaire has been made for collection of primary data focusing on major research questions particularly their income, job security, their accommodation, education of their spouse, children, compliance etc. Most of the questions are designed to get a complete scenario of the garments workers of Bangladesh. A stratified sampling technique has been used for selection of the sample in a manner that ensured an acceptable level of confidence. The ratio of the workers Male: Female was 9:11 and their age limit was 18-35 years. 90 per cent of the workers are from helper to operators. Others are supervisors, technicians, etc. Their education level is from primary to secondary level where 57 per cent workers are only able to write their names. 36 per cent of the workers are living in the slums and others are in the match sift houses. Only 62 per cent workers are sending their children to schools.

III. Result and Discussion:

Bangladesh is the hub of garments industry which has there been made by the garments workers of Bangladesh, for which they have to spend not only their time, labor but also their valued lives indeed. The poor workers have grown up the mercury of the GDP of the country, which resulted the development of the country not only economically but also in socioeconomic aspect. Presently the garments workers are socioeconomic status can be describe as follows:

1. Their income
2. Job security
3. Their accommodation
4. Education of themselves & their children
5. Their savings, bank deposit
6. Their Recreation

7. Their culture

8. Social Status

3.2 THEIR INCOME:

The garments workers are earning their breads by very hard labor. They render to the owners from the dawn to midnight. Sometimes, they have to work even for more than 24 hours without rest (they get breaks for their snacks, which are arranged by the authority) during the emergency shipment. Of course they are still ill paid, notwithstanding the different labor revolution for various times. In 2006 there was a huge movement in the garments industry where a lot of factories were gutted, vandalized the infrastructures for their various points of demand. Amongst those the first point demand was to increase the minimum salary in the entry level at least 3000/- (TK three thousand) per month. Later, govt. had fixed that 2200/- (TK two thousand two hundred) per month but later the BGMEA fixed it only TK 1667 (one Thousand six hundred sixty seven) per month by a tri lateral agreement (BGMEA, Bangladesh Govt., & Labor Union of garments workers) which is final to concluding the movement so far.

On the field work, working with the questionnaire it was randomly found by the visitor that some workers are not getting this amount also from the factory owners. They have no holidays sometimes, they are forced to work in the holidays; their salaries are being paid one month later by showing different causes. Reduction of wages, attendances are in the common practices in the garments floor.

3.3. JOB SECURITY:

The garments workers have no job security yet. Any time without any reason they may be suspend, demotion, transferred even sacked from the company. Though there is a clause in the service rule that, the sacked employee should get at least one month salary from the company if he/she is sacked from the company without any cause (surplus, lack of works) but in fact, the due salary is not given sometimes. Very few companies abide by the rules of Govt., BGMEA. Each company has its own rules as the company like to have it.

3.4. THE ACCOMMODATION OF GARMENTS WORKERS:

All of the garments workers are ill fed and ill clad. Hardly can they spend for their accommodation after purchasing their food stuffs. They cannot be a chooser rather live in an area only to stay alive. In our field work we have found that most of the garments workers are live in the rented slums, the room is 10 feetX12 feet, roofing by corrugated iron sheet or other thatching materials. Common unhygienic bath, kitchen for 8-10 family, shortage of water, crude electricity line etc. Monthly rent each of the room is Tk.1800 (one Thousand eight hundred).

Following problems have been chalked out during our investigation in the accommodation of the garments workers:

1. Lack of required spaces where a family can live easily with the other family members.
2. Tremendous crisis of water for which they cannot meet their required demand.
3. Indiscriminately power interruption, for which they cannot perform their daily works even their children, cannot make their lessons regularly.
4. Crisis of cooking place as they have to fight with others as there are 2 ovens (Natural gas oven) for 8-12 families.
5. No privacy at least which required for a man/family
6. Sound pollution for which the environment is not fit to live in normal life.
7. Serious problem in sanitary & sewerage system; which makes the whole dwelling place a distressing environment for humanity.
8. The dwelling place where the garments workers live people from different professions also live there. There are rickshaw pullers, drivers, hawkers even the drug smugglers, prostitutes also live there. This is a strident place. Most of the criminals hide in that type of places where the law enforcing forces, miscreants budge always indiscriminately.
9. The place where the garments workers live is somewhat grimy. Most of their residential were found where the garbage of the city is dumped or where the area is putrid near by the big canal, drain or big ditches which are filled with putrid materials.

3.5. EDUCATION OF THE GARMENTS WORKERS AND THEIR CHIELDREN:

The garments workers are in low profile regarding the academic education. In the field work most of the female workers only can write their names & address, most of them left the school after primary education. Few of them have gone to class VIII. We have conducted the survey within 100 workers where only two were found had attended SSC but not passed. The following reason can be outlined the causes of less education amongst the garments workers:

a) **Poverty**-Most of the guardians of the garments workers are poor. They prefer to think job is better than education.

b) **Ignorance**-Most of the guardians are also illiterate. They think female education will not bear a good result to their family rather working in the garments factory will bring some money which will help them to run the family smoothly.

c) **Easy accessibility of job**: To be a garment worker is very easy. Anybody may have a job overnight if he/she tries which makes the young people to get involve without difficulty in this industry.

d) **System of the society**: It was also found that some guardians have disclosed that, they had allowed their wards to get involve to the service by the inspirations from others.

e) **Dowry system**: It is the system of the society that, most of the guardians claimed that they would need huge amount of money in the marriage of their female children (for dowry), who are working in the garments factories. They are earning for themselves as they are keeping the money in the bank for their future. But talking with the workers separately we found very few workers who are keeping money in the bank for their future excepting that, we found some NGO members amongst them which numbers are insignificant.

Almost all of the garments workers are outsiders. They return homes at night -means they have no scope at least to guide their children for education. Most of their children are going govt. primary schools; some NGO's school (BRAC, PROSHIKA, and UCEP etc) for their education. Some portions also take education in the various kindergartens.

We have found in our survey that, 87% of garments workers send their wards to schools while other 13% don't showing various causes as like below

-There is none to help in the household work.

-The elder one(son/daughter), who is supposed to go to school has to take care of his/her younger brothers & sisters.

-We tried but they are not willing to go to school as we are outsider for the whole day.

-We can't afford the cost of education rather we prefer to engage him/her to some work which will make our family run smoothly.

-None is there to take care of them whether go school or not, they meet with the other notorious children, cannot pass the exam & finally going school is totally stopped.

On the other hand, out of 87% garments workers' children who are going to school or other educational institutes, 73% of there are in the primary level ,19% are in the High schools & only 8% have crossed the SSC and none was found HSC passed or above.

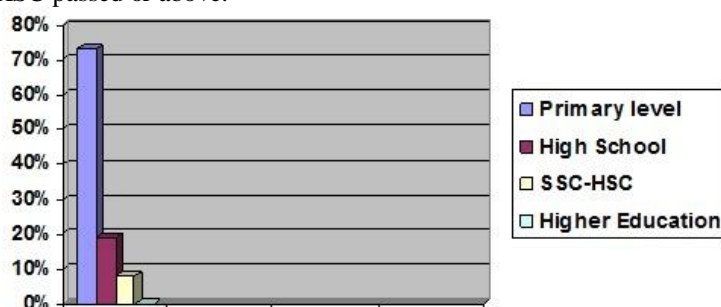


Figure 1: Education level of the garments workers' Children

3.6. THEIR SAVINGS & BANK DEPOSIT:

Garments worker are not well-enough as they can hardly accomplish their needs by their earnings. It will not excess to say that they are always in the debit account. Nonetheless, we have some workers are VO members of the NGO's .They deposit their savings in that organizations. 41% workers are VO members of those NGOs (BRAC, PROSHIKA, ASA etc).Most of them are female workers. They also draw loan with the very high rate of interest from those NGOs. Only 6% have regular bank deposit scheme such like fixed deposits & others. Interestingly we have found that more than 45% of the workers have insurance policies like life insurance, *Pension Bima*, *Marriage Bima* (Insurance for the Children which will be helpful in the marriage for the same in future).

A group organization was found composing 18 members, which has savings more than TK 140000 (One lac forty thousand) whose are willing to purchase a piece of land in Dhaka in future. They also are ready to purchase some three wheeler rickshaws to rent those, to increase their amount rapidly. They claim that, some more persons are willing to get the membership but in vain fearing future difficulties. Two workers said that they had sent their sons abroad from their savings and taking loan from others.

3.7. THEIR RECREATION:

As human being we must need amusement in our leisure time, to refresh the mind; to work productivity is the ultimate goal. But, hardly a garments worker can manage time to have the amusement. Even in the holyday they have to work sometimes. When there is full rush for works, they have to work day-night (of

course, they get some benefits for that extra work which is called *overtime*). In holydays, when they get time they go to enjoy cinema or to parks with their near and dear ones. They also visit their village homes to see their parents and others. In the holyday they enjoy video by their own arrangement, cook rich foods and go to near about shopping to purchase their necessities. We have found some difficulties regarding the holyday in some families where husband –wife both are garments workers in the different factories. They have different weekly holydays (for example Husband’s holyday is in Friday but wife getting the same in Monday) for which they can’t enjoy themselves as they like to do.

It’s also noticeable that they wear colorful dresses in our various national days like *Pohela Baishakh* (1st day of Bangla year), 16th Decembers etc. Some factory owners arrange yearly picnic for the workers and other staffs, where they enjoy different cultural programs and indoor games.

In our survey there was a question common to all ‘which types of recreation do you like?’ In their answer we found that, 46% like to enjoy Cinema (in Cinema hall or video in the home), 39% like to go outside (with their dear ones) 9% like shopping 3% and 3% have no special recreation plan at all. They like to gossip with neighbors & take rest by sleeping in the house.

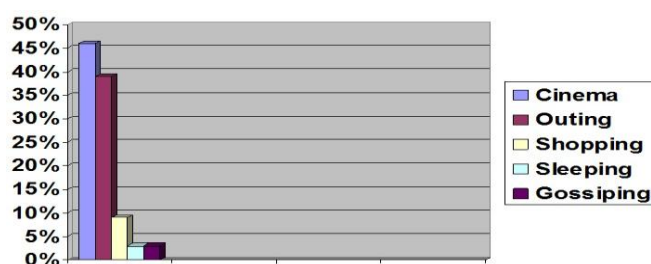


Figure 2: Recreation chosen by Garments Workers

3.8. THEIR CULTURE & SOCIAL STATUS:

Culture includes vast things. Here we will mean customs for culture of Garments workers

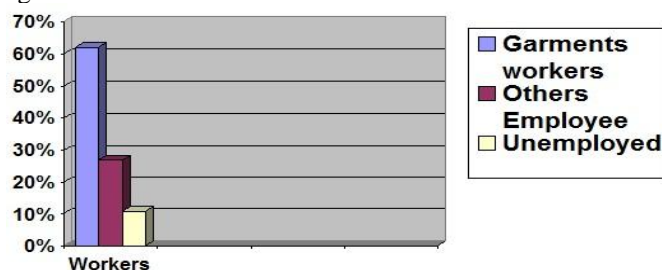


Figure 3: Profession of Garments workers’ Spouse

It will not be an exaggeration to say a custom namely ‘**Garments Culture**’ because garments industrialization is the lifeblood of economy of Bangladesh. The garments people are doing restless work from dawn to midnight to make fabulous growth in our wealth. In true sense, they have no specific time to think about their amusement separately. They mix within themselves. Most of them get marriage with garments workers (May there be termed as ‘Garments workers family’). We found in our survey that, 68% of the garments workers have got marriage garments workers whereas 27% of them work in the same factory or industries. Garments workers live in densely populated areas. Generally they live semi-pucca house or in huts. About 6-8 workers live in a mess who are unmarried or married bachelor or divorced. Some well established family (3-4 persons of a family when make income) also live independently renting a house or even a flat. Garments workers mainly send their children in govt. primary schools, madrashas or to NGO’s schools for education. Some portion also sends their children to private kindergartens. Garments people are always in rush. They have no time and even scope to mix with others professionals in fact. They wear very colorful cloths. Mainly they prefer cheap cotton cloth to avert sweating due to longstanding working inside the factories.

They suffer from various diseases including malnutrition. Still they are ill paid. On the other hand, they are not paying regularly. Some of the factories do compromise with the rules and regulations while others are not, showing different causes. Nowadays, it also makes newspapers a headline that ‘garments workers barricades traffics for their dues’ which is painful. There was a huge chaos in 2006 which caused a lot of casualties and damages of garment assets, goodwill in home and abroad.

3.9. Recession & our RMG: The economic downturn of the world has started worldwide which caused impede in various aspect of our RMG sector. Following are the main points where recession already effected.

1. Buyers have already cut off their orders from Bangladesh for which many small factories and buying offices have shut down.
2. Many workers already became jobless. Their wages are in due to the garments owners for which they can not lead their livelihood.
3. Still the govt. of Bangladesh is completely silent about the taking measure for bail out from the recession effect from the garments sectors. If Govt. does not take any measure then, number of unemployment will be increased in the society. Hence, it is to be feared that the social crimes will increase rapidly.
4. If the people from garments sector lose their job than purchasing ability of some people who are dependent directly on the RMG sector will decrease. As a result, the factories which are producing other commodities will produce lesser quantity than before or will shut down gradually which will result more unemployment in the country.

3.10. How we can increase and ensure the facilities of our garments workers (Their opinions): In the questionnaire there is question for all what can be done for the betterment of the garments worker? In reply many people gave their consents from their sides. These are the followings:

1. Still garments workers are ill paid. Govt. should ensure their wages in regular basis on right time. Their salary structure should be revised with present condition of the market.
2. There are many irregularities in the factories such as physical torture, abuse, etc which should be checked from the govt.
3. The factory owners make them compel to work in the holiday, even in the Eid day but they randomly cut salary in the name of late coming, bad performance, bad quality etc which should there be minimized.
4. BGMEA, BKMEA are always saying about compliance issues for the workers. In fact, in our observation we found very little regarding they deserve.
5. Child care with Schooling system may there be introduced for the garments workers' children in which BGMEA, BKMEA, Bangladesh govt. will take responsibly to ensure the education up to the mark.
6. Facilities should be increased to maximize the recreational facilities of the garments workers by the factory owners, Govt. others organs related with garments.

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A Study of Retrospective Change in ITIL Service Management

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Abstract : This Paper is talking about the fundamentals and various factors about the Retrospective change under ITIL Based service delivery management like Why the Retrospective change is required, what is the criteria to involve Retrospective change, the way of implementing this type of change, Merits/Demerits of this and points to be noted importantly while we work on this.

I. Introduction

ITIL is the most widely adopted approach for IT Service Management in the world. It provides a practical, no-nonsense framework for identifying, planning, delivering and supporting IT services to the business.

ITIL has been adopted by thousands of organizations worldwide, such as NASA, the UK National Health Service (NHS), HSBC bank and Disney™. ITIL is also supported by quality services from a wide range of providers including examination institutes, accredited training providers and consultancies, software and tool vendors and well known service providers such as IBM, Telephonic, HP and British telecom (BT).

A comprehensive qualifications scheme offering a variety of training courses and certifications has been developed against the guidance. This scheme can help organizations to effectively implement ITIL, achieving success by ensuring that employees have the relevant knowledge, skills and techniques, but most importantly, ensuring the entire organization is using a common language and are fully invested in the process.

ITIL advocates that IT services must be aligned to the needs of the business and underpin the core business processes. It provides guidance to organizations on how to use IT as a tool to facilitate business change, transformation and growth.

The ITIL best practices are currently detailed within five core publications which provide a systematic and professional approach to the management of IT services, enabling organizations to deliver appropriate services and continually ensure they are meeting business goals and delivering benefits.



The two most commonly used disciplines in ITIL SERVICE MANAGEMENT are Service Support and Service Delivery.

Service Support comprises of:

- Service Desk
- Incident Management
- Problem Management
- Configuration Management
- Change Management
- Release Management

Service Delivery comprises of:

- Service Level Management
- Financial Management for IT Services
- Capacity Management
- Availability Management

II. What is change Management

Change management is an [IT service management](#) discipline. The objective of change management in this context is to ensure that standardized methods and procedures are used for efficient and prompt handling of all changes to control IT infrastructure, in order to minimize the number and impact of any related incidents upon service. Changes in the [IT](#) infrastructure may arise reactively in response to problems or externally imposed requirements, e.g. legislative changes, or proactively from seeking improved efficiency and effectiveness or to enable or reflect business initiatives, or from programs, projects or service improvement initiatives. Change Management can ensure standardized methods, processes and procedures which are used for all changes, facilitate efficient and prompt handling of all changes, and maintain the proper balance between the need for change and the potential detrimental impact of changes.

Objective of the change management is Standardized methods and procedures are used for efficient and prompt handling of all changes and all changes to service assets and configuration items are recorded in the Configuration Management System

III. Type of changes

Based on the need and situation, ITIL changes are classified as below:

Preapproved (Routine) - Less risk involved and perfectly tested changes

Normal (Standard)-Changes which has less priority and this type of changes will go through CAB/TAB Meetings.

Urgent type1-This type of changes are for major hardware or for software issues, these changes does not go through traditional change management process like TAB/CAB.

Urgent type2 - This type of changes are for major business requirements and this changes should have valid business justification, these changes does not go through traditional change management process like TAB/CAB.

Emergency Change-This change will come in picture where the customer has huge business impact and the application/system is completely down. This kind of changes also not falling under traditional change process, But the change request should not detailed info and change manager approval is required before processing the change.

IV. What is retrospective change?

This change is from the emergency change family but this does not have a traditional change request ticket and approval on tool. But the communication to top management and to all stake holders can happen through normal communication methods like Email.

Proposed retrospective change is an attempt to restore the service but it does not guarantee for 100% success.

In order to facilitate speedy / timely correction/fixing of a system outage ITIL recognizes the need to complete documentation retrospectively. In other words, fix the problem, and then document it.

V. Need of what is retrospective change?

Most of the times changes are come in picture in 2 ways. One is through Incident/problem or through CIP/SIP (Continual improvement plan/Service improvement plan).

When the business affected to customer due to the unavailability of application there will be an incident raised based on the urgency and impact. This will go to normal process flow in order to get the solution but this will not help in all the situation and it will leave with some unidentified issues.

For an example, Bank internet banking website running with IIS mechanism which is a component of Microsoft windows.IIS linked with an application and it based on some database Like SQL,IBM DB2,Oracle.All these are linked each other and end user will not be able to access an application until all are running without any issue. If user reports an issue this can be an issue at web server/Application /Database server /Cluster Mechanism or with windows server where database hosted.

In general the ticket will go to Platform team first and based on their update it will move to other support teams like Database team, web support team and network team to fix the issue. The isolation of the issue can be initiated as per the design of the application. In the given situation there is a chance that the database has an issue which is running on MS cluster. To fix the issue the windows server may needs reboot, but customer/user cannot wait for long time if we go through normal change process. So the required server reboots taken place without change and based on the result/Success it will be recorded in the change request for record/Auditing purpose.

VI. Risk involved in retrospective change?

Though we are doing this process for fixing the issue and restoring the service quickly to avail the business to customer/Stake builders, it is not giving the positive result always as expected. There is a chance that this may lead to serious issues some times. The –ve result of retrospective change may give some unexpected issues which will lead to the delayed resolution and will eliminate the isolation process of various stages.

Generally, All type of changes except retrospective change does have a defined overview, step by step implementation step, Approved downtime, Teams involving the activity, Test plan, Backout plan etc. All these things will help for better change implementation with 0% change failure. In worst case if something goes wrong we will be able to roll back the change to the previous stage by using the detailed plan.

In this Method, if something goes wrong at the time of implementation it will not allow to recover things easily as there was not defined method and nothing was recorded. Also the communication sent to the customer may be within limit but Top management may blame later based on the –ve result and business impact.

VII. Benefits and Demerits retrospective change

No Doubt that this method will help everyone in fixing the issue and restoring the services back to normal state by using the undefined mechanism. This may make customer happier with quick resolution. It reduces the time consumption on coordination with users/stake holders/Customers, TAB/CAB Meeting reviews, Approval Process and notification etc.

Things will go smooth and happier until everything is OK. But the question/problem comes in picture if something goes wrong while we implement the retrospective change. As this an undefined attempt without correct technical info or process flow engineers/technicians will not be able to isolate the issue after change implementation. Sometimes this may cause major issues and it will lead to delayed resolution to the issue.

Demerits of this type of change can be removed by using the effective method of process and also by involving experts, service management people from service provider and from customer.

VIII. Best Approach on retrospective change

In order to avoid further issues post retro change implementation it is better to have a minimal info about the infra, involving SMEs from all technical teams, Service delivery managers from users, vendor and service provider. And also notification can be done to all the stake holders with the activity plan and also explaining the need of this urgent activity as this is an only and last option. Both of this will help in recovering services, isolating the issue and avoid blaming from customer.

IX. Conclusion

As discussed this process is not preapproved and not defined one. In order to obtain the benefits it is better to use the best approaches as mentioned above. Also this needs to be engaged based on the situation and need.

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Cost/Benefit Analysis of Tea Production in Pakistan

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Abstract: Tea is common beverage all over the world. It starts production in the fourth year of tea plantation. Its production increases for the first three to four years and reaches the maturity stage of maximum production in the ninth and tenth year. After reaching the maturity stage it is deeply pruned every fifth year to maintain it at desirable height, which is suitable for fresh leaves plucking. Pakistan has long tradition in tea consumption. However, its cultivation started in 1986 at Shinkiari, Hazara Division. Presently, 700 acres of land is under tea plantation. The aim of this research is to identify and evaluate various determinants of production, cost of production and return of tea cultivation in Hazara Division. The study overviews the existing tea production status and estimates its cost and revenue using primary data. To assess financial viability method used is long term benefit-cost analysis. The analysis is based on 25 years and 80 years data. The benefit-cost ratio is calculated for an average grower and the results show that tea is presently showing no profit-no loss situation at farm level in Pakistan. The result is not different if analysis is based on 25 years or 80 years data. Tea growers make an initial investment for 3-4 years without any returns and then wait up to year 28th to 29th to reach breakeven point. Credit providing institutions should take note of this fact and make plans to help tea growers in this period of tea production. Agriculture experts (researchers and extension personnel) should pay attention to the need of reducing the breakeven period through efforts aiming at greater productivity of tea per unit area because presently there is a big difference in actual and potential production of tea in Pakistan at farm level. Agriculture extension personnel should arrange special training to enhance labor productivity in picking fresh leaves per day from an actual average of 20-25 kg/ day to potential average of 35 kg/day. The government should take step to increase the present purchase price of Rs. 15/kg of fresh tea leaves to a level acceptable to both the tea farmers and government.

Key Words- Costs, Long-Run Scenario, Pakistan, Revenue, Tea Production

I. Introduction

Tea (*camellia sinensis* L) is used as common beverage in almost all over the world. It was originated in China and its regular drinking began there in the sixth century A.D. It spread to Japan in 1000 A.D. and by the middle of seventeenth century, tea invaded Europe. In the mid eighteenth century, the British started tea cultivation for the first time in their colony of India (un-divided) but it was Mr. Robert Fortune, an English botanist who, after studying tea cultivation for four years in China, brought 20,000 plants in 1853 to establish tea gardens in India. Tea plant takes 3 to 4 years before it comes into production. Once established, it remains productive for well over 80 to 100 years (NTRI, 1999).

Pakistan has been a major importer of tea. It imported an annual average 116.63 thousand Tonnes of tea during 1995, which increased to 119.70 thousand Tonnes during 1999 and become 115.97 thousand Tonnes during the year 2004. The value of tea imported increased from an annual average of 191,193.00 thousand dollars during 1995 to 245,296.00 thousand dollars during 1999 and become 190,196.00 thousand dollars during the year 2004 (FAO, 2006).

Pakistan relies almost exclusively on imports to satisfy its internal consumption. Kenya is the dominant supplier of tea to this market, accounting for 66 percent of Pakistan's import requirements in 2003. Despite being the world's largest tea producer and third largest exporter, and having an extensive common border with Pakistan, India only supplies 3 percent of Pakistan's imports. However, a significant quantity is reportedly smuggled into Pakistan from India. Other suppliers include Bangladesh, China (green tea) and Indonesia. Market shares of teas from Kenya, China and India have increased considerably over the last ten years at the expense of Bangladesh and Indonesian tea (FAO, 2005).

Government initiated efforts to promote tea cultivation in the country over last two decades. Chinese tea experts under the technical assistance program of China carried out a soil survey of the prospective tea growing areas of northern hilly tracts of Hazara Division and Central Swat in NWFP in 1982 and then in 1989. A National Tea Research Station (NTRS) was set up in 1986 on 50 acres at Shinkiari. Since then, tea promotion

efforts are in progress on small scale which would take several years for making significant break through in tea production. Currently, 700 acres has been brought under tea plantation. In addition, two tea processing plants, one in public sector and the other in private sector have been established to provide industrial link. A crash tea program has been launched to accelerate the progress in tea plantation (Hanif, et al. 2004).

This research intends to identify and evaluate various determinants of production, cost of production and returns of tea cultivation in the favorable areas of Hazara division. The findings of the study are expected to be of great importance as it would provide information on major factors responsible for production, cost and net revenue of tea that would lead to take initiative to improve quality and quantity of tea production. Additionally, results and recommendations will help policy makers, extension workers, farmers and other stakeholders to formulate improved strategies for the betterment of the tea cultivation business.

II. Methodology

Tea production is a long-term project in which income is generated from year four or five. Costs are high and there is no or little revenue in the initial years. The cost then decreases and income increases during the productive life of tea plant. The purpose of the study was to estimate cost, production and returns of tea cultivation in the tea growing areas of Hazara division. For the intended purpose, the following methodology was developed.

II.I. Analytical Framework

Careful planning is needed to allocate scarce resources amongst the different farming activities, in a way that the best alternative satisfies the respective requirements. Detailed calculations are necessary for the farmers to determine the capital needed to implement his plans and to forecast its financial results.

It should be kept in mind that tea plantation is a long-term project and generates only income from year four or five from establishment. Measures should thus be taken to maintain a cash flow during that period. The important question is the viability and survival of the project. This question can be answered by making financial analysis of the investment. Since tea plant generates return over a long period of time and early few years involve only cost, while the returns are nil. Keeping in mind such conditions, the present study has been designed to determine returns from tea plantation for the first 25 years and then extending the analysis to 80 years i.e. the productive life of tea plant.

II.II. Universe of study

Districts Mansehra and Battagram being the main tea producing areas in Pakistan is the universe of this study.

II.III. Sample size

There are a handsome number of tea growers in the targeted area but due to financial and time constraint it was not possible to select all the tea growers. Therefore, this study was carried out by using purposive sampling technique and selecting only those farmers whose tea production has already been started i.e. the farmers who started tea cultivation in the year 2002 or before.

II.IV. Data collection

This research was based on primary as well as secondary data. Primary data was collected on cost and returns of tea production from selected growers in the aforementioned district of Hazara division. An interview schedule was designed and used to collect the primary data. Interview schedule was prepared to cover all the relevant information needed for the study. It was pre-tested and modified according to the feedback from the farmers. Farmers were interviewed mainly on their farms and sometimes in their houses.

II.V. Analysis of Data

Since the tea plant is reported to be productive for many years, therefore cost and returns are concluded using budgeting procedure first and then applied long run analysis approach, namely discounting future streams of expenses and benefits to their present values (Bakhsh, et al. 2006).

We estimated Benefit-Cost (B/C) ratio using the following formula.

$$B/C \text{ Ratio} = [\sum \{R_n/(1+i)^n\}] / [\sum \{C_n/(1+i)^n\}] \quad (1)$$

Where R and C stand for revenue and costs and (n) and (i) stand for number of years and rate of interest, respectively. The above formula calculates B/C Ratio by dividing sum of discounted revenues generated during the life of production over the sum of discounted costs incurred. For practical manual calculation, the formula (1) can be extended as follows

$$\sum \{R_n/(1+i)^n\} = \{R_0/(1+i)^0\} + \{R_1/(1+i)^1\} + \{R_2/(1+i)^2\} \dots + \{R_n/(1+i)^n\} \quad (2) \quad \sum \{C_n/(1+i)^n\}$$

$$= \{C_0/(1+i)^0\} + \{C_1/(1+i)^1\} + \{C_2/(1+i)^2\} \dots + \{C_n/(1+i)^n\} \quad (3)$$

Taking interest rate at (i) = 10 percent the value of denominator (1+i)ⁿ in the equation (2) and (3) is computed as

follows.

$$\begin{aligned}(1+i)0 &= (1+0.10)0 = 1 \\ (1+i)1 &= (1+0.10)1 = 1.10 \\ (1+i)2 &= (1+0.10)2 = 1.21 \dots \\ (1+i)^n &= (1+0.10)^n = N\end{aligned}\quad (4)$$

Since prices of Year-4 are used thus the above figures (4) are used for discounting of future values (Hussain, 2006).

For Year- 1 to 3, the figures of cost and revenues are compounded using the following formulas.

$$\sum \{R_n(1+i)^n\} = \{R_0(1+i)^0\} + \{R_1(1+i)^1\} + \{R_2(1+i)^2\} \dots + \{R_n(1+i)^n\} \quad (5)$$

$$\sum \{C_n(1+i)^n\} = \{C_0(1+i)^0\} + \{C_1(1+i)^1\} + \{C_2(1+i)^2\} \dots + \{C_n(1+i)^n\} \quad (6)$$

Using the equations (5) and (6), the weights for compounding are calculated. After entering the values calculated for discounting and compounding, B/C ratio is computed as already discussed in equation (1). The ratio of the present value of the benefits to the present value of the costs must be greater than one (Watkins and Silicon, 2007).

III. Results And Discussion

According to the information collected from 30 tea growers in District Mansehra and Battagram, tea plant starts production in the fourth year of tea plantation. Its production increases for the first three to four years and reaches the maturity stage of maximum production in the ninth and tenth year. After reaching the maturity stage tea plant is deeply pruned every fifth year to maintain the tea plants at desirable height, which is suitable for fresh leaves plucking. This deep pruning at five years interval also keeps tea plant to give maximum production for many subsequent years.

Data Collected from sampled respondent on input used and various operations involved have been analyzed in term of averages, minimum and maximum ranges and summary of such statistics is provided in Table 1.

III.I. The First Year: According to the data in Table 1, on average, 5000 plants were sown per acre in the garden during the first year. Tea growers used tractor for preparation of land for tea plantation. On average, 1.5 hours of tractor were used per acre for land preparation. A total of 22 labor days were used for various operations, namely land

Table 1: Inputs used/ Operation involved in Tea Production (per Acre)

Year	Input/Operation	Mean Value	Minimum	Maximum	Percentage of Total Labors
1st Year	No. Of Plants Sown	5000	5000	5000	
	Land Preparation Tractor (Hours)	1.5	1	2	
	<u>Labor (Days)</u>				
	For Land Preparation	10	8	12	45.45
	For fertilizer Application	3	2	3	13.63
	For Irrigation	4	3	10	18.18
	For Weeding and pruning	5	3	15	22.73
	For Picking of Leaves	-	-	-	
	<u>Total Labor (Days)</u>	22			
	Fertilizer Application FYM (Trolley)	1	1	1	
	Mixture of Fertilizer (Bags)				
2nd Year	No. Of Plants Sown	1461.25	750	3400	
	Land Preparation Tractor (Hours)	-	-	-	
	<u>Labor (Days)</u>				
	For Land Preparation	4.39	1.75	8	24.01
	For fertilizer Application	4	3	5	21.88
	For Irrigation	4.48	3	10	24.51
	For Weeding and pruning	5.41	3.5	6	29.60
	For Picking of Leaves	-	-	-	
	<u>Total Labor (Days)</u>	18.28			
	Fertilizer Application FYM (Trolley)				

	Mixture of Fertilizer (Bags)	3	3	3	
3rd Year	No. Of Plants Sown	976.37	425	2050	
	Land Preparation Tractor (Hours)				
	<u>Labor (Days)</u>				
	For Land Preparation	2.90	1	6	16.89
	For fertilizer Application	4.01	3	5	23.35
	For Irrigation	4.42	3	8	25.74
	For Weeding and pruning	5.85	4	6	34.07
	For Picking of Leaves	-	-	-	
	<u>Total Labor (Days)</u>	17.17			
	Fertilizer Application FYM (Trolley)				
	Mixture of Fertilizer (Bags)	3	3	3	
4th Year	No. Of Plants Sown	556.83	300	1000	
	Land Preparation Tractor (Hours)				
	<u>Labor (Days)</u>				
	For Land Preparation	2.10	1	3	6.38
	For fertilizer Application	4	3	5	12.15
	For Irrigation	4.41	3	8	13.39
	For Weeding and pruning	5.67	4	6	17.22
	For Picking of Leaves	16.75	12	24	50.86
	<u>Total Labor (Days)</u>	32.93			
	Fertilizer Application FYM (Trolley)				
	Mixture of Fertilizer (Bags)	3	3	36	

Source: Survey

preparation (45.45 percent), fertilizer application (13.63 percent), irrigation (18.18 percent), weeding and pruning (22.73 percent). No chemical fertilizer (Urea or DAP) was used during the first year; only, 1 trolley of FYM per acre was mixed with soil during land preparation.

III.III. The Second and Third Year: During the second and third year, on average, 1461 and 976 plants were sown per acre respectively to replace the plant effected as a result of mortality. The plants sown ranged between 750 to 3400 in the second year and 425 to 2050 during the third year of tea plantation. The range varies because of difference in the mortality ratio of individual tea gardens.

On average, 18.28 labor days and 17.17 labor days per acre were used during the second and third years, respectively. The labor days decreased just because of lesser replacement of tea plants in the third year. From 2nd year onward, fertilizer comprising a mixture of Ammonium Sulphate, Diammonium Phosphate and Sulphate of Potash is prepared in a ratio of 5: 2: 2, respectively. Three bags of mixture are applied per acre to the tea garden.

III.IV. The Fourth Year: During the fourth year, on average, 557 plants were sown to replace the plants affected due to mortality. It showed a decreasing trend in plant replaced from 2nd year to 4th year. During the fourth year, on the average, 32.93 labor days were used for different activities. The number of labor days used increased substantially because some production of green tea leaves start from 4th year and labors are required for picking of these fresh tea leaves (51 percent of the total labors are used for picking of fresh leaves). On the average, one labor can pick 25 kg of fresh leaves per day from the tea garden. Out of the total 32.93 labor days used in the 4th year, 16.75 labor days were used only for picking of fresh leaves and the rest of labor days were used for other activities in the fourth year. Fertilizer is applied in the same ratio as were used in the second and third year of tea plantation.

III.IV. Cost of Tea Production

Table 2 provides average costs incurred on account of the aforementioned inputs used and operations involved during the 1st to 4th year of tea production.

Table 2: Cost of Tea Production (per Acre)

Years	Particulars	Quantity	Price/unit (Rs.)	Cost (Rs.)	Percentage of Total Cost
1st Year	No. Of Plants Sown	5000	5	25000	63.24
	Land Preparation Tractor (Hours)	1.5	380	570	1.44
	<u>Labor (Days)</u>				
	For Land Preparation	10	128	1280	
	For fertilizer Application	3	128	384	
	For Irrigation Application	4	128	512	
	For Weeding and pruning	5	128	640	
	For Picking of Leaves	-	128	-	
	Total Labor (Days)	22	128	2816	7.12
	For Irrigation			460	1.16
	Fertilizer Application FYM (Trolley)	1	419	419	1.06
	Mixture of Fertilizer (Bags)				
	Land Rent (Acre)	1	10267	10267	25.97
	Total Cost (1st Year)			39600.77	
2nd Year	No. Of Plants Sown	1461.25	5	7306.25	31.40
	Land Preparation Tractor (Hours)				
	<u>Labor (Days)</u>				
	For Land Preparation	4.39	128	561.92	
	For fertilizer Application	4	128	512	
	For Irrigation Application	4.48	128	573.44	
	For Weeding and pruning	5.41	128	692.48	
	For Picking of Leaves	-	128	-	
	Total Labor (Days)	18.28	128	2339.84	10.06
	For Irrigation			460	1.98
	Fertilizer Application FYM (Trolley)				
	Mixture of Fertilizer (Bags)	3	964.33	2893	12.43
	Land Rent (Acre)	1	10267	10267	44.13
	Total Cost (2nd Year)			23274.51	
3rd Year	No. Of Plants Sown	976.37	5	4881.85	23.58
	Land Preparation Tractor (Hours)				
	<u>Labor (Days)</u>				
	For Land Preparation	2.90	128	371.2	
	For fertilizer Application	4.01	128	513.28	
	For Irrigation Application	4.42	128	565.76	
	For Weeding and pruning	5.85	128	748.8	
	For Picking of Leaves	-	128	-	
	Total Labor (Days)	17.17	128	2199.04	10.62
	For Irrigation			460	2.22

	Fertilizer Application FYM (Trolley) Mixture of Fertilizer (Bags)	3	964.33	2893	13.98
	Land Rent (Acre)	1	10267	10267	49.60
	Total Cost (3rd Year)			20709.36	
4th Year	No. Of Plants Sown	556.83	5	2784.15	13.50
	Land Preparation Tractor (Hours)				
	<u>Labor (Days)</u>				
	For Land Preparation	2.10	128	268.8	
	For fertilizer Application	4	128	512	
	For Irrigation Application	4.41	128	564.48	
	For Weeding and pruning	5.67	128	725.76	
	For Picking of Leaves	16.75	128	2144	
	Total Labor (Days)	32.93	128	4215.04	20.44
	For Irrigation			460	2.23
	Fertilizer Application FYM (Trolley) Mixture of Fertilizer (Bags)	3	964.33	2893	14.03
	Land Rent (Acre)	1	10267	10267	49.79
	Total Cost (4th Year)			20625.69	

Source: Survey

It appears that on the average, Rs. 39600.77, Rs. 23274.51, Rs. 20709.36 and Rs. 20625.69 per acre were spent during the 1st-4th years of tea plantation.

In the 1st year, plants sown accounted for highest share (63.24 percent) in the total cost of Rs. 39600.77 per acre, followed by rent of land (25.97 percent), labor days (7.12 percent), land preparation (1.44 percent), irrigation (1.16 percent) and fertilizer application (1.06 percent).

In the second and third year, rent of land accounted for highest cost i.e. 44.13 percent and 49.60 percent, followed by cost on plant sown that accounted 31.40 percent and 23.58 percent, fertilizer accounted for 12.43 percent and 13.98 percent, labor days accounted for 10.06 percent and 10.62 percent and irrigation accounted for 1.98 percent and 2.22 percent of the total costs (Rs. 23274.51 and Rs. 20709.36 per acre), respectively. In the fourth year, land rent, labor days, fertilizer application, number of plant sown and irrigation accounted for 49.79 percent, 20.44 percent, 14.03 percent, 13.50 percent and 2.23 percent of the total cost (Rs. 20625.69) per acre respectively.

III.V. Production, Costs and Revenues: the Long-Run Scenario

III.V.I. Cost and Revenue of Tea

Once the tea plant starts production from fourth year it remains productive for over 80 years. For first part of analysis data was collected on estimates of cost for 25 years. It is worth noting that data were collected from growers for the actual expenses incurred during the 1st – 4th years and they were asked to give the estimates for the level of the use of various inputs and operations in the subsequent years. After collecting the data from growers on their estimates for use of inputs/operations for future years, the costs were estimated using the present prices (for 4th year; 2006) for future period. Similarly data were collected from respondent growers on their revenues estimates for 25 years.

The indices of cost and revenues estimates for the Year-1 to Year-25 were also worked out and are given in Table 3. The indices of costs show that, compared to Year-1, costs in the subsequent years are relatively lower because of no expense on preparation of land. The cost on nursery plants also decreases and from 4th year onward there is no expense on nursery plants. The cost slightly increases from Year-5 to Year-10 mainly due to increase in labor required for pruning and maintenance, picking of fresh leaves and use of fertilizer. The decrease in cost during Year-11 is mainly because of lower number of labor required for picking of fresh leaves as the production of fresh leaves decrease due to deep pruning of tea plant in the Year-10. Then the cost indices show the same trend throughout the subsequent years.

Tea production and revenues are shown in Table 3. Revenue starts from Year-4, increases up to year-15 and then remains constant throughout the subsequent years of tea plantation. The revenue decreases after every

five-year interval is just because of the deep pruning of tea plant after every five years to keep tea plant at desirable height suitable for picking of fresh tea leaves.

Table 3: Cost and Revenue of Tea for 25 Years (Per Acre)

Years	Total Cost (Rs.)	Cost Indices	Total Production (Kg)	Production Indices	Total Revenue (Rs.)	Revenue Indices
Year 1	39600.77	100.00	0.00		0.00	
Year 2	23274.51	58.77	0.00		0.00	
Year 3	20709.36	52.30	0.00		0.00	
Year 4	20625.69	52.08	419.00	100.00	6285.00	100.00
Year 5	18395.97	46.45	593.58	141.67	8903.75	141.67
Year 6	19195.60	48.47	768.17	183.33	11522.50	183.33
Year 7	18955.60	47.87	768.17	183.33	11522.50	183.33
Year 8	20563.55	51.93	1082.42	258.33	16236.25	258.33
Year 9	21635.52	54.63	1291.92	308.33	19378.75	308.33
Year 10	21814.18	55.09	1326.83	316.67	19902.50	316.67
Year 11	18716.03	47.26	593.58	141.67	8903.75	141.67
Year 12	21635.52	54.63	1291.92	308.33	19378.75	308.33
Year 13	21635.52	54.63	1291.92	308.33	19378.75	308.33
Year 14	21814.18	55.09	1326.83	316.67	19902.50	316.67
Year 15	21814.18	55.09	1326.83	316.67	19902.50	316.67
Year 16	18716.03	47.26	593.58	141.67	8903.75	141.67
Year 17	21814.18	55.09	1326.83	316.67	19902.50	316.67
Year 18	21814.18	55.09	1326.83	316.67	19902.50	316.67
Year 19	21814.18	55.09	1326.83	316.67	19902.50	316.67
Year 20	21814.18	55.09	1326.83	316.67	19902.50	316.67
Year 21	18716.03	47.26	593.58	141.67	8903.75	141.67
Year 22	21814.18	55.09	1326.83	316.67	19902.50	316.67
Year 23	21814.18	55.09	1326.83	316.67	19902.50	316.67
Year 24	21814.18	55.09	1326.83	316.67	19902.50	316.67
Year 25	21814.18	55.09	1326.83	316.67	19902.50	316.67
G. Total (25 Years)	542331.72		23883.00		358245.00	

III.VI. Benefit-Cost Ratio

The Costs and Revenues discussed earlier are reproduced in Column 2 and 3 of Table 4. Column 4 works out net revenue over 25 years of tea plantation. This is a crude way of estimating net revenues when production is carried out over number of years. For a long run analysis, the cost and revenues are discounted and *Benefit-Cost (B/C) Ratio* is estimated using the following formula.

$$B/C \text{ Ratio} = \sum \{R_n / (1+i)^n\} / \sum \{C_n / (1+i)^n\}$$

Table 4: Discounted Cost and Revenue of Tea production (per acre)

Years	Values in 2006 Prices (Of 4th Year)			Present Values		Present Value	Present Value
	Costs (Rs.)	Revenues (Rs.)	Net Revenues	Weight for Discounting	Costs (Rs.)	Revenues (Rs.)	Net Revenues
Year-1	39600.77	0.00	-39600.77	1.331	52708.62	0.00	-52708.62
Year-2	23274.51	0.00	-23274.51	1.21	28162.16	0.00	-28162.157
Year-3	20709.36	0.00	-20709.36	1.10	22780.3	0.00	-22780.296
Year-4	20625.69	6285.00	-14340.69	1.00	20625.69	6285.00	-14340.693
Year-5	18395.97	8903.75	-9492.22	1.10	16723.61	8094.3182	-8629.287
Year-6	19195.60	11522.50	-7673.10	1.21	15864.14	9522.7273	-6341.409
Year-7	18955.60	11522.50	-7433.10	1.331	14241.63	8657.0248	-5584.601
Year-8	20563.55	16236.25	-4327.30	1.4641	14045.18	11089.577	-2955.607
Year-9	21635.52	19378.75	-2256.77	1.61051	13433.96	12032.679	-1401.277
Year-10	21814.18	19902.50	-1911.68	1.77156	12313.54	11234.442	-1079.095
Year-11	18716.03	8903.75	-9812.28	1.948717	9604.284	4569.0316	-5035.252
Year-12	21635.52	19378.75	-2256.77	2.143589	10093.13	9040.3299	-1052.800
Year-13	21635.52	19378.75	-2256.77	2.35795	9175.573	8218.4817	-957.091

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Year-14	21814.18	19902.50	-1911.68	2.59374	8410.312	7673.2753	-737.036
Year-15	21814.18	19902.50	-1911.68	2.85312	7645.738	6975.7048	-670.033
Year-16	18716.03	8903.75	-9812.28	3.13843	5963.505	2837.0091	-3126.496
Year-17	21814.18	19902.50	-1911.68	3.45227	6318.792	5765.0453	-553.746
Year-18	21814.18	19902.50	-1911.68	3.79750	5744.356	5240.9503	-503.406
Year-19	21814.18	19902.50	-1911.68	4.17725	5222.142	4764.5003	-457.642
Year-20	21814.18	19902.50	-1911.68	4.59497	4747.402	4331.3639	-416.038
Year-21	18716.03	8903.75	-9812.28	5.05447	3702.867	1761.5595	-1941.308
Year-22	21814.18	19902.50	-1911.68	5.55992	3923.472	3579.6396	-343.833
Year-23	21814.18	19902.50	-1911.68	6.11591	3566.793	3254.2178	-312.575
Year-24	21814.18	19902.50	-1911.68	6.72750	3242.539	2958.3798	-284.159
Year-25	21814.18	19902.50	-1911.68	7.40025	2947.763	2689.4362	-258.327
Total	542331.72	358245.00	-181248.39		301207.5	140574.69	-156854.963

Where R and C stand for revenue and costs and (n) and (i) stand for number of years and rate of interest, respectively. The above formula calculates B/C Ratio by dividing sum of discounted revenues generated during the life of production over the sum of discounted costs incurred.

The values of denominators calculated are included in the 5th column of Table 4 for the Year-4 to Year-25; it starts from Year-4 because all cost and revenues are valued in Year-4 prices. For the earlier 3 years (Year-1 to Year-3), compounding method is used instead of discounting.

Using the compounded and discounted figures of cost and revenues of Table 4, we can now compute B/C Ratio as follows.

$$\text{B/C Ratio (25 Years)} = 140574.69 / 301207.5 = 0.467$$

This B/C Ratio for 25 years shows that tea is not profitable at farm level in Pakistan that can also be analyzed from the negative values of net revenues in the last column of Table 4. The farmers are still engaged in tea production technology because of the subsidy provided by government in the form of cost on nursery plant, fertilizers and labors used for picking of fresh leaves. Table 4 is recalculated by incorporating the values of subsidy, which the farmers are getting and the details of costs and revenues after subsidy are given in Table 5. Using the compounded and discounted figures of costs and revenues by adding subsidy the B/C ratio is again calculated as follows.

Table 5: Discounted Costs and Revenues of Tea Production after Adding Subsidy (Per Acre)

Years	Values in 2006 Prices (Of 4th Year)			Present Values		Present Value
	Total Cost	Total Subsidy	Total Revenue After Subsidy	Weight for Discounting	Total Cost	Total Revenue After Subsidy
Year 1	39600.77	25419.33	25419.33	1.331	52708.62	33833.13
Year 2	23274.51	10199.24	10199.24	1.21	28162.16	12341.08
Year 3	20709.36	7774.83	7774.83	1.10	22780.30	8552.31
Year 4	20625.69	7819.49	14104.49	1.00	20625.69	14104.49
Year 5	18395.97	5930.23	14833.98	1.10	16723.61	13485.44
Year 6	19195.60	6823.54	18346.04	1.21	15864.13	15162.02
Year 7	18955.60	6823.54	18346.04	1.331	14241.62	13783.65
Year 8	20563.55	8431.49	24667.74	1.4641	14045.18	16848.40
Year 9	21635.52	9503.45	28882.20	1.61051	13433.96	17933.57
Year 10	21814.18	9682.12	29584.62	1.77156	12313.54	16699.76
Year 11	18716.03	5930.23	14833.98	1.948717	9604.28	7612.18
Year 12	21635.52	9503.45	28882.20	2.143589	10093.13	13473.76
Year 13	21635.52	9503.45	28882.20	2.35795	9175.56	12248.86
Year 14	21814.18	9682.12	29584.62	2.59374	8410.32	11406.16
Year 15	21814.18	9682.12	29584.62	2.85312	7645.73	10369.22
Year 16	18716.03	5930.23	14833.98	3.13843	5963.50	4726.56
Year 17	21814.18	9682.12	29584.62	3.45227	6318.79	8569.61
Year 18	21814.18	9682.12	29584.62	3.79750	5744.35	7790.55
Year 19	21814.18	9682.12	29584.62	4.17725	5222.14	7082.32
Year 20	21814.18	9682.12	29584.62	4.59497	4747.40	6438.48
Year 21	18716.03	5930.23	14833.98	5.05447	3702.87	2934.82
Year 22	21814.18	9682.12	29584.62	5.55992	3923.47	5321.05
Year 23	21814.18	9682.12	29584.62	6.11591	3566.79	4837.32
Year 24	21814.18	9682.12	29584.62	6.72750	3242.54	4397.57
Year 25	21814.18	9682.12	29584.62	7.40025	2947.76	3997.79
Total	542331.72	232026.02	590271.02		301207.46	273950.09

$$\text{B/C Ratio (25 Years)} = 273950.09 / 301207.5 = 0.91 \quad (\text{with subsidy})$$

This B/C Ratio of 0.91, which is approximately equal to 1 for 25 years tea plantation, it shows that tea is presently showing no profit no loss situation at farm level in Pakistan.

III.VII. Benefit-Cost Ratio: Tea Life Cycle

First part of analysis is now extended to 80 years being the possible productive life of tea plant, the estimate of costs and revenues for life cycle of tea plant. The sum of cost and revenue for every ten years from Year-1 to Year80 are calculated, which are given in Table 6. The Benefit-Cost Ratio is then calculated as follow using the same procedure already discussed in detail in the previous section.

**Table 6: Discounted Cost and Revenue of Tea Production (Sum of Every Ten Years)
(Per Acre)**

Year	Costs	Revenues	Discounted Costs	Discounted Revenues
Sum Year1-10	224770.76	93751.25	210898.81	66915.77
Sum Year11-20	211588.20	175980.00	72925.23	59415.69
Sum Year21-30	211945.51	177027.50	28177.18	23087.16
Sum Year31-40	211945.50	177027.50	10863.52	8901.10
Sum Year41-50	211945.50	177027.50	4188.36	3431.76
Sum Year51-60	211945.50	177027.50	1614.79	1323.09
Sum Year61-70	211945.50	177027.50	622.57	510.11
Sum Year71-80	211945.50	177027.50	240.03	196.67
Grand Total	1708031.97	1331896.25	329530.50	163781.35

$B/C \text{ Ratio (80 Years)} = 163781.35/329530.5 = 0.50$

This B/C Ratio shows that tea is still not profitable at farm level in Pakistan even after we extending our analysis to the productive life cycle of tea plant i.e. 80 years.

Table 6 is recalculated by incorporating the values of subsidy, which the farmers are getting and the sum of cost and revenue after adding subsidy for every ten years from Year-1 to Year80 are given in Table 7.

**Table 7: Discounted Cost and Revenue of Tea Production after adding
Subsidy (Sum of Every Ten Years)(Per Acre)**

Year	Costs	Revenues after Subsidy	Discounted Costs	Discounted Revenues after Subsidy
Sum Year1-10	224770.75	192158.51	210898.81	162743.84
Sum Year11-20	211588.18	264940.08	72925.21	89717.70
Sum Year21-30	211945.50	266344.92	28177.17	34831.25
Sum Year31-40	211945.5	266344.92	10863.52	13428.96
Sum Year41-50	211945.5	266344.92	4188.36	5177.44
Sum Year51-60	211945.5	266344.92	1614.79	1996.13
Sum Year61-70	211945.5	266344.92	622.57	769.59
Sum Year71-80	211945.50	266344.92	240.03	296.71
Grand Total	1708031.93	2055168.11	329530.47	308961.63

Using the compounded and discounted figures of costs and revenues after adding subsidy in Table 7, the B/C ratio is again calculated for 80 years as follows.

$B/C \text{ Ratio (80 Years)} = 308961.63/329530.47 = 0.94$

This 9.4 B/C Ratio shows a slight increase from the previously calculated B/C ratio i.e. 0.91, indicating that tea is still showing the same no profit no loss situation at farm level in Pakistan even after adding the subsidy with revenues and extending analysis to 80 years.

IV. Conclusions And Recommendations

The results based on our analysis show that although tea is not profitable at farm level, the farmers are still engaged in this technology because no feasible option is available apart from tea plantation to them in their small farms as most of the land presently under tea cultivation is sloppy and in the hilly areas; it's a labor-intensive crop and mechanization rarely used in tea plantation; very few days throughout the year in tea plantation are labor intensive and the farmers can utilize the rest of the time in some other revenue-generating activities; all the farmers are getting subsidy in the form of nursery, fertilizer and cost incurred for picking of

fresh leaves from tea garden; farmers are also getting interest free credit for the initial four years of tea plantation; and tea plantation is considered as a status symbol by most of the farmers in the target area. Tea growers make an initial investment for 3-4 years without any returns and then wait up to year-28 to year-29 to reach breakeven point. Credit providing institutions should take note of this fact and make plans to help tea growers in this period of tea production.

Agriculture experts (Researchers and extension personnel) should pay attention to the need of reducing the breakeven period through efforts aiming at greater productivity of tea per unit area because presently there is a big difference in actual and potential production of tea in Pakistan at farm level.

Agriculture extension personnel should arrange special training to enhance labor productivity in picking fresh leaves per day from an actual average of 20-25 kg/ day to potential average of 35 kg/day. The government should take step to increase the present purchase price of Rs. 15/kg of fresh tea leaves to a level acceptable to both the tea farmers and government.

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