

# **Ep Journal of Training and Development**

**Volume No. 11**

**Issue No. 3**

**September - December 2023**



**ENRICHED PUBLICATIONS PVT. LTD**

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MANISH ABHINAV PLAZA-II, ABOVE FEDERAL BANK,  
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# **Ep Journal of Training and Development**

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(Volume No. 11, Issue No. 3, September - December 2023)

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# Sexual Harassment at Work Place and its Implications

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## **ABSTRACT**

*This paper shall deal with an aspect which has infiltrated the society at its very core. Sexual harassment is faced in every nook and corner. A woman has always been subject to such atrocity even though they have been idolized and worshipped in India. Cases of rape, molestation, sexual harassment is all on the rise. This paper shall solely focus on Sexual Harassment faced by women at Work Place. This paper deals with how sexual harassment is a human rights violation. Equal rights and dignity is to be given to every human being and sexual harassment is a deprivation and violation of this very human right. This paper shall also delve deep into this aspect and connect the UN Charters with case laws which clearly stated that Sexual harassment is violative of women's right to equality, with reference to the landmark case law Vishaka iv State of Rajasthan and AEPC iv A. K. Chopra. This paper shall also go on to deal with the impact that sexual harassment has on the life of a woman. It leads to depression, anxiety, women even blame themselves and even suicide. This paper deals with all such impacts at length. It finally concludes with measures that can aid to curb such sexual harassment and hopefully even put an end to it.*

**Keywords:** *Sexual harassment, UN Charter, equality, human rights, mental illness*

## **I. INTRODUCTION**

Women as a component of human species has somehow remain an endangered species all over the world and more so in India were they even idealized as "devis". India is a country where Goddesses are worshipped and yet ironically disgraceful victimization against women like child rape, molestation, eve teasing and sexual harassment are increasing day by day. Victimization of women is a part of our existing social life. The problem of sexual harassment at work place is not a new phenomenon and thus it is not surprising anymore. But until two decades ago sexual harassment at work place was just about a buried happening in the entire world over.

The consequences of sexual harassment at work place are so tragic and everlasting that these are deep scars on a woman because of barbaric act by a human in animal form, a victim women has to suffer without the least of her fault for a life time. Many women, who are not able to bear the stigma for trauma as commit suicide and leave this cruel world forever.

Such instances are a very poor reflection of our society that we are not able to protect the nobility and safety of women for which she is entitled from national and international laws. Every occurrence of sexual harassment of woman at workplace results in violation of "gender equality". The gender equality includes protection from sexual harassment or abuse and right to work with dignity, which is a universally recognized basic human Right. A number of countries like U. S., U. K., Japan, Canada, Australia, India and several European nations have laws that prohibit sexual harassment at work place.<sup>2</sup>

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<sup>2</sup>[http://www.articlealley.com/article\\_77801\\_18.html](http://www.articlealley.com/article_77801_18.html)

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## II. TERMINOLOGY

Broadly in title “sexual harassment at work place” two terms needs clarification. According to The Sexual Harassment of Women at Work Place (Prevention, Prohibition and Redressal) Bill, 2006<sup>3</sup> the former term „sexual harassment“ refers to is such unwelcome sexually determined behavior such as physical contact, advances, sexually coloured remarks, showing pornography or making sexual demands, whether verbal, textual, graphic or electronic or by any other actions, which may contain:

(i) Implied or overt promise of preferential treatment in that employee“s employment or  
(ii) An implied or overt threat of detrimental treatment in that employee“ employment or an implied or overt threat about the present or future employment status of that employee and includes the creation of a hostile Working environment.

(iii) The conduct interferes with an employee's work or creates an intimidating, hostile or offensive work environment or

(iv) Such conduct can be humiliating and may constitute a health and safety problem. „Workplace“ means (i) Any department / organization, establishment or undertaking wholly or substantially controlled by the Central Government or the State Government or local or other authority under the control of the central or the state government (ii) Any venture, business, organization or institution or department carrying on systematic activity by co-operation for the production, supply or distribution of goods and/or services irrespective of whether it is an “industry” within the meaning of section 2 (j) of the Industrial Disputes Act, 1947 or whether it is performing any inalienable sovereign function and irrespective of whether the goods and/or services are provided for any remuneration or not and (iii) Includes any place where an aggrieved woman or defendant or both is/are employed or work/s, or visits in connection with work during the course of or arising out of employment, and (iv) Such other statutory and/or professional bodies, contractual and other services<sup>4</sup>

Opening the door on the subject of sexual harassment at work place the world“s females is like standing at the doorstep of an enormous gloomy chamber shaking with collective suffering, but with the sounds of protest throttled back to a murmur. Where there should be annoyance aimed at an intolerable status quo there is instead idential, and the mostly submissive acceptance of the way things are.

## II. THEORETICAL FRAMEWORK OF SEXUAL HARASSMENT

The development of modernization and urbanization in the attitudes of men gives rise to a lot of functional division of status and role of human beings in society. The role of a man is always changed as usual to woman in the society. The dominant behavior of man gives rise to imbalance of power in the democratic, which gives rise to feudalistic attitude in the modern society. After having huge number of cases of sexual harassment at work place, this is a very natural question, which arises in every intellectual, mind that why such incidents occur against women.

To solve this question researcher identified some important theoretical propositions, which are seem to be responsible for crime against women. Different theoretical frame may be useful to understand root causes of sexual harassment at work place. They are:

1. The psychiatric approach or the psychopathological analysis.
2. The socio-psychological approach or the psychological analysis.
3. The socio-cultural approach or the sociological model.

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<sup>3</sup><http://ncw.nic.in/PDFFiles/sexualharassmentatworkplacebill2005.pdf>

<sup>4</sup>*Ibid.*

<sup>5</sup>*PuranBatria, "Sex Crime in India", (Uppal Publications, New Delhi, 1992, p. 134- 152)*

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**The Psycho-Pathological Theory:** The psychopathological or psychiatric theories illustrate the root of crime by men to their psychological characteristics. The psycho-pathological model focuses on the offender's personality characteristics as the chief determinants of criminal violence. This model includes analysis that links mental illness (i.e., a very small portion of mentally ill persons are violent), alcohol (i.e., what one does under the Influence of alcohol and other drugs) and other intra-individual phenomenon to acts of violence. This theory gives two different explanations. According to one, the causes of crime against women arise from the offender's psychological problems. According to the other, crime against women arises out of the psychological problems of the victims. There are however no adequate data to support either of these points of views. If women who are battered, rape or kidnapped behave strangely, it is possibly the consequence and not the cause of being battered or raped or kidnapped. The evaluation of psycho-pathological approach to crime has also shown that the proportion of individuals who use crime against women and suffers from psycho-pathological disorders is no greater than the proportion of the population in general with psycho-pathological disorders. The basis of above two explanations i.e. men being abusive because of some psychological disorders and women bringing violence upon themselves, studies shows that individual who use crime against women do not suffer from psychopathological disorders in a disproportionate number. It is difficult that all acts of crime arise out of psycho-pathological disorders. The role of environment and other social forces that influence actions cannot be under estimated.

**Socio-Psychological Theories :** The socio-psychological approach assumes that violence can best be understood by a careful examination of the external environmental factors, which have an impact on the individual.

**Socio - Cultural Theories: Structural Theory:** This theory asserts that social groups differ in respect to their typical level of stress, deprivation and frustration and in the resources at their disposal to deal with these stresses. It explains that those individuals would be more violent which combine high stress with low resources. This theory thus explains an individual's action in terms of the ways it is shaped or determined by social forces of one kind or another. The offender's violence is seen as determined by the degree of his integration in the system. One consequence of accepting this position is that the action of individual's has nothing to do with their personalities and values, and that violence cannot be described in terms of conflict, suppression, sublimation, guilt, and so on. The role of "rationality" also has to be rejected in social action. The structuralism perspective, thus, leaves some questions unanswered because of which it cannot be accepted.

**Anomic Theory:** Anomic theory discusses socially learned needs, goals and aspirations and the restricted structural access or institutionalized means to their attainments maintained. It explains that some social structures exert a definite pressure upon certain persons in the society to engage in non-traditional rather traditional person conduct.

(i) When there is a tendency to overemphasize the goals without sufficient attention to institutional means, it leads to a willingness to use any means, regardless of their legality, to see that goal is attained.

The theory thus describes the relationship between one's social position, the strain which accompanies that position, and the resulting deviant and non-deviant adaptations. The possible adaptations that can occur when the goals have been internalized but cannot be legitimately attained. However, the major concern is with the innovator: the person who uses unlawful, but nonetheless effective, means to goals. This theory reveals that all crimes are not explained in terms of anomie. The rapists, the kidnappers, the

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murderers and the batterers do not have any monetary success goal in their minds, which may push them in the direction of illegitimate behavior. In fact, the anomie theory poses many questions i- for instance, those of the validity of assuming a dominant value system, the location of anomie within the individual or the normative system, and the nature of the conflict between the norms of the general culture and those of the norms internalized by the individual.

**Social Learning Theory:** This theory asserts that human aggression and violence are learned conduct, especially through direct experience and by observing the behavior of others. According to this theory, the individual learns violence through imitation, Individuals pick up the behavior patterns of those they are taught to respect and learn from. Whether observed in the flesh or via visual media, the individuals readily imitate the behavior of aggressive models. Aggressive behavior patterns learned through modeling and imitation remain part of our range of social responses over time.

Sexual harassment is a form of sex discrimination projected through unwelcome sexual advances, request for sexual favours and other verbal or physical conduct with sexual overtones whether directly or by implication, particularly when submission to or rejection of such a conduct by the female employee was capable of being used for effecting the employment of the female employee and unreasonably interfering with her work performance and had the effect of creating an intimidating or hostile working environment for her. Any action of gesture, whether directly or by implication, aims at or has the tendency to outrage the modesty of a female employee, must fall under the general concept of the definition of sexual harassment.<sup>6</sup>

#### **IV. SEXUAL HARASSMENT: VIOLATION OF FUNDAMENTAL RIGHT**

Sexual harassment and sex discrimination are considered to be violation of Human Rights. All human rights derive from the dignity and worth inherent in the human person and the human person is the cultural subject of Human Rights and Fundamental Freedoms. The United Nations Organization (UNO), keeping with its character to promote and encourage respect of Human Rights and Fundamental Freedoms for all without distinction, came out with an International Bill of Human Rights consisting of<sup>7</sup>:

- (a) Universal Declaration of Human Rights, 1948
- (b) The International covenant on civil and Political Rights, 1966
- (c) The International covenant of Economic, Social and Cultural Rights, 1966 and
- (d) The Optional Protocol, 1966 providing for the right of the individual to petition International agencies.

The following are the principles on which the above charters were introduced:

- 1) All Human beings, without distinction, have been brought within the scope of human rights instruments.
- 2) Equality of application without distinction of race, sex, language or religion
- 3) Emphasis on international co-operation for implementation.

Article 1, 2 and 7 of Universal Declaration of Human Rights, 1948 deals with equal in dignity, rights & freedoms and equal protection against any discrimination.

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<sup>6</sup>*Supra note 1.*

<sup>7</sup>*Supra Note 1.*



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**Article 1:** All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.

**Article 2:** Everyone is entitled to all the rights and freedoms set forth in this declaration, without distinction of any kind such as race, colour, sex language, religion, political or other opinion, national or social origin, property, birth or other status (first part of Art.2)

**Article 7:** All are entitled to equal protection against any discrimination in violation of this Declaration against any incitement to such discrimination (Second sentence of Art.7)

Part II of Article 2(2) and 3 of International covenant on Economic, Social and Cultural Rights, 1966 also deals with discrimination of any kind and equal right of men and women.

**Article 2 (2) :** The States Parties to the present covenant undertake to guarantee that rights enunciated in the present covenant will be exercised without discrimination of any kind as to race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.

**Article 3:** The States parties to the present covenant undertake to ensure the equal right of men and women to the enjoyment of all Economic, Social and Cultural Rights set forth in the present covenant.

According to the Protection of Human Right Act, 1993 "human rights" means the rights relating to life, liberty, equality and dignity of the individual guaranteed by the Constitution or embodied in the International Covenants and enforceable by courts in India. It is necessary and expedient for employers in work places as well as other responsible persons or institutions to observe certain guidelines to ensure the prevention of sexual harassment of women as to live with dignity is a human right guaranteed by our Constitution.<sup>8</sup> The Constitution of India guaranteed fundamental rights to its citizens. When we compare provisions of the Constitution of India to that of Universal Declaration of Human Rights, we find many Articles have the same spirit. Article 14, 15 and 21 of Constitution of India mentions key words on Equality before law, prohibition of discrimination on grounds of religion, race, caste, sex or place of birth and protection of life and personal liberty.

Recognizing the invisible nature of power structures that marginalize women at the workplace, the Supreme Court in the landmark *Vishaka v. State of Rajasthan*<sup>9</sup> identified sexual harassment as violative of the women's right to equality in the workplace and enlarged the ambit of its definition. The judgment equates a hostile work environment on the same plane as a direct request for sexual favours. To quote: "Sexual harassment includes such unwelcome sexually determined behaviour (whether directly or by implication) as: physical contact and advances; a demand or request for sexual favour; sexually coloured remarks; showing pornography; any other unwelcome physical, verbal or non-verbal conduct of sexual nature". The Supreme Court of India rendered yet another Judgment on sexual harassment in *AEPC v.A.K. Chopra*<sup>10</sup> in the instant case is about a woman employee of Apparel Export Promotion Council, who worked as the private secretary to A.K.Chopra, the Chairman of the company. She complained to the Personnel Director that the chairman was sexually harassing her. Despite her repeated protests, he was making sexual advances by 'trying to touch her' and 'sit close to her'. The

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<sup>9</sup>*AIR 1997 SC 3011*

<sup>10</sup>*1999 (1) SCC 759.*

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company immediately suspended him and ordered a departmental enquiry. The enquiry confirmed female employee's position that the chairman tried to touch her with a sexual motive and the chairman was dismissed from service.

The chairman challenged the disciplinary committee order in Delhi High Court and the harasser was successful on the ground that the chairman only 'tried to molest' but did not 'in fact molest' the female employee. By shocking with the verdict, the company filed appeal before the same High Court which was heard by Division Bench. Interestingly, the Division Bench agreed with the findings of single judge and reiterated that the chairman not 'actually molested' the female employee.

As against the Judgment, the company once again filed an appeal in the Supreme Court. One of the issues that was deliberated at length by this court was "whether physical contact with the woman was an essential ingredient of a charge of sexual harassment".

The Supreme Court while setting aside the High Court and upholding the dismissal of chairman held that:

- a) The attempts by the superior to sit close to the female employee and touch her, though unsuccessful, would amount to 'sexual harassment'. The behaviour of the superior did not cease to be outrageous in the absence of an actual assault by the superior.
- b) In the context of a female employee the sexual harassment at the work place is a form of sex discrimination which can be projected through unwelcome sexual advances, request for sexual favours and other verbal or physical conduct with sexual overtones, whether directly or by implication. This would be particularly so when submission or rejection of such conduct by the female employee could be used to affect her employment by unreasonably interfering with her work performance thereby, creating a hostile working atmosphere for her.
- c) Where the conduct of a superior towards his junior female employee was wholly against moral sanctions and was offensive to her modesty, any lenient action would demoralize working women. Therefore, the punishment of dismissal from service was commensurate with the gravity of the superior's behaviour.
- d) Each incident of sexual harassment at workplace violates the fundamental right to gender equality and the right to life and liberty guaranteed by the constitution of India. The fundamental right in the Constitution cover all facts of gender equality including prevention of sexual harassment and abuse. The courts are under a constitutional obligation to protect and preserve those rights.
- e) International instruments like Convention on Prevention of All forms of Discrimination Against Women, Beijing Declaration on Women and International Covenant on Economic, Social and Cultural Rights cast an obligation on the Indian Government to sensitize its laws. The courts are under an obligation to see that this message is accepted and followed.

The judgment mandates appropriate work conditions should be provided for work, leisure, health, and hygiene to further ensure that there is no hostile environment towards women at the workplace and no woman employee should have reasonable grounds to believe that she is disadvantaged in connection with her employment. Not surprisingly many cases go unreported. However given the complexities involved, company policy is the first step and cannot wish away the problem. The U. S. Equal Employment Opportunity Commission (EEOC) has made certain parameters to test sexual harassment at work places.

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- The victim as well as the harasser may be a woman or a man.
  - The victim does not have to be of the opposite sex.
  - The harasser can be the victim's supervisor, an agent of the employer, a supervisor in another area, a co-worker, or a non-employee, a teacher or professor, a student, a friend or a stranger. The victim does not have to be the person harassed but could be anyone affected by the offensive conduct.
  - Unlawful sexual harassment may occur without economic injury to or discharge of the victim. The harasser's conduct must be unwelcome.

India and other countries should on the same lines of EEOC design some parameters too to check the menace of sexual harassment at work place.

## **V. IMPACT OF SEXUAL HARASSMENT**

To understand the collision of sexual harassment on women one must pay attention to the explanation of its victims as no one expresses the meaning and fact of sexual harassment better than the women who have undergone it. In response to the question "what sort of disturbing reply does sexual harassment call to mind in you", no one indicate the class of "uncaring". Women often internalize male perceptions of sexual harassment and blame themselves for having brought on the harassment. They not only doubt the validity of their own experiences but begin to believe that they themselves must be „abnormal“, „cheap“, „indecent“ or deserving the violence that comes their way.

Most respondents, men and women, described „verbal harassment“ as eve teasing and contrasted this with 'physical harassment' which has been seen as sexual harassment. They described eve teasing as relatively harmless behavior committed usually by strangers, while sexual harassment would be serious committed by acquaintances or men in positions of institutional power. In addition, most men and women described eve teasing as isolated incidents while sexual harassment would typically be repetitive and sustained over a long period of time. Many respondents said that they felt extreme anger, frustration and helplessness at not being able to do anything about the harassment.<sup>11</sup> Women stated that sexual harassment has affected women“'s personal or academic development in one way or another.

## **VI. SUGGESTIVE MEASURES**

The prosecutors, police officers & judges play important roles in the legal system's response to sexual harassment, Because they are generally the final authority in civil and criminal matters involving sexual harassment abuse, judges hold substantial power to sanction batterers, protect battered women, and to send messages to the community, the victim, and the batterer alike that sexual harassment will not be tolerated.<sup>12</sup>

Although prosecutors in India often have considerable control over the initiation and course of criminal proceedings, to the extent judges are able to make choices regarding sentencing or other aspects of the criminal trial, these choices may be influenced by myths about sexual harassment. If, for example, judges believe that alcoholism causes sexual harassment, Judges may not understand that sexually harassed women are most vulnerable when they attempt to leave a relationship and therefore may fail to take steps to ensure that women are protected inside and outside of the courtroom.

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<sup>11</sup><http://www.legalserviceindia.com/helpline/help6.htm>

<sup>12</sup>Reddy, C.R., "Eve-teasing - A Sociological Approach", *Indian Journal of Social Research* ; Vol. 28(1) ; March 1987, p. 99-100.

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Judicial responses to sexual harassment can, however, further victim safety and offenders accountability in many ways. In the courtroom, judges are enforcers and interpreters of existing laws; they may also have the ability to establish courtroom policies and procedures that promote victim safety and are respectful of all parties.

Advocates can work to improve judicial responses to sexual harassment in a number of ways. Court monitoring, for example, helps to systematically identify needed improvement in judicial responses and also increase the visibility of these issues; the presence of monitors in courtrooms can itself cause judges to improve their handling of sexual harassment cases. Trainings for judges can provide judges with the information they need to better address the needs of sexually harassed women and ensure offenders accountability. Finally, dedicated courts and court processes can also help ensure offenders accountability and victim protection by streamlining navigation of the court system, increasing victims' access to resources, and ensuring a greater expertise of the judges and other personnel addressing these issues.

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# A Socio- Legal Study of Prison System and its Reforms in India

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## **ABSTRACT**

*India is the world's largest democracy in more than name. It has free elections, a multi-party parliamentary system, a diverse and outspoken free press, an independent judiciary and the country abounds with the non-governmental organizations that take pride in their independence and that helps to make up a lively civil society. Yet if the checks and balances of democracy are supposed to curb the government lawlessness, something has gone wrong in our country. At least, it seems from an examination that has been recently conducted on imprisonment and police detention in our country. In some major cities of the country that we visited, and probably elsewhere as well, anyone unlucky enough to be arrested faces a far greater likelihood of torture, or worse, at the hands of the police than in many of the countries entirely lacking in the protections for civil liberties available in India. Though we had some inkling in advance that we would find extensive police abuse of the detainees, we were not prepared for what we discovered about the prisons and jails to which detainees are sent after the police are done with them. They would be bad, if only because the life is hard for the most of the Indians outside the prisons. It stands to a reason, therefore, if incarceration is meant to punish then life inside the prisons should be worse. What took us by surprise, however, is the manner in which it is worse for the great majorities of prisoners and, more surprising, the fact that the imprisonment is somewhat less harsh than we had expected for some prisoners. Though prisons are supposed to be leveling institutions in which the variables that affect the conditions of confinement which are expected to be the criminal records of their prisoners and their behaviour in prison, other factors are there that may play a part in many countries.*

**KEYWORDS:** *incarceration, convicted, overcrowding, whipping, flogging, prison*

## **INTRODUCTION**

The need for a systematic prison system and recognition of certain rights of prisoners come into focus during the last few decades. The Supreme Court and the High Courts have commented upon the deplorable conditions prevailing inside the prisons, resulting in violation of prisoner's rights. The problem of prison administration has been examined by numerous expert bodies set up by the Government of India. The most comprehensive examination was done by the All India Jail Reforms Committee of 1980-83, popularly known as the Mulla Committee. The National and State Human Rights Commission have also, in their annual reports, drawn attention to the appalling conditions in the prisons and urged governments to introduce reforms. Prisoner's rights have become an important item in the agenda for prison reforms. This is due essentially to the recognition of two important principles. Firstly, the prisoner "is no longer regarded as an object, a ward, or a „slave of the state“, who the law would leave at the prison entrance and who would condemn to „civil death“. It is increasingly been recognized that a citizen does not cease to be citizen just because he has become a prisoner. The Supreme Court has made it clear in many judgments that except for the fact that the compulsion to live in a prison entails by its own force the deprivation of certain rights, like the right to move freely or to practice a profession of one's choice, a prisoner is otherwise entitled to the basic

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freedoms guarantee by the Constitution. Secondly, the convicted go to the prisons as punishment and not for punishment.<sup>1</sup> Post independence era witnessed formation of Model Jail Rules, enhanced vocational training, scope of jail visit, periodic supervision and introduction of wage system. On the whole, attempt to modify the prison culture by shifting from cruelty to humanism was clear. Change in the approach relating to objectives of punishment had also impact upon the method of treating the prisoners. Looking to the jails as social hospitals, criminals as patients, and punishments as process of purification and rehabilitation had also distinct impact upon prison reform mission. However, it is human right activism by the judiciary that gave a great spur to the cause of prison justice during the late 1970s and 1980s.<sup>2</sup> The government has set up working groups, committees and commissions to investigate the issue and offer solutions. The more important among them were the Justice Mulla Committee Report on Prison Reforms (1982-83) and the Justice Krishna Iyer Committee on Women Prisoners (1986-87). These reports have, by far, given the most comprehensive accounts of what ails our prisons, and suggested a slew of measures. The Draft National Policy on Prison Reforms and Correctional Administration, 2007, prepared by the Bureau of Police Research and Development (BPR&D) is also an important document on the topic.<sup>3</sup> All India Committee on Jail Reforms headed by Justice A. N. Mulla (1980-83) has studied the issue of prison reform in great detail.

### **PRISON AS PUNISHMENT**

Right from the beginning of the civilization, criminal law occupies a prime place among the agencies of social control and is regarded as a formidable weapon that society has forged to shield itself against anti-social behaviour.<sup>4</sup> The oldest penal institution in India is actually the „Jail“ which is also commonly called „Prison“ in many countries. Prisons, as a formal agency of control, have a unique role especially in a democratic society. As a vital agency of criminal justice administration they perform the twin role of incarcerating the convicts as well as providing custodial care for the under trials and detained. Thus contrary to common belief prison come into picture not only after trial and conviction but also right from the stage of investigation and the commitment of the accused of judicial remand or in the course of preventive detention. Such overbearing roles of prisons become almost a routine in cases of poor, ignorant and helpless accused that are not in a position to secure release on bail. They remain under trial for long periods and are subjected to varied forms of discrimination within prisons.<sup>5</sup>

Imprisonment as a mode of punishment started in the 16th century, but spread widely as the main punishment for crime only in the 19th century. By the end of the 20th century imprisonment was part of the penal code of every country and those countries too small to maintain a prison system sent their prisoners to neighbouring states for incarceration. The process of replacing physical punishments with imprisonment continues even today as more countries remove the death penalty from their statute books and substitute life imprisonment as the punishment for the most serious crimes.<sup>6</sup>

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<sup>2</sup> P. ISHWARA BHATT, *LAW AND SOCIAL TRANSFORMATION*, 836 (1st ed., 2009).

<sup>3</sup> Vijay Raghwan, *Prison Reforms and Some Fundamentals*, *THE HINDU*, Sept, 26, 2008, at 10.

<sup>4</sup> K. JAISHANKAR, *INTERNATIONAL PERSPECTIVES ON CRIME AND JUSTICE*, 327 (1st ed., 2009).

<sup>5</sup> K. JAISHANKAR, *INTERNATIONAL PERSPECTIVES ON CRIME AND JUSTICE*, 327 (1st ed., 2009).

<sup>6</sup> P. ISHWARA BHATT, *LAW AND SOCIAL TRANSFORMATION*, 836 (1st ed., 2009).



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## **Basis Principles for the Treatment of Prisoners: Adopted and Proclaimed by General Assembly Resolution 45/111 of 14th December, 1990**

1. All prisoners shall be treated with the respect due to their inherent dignity and value as human beings.
2. There shall be no discrimination on the grounds of race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.
3. The responsibility of prisons for the custody of prisoners and for the protection of society against crime shall be discharged in keeping with a State's other social objectives and its fundamental responsibilities for promoting the well-being and development of all members of society.
4. It is, however, desirable to respect the religious beliefs and cultural precepts of the group to which prisons belong, whenever local conditions so require.
5. Except for those limitations that are demonstrably necessitated by the fact of incarceration, all prisoners shall retain the human rights and fundamental freedoms set out in the Universal Declaration of Human Rights, and, where the State concerned is a party, the International Covenant on Economic, Social and Cultural Rights, and the International Covenant on Civil and Political Rights and the optional protocol there to, as well as such other rights as are set out in other United Nations Covenants.
6. All prisoners shall have the right to take part in cultural activities and education aimed at the full development of the human personality.
7. Conditions shall be created enabling prisoners to undertake meaningful remunerated employment which will facilitate their reintegration into the country's labour market and permit them to contribute to their own financial support and to that of their families.
8. All prisoners shall have the right to take part in cultural activities and education aimed at the full development of the human personality.
9. Prisoners shall have access to the health services available in the country without discrimination on the grounds of their legal situation.
10. With the participation and help of the community and social institutions, and with due regard to the interests of victims, favourable conditions shall be created for the reintegration of the ex-prisoners into society under the best possible conditions.<sup>7</sup>

### **HUMAN RIGHTS AND CRIMINAL JUSTICE SYSTEM IN INDIA**

When one speaks of the criminal justice system one may need to look at the Covenant on Civil and Political Rights. Fortunately for us in India, the Universal Declaration of Human Rights was made in the context of history when our Constitution was being drafted and discussed. Most of its basic principles have therefore crept into the Constitution. If one looks into our Constitution the provisions in the Covenant on Civil and Political Rights are seen reflected in Part III (Fundamental Rights) of the Constitution and the Covenant on Economic, Social and Cultural Rights are reflected in Part IV (Directive Principles of State Policy).<sup>8</sup> The provisions in the Indian Penal Code, 1860 (IPC) and the Criminal Procedure Code, 1898 (old CrPC) are actually pre-Covenant. Still they reflect the basic principles of English Jurisprudence- fundamental principles of the common law, principles of legality,

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<sup>7</sup> C.S. Chakravarthy, *Prisoners and Human Rights in India- An Analytical Study*, *Indian Socio- Legal Journal*, 32 (2015).

<sup>8</sup> K.i. Vibhut, *Criminal Justice A Human Rights Perspective Of The Criminal Justice Process*, 99 (1st Ed., 2004)

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presumption of innocence, trial by independent tribunal, fair trial, principles against double jeopardy ,etc. are seen incorporated in our status. From time to time our law has been undergoing changes initiated either by the legislature or by courts and incorporation and engraftment of various requirements in the process of interpretation.<sup>9</sup>

The protection of human rights through the criminal justice delivery system is an indispensable feature of any system governed by the rule of law. the protection of human rights have been acknowledged to varying extents across time, but since the Second World War, the universality of human rights has been recognized by the United Nations as inherent in the very nature of human beings – a reflection of their common humanity. Criminal law has always been a great source for the enlargement of human rights. In other words, many of our existing fundamental and nalienable rights, if studied carefully, would have their origins in situations and cases relating to criminal jurisprudence. Basic human rights, such as the presumption of innocence, the right to silence of the accused and the burden of proof of the prosecution are also the pillars on which a just criminal justice system stands. To this end, Lord Steyn states that, “The basic premise is that in a democratic society government exists in order to protect and promote the interests of the people. To achieve this goal, the actions of government and its agencies must be constrained by law and citizens must be given enforceable and effective legal rights against the state. In the context of human rights this is the core meaning of the rule of law. In countries where this premise is accepted, human rights law has scope for developing. In countries where this premise is not accepted, human rights law must struggle on infertile ground.”<sup>10</sup>

## PROBLEMS OF PRISONERS

The Apex court and the High Courts have commented upon the deplorable conditions prevailing inside the prisons, resulting in violation of prisoner’s rights. The problem of prison administration has been examined by numerous expert bodies set up by the Government of India.<sup>11</sup> The Indian prison system, just like the other agencies of the criminal justice administration, can be described to exist perpetually in a state crisis. The reasons for such a state of affairs are:

First, antiquated and over- worked nature of prison institution;

Secondly, lack of proper training, skills and motivation of prison staff;

Thirdly, policy- level ideological conflicts brought about by the modern ideas of prisoners rights and egalitarianism; and

Fourthly, nternationalisation of the prison system.<sup>12</sup>

Some of the notable problems of Indian prison system are:-

**a. Overcrowding:** Overcrowding and large number of under trial prisoners are two nagging problems in our prisons. According to National Crime Records Bureau (NCRB) records, in 2013, the total number of prisoners was 4, 11, 992, of which a startling 2, 78,503 were under trial prisoners. Delay in providing justice, inadequate court infrastructure, and inaccessibility of a large number of prisoners to legal help accentuate the insensitivity of authorities and law enforcing agencies towards prisoners.<sup>13</sup>

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<sup>9</sup> K. Jaishankar, *International Perspectives On Crime And Justice*, 100 (1st Ed., 2009).

<sup>10</sup> *Human Rights vis-à-vis Criminal Justice System*, Justice J. K. Mathur Memorial Trust, (June 2, 2017), <http://jk mtrust.tripod.com/id5.html>

<sup>11</sup> C. S. Chakravarthy, *Prisoners and Human Rights in India- An Analytical Study*, *Indian Socio-Legal l*, 31, (2015).

<sup>12</sup> K. JAISHANKAR, *INTERNATIONAL PERSPECTIVES ON CRIME AND JUSTICE*, 328 (1st ed., 2009).

<sup>13</sup> V. Kumar, *Don't Prisoners have Rights?*, *The Hindu*, March 22, 2015 at 12.



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The main reason for prison overcrowding is that over seventy-six percent inmates are under trials. The reality of overcrowding may be because for many other prison problems such as greater risk of disease, higher noise levels, denial of conservancy facilities, difficulties in surveillance, consequent danger levels, etc.<sup>14</sup> The Supreme Court said on the problem of overcrowding “There is no doubt that the same does effect the health of prisoners.....The same also very adversely affects hygiene conditions....There is yet another baneful effect of overcrowding. The same is that it does not permit the segregation among convicts. Those punished for serious offences and for minor. The result may be that hardened criminals spread their influence over others.....the problem of overcrowding is required to be tackled in right earnest for a better future.”<sup>15</sup> Tihar Central Jail is overcrowded with about 14,000 inmates lodged in its nine jails and district jail against their total capacity of 6,500. The under trial prisoners charged with petty crimes and languishing in jails for over six months due to delay in trial should be released.<sup>16</sup>

**b. Prison Backlog:** The Supreme Court’s study of prison backlog shows that over two lakh pending trials across the country are more than five years old and 40,000 are over 10 years old. In the Supreme Court itself, 65,000 cases were found pending in end-2014. These numbers are a clear indication of the failure of the system to deliver justice. Last June, hearing a 24-year-old petition filed by D. K. Basu on prisoners’ rights, Justice T. S. Thakur expressed anguish at the loss of human rights and liberty suffered by an undertrial prisoner. “No civilised country should torture its citizens”, observed Justice Thankur. “The true character of a democracy is adherence to the due process of law.” In January 2014, the then Law Minister Ravi Shankar Prasad announced that a directive would be sent to all States to release, on personal bond, undertrials who have completed 50 percent of the jail sentence they might have received if convicted. In September, 2014 the Supreme Court mobilised judicial officers across the country to visit every prison in their district over the next two months to identify and release such undertrials.<sup>17</sup> In its recent judgment the Supreme Court of India said, “Mercy jurisprudence is a part of the evolving standard of decency which is the hallmark of society”.<sup>18</sup>

**c. Inadequate provisions for basic needs:** Absence of free choice about access to medicine and health care service, and exposure to the atmosphere of jail in addition to the loss of liberty is the ordinary hazards of prison life. But the hazard is more serious when the conditions in the jail are unsanitary and when prompt and appropriate treatment is not accorded to the inmates.<sup>19</sup> The of continued detention of prisoners on ground of insanity for several years after medical dereliction of their sanity.<sup>20</sup> Overcrowding in Indian prisons is seen as the root problem that gives birth to number of other problems relating to health care, food, clothing and poor living conditions.

**d. Torture and Ill- treatment:** As a custodial institution prisons have a basic responsibility for protecting the inmates from being subjected to any harm or suffering. But in actual practice the absolute dependence and powerlessness of the inmate makes him an ideal target for torture, ill- treatment and repression. Prison torture and repression emanates from three distinct sources, namely

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<sup>14</sup> K. JAISHANKAR, *INTERNATIONAL PERSPECTIVES ON CRIME AND JUSTICE*, 332 (1st ed., 2009).

<sup>15</sup> *Rama Murthy v State of Karnataka AIR 1997 SC 1739.*

<sup>16</sup> *Special Correspondent, Free Under trials as Tihar Jail is overcrowded, The HINDU, July 10, 2015, at 3.*

<sup>17</sup> *Krishandas Rajagopal, When the Process becomes the Punishment, The Hindu, Mar., 22, 2015, at 12.*

<sup>18</sup> *Shatrughan Chauhan v Union of India, (2014) 3 SCC 1*

<sup>19</sup> K. JAISHANKAR, *INTERNATIONAL PERSPECTIVES ON CRIME AND JUSTICE*, 841 (1st ed., 2009).

<sup>20</sup> *Veena Sethi v State of Bihar (1982) 2 SCC 583*

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- (i) Prison officials who recognise torture and repression as the best means of control, if not the most satisfying form of sadism,
  - (ii) „convict officers“ who are pressed, into prison services mostly on account of their past repressive experience and
  - (iii) „Prison mafia“ which is making its presence felt in most of the prisons as an extra- legal source of control.<sup>21</sup>

## CLASSIFICATION OF PRISONERS

Prisoners in Indian jails are classified into different classes not on the basis of their criminal record but according to their social, economic and educational background. This, in fact is a legacy of our colonial past which have not shed. A committee chaired by Justice Santosh Duggal was appointed on the orders of the Supreme Court in a civil writ petition in which the existing system of classification was challenged. The Committee, in its report, mentioned that the existing system of classification, based on criteria, like social status, education, habit, mode of living etc. was repugnant to the concept of equality propounded by Article 14 of the Constitution and should be abolished. The broad criteria for segregation of prisoners, according to the Committee, should include convicts, undertrials, age, nature of crime, previous history (whether habitual or casual), prison term, kind of sentences, nationality, civil prisoners, detenues, security requirements, disciplinary or administrative requirements, correctional educational or medical needs.<sup>22</sup>

## LEGISLATIONS DEALING WITH PRISONS

Prisons in India, and their administration, are a state subject covered by item 4 under the State List in the Seventh Schedule of the Constitution of India. The management and administration of prisons falls exclusively in the domain of the State governments, and is governed by the Prisons Act, 1894 and the Prison manuals of the respective state governments. Thus, states have the primary role, responsibility and authority to change the current prison laws, rules and regulations. The Central Government provides assistance to the states to improve security in prisons, for the repair and renovation of old prisons, medical facilities, development of borstal schools, facilities to women offenders, vocational training, modernization of prison industries, training to prison personnel, and for the creation of high security enclosures.<sup>23</sup>

### Legal Framework

- Constitution of India, 1950
- Indian Penal Code, 1860
- Prisoners Act, 1894
- Prisoners Act, 1900
- Identification of Prisoners Act, 1920
- Transfer of Prisoners Act, 1950.
- Prisoners (Attendance in Courts) Act, 1955
- Probation of Offenders Act, 1958
- Mental Health Act, 1987

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<sup>21</sup> K. JAISHANKAR, *INTERNATIONAL PERSPECTIVES ON CRIME AND JUSTICE*, 330 (1st ed., 2009).

<sup>22</sup> P. ISHWARABHATT, *LAW AND SOCIAL TRANSFORMATION*, 836 (1st ed., 2009).

<sup>23</sup> Shaik Ali, *Prisons in India: An Overview*, *Indian Journal of Applied Research* (July, 15, 2017) [http://www.theglobaljournals.com/ijar/file.php?val=December\\_2014\\_1417447136160.pdf#page=1&zoom=auto,0,764](http://www.theglobaljournals.com/ijar/file.php?val=December_2014_1417447136160.pdf#page=1&zoom=auto,0,764)

- Protection of Human Rights Act, 1993
- Juvenile Justice (Care and Protection of Children) Act, 2000
- Model Prison Manual for Superintendence and Management of Prisons in India, 2003
- Repatriation of Prisoners Act, 2003
- Model Prison Manual, 2003<sup>24</sup>

### **Some Landmark Judgments on the rights of Prisoners**

(1) The right to life of a person is more than mere animal existence, or vegetable subsistence. Therefore, the worth of the human person and dignity and divinity of every individual inform Articles 19 and 21 of the constitution even in a prison setting. There must be some correlation between deprivation of freedom and the legitimate functions of a correctional system.<sup>25</sup>

(2) Strongly denouncing routine handcuffing of prisoners, the Supreme Court stated that to manacle a man is more than to mortify him; it is to dehumanize him; and therefore to violate his very personhood. Supreme Court directed that handcuffs are not to be used unless absolutely necessary.<sup>26</sup>

(3) Prisoners' rights shall be protected by the court by its writ jurisdiction and contempt power. Free legal services to the prisoners shall be promoted by professional organizations recognized by the court.<sup>27</sup>

(4) A prison rule may regulate the right of a detainee to have interview with a legal adviser in a manner which is reasonable, fair and just. However, it cannot prescribe an arbitrary or unreasonable procedure for regulating such an interview as that would be violative of Articles 14 and 21 of the constitution.<sup>28</sup>

(5) The Court considered two main aspects of the criminal justice delivery system in India, namely, service of a copy of the judgment to the prisoner in time to file an appeal and the provision of free legal services to a prisoner.<sup>29</sup>

(6) Remarking on the undue delay in commencement of trials, the Court stated that speedy trial was the essence of criminal justice and thus delay in trial by itself constitutes denial of justice. A reasonably expeditious trial is an integral and essential part of the fundamental right to life and liberty.<sup>30</sup>

(7) Expressing serious concern about the safety and security of women in police lock-up, the Supreme Court directed that a woman judge should be appointed to carry out surprise visits to police stations to see that all legal safeguards are being enforced. Female suspects must be kept in separate lock-ups under the supervision of female constables. Interrogation of females must be carried out in the presence of female police officers.<sup>31</sup>

(8) The Apex Court issued guidelines to Central Government, State Governments and Union Territories regarding pregnant women prisoners and children of women prisoners recognizing their rights. A child shall not be treated as an under-trial/convict while in jail with his mother. Such a child is entitled to food, shelter, medical care, clothing, education and recreational facilities as a matter of right. The courts dealing with cases of women prisoners whose children are in prison with their mothers are directed to give priority to such cases and decide their cases expeditiously. The courts dealing with cases of women

<sup>24</sup> P. ISHWARA BHATT, *LAW AND SOCIAL TRANSFORMATION*, 836 (1st ed., 2009).

<sup>25</sup> *Charles Sobhraj v Superintendent, Central Jail, Tihar, New Delhi*, AIR 1978 SC 1514.

<sup>26</sup> *Prem Shankar Shukla v Delhi Administration*, AIR 1980 SC 1535.

<sup>27</sup> *Sunil Batra (II) v Delhi Administration*, AIR 1980 SC 1579.

<sup>28</sup> *Francis Mullin v Union Territory of Delhi and others*, AIR 1981 SC 746a.

<sup>29</sup> *MH Haskot v State of Maharashtra*, (1978) 3 SSC 544.

<sup>30</sup> *iHussinara Khatoon v Home Secretary, Bihar*, AIR 1979 SC 1360.

<sup>31</sup> *Sheela Barse v State of Maharashtra*, AIR 1983 SC 378.

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prisoners whose children are in prison with their mothers are directed to give priority to such cases and decide their cases expeditiously.<sup>32</sup>

(9) Prisoner's right to sociability, although limited, has human right dimension. From a total segregation to a breathing atmosphere of social relations the development that occurred is worth noting. In Rama Murthy, Hansaria J., observed, "While in jail, communication with outside world gets snapped with a result that the inmate does not know what is happening even to his near and dear ones. This causes additional trauma. A liberalized view relating to communication with kith and kin specially is desirable."<sup>33</sup>

## CONCLUSION

Reforms of prisons to meet the requirements of changed social perceptions about human rights and modernization is another point that establishes potentiality of human rights jurisprudence in framing and implementing the social transformation agenda. It is with the refinement of civilization that finer ideas about prison reforms emerge. Some of the noble principles about humane treatment of prisoners, as reflected in the ancient Indian jurisprudence, can be looked into to know the ancient values in the subject. Kautliya prescribed that a bandhanagara (Jail) shall be constructed in the capital providing separate accommodation for men and women, and it should be well- guarded. Prisoners were to be employed in useful works like weaving and cultivation; and remission of sentences of imprisonment in special occasions or on consideration of good work, conducts and payment of fine was to be practiced.<sup>34</sup> After independence in the light of Constitutional norms and International Instruments reformatory philosophy has become part of prison administration and penal system. The purpose of prison is, as the American Convention on Human Rights says, the „reform and social readaptation“ of the prisoners. Prison should not be places of forced labour; they should not be holding centers or warehouses. They should be run in such a way that the human capacities of those held in them are recognized, capacities to learn, to improve, to help others, to grow in understanding. Prisons should also be places where justice reigns. The noted jurist, Lord Woolf, now Chief Justice of England, said that „the system of justice which has put a person in prison cannot end at the prison doors. It must accompany the prisoner into the prison.....<sup>35</sup> The National Human Rights Commission (NHRC) has made some key recommendation for prison reform. These include replacing the 1894 Prison Act with a new one, amending prison manuals keeping human rights in mind, reducing overcrowding; one of the biggest problems in most prisons, shifting foreign nationals to detention centers from prisons after their sentence is completed, till they are deported to their respective countries.<sup>36</sup> In sum, there is a need for creating human rights ethos within the penal system making the prison system more transparent and accountable to the democratic values. Though the concept of human rights has been an integral part of our social values, traditions and ethos, the contemporary changes in socio- cultural and economic life have made it imperative to have a fresh look at human rights. The institution of criminal justice and penal system has evolved not only to protect human rights of those endangered by anti social elements but also to restore the human dignity of those who have gone out of the prescribed social order. The Apex Court of our country has fully established that a person who violates law does not become non- person and he continues to be entitled to all human rights within the limitation of legal provisions.<sup>37</sup> This

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<sup>32</sup> *RD Upadhyay v State of A.P. and ors*, AIR 2006 SC 1946.S

<sup>33</sup> *Rama Murthy v State of Karnataka* (1997) 2 SCC 642

<sup>34</sup> K. JAISHANKAR, *INTERNATIONAL PERSPECTIVES ON CRIME AND JUSTICE*, 835 (1st ed., 2009).

<sup>35</sup> K. i. Vibhut, *Criminal Justice A Human Rights Perspective Of The Criminal Justice Process*, 294 (1st ed., 2004).

<sup>36</sup> K. JAISHANKAR, *INTERNATIONAL PERSPECTIVES ON CRIME AND JUSTICE*, 332 (1st ed., 2009).

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# An Analysis of the Impact of Trade Sanctions on the Incidence of Child Labour

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(July 2020)

## **ABSTRACT**

*Although the incidence of child labour has declined in recent years in the aggregate, the experience of last fifteen years is not very satisfactory to achieve United Nations goal of ending child labour in all its forms by 2025. The purpose of this paper is to develop a general equilibrium model, with co-existence of both formal and informal sectors, to analyze the efficacy of trade sanctions and liberalized trade policy in reducing the incidence of child labour. Informal sectors use child labour to produce a non-traded intermediary for the tariff protected import competing formal sector. The analysis observes that instruments like liberalized trade policy improves child labour problem, though, under reasonable conditions trade sanctions may worsen the situation.*

**Keywords:** *Child labour; trade sanctions; trade liberalization; informal sector; general equilibrium.*

**JEL classification:** *F10, J13, J22, O17.*

## **1. INTRODUCTION:**

Child labour is a multi-dimensional problem which adversely affects proper mental and physical well-being of working children. It lowers human capital accumulation which in turn reinforces the problem itself generating more number of low skill and less educated workers with reduced future earning ability. Sheer economic necessity can be viewed as one of the most important cause of this disconcerting problem. According to ILO (2017) children engaged in hazardous work are considered to be the worst form of child labour. Reports of international bodies like UNICEF and ILO reflect that absolute figure of child labour on the global scale are substantially high. According to the Bureau of Statistics of the ILO, worldwide 152 million are victims of child labour between age group 5-17 years in 2016. The percentage of world's children aged between 5-14 years engaged as child labour is 9.9 in 2012 (Source: ILO 2017) while that in 2000 was 16. In India the percentage of working children between age group 5-14 years in 2011 was 3.9 while that in 2001 was 5.0 (Source: ILO 2017). Census data of different years also confirms that in India number of child labour in absolute terms has increased over the decades though a continuous declining trend has been observed with respect to the child labour participation rate. If the estimate includes child labour engaged in unpaid household jobs then one might get a relatively grim picture.

Globalization has a complex relationship with child labour problem. According to some economists, to maintain competitive edge developing countries will be induced to use child labour more intensively, as a result of trade openness. Economists like Cigno et al. (2002) support this view. According to them trade openness as a result of globalization does have a negative effect on child labour. Some others with completely different view are of the opinion that, in developing economies, increased employment and earning opportunities, as a result of openness, will induce development for all. Globalization will lead to enhanced demand for skilled labour leading to more investment in education lessening the attractiveness for child labour. Ray (2000) concluded that limited access to education and poor quality



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of education imparted contribute to the apathy of poor parents to send their children to school. Uncertainty in the future returns from skill formation and school education compels them to send their children to work, instead, which brings immediate return. Thus costs and benefits of education influence the parents' decision whether a child would go to work or not. Study of Ravallion and Wodon (1999) investigated how enrollment subsidy and other educational incentive policies reduced child labour incidence in Bangladesh. The study revealed that Food For Education programme in Bangladesh reduced child participation rate in work by twenty percent for girls and thirty percent for boys<sup>1</sup>. Chaudhuri and Dwivedi (2007) concluded that the policy of subsidy on education might be helpful in controlling the child labour problem. However Chandrasekher and Mukhopadhyay (2006) reached a related but different conclusion that even completely free primary education will not necessarily ensure hundred percent attendances.

However, one of the root causes of supply of child labour is the abject poverty of the parents, which compels them to have large families and children to go out in the job market and earn their own means of livelihood. Basu and Van (1998) and Baland and Robinson (2000) supported this view. Baland and Robinson (2000) have shown that child labour may persist 'either when parents leave their children no bequests or when capital markets are imperfect'. In Basu and Van (1998), on the other hand, poverty is the driving force behind the incidence of child labour. Parents do not send their children to work when household income exceeds some threshold family income from adult wage, as in their analysis child labour and adult labour are substitutes. In contrast to the existing view that poverty reduction will eradicate this social evil, Dwivedi and Chaudhuri (2010) have shown that reduction in poverty is not a necessary condition for the problem of child labour to improve in the developing economies.

There are some theoretical papers, which have investigated the efficacy of various trade and non-trade policies to assess the impact on child labour. These analyses are very important particularly when it was believed that liberalized policies would take the developing countries into higher growth orbits and benefits of which would definitely trickle down to the bottom of the society. In terms of a two goods and two period model Jafarey and Lahiri (2002) studied the impact of trade sanctions on the child labour incidence in the presence of credit market imperfection<sup>2</sup>. However, they have laid special emphasis on the role of the credit market in financing the cost of children's education. In the presence of satisfactory schooling quality and relatively high return to education, credit market imperfection may boost the positive impact on the incidence of child labour. In terms of a competitive general equilibrium model, in the presence of adult unemployment, Gupta (2002) examined the effectiveness of trade sanctions as a means of curbing the prevalence of child labour. His study shows that trade sanctions, though reduce the unemployment problem of adult labour, may have perverse effect on the supply of child labour. Thus, in contrast to the existing view, the paper depicted that the supply of child labour varies inversely with the adult unemployment rate. But trade and fiscal policies, which affect the effective producers' price of the product produced by adult workers, may help in reducing the prevalence of the evil in the system. However, in Gupta (2002) child labour is used in a separate sector for producing an internationally traded commodity. This assumption seems to be unrealistic because in reality it is hard to find any sector producing internationally traded commodity using only child labour. Also this paper did not consider the impact of liberalized trade policies. Efficacy of trade and non-trade policies on the incidence of child labour use has also been investigated by Chatterjee and Ray (2016) in terms of a three factor general equilibrium model. Their study finds that, although trade policy is ineffective in

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<sup>1</sup>Chaudhuri (2010) provided a completely different picture in terms of a general equilibrium structure.

<sup>2</sup>One can also see Ranjan (1999, 2001) in this context.

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eradicating child labour, the use of non-trade policy is quite effective in reducing the problem. Chaudhuri and Dwibedi (2006) analyzed, in terms of a theoretical model with informal sectors, the desirability of trade liberalization in agriculture in developed nations in controlling the child labour problem. In another paper Dwibedi and Chaudhuri (2014) have shown that though agricultural subsidy policy fails to eradicate this social evil, economic growth through FDI can play a positive role in this respect.

It can be concluded from the above study that governments should resort to different trade and non-trade policies to accelerate the rate of fall of child labour use. The objective of the present paper is to enquire the effectiveness of trade sanctions as a policy for reducing the incidence of child labour in terms of a three-sector general equilibrium model. The model considers one formal and two informal sectors, one of the informal sectors produces a non-traded intermediary for the tariff protected import-competing formal manufacturing sector of the economy. Adult labour and child labour are perfect substitutes to each other, and child labour are used in the informal sectors. The effect of trade sanctions is captured by a decrease in the price of the export commodity in which child labour is used. If some of the developed countries impose trade sanctions on the products, world prices of the exportables of the developing countries would fall. The effect of such trade sanctions on the problem of child labour has been studied. Also the outcome of a reduction in import tariff (trade liberalization policy) has been analyzed. The paper finds that under reasonable conditions trade sanctions may produce perverse effect on the incidence of child labour while a liberalized trade policy is effective in reducing the prevalence of the evil in the system.

## 2. THE MODEL:

I consider a small open economy with three sectors producing an exportable commodity X, an importable Z, and a non-traded intermediary, Y. Commodities X and Y are produced using labour and capital while production of Z requires the non-traded intermediary apart from labour and capital. The per-unit requirement of the intermediate input is assumed to be technologically fixed in sector Z.<sup>3</sup> Z is the formal sector of the economy, which faces a unionized labour market while X and Y are the two informal sectors facing competitive labour market. There are two types of labour in the model: adult labour and child labour. Sector Z uses only adult labour. On the other hand, sectors X and Y being the two informal sectors of the economy use both adult and child labour. Following Basu and Van (1998), it is assumed that adult labour is a perfect substitute for child labour in the informal sectors. It is assumed that an adult worker is equivalent to  $\beta$  number of child workers, where  $\beta > 1$ . Each adult worker employed in the informal sectors earns a wage of W. The child wage rate, WC, must be  $(W / \beta)$  when the adult wage rate is W. Capital is perfectly mobile among all the three sectors. But adult labour is completely mobile between the two informal sectors and so is child labour.

It is assumed that the formal sector is the import-competing sector of the economy which is protected by a tariff. Production functions show CRS with diminishing marginal productivity to each factor and all inputs are fully employed. All markets except that of formal sector labour market are perfectly competitive. Prices of the traded goods, X and Z, are given internationally, due to the small open economy assumption. Since Y is non-traded its price is endogenously determined by the demand-supply mechanism. In the domestic market, thus, the supply of Y must equal the demand for Y. Sectors Y and Z, as a whole is more capital intensive than sector X, as considered in Chandra and Khan (1993) and Gupta (1997).

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<sup>3</sup> It rules out the possibility of substitution between the non-traded intermediate input and other factors of production in sector 3.

It is assumed that there exists a critical level of family income from adult wage,  $W$ , in the absence of income from child labour. Formal sector workers earn a higher wage  $W^* > W$ . As workers engaged in other two sectors earn relatively low wage they are compelled to send their children to job market to compensate low family income. The supply of child labour from each poor working family is endogenously determined.

There are  $L$  numbers of working families, which are classified into two groups with respect to the earnings of their adult members. The adult workers who work in the higher paid formal manufacturing sector comprise the richer section of the working population. On the contrary, the labourers who are engaged in informal sector jobs constitute the poorer section. There is homogeneity of labour within each of these two sections so that each family in the same group has exactly one adult worker and a certain number of children.

The following symbols will be used in the formal presentation of the model.

- $a_{li}$  : labour-output ratio in the  $i$ -<sup>th</sup> sector,  $i = X, Y, Z$ ;
- $a_{ki}$  : capital-output ratio in the  $i$ -<sup>th</sup> sector,  $i = X, Y, Z$ ;
- $a_{YZ}$  : amount of  $Y$  commodity required to produce one unit of commodity  $Z$ ;
- $\theta_{ji}$  : distributive share of the  $j$ <sup>th</sup> input in the  $i$ <sup>th</sup> industry,  $j = L, K$ ; and,  $i = X, Y, Z$ ;
- $\theta_{YZ}$  : distributive share of  $Y$  in the  $Z$  sector;
- $\lambda_{ji}$  : proportion of the  $j$ <sup>th</sup> input employed in the  $i$ <sup>th</sup> sector,  $j = L, K$  and  $i = X, Z$ ;
- $P_i$  : world price of the  $i$ -<sup>th</sup> good,  $i = X, Z$ ;
- $P_Y$  : endogenously determined price of the non-traded intermediary;
- $t$  : ad-valorem tariff rate on the import of  $Z$ ;
- $W^*$  : unionized adult wage rate in sector  $Z$ ;
- $W$  : informal sector adult wage rate;
- $WC (=W\beta)$  : child wage rate;  $r$  : rate of return to capital;
- $C_X$  : consumption of commodity  $X$  by each working family;
- $C_Z$  : consumption of commodity  $Z$  by each family;
- $L$  : adult labour endowment;
- $IC$  : supply of child labour by each informal sector working family;
- $LC$  : aggregate supply of child labour;
- $K$  : capital stock of the economy;
- $\wedge$  : proportional change.

## 2.1 Supply Function of Child Labour

In this section it is wanted to derive the supply function of child labour from the utility maximizing behaviour<sup>4</sup> of the representative adult worker working in either of the two informal sectors who sends his children to work.

The utility function of the representative adult worker is given by

$$U = W(C_X, C_Z) - V(L_C)$$

<sup>4</sup>The workers employed in the formal sector of the economy do not send their offspring to the job market. This is because the income of the adult member of each formal sector family,  $W^*$ , is sufficiently above the critical level of income,  $W$ . The adult member of each of these families maximizes the family welfare given by  $U = (C_X)^\alpha + (C_Z)^\alpha$  with respect to  $C$  and  $C$  and subject to the budget constraint,  $P_X C_X + P_Z(1+t)C_Z = W^*$



The worker derives utility from the consumption of the final goods and disutility from child labour. For analytical simplicity let us consider the following specific algebraic form of the utility function.<sup>5</sup>

$$U = (C_x)^\alpha + (C_z)^\alpha - (L_c)^\alpha \text{ with } 0 < \alpha < 1 \quad (1)$$

It satisfies all the standard properties. Also it is additive and symmetric. It is homogeneous of degree  $\alpha$  and has the constant elasticity of substitution between any two arguments.

He maximizes this utility function subject to the budget constraint

$$P_x C_x + P_z (1+t) C_z = [(W/\beta)l_c + W] \quad (2)$$

where W is the own income of the adult worker.

The following first-order conditions are satisfied in equilibrium.

$$(C_x / C_z)^{(\alpha-1)} = (P_x / P_z (1+t)) \quad (3)$$

$$(C_x / l_c)^{(\alpha-1)} = (P_x / (W/\beta)) \quad (4)$$

and,

$$(C_z / l_c)^{(\alpha-1)} = \{(P_z (1+t) / (W/\beta))\} \quad (5)$$

Using equations (4) and (5) one can obtain,

$$\frac{P_x C_x + P_z C_z (1+t)}{C_x} = [P_x^{(\alpha/\alpha-1)} + (P_z (1+t))^{\alpha/(\alpha-1)}] (\beta/W)^{(1/\alpha-1)} l_c \quad (6)$$

This means that in equilibrium, total expenditure on final goods of each poor working family is proportional to the supply of child labour given the product prices and the informal sector wage rate.

Using equations (2), (4) and (5) I have

$$l_c = f(W, P_x, t) = [\beta / \{ (P_x)^{\alpha/\alpha-1} + (P_z (1+t))^{\alpha/(\alpha-1)} \} \{ (W/\beta)^{\alpha/1-\alpha} \} - 1] \quad (7)$$

(-)(+)(+)

This is the supply function of child labour by each poor family. Its properties are now analyzed. First,  $l_c$  varies negatively with the wage rate, W. Note that in the informal sectors adult labour and child labour are perfect substitutes. So  $(W/\beta)$  is the child wage rate. Hence a rise in W produces a negative price effect. Secondly,  $l_c$  varies positively with the tariff rate, t and the price of commodity X,  $P_x$ . An increase in t or in  $P_x$  lowers  $((P_z(1+t))^{\alpha/(\alpha-1)})$  or  $((P_x)^{\alpha/(\alpha-1)})$  because  $(\alpha/\alpha-1) < 0$ . So  $l_c$  rises given the other parameters. An increase in  $P_x$  (or t) raises the price of X (or Z) commodity. So consumption of X (or Z) commodity is substituted by the consumption of Z (or X) commodity. Since the relative consumption of Z (or X) with respect to child labour,  $(C_z / l_c)$  (or  $C_x / l_c$ ), remains unchanged,  $l_c$  also rises.

<sup>5</sup>If one alternatively considers the utility function to be of the following Cobb-Douglas type:  $U = (A.(C_x)^\alpha .(C_z)^\beta / (l_c)^\rho)$  with  $A > 0$  and  $1 > \alpha, \beta, \rho > 0$ , the qualitative results of the model more or less remain unaltered. See footnote 13 in this context.

Now the aggregate supply function of child labour is given by

$$L_c = [\beta / \{ \{ (P_X)^{(\alpha/\alpha-1)} + (P_Z(1+t))^{(\alpha/\alpha-1)} \} \{ (W/\beta)^{(\alpha/1-\alpha)} \} - 1 \}] (L - a_{LZ} \cdot Z) \quad (8)$$

where  $(L - a_{LZ} \cdot Z)$  is the number of poor or child labour supplying families.<sup>6</sup>

In the subsequent sections of the paper the following general form of the aggregate child labour function will be used for analytical purpose. However, all the properties satisfied by the specific functional form given by equation (8) will be retained.

$$L_c = f(W, P_X, t)(L - a_{LZ}Z) \quad (8.1)$$

(-)(+)(+)

## 2.2 The General Equilibrium Analysis

Given the assumption of perfectly competitive markets the usual price-unit cost equality conditions relating to the three sectors of the economy are given by the following three equations.

$$a_{LX}W + a_{KX}r = P_X \quad (9)$$

$$a_{LY}W + a_{KY}r = P_Y \quad (10)$$

$$a_{LZ}W + a_{KZ}r + P_Y a_{YZ} = P_Z(1+t) \quad (11)$$

Since the intermediary, Y, is used only in the production of Z its full-employment condition is as follows.

$$a_{YZ}Z = Y \quad (12)$$

The capital endowment equation, which shows capital market equilibrium, is given by

$$a_{KX}X + a_{KY}Y + a_{KZ}Z = K \quad (13)$$

There are L numbers of working families,<sup>7</sup> each consisting of one adult member and certain number of children. The number of poor working families is  $(L - a_{LZ} \cdot Z)$ . The number of children going to the job market from each poor family is decided by the adult member of the family. Actually, it is determined from the utility maximizing behaviour of the family. The aggregate supply function of child labour in general form is the following.

$$L_c = f(W, P_X, t)(L - a_{LZ}Z) \quad (8.1)$$

(-)(+)(+)

The effective labour endowment of the economy consists of both adult and child labour; and the labour market equilibrium is given by the following equation.

$$a_{LX}X + a_{LY}Y + a_{LZ}Z = L + (L_c / \beta) \quad (14)$$

Using (8.1) equation (14) can be rewritten as

$$a_{LX}X + a_{LY}Y + a_{LZ}Z = L + \{ (1/\beta) f(W, P_X, t)(L - a_{LZ}Z) \} \quad (14.1)$$

There are seven endogenous variables (namely, W, r, P<sub>Y</sub>, X, Y, Z and L<sub>C</sub>) and seven independent equations (namely (8.1) and (9–13) and (14.1)) in this system. The parameters in this model are: P<sub>X</sub>,

<sup>6</sup> Note that  $(L - a_{LZ} \cdot Z)$  is the number of adult workers engaged in the two informal or low wage earning sectors of the economy and the supply of child labour comes from these poor families only.

<sup>7</sup> See footnote 4 in this context.

PZ,  $\beta$ , L, K, and t. Equations (9) – (11) constitute the price system and the rest of the equations form the output system. It should be noted that the system possesses the decomposition property since the three unknown input prices, W, r and PY, can be determined from the price system alone, independent of the output system. Once the factor prices are known the factor coefficients,  $a_{jis}$ , are also known. Now X, Y and Z are obtained from equations (12), (13) and (14.1). Finally, LC is determined from (8.1).

### 3. COMPARATIVE STATIC EXERCISES:

In this section of the paper I shall study the efficacy of trade sanctions and a liberalized trade policy on the supply of child labour in the economy. Now totally differentiating equations (9) – (11) and solving by Cramer's rule following expressions are obtained.

$$\hat{W} = (1/|\theta|)[(\theta_{KY}\theta_{YZ} + \theta_{KZ})\hat{P}_x - \theta_{KX}T\hat{t}] \quad (15.1)$$

$$\hat{r} = (1/|\theta|)[\theta_{LY}T\hat{t} - \theta_{LY}\theta_{YZ}\hat{P}_x] \quad (15.2)$$

$$\text{and, } (\hat{W} - \hat{r}) = (1/|\theta|)[(\theta_{YZ} + \theta_{KZ})\hat{P}_x - T\hat{t}] \quad (15.3)$$

where  $|\theta| = [\theta_{LY}(\theta_{KY}\theta_{YZ} + \theta_{KZ}) - \theta_{KX}\theta_{LY}\theta_{YZ}] > 0$  as the vertically integrated import-competing sector is more capital-intensive than the export sector; and,  $T = (t/(1+t)) > 0$ .

Now from (12) one can get

$$\hat{Y} = \hat{Z} \quad (16)$$

Differentiating (13) and (14.1) and using (16) one can get<sup>8</sup>

$$\lambda_{LX}\hat{X} + A\hat{Z} = B\hat{P}_x - C\hat{t} \quad (17)$$

$$\lambda_{KX}\hat{X} + (\lambda_{KY} + \lambda_{LZ})\hat{Z} = D\hat{t} - E\hat{P}_x \quad (18)$$

Where  $A = \{\lambda_{LY} + \lambda_{LZ}(1+f(\cdot)/\beta)\} > 0$ ;

$$B = (1/|\theta|)[(\theta_{YZ} + \theta_{KZ})(\lambda_{LX}\theta_{KX}\sigma_X + \lambda_{LY}\theta_{KY}\sigma_Y) + \lambda_{LZ}\theta_{KZ}\sigma_Z\theta_{LY}\theta_{YZ}(1+f(\cdot)/\beta) + (E_W L_C / \beta L^*)(\theta_{KY}\theta_{YZ} + \theta_{KZ} + (L_C E_{PX} \theta / \beta L^*))];$$

$$C = (T/|\theta|)[(\lambda_{LX}\theta_{KX}\sigma_X + \lambda_{LY}\theta_{KY}\sigma_Y) + \lambda_{LZ}\theta_{KZ}\sigma_Z\theta_{LX}(1+f(\cdot)/\beta) + (E_W L_C \theta_{KX} / \beta L^*) - (E_t L_d \theta / \beta L^* T)];$$

$$D = (T/|\theta|)[\lambda_{KX}\theta_{LX}\sigma_X + \lambda_{KY}\theta_{LY}\sigma_Y + \lambda_{KZ}\theta_{LZ}\sigma_Z\theta_{LX}] > 0;$$

$$E = (1/|\theta|)[(\theta_{YZ} + \theta_{KZ})(\lambda_{KX}\theta_{LX}\sigma_X + \lambda_{KY}\theta_{LY}\sigma_Y) + \lambda_{KZ}\theta_{LZ}\sigma_Z\theta_{LY}\theta_{YZ}] > 0;$$

$$E_W = \{(\partial f(\cdot) / \partial W).(W/f(\cdot))\}; E_{PX} = \{(\partial f(\cdot) / \partial P_x).(P_x/f(\cdot))\}; E_t = \{(\partial f(\cdot) / \partial t).(t/f(\cdot))\}.$$

$$\text{Now, } [(L_C \theta_{KX} / \beta L^*)\{E_W(\theta_{KY}\theta_{YZ} + \theta_{KZ}) + E_{PX}\theta\}] \\ = -(L_C / f(\cdot)L^*G^2|\theta|)(\alpha/1-\alpha)(W/\beta)^{(\alpha/1-\alpha)}[(P_x)^{(\alpha/\alpha-1)}(\theta_{YZ} + \theta_{KZ})\theta_{KX}]$$

<sup>8</sup> See appendix for detailed derivation.

$$+ (\theta_{KY} \theta_{YZ} + \theta_{KZ})(P_Z (1+t))^{(\alpha/\alpha-1)} < 0; \text{ and,}$$

$$[(E_W L_C \theta_{KX} / \beta L^*) - (E_W L_C \theta / \beta L^* T)] < 0. \text{ (as } E_W < 0 \text{)}$$

$$\text{Note that } G = [\beta / \{ (P_X)^{(\alpha/\alpha-1)} + (P_Z (1+t))^{(\alpha/\alpha-1)} \} \{ (W / \beta)^{(\alpha/1-\alpha)} - 1 \}] > 0.$$

Using the above expressions it is easy to check that the signs of B and C are uncertain.

Solving (17) and (18) by Cramer's rule I get<sup>9</sup>

$$\hat{Z} = (\lambda) [(\lambda_{LY} D + \lambda_{KX} C) - (\lambda_{LY} E + \lambda_{KX} B) \hat{P}_X] \quad (19)$$

where

$$|\lambda| = \lambda_{KX} (\lambda_{KY} + \lambda_{KZ}) [(\lambda_{LY} / \lambda_{KX}) - (\lambda_{LY} + \lambda_{LZ}) / (\lambda_{KY} + \lambda_{KZ})] - \lambda_{KX} \lambda_{LZ} (f(\cdot) / \beta) \quad (20)$$

$$\text{or, } |\lambda| = \lambda_{KX} (\lambda_{KY} + \lambda_{KZ}) [(\lambda_{LY} / \lambda_{KX}) - \{ \lambda_{LY} + \lambda_{LZ} (f(\cdot) / \beta) \} / (\lambda_{KY} + \lambda_{KZ})] \quad (20.1)$$

I shall now try to interpret  $\lambda$ . It should be remembered that each adult worker employed in the two informal sectors sends  $f(\cdot)$  number of his offspring to the job market to supplement low family income. On the other hand, labourers engaged in the formal sector of the economy are the richer section of the working class and do not send their children to the labour market. In the two informal sectors adult and child labour are perfect substitutes. So, the effective adult labour endowment of the economy must include child labour too, and is given by  $L^* (= L + L_C / \beta)$ .

The labour-capital ratio in sector X is given by  $(\lambda_{LX} / \lambda_{KX})$ . Sector Z uses capital and labour both directly as well as indirectly through use of Y as production of one unit of Z requires  $a_{YZ}$  units of Y and sector Y also requires capital and labour in its production. Thus,  $(\lambda_{KY} + \lambda_{KZ})$  and  $(\lambda_{LY} + \lambda_{LZ})$  are the proportions of capital and the effective labour force used directly and indirectly in the production of Z. Thus the effective labour-capital ratio for sector Z is given by  $\{(\lambda_{LY} + \lambda_{LZ}) / (\lambda_{KY} + \lambda_{KZ})\}$ . The expression,  $[(\lambda_{LX} / \lambda_{KX}) - (\lambda_{LY} + \lambda_{LZ}) / (\lambda_{KY} + \lambda_{KZ})]$ , in the right-hand side of (20) gives the difference between the actual labour-capital ratio of sector X and the effective labour-capital ratio of the Z sector. This difference is positive because it is sensible to assume that the export sector (sector X) is more labour intensive vis-à-vis the vertically integrated industrial sector (i.e. sectors Z and Y taken together).<sup>10</sup> Now turning back to interpreting the right-hand side of (20), it is noted that  $\lambda_{LZ}$  proportion of adult workers of the economy are engaged in the Z sector and do not send their offspring to the job market. However, if they were employed in either of the two informal sectors each of them would have sent  $f(\cdot)$  number of children to the labour market. This implies that the economy is deprived of having  $(f(\cdot) a_{LZ} Z)$  number of potential child workers, which is equivalent to  $(f(\cdot) a_{LZ} Z / \beta)$  units of adult worker. Thus,  $[\{ \lambda_{LY} + \lambda_{LZ} (1 + (f(\cdot) / \beta)) \} / (\lambda_{KY} + \lambda_{KZ})]$  gives the labour-capital ratio of sector Z taking into account the opportunity labour endowment which the economy is denied of because of the employment of  $(f(\cdot) a_{LZ} Z)$  number of adult labourers in sector Z. I call  $[\{ \lambda_{LY} + \lambda_{LZ} (1 + (f(\cdot) / \beta)) \} / (\lambda_{KY} + \lambda_{KZ})]$  the labour-capital ratio of the Z sector from the social point of view and this may not necessarily be less than the actual labour-capital ratio of the export sector i.e.  $(\lambda_{LX} / \lambda_{KX})$ . Thus,  $\lambda$  is negative (positive) under the necessary and sufficient condition that the actual labour-capital ratio of sector X is less (greater) than the labour-capital ratio of sector Z calculated from the social point of view. It should be noted that the  $\lambda$  depends on the unknown factor prices, which in turn depend on the parameters in the price system like,  $P_X, P_Z, t$  and  $\beta$ . The magnitude of  $f(\cdot)$  also depends on the values of  $\beta, P_X, P_Z$ , and  $t$ . So, depending on the parameter values  $\lambda$  would be negative or positive.

<sup>9</sup> This has been shown in appendix.

<sup>10</sup> Chandra and Khan (1993) and Gupta (1997) have also made this assumption.



To find out the policy effects on the aggregate supply of child labour after totally differentiating equation (8.1) one can get the following expression.<sup>11</sup>

$$\begin{aligned} \hat{L}_c &= (E_{PX} \hat{P}_X + E_t \hat{t} + E_w \hat{W}) \\ &- \{a_{LZ} Z / (L - a_{LZ} Z)\} \{(\theta_{LZ} \sigma_Z \theta_{LXT} / |\theta| + ((\lambda_{LX} D + \lambda_{KX} C) / |\lambda|))\} \hat{t} \\ &- \{(\theta_{LZ} \sigma_Z \theta_{LZ} / |\theta| + ((\lambda_{LX} E + \lambda_{KX} B) / |\lambda|))\} \hat{P}_X \end{aligned} \quad (21)$$

From (7) it can be verified<sup>12</sup> that

$$\begin{aligned} \hat{L}_c &= (E_{PX} \hat{P}_X + E_t \hat{t} + E_w \hat{W}) \\ &= (\beta / f(\cdot)) G^2 |\theta| (\alpha / 1 - \alpha) ((W / \beta)^{(\alpha / 1 - \alpha)}) [-\hat{P}_X \{(P_X)^{(\alpha / \alpha - 1)} \theta_{KX} (\theta_{YZ} + \theta_{KZ}) \\ &\quad + (\theta_{KZ} \theta_{YZ} + \theta_{KZ}) (P_Z (1+t))^{(\alpha / \alpha - 1)}\} + \hat{t} \{t (P^Z (1+t))^{(1 / \alpha - 1)} |\theta| + \{(P_X)^{(\alpha / \alpha - 1)} \\ &\quad + (P_Z (1+t))^{(\alpha / \alpha - 1)}\} (\theta_{KX} T)\}] \end{aligned} \quad (22)$$

Using (22) from equation (21) it is easy to derive the following results.<sup>13</sup>

(i)  $\hat{L}_c > 0$  when  $\hat{P}_X < 0$  if  $\{(\theta_{LZ} \sigma_Z \theta_{LXT} / |\theta| + ((\lambda_{LX} D + \lambda_{KX} C) / |\lambda|))\} \leq 0$ .

(ii)  $\hat{L}_c < 0$  when  $\hat{t} < 0$  if  $\{(\theta_{LZ} \sigma_Z \theta_{LXT} / |\theta| + ((\lambda_{LX} D + \lambda_{KX} C) / |\lambda|))\} \leq 0$ .

So I have the following proposition.

**PROPOSITION:** Trade sanctions, which result in a reduction in the price of the export commodity accentuate the incidence of child labour in the society if  $\{(\theta_{LZ} \sigma_Z \theta_{LXT} / |\theta| + ((\lambda_{LX} D + \lambda_{KX} C) / |\lambda|))\} \leq 0$ . On the contrary, trade liberalization in the form of a reduction in the tariff rate reduces the problem of child labour if  $\{(\theta_{LZ} \sigma_Z \theta_{LXT} / |\theta| + ((\lambda_{LX} D + \lambda_{KX} C) / |\lambda|))\} \leq 0$ .

The above proposition can be intuitively explained as follows. The aggregate supply of child labour in the economy is a product of the supply of child labour by each poor working family,  $f(\cdot)$ , and the number poor families,  $(L - a_{LZ} Z)$ . Trade sanctions in the form of a reduction in the price of the export commodity, PX, in which child labour is used as input lower the competitive wage rate and raise the rental on capital following a Stolper-Samuelson effect as the export sector is more labour intensive than the vertically integrated import-competing sector. First, the effect of the policy on the supply of child labour from each poor working family is considered. As PX decreases consumption of Z commodity is substituted by the consumption of X commodity. Since the relative consumption of Z with respect to child labour,  $(CZ / IC)$  remains unchanged, IC also falls. But as W falls IC rises. It is easy check<sup>14</sup> that the net effect would be an increase in IC. Next I consider the effect on the number of child labour supplying families,  $(L - a_{LZ} Z)$ . As r rises and W falls producers in all the three sectors of the economy would adopt more labour-intensive techniques of production. As a consequence  $a_L$  is increase and  $a_K$  is

<sup>11</sup> See appendix for detailed derivation.

<sup>12</sup> This has been shown in appendix.

<sup>13</sup> If the utility function is of the following Cobb-Douglas type:  $U = (A(C)^\alpha (C)^\beta / (\lambda)^\rho)$  with  $A > 0$  and  $1 > \alpha, \beta, \rho > 0$ , one can check that  $\hat{L}^c = 0$ . So,  $\hat{L}^c > 0$  when  $\hat{t} < 0$  if and only if  $\{(\theta_{LZ} \sigma_Z \theta_{LXT} / \theta) \{(\theta_{LZ} \sigma_Z \theta_{LXT} / \theta) + ((\lambda_{LX} D + ((\lambda_{LX} D + \lambda_{KX} C) / \lambda))\} < 0$ ; and,  $\hat{L}^c < 0$  when  $\hat{t} < 0$  if and only if  $\{(\theta_{LZ} \sigma_Z \theta_{LXT} / \theta) + ((\lambda_{LX} D + \lambda_{KX} C) / \lambda)\} < 0$ .

<sup>14</sup> This has been shown in appendix.

decrease for  $i = X, Y, Z$ . Given the product mix there will be an excess supply of capital, which produces a Rybczynski type effect. If  $\{(\lambda_{LX} E + \lambda_{KX} B) / \lambda\} < 0$ ,  $Z$  takes a lower value. But as  $aLZ$  has increased the effect on  $a_{LZ} Z$  is uncertain. However, under the condition that  $\{(\theta_{LZ} \sigma_Z \theta_{LY} \theta_{YZ} / \theta) + ((\lambda_{LX} E + \lambda_{KX} B) / \lambda)\} < (=) 0$ ,  $a_{LZ} Z$  decreases (remains unchanged), which in turn implies that the number of poor families supplying child labour,  $(L - a_{LZ} Z)$ , increases (remains unaltered). It has already shown that a decrease in  $PX$  leads to an increase in the number of child labour supplied by each poor working family. Thus, under the sufficient condition that  $\{(\theta_{LZ} \sigma_Z \theta_{LY} \theta_{YZ} / \theta) + ((\lambda_{LX} E + \lambda_{KX} B) / \lambda)\} \leq 0$ , the incidence of child labour rises. This is, however, only a sufficient condition because even if  $\{(\theta_{LZ} \sigma_Z \theta_{LY} \theta_{YZ} / \theta) + ((\lambda_{LX} E + \lambda_{KX} B) / \lambda)\} > 0$ , and  $(L - a_{LZ} Z)$  falls, the proportionate increase in  $l_c$  may outweigh the proportionate decrease in  $(L - a_{LZ} Z)$ . So  $LC$ , which is a product of  $IC$  and  $(L - a_{LZ} Z)$ , may increase even in this case. On the other hand, if  $\{(\lambda_{LX} E + \lambda_{KX} B) / \lambda\} > 0$ ,  $Z$  increases. As  $aLZ$  has risen,  $(L - a_{LZ} Z)$  definitely falls. But the proportionate increase in  $l_c$  in this case, may dominate over the proportionate fall in  $(L - a_{LZ} Z)$ . So  $LC$  may increase even. On the contrary, a reduction in the import tariff,  $t$ , lowers  $l_c$ , the supply of child labour by each poor working family in two ways. First, it lowers  $IC$  directly. As  $t$  falls,  $P_Z (1 + t)$ , falls too. It results in a substitution of commodity  $X$  by commodity  $Z$ . But as the ratio between  $l_c$  and  $C_X$  remains unchanged,  $l_c$  falls as  $C_X$  falls. Secondly, a decline in  $t$  lowers the rental rate on capital,  $r$ , but raises the informal sector wage rate,  $W$ . As  $W$  rises  $l_c$  falls due to a negative price effect.

As the two effects on  $l_c$  work in the same direction,  $l_c$  falls as  $t$  falls. Let us now find out the effect of this policy on  $(L - a_{LZ} Z)$ . As  $r$  falls and  $W$  rises following a reduction in  $t$ , producers in the different sectors of the economy would adopt more capital-intensive techniques of production than before. So  $a_{LX}$  increases and  $a_{LY}$  decreases for  $i = X, Y, Z$ . Given the composition of output, there would occur a shortage of capital and this produces a Rybczynski type effect. Now if  $\{(\lambda_{LX} D + \lambda_{KX} C) / \lambda\} < 0$ ,  $Z$  increases. So the effect on  $a_{LZ} Z$  remains ambiguous.

However, if  $\{(\theta_{LZ} \sigma_Z \theta_{LX} T / \theta) + ((\lambda_{LX} D + \lambda_{KX} C) / \lambda)\} < (=) 0$ ,  $a_{LZ} Z$  increases (remains unchanged) and as a consequence  $(L - a_{LZ} Z)$  decreases (remains unchanged). Thus under the sufficient condition that  $\{(\theta_{LZ} \sigma_Z \theta_{LX} T / \theta) + ((\lambda_{LX} D + \lambda_{KX} C) / \lambda)\} \leq 0$ ,  $L_c$  falls. It is to be noted that this is only a sufficient condition for  $LC$  to fall because even if  $\{(\theta_{LZ} \sigma_Z \theta_{LX} T / \theta) + ((\lambda_{LX} D + \lambda_{KX} C) / \lambda)\} > 0$  and  $a_{LZ} Z$  falls (and hence  $(L - a_{LZ} Z)$  increases)  $L_c$  may fall if the proportionate fall in  $l_c$  is greater than the proportionate increase in  $(L - a_{LZ} Z)$ .

If, on the other hand,  $\{(\lambda_{LX} D + \lambda_{KX} C) / \lambda\} > (=) 0$ ,  $Z$  decreases (remains constant). So  $a_{LZ} Z$  decreases and hence  $(L - a_{LZ} Z)$  increases. Still then  $LC$  may fall if  $l_c$  falls at a greater rate than the rate at which  $(L - a_{LZ} Z)$  rises.

#### 4. CONCLUDING REMARKS:

Child labour is a slur on the fair face of the globalized world. Different policies are advocated in reducing the prevalence of the evil in the system. Imposition of trade sanctions on the exportable commodities of the developing countries that are produced using child labour is the most controversial and hotly debated policy suggested by representatives of the developed countries in this context at the WTO meeting. The paper tries to examine whether trade sanctions can become an important tool of reducing child labour in a developing economy.

The paper builds up a three-sector general equilibrium model with informal sectors and a non- traded intermediary for the purpose of analysis. One of the informal sectors produces a non- traded

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intermediary for the formal manufacturing tariff protected import-competing sector of the economy. Child labour is used in the informal sectors. Adult labour and child labour are perfect substitutes to each other. If some of the developed countries impose trade sanctions on the exportable commodities from the developing countries, which are produced using child labour, the consequence would be a fall in the world prices of the exportable commodities of the developing countries. So, the effect of trade sanctions in this paper is captured by a decrease in the price of the export commodity in which child labour is used. The effect of such trade sanctions on the incidence of child labour has been investigated. The paper finds that the effectiveness of trade sanctions as a means of reducing the problem of child labour can be called into question. This policy may in fact produce a perverse effect on the supply of child labour. The paper then goes on to study the implication of a policy of trade liberalization as an alternative policy to combat child labour. It has been found that under reasonable conditions a liberalized trade policy may be an effective way to fight against the child labour problem.

## REFERENCES:

1. Baland, J. and Robinson, J.A. (2000): 'Is child labour inefficient?', *Journal of Political Economy*, 108(4), 663-679.
2. Basu, K. and Van, P.H. (1998): 'The economics of child labour', *American Economic Review* 88(3), 412-427.
3. Chandra, V. and Khan, M. A. (1993): 'Foreign investment in the presence of an informal sector', *Economica* 60, 79-103.
4. Chandrasekher, S., & Mukhopadhyay, A. (2006): 'Primary education as a fundamental right: Cost implications', *Economic and Political Weekly*, 3797-3804.
5. Chatterjee B. and Ray, R. (2016): 'Impact of trade vs non-trade policies on the incidence of child labour, a two sector general equilibrium framework', *Foreign Trade Review*, vol. 1(4), 287-297. Chaudhuri, S. (2010): 'Mid-day meal program and incidence of child labour in a developing economy', *Japanese Economic Review*, 61 (2), 252-265.
6. Chaudhuri, S. and Dwivedi, J.K. (2007): 'Foreign capital inflow, fiscal policies and incidence of child labour in a developing economy', *The Manchester School* 75(1), 17-46.
7. Chaudhuri, S. and Dwivedi, J.K. (2006): 'Trade liberalization in agriculture in developed nations and incidence of child labour in a developing economy', *Bulletin of Economic Research*, 58(2), 129-150.
8. Cigno, A., Rosati, F. C., and Guarcello, L. (2004): 'Globalisation and child labour', in *Harnessing Globalisation for Children: A report to UNICEF*.
9. Dwivedi, J.K. and Chaudhuri, S. (2014): 'Agricultural subsidy policies fail to deal with child labour under agricultural dualism: what could be the alternative policies?', *Research in Economics* 68(3), 277-291.
10. Dwivedi, J.K. and Chaudhuri, S. (2010): 'Foreign capital, return to education and child labour', *International Review of Economics and Finance*, 19(2), 278-286.
11. Gupta, M.R. (1997): 'Foreign capital and informal sector: Comments on Chandra and Khan', *Economica*.
12. Gupta, M.R. (2002): 'Trade sanctions, adult unemployment and the supply of child labour: a theoretical analysis', *Development Policy Review* 20(3), 317-32.
13. ILO (2017, September): *Global Estimates of Child Labour, Results and Trends, 2012-2016*. ILO, Geneva.
14. Jafarey, S. and Lahiri, S. (2002): 'Will Trade Sanctions Reduce Child Labour? The Role of Credit Markets', *Journal of Development Economics* 68(1).
15. Ranjan, P. (1999): 'An Economic Analysis of Child Labour', *Economic Letters* 64, 99-105. Ranjan, P. (2001): 'Credit Constraints and the Phenomenon of Child Labour', *Journal of Development Economics* 64, 81-102.
16. Ravallion, M. and Wodon, Q. (1999): 'Does Child Labor Displace Schooling? Evidence on Behavioral Responses to an Enrollment Subsidy', paper presented at the Annual Conference of the Royal Economic Society 1999, at the University of Nottingham, England.
17. Ray, R. (2000): 'Analysis of child labour in Peru and Pakistan: a comparative study', *Journal of Population Economics*.



**APPENDIX:**

Differentiating equation (12) I get

$$\hat{Y} = \hat{Z} \text{ (Note that } a_{YZ} \text{ is technologically given.)} \tag{16}$$

Again differentiating (13) and using (16) it can be written

$$\begin{aligned} \lambda_{KX} \hat{X} + (\lambda_{KY} + \lambda_{KZ}) \hat{Z} &= -\lambda_{KX} \hat{a}_{KX} - \lambda_{KY} \hat{a}_{KY} - \lambda_{KZ} \hat{a}_{KZ} \\ &= \lambda_{KX} \theta_{LX} \sigma_X (\hat{W} - r) - \lambda_{KY} \theta_{LY} \sigma_Y (\hat{W} - r) + \lambda_{KZ} \theta_{LZ} \sigma_Z r \\ &= -\left\{ (\lambda_{KX} \theta_{LX} \sigma_X + \lambda_{KY} \theta_{LY} \sigma_Y) / |\theta| \right\} \{ (\theta_{YZ} + \theta_{KZ}) \hat{P}_X - T \hat{t} \} \\ &\quad + \left\{ (\lambda_{KZ} \theta_{LZ} \sigma_Z / |\theta|) \left[ \theta_{LY} T \hat{t} - \theta_{LY} \theta_{YZ} \hat{P}_X \right] \right\} \\ &= (T \hat{t} / |\theta|) [\lambda_{KX} \theta_{LX} \sigma_X + \lambda_{KY} \theta_{LY} \sigma_Y + \lambda_{KZ} \theta_{LZ} \sigma_Z \theta_{LX}] \\ &\quad - \left( \hat{P}_X / |\theta| \right) \left[ (\theta_{YZ} + \theta_{KZ}) (\lambda_{KX} \theta_{LX} \sigma_X + \lambda_{KY} \theta_{LY} \sigma_Y) + \lambda_{KZ} \theta_{LZ} \sigma_Z \theta_{LY} \theta_{YZ} \right] \end{aligned} \tag{A.1}$$

Differentiating (14.1) and using equation (16) one obtains

$$\begin{aligned} \lambda_{LX} \hat{X} + (\lambda_{LY} + \lambda_{LZ}) \hat{Z} &= -\lambda_{LX} \hat{a}_{LX} - \lambda_{LY} \hat{a}_{LY} - \lambda_{LZ} \hat{a}_{LZ} - (f(.) / \beta) \lambda_{LZ} \hat{Z} \\ &\quad - (f(.) / \beta) \lambda_{LZ} \hat{a}_{LZ} + (L - a_{LZ} Z) [(\partial f(.) / \partial P_X) \cdot (dP_X / \beta L^*) \\ &\quad + (\partial f(.) / \partial t) \cdot (dt / \beta L^*) + (\partial f(.) / \partial W) \cdot (dW / \beta L^*)] \\ &= \lambda_{LX} \theta_{KX} \sigma_X (\hat{W} - r) + \lambda_{LY} \theta_{KY} \sigma_Y (\hat{W} - r) - \lambda_{LZ} \theta_{KZ} \sigma_Z r \\ &\quad + (L_C / \beta L^*) [E_{PX} \hat{P}_X + E_t \hat{t} + E_W \hat{W}] - (f(.) / \beta) \lambda_{LZ} \hat{Z} - (f(.) / \beta) \lambda_{LZ} \hat{r} \end{aligned} \tag{A.2}$$

where  $E_{PX} = ((\partial f(.) / \partial P_X) \cdot (dP_X / f(.)))$  ;  $E_t = ((\partial f(.) / \partial t) \cdot (dt / f(.)))$  ;

$E_W = ((\partial f(.) / \partial W) \cdot (dW / f(.)))$  are the elasticities of the  $f(.)$  function with respect to  $P_X$ ,  $t$  and  $W$ , respectively. Using the expressions for  $E_{PX}$ ,  $E_t$  and  $E_W$  and after simplification (A.2) becomes,

$$\begin{aligned} \lambda_{LX} \hat{X} + \{ \lambda_{LY} + \lambda_{LZ} (1 + f(.) / \beta) \} \hat{Z} \\ = \left\{ (\lambda_{LX} \theta_{KX} \sigma_X + \lambda_{LY} \theta_{KY} \sigma_Y) / |\theta| \right\} \{ \hat{P}_X (\theta_{YZ} + \theta_{KZ}) - T \hat{t} \} \\ - (\lambda_{LZ} \theta_{KZ} \sigma_Z / |\theta|) \cdot [\theta_{LY} T \hat{t} - \theta_{LY} \theta_{YZ} \hat{P}_X] + (L_C / \beta L^*) [E_{PX} \hat{P}_X + E_t \hat{t} + E_W \hat{W}] \\ - (f(.) / \beta) \lambda_{LZ} \hat{Z} - \left\{ (f(.) / \beta) \lambda_{LZ} \theta_{KZ} \sigma_Z / |\theta| \right\} \cdot [\theta_{LY} T \hat{t} - \theta_{LY} \theta_{YZ} \hat{P}_X] \end{aligned}$$

Further simplification gives

$$\begin{aligned} \lambda_{LX} \hat{X} + \{ \lambda_{LY} + \lambda_{LZ} (1 + f(.) / \beta) \} \hat{Z} \\ = \hat{P}_X \left\{ \left( \frac{\theta_{YZ} + \theta_{KZ}}{|\theta|} \right) (\lambda_{LX} \theta_{KX} \sigma_X + \lambda_{LY} \theta_{KY} \sigma_Y) + \lambda_{LZ} \theta_{KZ} \sigma_Z \theta_{LY} \theta_{YZ} \right\} / |\theta| \\ + \left\{ (E_W L_C / \beta L^*) \cdot (\theta_{KY} \theta_{YZ} + \theta_{KZ}) / |\theta| + \left\{ (f(.) / \beta) (\lambda_{LZ} \theta_{KZ} \sigma_Z \theta_{LY} \theta_{YZ}) / |\theta| \right\} \right\} \\ + (L_C \cdot E_{PX} / \beta L^*) \\ - \hat{t} (T / |\theta|) [(\lambda_{LX} \theta_{KX} \sigma_X + \lambda_{LY} \theta_{KY} \sigma_Y) + \lambda_{LZ} \theta_{KZ} \sigma_Z \theta_{LX}] \\ + \left\{ (f(.) / \beta) \lambda_{LZ} \theta_{KZ} \sigma_Z \theta_{LX} \right\} (E_W L_C / \beta L^*) \theta_{KX} - \left\{ (E_t L_C / \beta L^*) \cdot (|\theta| / T) \right\} \end{aligned} \tag{A.3}$$

I rewrite (A.3) and (A.1) as follows.

$$\lambda_{LX} \hat{X} + A \hat{Z} = B \hat{P}_X - C \hat{t} \tag{17}$$



$$\lambda_{KX}\hat{X} + (\lambda_{KY} + \lambda_{KZ})\hat{Z} = D\hat{t} - E\hat{P}_X \quad (18)$$

where  $A = \{\lambda_{LY} + \lambda_{LZ}(1+f(\cdot)/\beta)\} > 0$ ;

$$B = (1/|\theta|) [\{(\theta_{YZ} + \theta_{KZ})(\lambda_{LX}\theta_{KX}\sigma_X + \lambda_{LY}\theta_{KY}\sigma_Y + \lambda_{LZ}\theta_{KZ}\sigma_Z\theta_{LY}\theta_{YZ}(1+f(\cdot)/\beta))\}$$

$$+ \{(E_W L_C / \beta L^*)(\theta_{KY}\theta_{YZ} + \theta_{KZ})\} + (L_C E_{PX} / \beta L^*)(|\theta|)];$$

$$C = (T/|\theta|) [\{(\lambda_{LX}\theta_{KX}\sigma_X + \lambda_{LY}\theta_{KY}\sigma_Y) + \lambda_{LZ}\theta_{KZ}\sigma_Z\theta_{LX}(1+f(\cdot)/\beta)\} \\ + (E_W L_C \theta_{KX} / \beta L^*) - \{(E_t L_C / \beta L^*)(\hat{\theta} / T)\}];$$

$$D = (T/|\theta|) [\lambda_{KX}\theta_{LX}\sigma_X + \lambda_{KY}\theta_{LY}\sigma_Y + \lambda_{KZ}\theta_{LZ}\sigma_Z] > 0; \text{ and,}$$

>

$$E = (1/|\hat{\theta}|) [(\theta_{YZ} + \theta_{KZ})(\lambda_{KX}\theta_{LX}\sigma_X + \lambda_{KY}\theta_{LY}\sigma_Y) + \lambda_{KZ}\theta_{LZ}\sigma_Z\theta_{LY}\theta_{YZ}] > 0.$$

Arranging equations (17) and (18) in a matrix notation it can be written as

$$\begin{pmatrix} \lambda_{LX} & A \\ \lambda_{KX} & (\lambda_{KY} + \lambda_{KZ}) \end{pmatrix} \begin{pmatrix} \hat{X} \\ \hat{Z} \end{pmatrix} = \begin{pmatrix} B\hat{P}_X - C\hat{t} \\ D\hat{t} - E\hat{P}_X \end{pmatrix} \quad (A.4)$$

Solving (A.4) by Cramer's rule I get

$$\hat{Z} = (1/|\lambda|) [(\lambda_{LX}D + \lambda_{KX}C)\hat{t} - (\lambda_{LX}E + \lambda_{KX}B)\hat{P}_X] \quad (19)$$

$$\text{where } |\lambda| = [\lambda_{LX}(\lambda_{KY} + \lambda_{KZ}) - \lambda_{KX}(\lambda_{LY} + \lambda_{LZ}) - \lambda_{KX}\lambda_{LZ}(f(\cdot)/\beta)] \quad (20)$$

Totally differentiating equation (8.1) one can get

$$\hat{L} = (L - a_{LZ}Z) [(\partial f(\cdot)/\partial P_X)dP_X + (\partial f(\cdot)/\partial t)dt + (\partial f(\cdot)/\partial W)dW] - f(\cdot)a_{LZ}Z(\hat{a}_{LZ} + \hat{Z}) \\ \hat{L}_C = (E_{PX}\hat{P}_X + E_t\hat{t} + E_W\hat{W}) - [a_{LZ}Z / (L - a_{LZ}Z)] \cdot (\theta_{LZ}\sigma_Z\hat{r} + \hat{Z})$$

$$= (E_{PX}P_X + E_t\hat{t} + E_W\hat{W})$$

$$- \{a_{LZ}Z / (L - a_{LZ}Z)\} [\{(\theta_{LZ}\sigma_Z / |\theta|)\{\theta_{LX}T\hat{t} - \theta_{LX}\hat{P}_X\} +$$

$$+ \{(\lambda_{LX}D + \lambda_{KX}C)(\hat{t} / |\lambda|)\} - \{(\lambda_{LX}E + \lambda_{KX}B)(\hat{P}_X / |\lambda|)\}]$$

$$= (E_{PX}\hat{P}_X + E_t\hat{t} + E_W\hat{W})$$

$$- \{a_{LZ}Z / (L - a_{LZ}Z)\} [\{(\theta_{LZ}\sigma_Z\theta_{LX} / \theta) + ((\lambda_{LX}D + \lambda_{KX}C) / \lambda)\} \hat{t}$$

$$- \{(\theta_{LZ}\sigma_Z\theta_{LY}\theta_{YZ} / |\theta|) + ((\lambda_{LX}E + \lambda_{KX}B) / \lambda)\} \hat{P}_X] \quad (21)$$

Now totally differentiating equation (7) one gets

$$dL_C = (\partial f(\cdot) / \partial P_X)dP_X + (\partial f(\cdot) / \partial t)dt + (\partial f(\cdot) / \partial W)dW$$

After a simple manipulation this becomes

$$\hat{L}_C = (E_{PX}\hat{P}_X + E_t\hat{t} + E_W\hat{W})$$

Differentiating equation (7) partially with respect to  $P_X$ ,  $t$  and  $W$  one can find out the expressions for the elasticities of  $l_c$  with respect to  $P_{x,t}$  and  $W$  i.e. the expressions for  $E_{P_X}$ ,  $E_t$  and  $E_W$ .

Inserting those expressions into the above equation one gets

$$\begin{aligned} \hat{l}_c &= (\beta / l_c G^2)(\alpha / 1 - \alpha)(P_x)^{(\alpha/\alpha-1)} (W / \beta)^{(\alpha/1-\alpha)} \hat{P}_x \\ &+ (\beta / l_c G^2)(\alpha / 1 - \alpha) t (P_z (1+t))^{(1/\alpha-1)} (W / \beta)^{(\alpha/1-\alpha)} \hat{t} \\ &- (\beta / l_c G^2)(\alpha / 1 - \alpha)(W / \beta)^{(\alpha/1-\alpha)} \{ (P_x)^{(\alpha/\alpha-1)} \\ &+ (P_z (1+t))^{(\alpha/\alpha-1)} \} [ \{ \hat{P}_x (\theta_{KX} \theta_{YZ} + \theta_{KZ}) - \theta_{KX} \hat{t} \} / |\theta| ] \end{aligned}$$

$$\text{where } G = [ \beta / \{ \{ (P_x)^{(\alpha/\alpha-1)} + (P_z (1+t))^{(\alpha/\alpha-1)} \} \{ (W / \beta)^{(\alpha/1-\alpha)} \} - 1 \} ] > 0 .$$

After simplification this may be reduced to the following expression.

$$\begin{aligned} \hat{l}_c &= (\beta / f(\cdot) G^2 |\theta|)(\alpha / 1 - \alpha)(W / \beta)^{(\alpha/1-\alpha)} [ -\hat{P}_x \{ (P_x)^{(\alpha/\alpha-1)} \theta_{KX} (\theta_{YZ} + \theta_{KZ}) \\ &+ (\theta_{KX} \theta_{YZ} + \theta_{KZ}) (P_z (1+t))^{(\alpha/\alpha-1)} \} + \hat{t} \{ t (P_z (1+t))^{(1/\alpha-1)} |\theta| + \{ (P_x)^{(\alpha/\alpha-1)} \\ &+ (P_z (1+t))^{(\alpha/\alpha-1)} \} (\theta_{KX} T) \} ] \end{aligned} \tag{22}$$

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# Enhancement of Employee Performance through Quality of Technical Academy and Safety of Medan Aviation

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## **ABSTRACT**

*This study aims to determine the effect of employee performance on the implementation of promotions position in the Department of Youth and Sports in Medan City. This research uses a quantitative approach with survey research methods, namely research that takes samples from a population and uses the questionnaire as a primary data collection tool. The population of this research is all employees who work in the Medan Youth and Sports Agency. A number of samples used as many as 63 respondents. The results showed that employee performance has a significant effect positive about the promotion of the position, meaning that if the employee's performance is good then the employee can get a promotion. Thus the hypothesis that there is an influence on employee performance for promotion is acceptable.*

**Keywords:** *Employee performance, and promotion*

## **I. INTRODUCTION.**

In the last decade, quality awareness has made people demand the minimum standards of service they use to prove that the organizations that provide these services can be trusted. To answer these challenges, organizations implement a Quality Management System (QMS). The application of the QMS confirms that the fulfillment of product or service requirements can be affected directly or indirectly by the work of the work implementer (Br Purba, 2017).

This performance is a combination of three important factors namely the ability and interest of a worker, the ability and acceptance of the delegation's explanation of the task and participation, and the level of motivation of the worker concerned. The higher these three factors, the greater the performance of employees (Hasibuan, 2005). This study uses quality management system factors in influencing employee performance because so far the Medan Aviation Engineering and Safety Academy has implemented a quality management system. The Quality Management System is an international standard that regulates the quality management system, both in setting policies and quality objectives and the achievement that can be applied in every type of organization/company. Initially, this Quality Management System was only implemented by private companies, because ISO 9001: 2008 was oriented towards consumers or customers (Atmadja et al., 2015). However, in recent years, many government agencies also want to gain recognition of the quality of their management through implementation. The demand for good governance is the reason for many government agencies to obtain certificates, bearing in mind the quality management principles contained in are part of good governance. Besides, these principles also contain elements of internal control for an organization (Tarigan et al., 2018).

As one of the Higher Education Institutions oriented to produce quality human resources is required to implement a Quality Management System so that it is expected that an increase in employee performance at the Medan Aviation Engineering and Safety Academy (Waterfront & Centre, 2017).

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Some Types of Certification that have been owned by the Medan Aviation Engineering and Safety Academy include: Approved Training Center, Airport Electric Personnel, ISO 9000: 2015, BAN PT Certificate and others. The implementation of ISO will have a positive impact on performance if supported by a culture of good quality. The core values of the organization will be held intensively and widely embraced in a strong culture. A strong culture shows a high level of agreement among members about what must be maintained by the organization. An understanding of organizational culture for employees will foster cohesiveness, loyalty and organizational commitment.

The problems seen by the Medan Aviation Engineering and Safety Academy related to employee performance include the presence of several employees who have not been able to achieve the work targets, in addition to that there are also indicators of employee performance achievements that have not been maximized so that their performance is not good enough. Following are the data regarding the performance evaluation of Medan Aviation Engineering and Safety Academy employees (Adha Inapty & Martiningsih, 2016).

## **II. LITERATUR REVIEW.**

In carrying out their work, employees produce something called performance. Performance is the result of a person's work during a certain period compared to various possibilities such as standards, targets/targets, or criteria that have been determined in advance and agreed upon together. Mangkunegara (2009) states that: "Performance is the work of quality and quantity achieved by an employee in carrying out their duties in accordance with the responsibilities given to him." While Hasibuan (2005) states that: "Performance is a work that is achieved by someone in carrying out the tasks assigned to him based on skill, experience, and sincerity as well as time." According to the above understanding, performance is equated with the work of an employee. To achieve good performance, the most dominant element is human resources, although the planning has been well structured and neat, if the person or personnel who carry out are not qualified and do not have high morale, then the plan that has been prepared will be in vain (Li et al., 2016)

### **2.1. The Important Role of Performance.**

Performance management is the process of consolidating goal setting, performance appraisal, and development into a single shared system, the aim of which is to ensure that employee performance supports the company's strategic objectives (Umar et al., 2018). Performance management includes practices where managers define employee goals and work, develop employee capabilities, and evaluate and give rewards to one's businesses. High employee performance is needed in an organization because the creation of high employee performance will affect professional work situations. Performance management as a process to create a common understanding of what must be achieved and the management of employees so as to increase the likelihood of achieving goals. Performance refers to the level of success in carrying out the task and the ability to achieve the goals set. The performance is declared good and successful if the desired goals can be achieved properly. Almost all companies have both formal and informal assessment tools to assess the performance of their employees. Performance appraisal means evaluating current and / or employee performance in the past relative to performance standards (Aryza et al., 2011).

Thus, performance is a function of motivation and ability. To complete a task or job, a person must have a degree of willingness and ability level (Febtiwiyanti & Sidopekso, 2016).

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## 2.2. Factors That Affect Performance

Many factors affect the performance of an employee. Factors that influence the achievement of good performance. Factors that affect performance according to the company, in general, to move employees from one job to another are considered or parallel to be influenced by various factors, both related to the workforce itself. The quality management system consists of the process of identifying, encouraging, measuring, evaluating, improving, and rewarding employee performance (Rahadi, 2010). As seen in Figure 2.1. Quality management links organizational strategy to performance results.

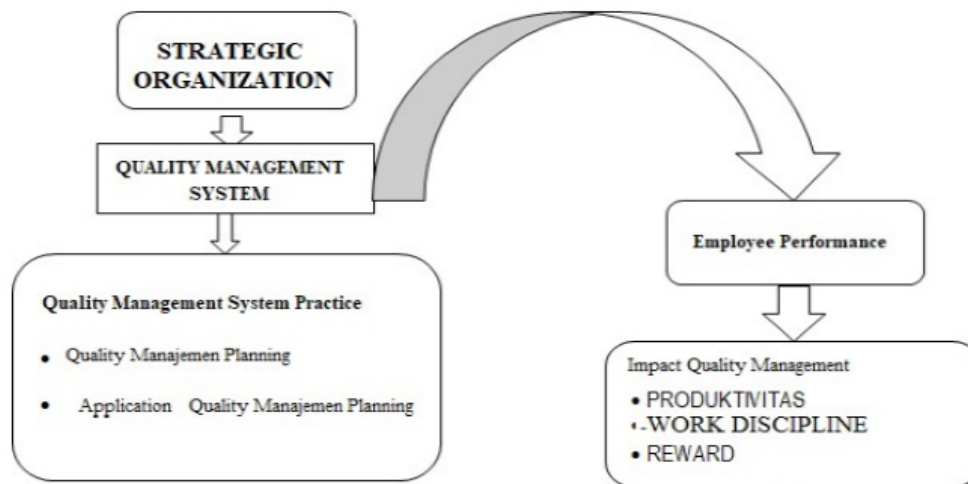


Figure 1. Quality Organization

## 2.3. Performance Indicator

Performance indicators must be identified based on a form of measurement that will assess the results and outcomes obtained from the activities carried out in order to achieve the strategic goals and objectives of the organization. Mangkunegara (2009), states that employee performance indicators, namely:

1. Quality of work. Reflect improvement in quality and work standards that have been predetermined, usually accompanied by an increase in the ability and economic value.
2. Work quantity Reflecting the increase in volume or amount of an activity unit that produces goods in terms of quantity. The quantity of work can be measured through the addition of physical values and goods from previous results.
3. Can not be relied upon Reflecting how a person completes a job that is given to him with a high level of accuracy, willingness and enthusiasm.
4. Cooperative attitude Reflecting the attitude that shows the high level of cooperation between each other and the attitude towards superiors, also towards employees of other companies.

## 2.4. Position, Principal Duties And Functions Of ATKP Field

As an educational institution, ATKP Medan has the following positions, duties, and functions:

The Medan Aviation Engineering and Safety Academy, hereinafter abbreviated as ATKP Medan, is an official tertiary institution within the Ministry of Transportation, led by the Director who is below and is responsible to the Head of the Transportation Education and Training Agency. Medan daily ATKP is administratively fostered by the Minister of National Education and technical and operational guidance is carried out by the Minister of Transportation. The development of the Medan ATKP is technically academically carried out by the Minister of National Education as well as the operational technical and



competency guidance carried out by the Minister of Transportation. Duty The task of ATKP Medan is to carry out professional education diploma programs in the fields of Aviation Engineering and Aviation Safety. At present most of the students at ATKP Medan from the Radio Engineering and Electrical Engineering Study Program at the Airport, with the ATC Simulator Medan ATKP conducting a Flight Safety Study Program, specifically the Air Traffic Study Program. Function The functions of the ATKP Medan include: Implementing and developing professional education which includes teaching, training, and coaching. Carry out research and community service. Manage libraries, laboratories, simulators, other inscriptions. Fostering the Academic Community and its relationship with the environment. Managing general administration, academic administration, and administration of personnel.

### III. ANALYZE AND RESULT

Descriptive statistics in this study summarize and provide an overall picture of the respondents' answers on each item statement used in measuring each research variable. Each statement item is measured using five categories of answers related to the respondent's agreement on the statement given. The variables in this study are SMM Planning, SMM Procedures, Quality Culture and employee performance at Medan Academy of Engineering and Safety. Descriptive statistics of the study are only intended to explain the answers of research respondents and are not to be generalized. Descriptive statistics of the study were tabulated based on answers from all respondents to each item in the questionnaire and a summary of the answers was obtained which was further categorized in conclusion groups based on the mean value of the respondents' answers. The grouping is divided as in Table below:

**Table 1. Categorizing the Average Value of Respondents' Answers**

Average Value (Mean)	Categories	Conclusion Answer	Concluison Variable
1,00 – 1,80	E	Strongly Disagree	Very Bad
1,81 – 2,60	D	Disagree	Bad
2,61 – 3,40	C	Not Agree	Enough
3,41 – 4,20	B	Agree	Good
4,21 – 5,00	A	Very Agree	Very Good

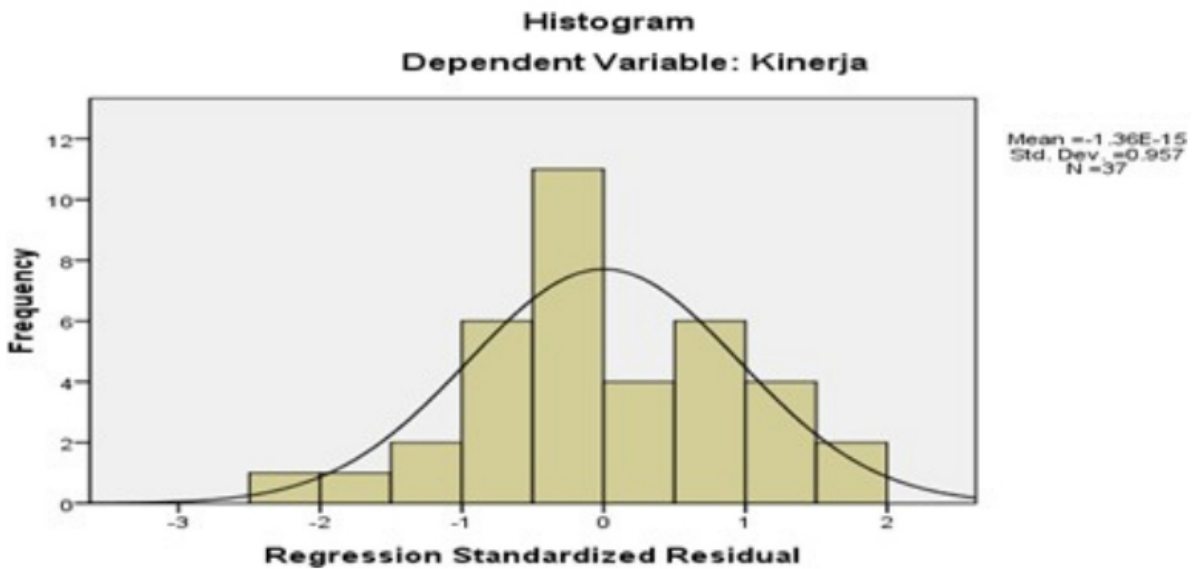
#### 3.1. Normality Test

Data normality test is very important in parametric statistical analysis so that the regression model is free from prediction errors. SPSS Test Results for data normality can be seen as follows:

**Table 2. Test Normality with Kolmogorov-Smirnov One-Sample One-Sample Kolmogorov-Smirnov Test**

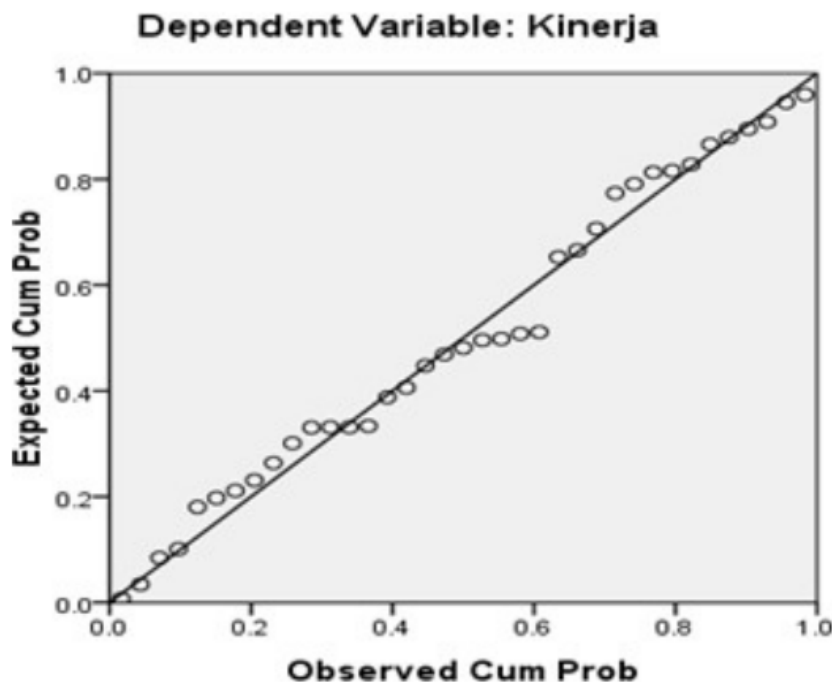
		Unstandardized Residual
N		33
Normal Parameters <sup>a</sup>	Mean	.0000000
	Std. Deviation	2.13336833
Most Extreme Differences	Absolute	.110
	Positive	.110
	Negative	-.081
Kolmogorov-Smirnov Z		.670
Asymp. Sig. (2-tailed)		.760
a. Test distribution is Normal.		

From the results of data processing in table 4.10 above, it can be seen that the significance value of Kolmogorov-Smirnov (K-S) is 0.760, so it can be concluded that the variable data is normally distributed because the significance is  $> 0.05$ . Testing the normality of the data can also be determined by looking at the graphical images and the normal distribution curve. The data will be normally distributed if the expected probability value is equal to the expected probability value and the observed probability is shown by a diagonal line which is the intersection between the expectation probability line and the probability of observation. The following is a test of the normality of data results in the form of histogram charts and P-P Plots curves as shown in Figure 2 below:



**Figures 2. Chart Histogram**

Based on the histogram graph in Figure.2 it can be concluded that the data has been normally distributed. This can be seen in the data that follows a diagonal line forming a bell in the middle.



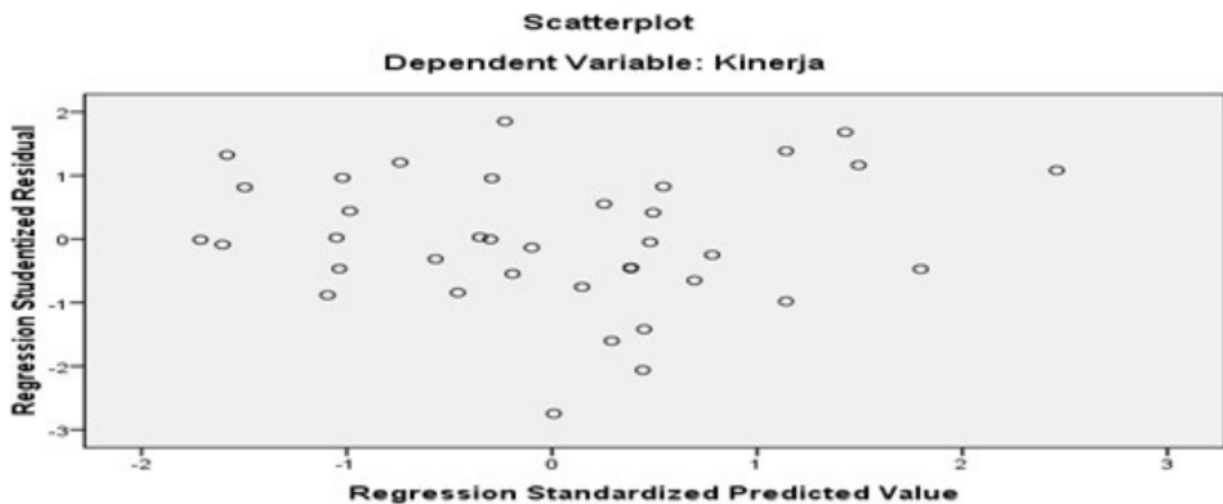
**Figures 3. The Curve P-P**

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Based on the PP-Plot curve in Figure 4.3 it can be concluded that the curve has been distributed normally. This can be seen in the normal PP-Plots curve, where the points spread close to the diagonal line.

### 3.2. Heteroscedasticity Test

Heteroscedasticity test aims to test the occurrence of differences in residual variance of one observation period to another. Heteroscedasticity analysis using scatterplot test graphs. Heteroscedasticity can be done by observing certain patterns on scatterplot charts, where if there are points that spread above and below the number 0 on the Y axis and do not form a pattern then there is no heteroscedasticity. Scatterplot charts can be seen in the following image:



**Figures 4. test plot graph**

From the scatterplot picture above, it is seen that the points spread randomly and do not form certain patterns or are irregular. This indicates there is no heteroscedasticity in the regression model so that the regression model is feasible to use.

## IV. CONCLUSION

Based on the results of this study it can be concluded as follows:

1. SMM Planning has a positive and significant effect on the Culture of Employee Quality at the Medan Aviation Engineering and Safety Academy
2. The QMS procedure has a positive and significant effect on the Culture of Employee Quality at the Medan Aviation Engineering and Safety Academy
3. Quality culture has a positive and not significant effect on employee performance at the Medan Aviation Engineering and Safety Academy
4. SMM planning has a positive and significant effect on employee performance at the Medan Aviation Engineering and Safety Academy
5. SMM Procedures Have a Positive and Significant Impact on Employee Performance at the Medan Aviation Engineering and Safety Academy
6. SMM Planning has a positive and significant effect on performance through the Culture of Employee Quality at the Medan Aviation Engineering and Safety Academy
7. The QMS procedure has a positive and significant effect on performance through the Quality Culture of employees at the Medan Aviation Engineering and Safety Academy



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## REFERENCES

1. Adha Inapty, M. A. F. B., & Martiningsih, R. S. P. (2016). PENGARUH PENERAPAN STANDAR AKUNTANSI PEMERINTAH, KOMPETENSI APARATUR DAN PERAN AUDIT INTERNAL TERHADAP KUALITAS INFORMASI LAPORAN KEUANGAN DENGAN SISTEM PENGENDALIAN INTERN SEBAGAI VARIABEL MODERATING
2. (Studi Empiris pada SKPD di Pemprov NTB). *Akuntabilitas*, 9(1), 27–42. <https://doi.org/10.15408/akt.v9i1.3583>
3. Aryza, S., Abdalla, A. N., Khalidin, Z., & Lubis, Z. (2011). Adaptive speed estimation of induction motor based on neural network inverse control. *Procedia Engineering*, 15. <https://doi.org/10.1016/j.proeng.2011.08.786>
4. Atmadja, A. T., Adi, K., & Saputra, K. (2015). Universitas Pendidikan Ganesha , Bali , Indonesia OF VILLAGE FINANCES. 1, 7–16.
5. Br Purba, R. (2017). Capacity Apparatus Improvement in Managing Economics and Finance towards Independent Village. *IOSR Journal of Economics and Finance Ver. I*, 8(1), 2321–5933. <https://doi.org/10.9790/5933-0801012731>
6. Febtiwiyanti, A. E., & Sidopekso, S. (2016). Studi Peningkatan Output Modul Surya dengan menggunakan Reflektor. *Jurnal Fisika Dan Aplikasinya*, 6(2), 100202. <https://doi.org/10.12962/j24604682.v6i2.919>
7. Li, Z., Shang, C., & Shen, Q. (2016). Fuzzy-clustering embedded regression for predicting student academic performance. 2016 IEEE International Conference on Fuzzy Systems, FUZZ-IEEE 2016, 344–351. <https://doi.org/10.1109/FUZZ-IEEE.2016.7737707>
8. Tarigan, I. J., Alamsyah, B., Aryza, S., Siahaan, A. P. U., & Isa Indrawan, M. (2018). Crime aspect of tele medicine on health technology. *International Journal of Civil Engineering and Technology*, 9(10).
9. Umar, H., Usman, S., & Purba, R. B. (2018). The Influence of Internal Control And Competence of Human Resources on Village Fund Management and The Implications on The Quality of Village Financial Reports. In *International Journal of Civil Engineering and Technology (IJCIET)* (Vol. 9, Issue 7, pp. 1523–1531).
10. Waterfront, S., & Centre, C. (2017). Resilience 2017 ( Resilience 2017 ). Resilience 2017, 2017(Resilience), 0–10. [www.resilience2017.org](http://www.resilience2017.org)



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# Impact of Internal Control Procedures and Monitoring on Financial Performance of Saccos in Kenya. A Case of Tharaka Nithi County.

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## **ABSTRACT**

*The Savings and Credit Cooperative Societies sector is considered both economically and socially important. The sector has continued to mobilize savings and developed demand driven financial products which has encouraged members to save additional resources to finance education from primary to university through affordable loans to the members. However, sectoral report indicates that nearly 5% of Savings and Credit Cooperative Societies collapse every year and registered members withdraw their membership annually. Therefore, there was the need to investigate the real cause of this problem. The main aim of the study was to establish the impact of internal control procedures and monitoring on financial performance of Savings and Credit Cooperative Societies in Kenya. The specific objectives of the study were to establish the impact of internal control procedures and monitoring on financial performance of Savings and Credit Cooperative Societies in Tharaka Nithi County. The study adopted descriptive research design on the target population of 208 members of staff from ten Savings and Credit Cooperative Societies within Tharaka Nithi County. The study employed a non-probabilistic purposive sampling technique to come up with a sample of 69 members of staff. The study used both primary and secondary data. The questionnaires were pre-tested to ensure validity and reliability. The study used secondary data for three years (2013-2015). Multiple regression analysis was used to determine the relationship between dependent and independent variables. A t-test and F-ratio were applied to test hypotheses and overall significance of the regression model at 5% significance level. Findings of the study indicated that both control procedures and monitoring had a positive and significant impact on financial performance of Savings and Credit Cooperative Societies. This implies that both internal procedures and monitoring are major determinants of financial performance of Savings and Credit Cooperative Societies. The study findings would benefit Savings and Credit Cooperative Societies, government and other policy makers in providing policies that are backed with research findings. The study recommends the Savings and Credit Cooperative Societies to put in place effective policies to ensure proper implementation of control procedures and monitoring measures.*

**Keywords:** Control Procedures, Monitoring, Financial Performance, SACCOs.

## **INTRODUCTION**

Background of the Study Internal control procedures and monitoring are crucial to success and survival of any firm in today's complex and dynamic environment. They keep the organization on the right track. But in many instances organizations go off the rails thus impacting negatively on the attainment of the set objectives (Committee of Sponsoring Organizations (COSO), 1992/2008). As a result of increased number of business failure and financial scandals, organizations have started to shift their focus to improving effectiveness of their internal control procedures and Monitoring measures. Management is under a lot of pressure to institute effective internal controls and communicate regularly to board of directors and shareholders (Kuhn & Sutton, 2010).

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Control procedures are the policies and activities in addition to the control environment, which the management has established to achieve the entity's specific objectives (Amudo & Inanga, 2009). The mix of types of controls implemented by management will depend on the control objectives and the size of the entity. Control activities include a combination of manual controls and automated controls (Millichamp, 1999). Effective communications should occur in a broad sense with information flowing down, across, and up within all the sections of the organization. Maintenance of strong internal control system enables a company to reduce wastage; prevent errors and cases of fraud; improvement in safe custody of organization's assets; it increases reliability and dependability of accounting data through elimination of unnecessary suspicion and maintenance of adequate and accurate accounting records (Amudo & Inanga, 2009).

However, the presence of weak internal control procedures and monitoring have been the main cause of many cases of fraudulent company financial reporting and global corporate accounting scandals in the recent years (COSO, 2008). Globally, an example of accounting scandal was recorded in WorldCom a telecommunication company in USA. As a result of loopholes in their internal control system the company lost \$3.8bn. The scandal involved manipulation of reserves to create the accounting equivalent of a slush fund (Treadway Commission, 2008). Locally, report compiled by the SACCO Societies Regulatory Authority, 2015 showed that some SACCOs have been using creative accounting tactics to cover up fraud and non-payment of loans by some members.

In Kenya, the Savings and Credit Cooperative Societies subsector remains a significant player in the provision of financial services to the Kenyan households and small businesses segments. Total deposits for the sector stood at Kshs.241 billion posting an increase of 8.4 % from Kshs. 213 billion in 2012. Loans to members grew by 32 billion to stand at Kshs. 253 billion up from 221 billion in 2012 (SASRA report, 2013). However, despite this growth, out of the 7,400 registered SACCOs equivalent to 42% of all co-operatives, only 3800 are active and 215 have Front Office Service Activities offering basic banking services across the country (SASRA, 2011).

**The following specific objectives guided the study:**

- I. To establish the impact of control procedures on financial performance of SACCOs in Tharaka Nithi County.
- ii. To establish the impact of monitoring on financial performance of SACCOs in Tharaka Nithi County.

In order to achieve the above specific objectives, the following null hypotheses guided the study: H01: Control procedures have no significant impact on financial performance of SACCOs in Tharaka Nithi County.

**H02:** Monitoring has no significant impact on financial performance of SACCOs in Tharaka Nithi County.

**METHODOLOGY**

The study adopted a descriptive survey study research design which was aimed at examining the impact of internal control procedures and monitoring on financial performance of SACCOs in Kenya a case of Tharaka Nithi County. Descriptive research portrays an accurate profile of persons, events, or situation

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(Robson, 2002). A descriptive survey is usually concerned with describing a population with respect to important variables with the major emphasis on establishing the relationship between the variables in question and reporting the way things are (Zikmund et al, 2010). The study was undertaken in Tharaka Nithi County, Kenya. The County had both SACCOs licensed and those not licensed by SASRA. This gave the researcher a chance to study both scenarios in context of their internal control procedures and monitoring measures.

The study adopted purposive sampling technique to select 69 respondents from a population of 208 individuals drawn from ten Savings and Credit Cooperative Societies in the County. This method of sampling was used because it enabled the researcher to select cases from the population that have the required information for the study. According to Palys (2008), the main goal of purposive sampling is to focus on particular characteristics of a population that are of interest, which will best enable a researcher to answer the research questions.

The primary data was collected through the use of structured questionnaires issued to the respondents. The secondary data was obtained from SACCOs' financial statements, SASRA annual reports and journals. The structured questionnaires were administered through a drop and pick later method at an agreed time with the respondents. According to Mugenda and Mugenda (2003) a questionnaire is a series of questions asked to individuals to obtain statistically useful information about a given topic. A five point Likert scale ranging from very great extent to no extent was used in measuring the extent of the responses provided.

A multiple regression model was adopted to check the form of relationship between the dependent and the independent variables. This model was adopted, since it is used when one is interested in predicting a continuous dependent variable from a number of independent variables. Hypotheses were tested using t-test at five percent significance level. The p-value for each t-test was used to make conclusions on whether to fail to accept or fail to reject the null hypotheses. If the p-value for t-test was less than 5% (0.05) then null hypothesis failed to be accepted and the alternate hypothesis failed to be rejected. Also if the p-value was greater than 5% (0.05) then null hypothesis failed to be rejected and the alternate hypothesis failed to be accepted. Fischer distribution test called F-test was applied in testing the significance of the overall model at a 5% significance level. The variables in the study were related using a multiple regression model of the form:

$$F_p = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon$$

Where

$F_p$  = Financial performance of SACCOs in Tharaka Nithi County,

Kenya  $\beta_0$  = Constant

$\beta_1, \beta_2$  = Predictor variable coefficients

$X_1$  = Control Procedures

$X_2$  = Monitoring

$\epsilon$  = Error term

The study performed diagnostic tests on the model to determine whether regression assumptions hold. The assumptions of the model that were tested included Normality, Multicollinearity and Autocorrelation.



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## RESULTS AND DISCUSSIONS

A total of 69 questionnaires were administered and out of this 66 questionnaires were properly filled and returned by the SACCOs staff members. This represented a successful response rate of 95.65%. Majority of the respondents were from management level cumulatively consisting of 60.6% of the total respondents while the remaining 39.4% were employees. Therefore, majority of the respondents in the study were those directly responsible for or directly involved in the implementation of the Internal Control procedures and monitoring. Therefore, their responses are deemed to reflect what actually takes place in the organization.

The respondents were requested to determine the extent of functionality of internal control procedures and monitoring in their organization in a five point Likert scale. The statements were ranked in terms of their means and standard deviations so as to deduce meaning out of the results. The range was from very great extent to no extent. Great extent was assigned the value (5) while no extent was assigned the value (1). A standard deviation greater than 1.5 was taken to imply a significant variation in the responses provided by respondents under the study.

### Control Procedures

The study sought to determine the extent to which the control procedures of the institution impacts on the financial performance of SACCOs in Kenya. Table 1 below shows the results obtained.

**Table 1 Control Procedures**

Control Procedures	N	Mean	Std. Dev
Our organization has clear separation of roles	66	3.64	1.283
Every employee's work is checked by others	66	3.17	1.111
There is appropriate supervision by senior staff on the work done by their juniors	66	3.59	0.99
Corrective action is always taken to address weaknesses	66	3.36	1.098
It is impossible for a member of staff to have access to all available information without the consent of senior staff	66	4.19	0.809
Our security system identifies and safeguards the organizations assets	66	4.1	1.073
Controls are in place to avoid incurring expenditure in excess of allocated funds	66	3.39	1.032
Our SACCO has an internal audit department	66	3.46	1.587
Our internal audit function is sufficiently staffed	66	3.13	1.514
Internal audit staff conduct regular audit activities in our organization	66	3.35	1.739
Internal audit reports address weaknesses in our internal control system	66	3.42	0.991
Valid N (list wise)	66		

From the findings on table 1 above, most of the SACCOs had control procedures in place. The results revealed that it was impossible for members of staff to have access to all available information without the consent of senior staff having a mean of 4.19 and a standard deviation 0.809 indicating low variation in the responses. Security system identifying and safeguarding the organizations assets was also highly ranked with a mean of 4.10 and a standard deviation 1.073 indicating low variation in responses. SACCOs having an internal audit department (M=3.47, SD=1.78), internal audit function being sufficiently staffed (M=3.13, SD=1.514) and Internal audit staff conducting regular audit activities in the organization (M=3.35, SD=1.739) received varied responses (S. D>1.5). These results clearly indicate that majority of the SACCOs observed control procedures.

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## Monitoring

The study sought to determine the extent to which monitoring measures of the institution affected the financial performance of SACCOs in Kenya. Table 2 below shows the results obtained.

**Table 2 Monitoring**

<b>Monitoring</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev</b>
There are independent processes, checks and evaluations of control activities on ongoing basis	66	3.83	1.057
Internal reviews of implementation of internal controls in units are conducted periodically	66	3.49	1.12
Monitoring has helped in assessing the quality of performance of the organization over time	66	4.12	0.832
Management has assigned responsibilities for the timely review of audit reports and resolution of any non-compliance items noted in those audit reports	66	3.88	0.9
Valid N (list wise)	66		

The results on table 2 above revealed that majority of the SACCOs had independent processes, checks and evaluations of control procedures was done on an ongoing basis (M=3.83, SD=1.057), another aspect of monitoring that received high ranking was that monitoring had helped in assessing the quality of performance of the organizations over time with mean of 4.12 and a standard deviation of 0.832 indicating low variation in responses. In general, monitoring as a functionality of internal control system was widely carried out by SACCOs as revealed by results on table 2 above.

## Significance Test for Model Assumption

The linear regression model was tested to ensure that the model is applicable and that the assumptions of ordinary least squares hold. The following tests were carried out:

### Test for Normality

The study tested normality of the sample data using descriptive statistics. A normal distribution of data helps in making accurate and reliable conclusions. The mean was used to determine the average of the data and standard deviation was used to measure dispersion from the mean. Skewness goodness of fit test was used to determine the normality of the data. Skewness is used to determine whether the frequency curve of the distribution is not a symmetric bell-shaped curve making it stretched more to one side than the other thus rendering the data not to be normal (Aczel & Sounderpadian, 2002). Data is normal and unbiased when skewness statistic is between the range of  $\pm 3$  (Aczel & Sounderpadian, 2002).

**Table 3 Skewness of Data for the Model**

<b>Variable</b>	<b>Statistic</b>	<b>Skewness Std. Error</b>
Financial performance (ROE)	1.154	0.687
Control Procedures	1.264	0.687
Monitoring	0.731	0.687

From table 3 above, the value of skewness for the data of both the variables were in the range of  $\pm 3$ , this implied that the data of both the variables was normal and unbiased.

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### Autocorrelation

The study employed Durbin Watson test to detect presence of autocorrelation. Autocorrelation leads to biasness and inconsistency of parameter estimates. Autocorrelation is present when variances of the error terms are serially interdependent. A Durbin Watson of zero implies presence of positive autocorrelation, while Durbin Watson of 4 implies high negative correlation level. A Durbin Watson of value between 2 and 2.5 implies that there is no autocorrelation. The results of Durbin Watson value is shown on table 4 below.

**Table 4 Durbin Watson Value.**

Model	Durbin Watson value	Status
Model	2.456	No autocorrelation

From table 4 above, the model's Durbin Watson value was 2.456. Since this value lies between 2 and 2.5, it indicates that there was no autocorrelation in the model.

### Multicollinearity Test

Multicollinearity occurs when a combination of independent variables in a regression model are highly but not perfectly correlated (Aczel & Sounderpadian, 2002). Presence of Multicollinearity makes it difficult to isolate the effect of each independent variable on the dependent variable. The greater the multicollinearity between two variables, the less precise is the estimates of individual regression parameters (Aczel & Sounderpadian, 2002). The study detected Multicollinearity using coefficient of determination (R<sup>2</sup>). If the coefficient of determination (R<sup>2</sup>) is high in excess of 0.9 or very low of less than 0.1, with a significant t-ratios, then Multicollinearity is present (Granger & Hatanaka, 1964). The table 5 below shows coefficient of determination estimate.

**Table 5 Coefficient of Determination Estimate**

Model	Coefficient of determination (R <sup>2</sup> )	Status
1	0.88	No Multicollinearity

From table 5 above, coefficient of determination value is between 0.1 and 0.9. This implied that there was no intercorrelation that existed between explanatory variables, hence absence of Multicollinearity.

### Model Summary

The model summary shows the summary of the regression analysis as shown in the regression model.

**Table 6 Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		Durbin-Watson
					F Change	Sig.F Change	
1	.938 <sup>a</sup>	0.88	0.784	0.325	9.161	0.016	2.456

a. Predictors: (Constant), Control Procedures, Monitoring.

b. Dependent Variable: ROE

The study used coefficient of determination to explain the variation in the dependent variable financial performance as explained by independent variables. According to research analysis on the table 6 above, the adjusted is 78.4%. This implies that 78.4% of total variation in the financial performance is explained by Control procedures/Activities and monitoring jointly in the model, it also signifies existence of a strong correlation between the variables. The remaining 21.6% of the total variability in financial performance is explained by other factors not included in the model.

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## Analysis of Variance

The study carried out Analysis of Variance, in order to test the impact of the relationship between internal control procedures and monitoring and financial performance of SACCOs in Kenya.

**Table 7 Analysis of Variance**

Model		Sum of Squares	Mean Square	F	Sig.
	Regression	3.872	0.968	9.161	.016 <sup>b</sup>
1	Residual	0.528	0.106		
	Total	4.4			

From table 7 above, the results of analysis of variance indicated that the overall model was significant, that is, the independent variables are good joint explanatory variables for financial performance of SACCOs (F=9.161, P value=0.016<0.05).

## Test of Significance of Regression Coefficients

To determine the cause effect relationship between dependent variable and the explanatory variables the regression coefficients were tested at 5% level of significance using t-test. The regression is presented on table 8 below.

**Table 8 Regression Equation Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	1.828	0.176		10.383	0
1	Control Procedures	0.213	0.1331	0.637	1.609	0.003
	Monitoring	0.892	0.224	0.843	0.542	0.005
a. Dependent Variable: ROE						

The following regression equation was obtained.

$$ROE = 1.828 + .999X_1 + .911X_2$$

According to equation obtained the value of financial performance (ROE)=1.828 when Control procedures and monitoring are held constant.

The coefficient for control procedures obtained was 0.213 with a p-value of 0.003 which is less than 0.05 as indicated on table 8 above. This shows that the relationship between Control procedures and financial performance is positive and significant hence the null hypothesis that control procedures have no significant effect on financial performance of SACCOs was rejected as the analysis results revealed that there existed a significant positive relationship between control procedures and financial performance at 5% significance level. The coefficient of 0.213 implies that for every one-unit increase or improvement in control procedures, financial performance increases by 0.213 units. The findings are consistent with those of Muraleetharan (2010) who found positive relationship between control activities and financial performance.

The coefficient for monitoring obtained was 0.892 with a p-value of 0.005 which is less than 0.05 as indicated on table 8 above. This shows that the relationship between monitoring and financial performance is positive and significant hence the null hypothesis that monitoring has no significant

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effect on financial performance of SACCOs was rejected as the analysis results revealed that there existed a significant positive relationship between monitoring and financial performance at 5% significance level. The coefficient of .892 implies that for every one-unit increase or improvement in monitoring, financial performance increases by 0.892 units. The results were consistent with those of Romar and Moberg (2003) who did a case study to establish what contributed to WorldCom scandal in 2002.

## CONCLUSION

Based on the findings of the study, it is concluded that SACCOs that had implemented effective internal control procedures and monitoring measures had more improved financial performance as compared to those SACCOs that had weak internal control procedures and monitoring measures. This has been clearly indicated by high significant relationship between internal control procedures, monitoring and financial performance based on Return on Equity.

## REFERENCES

1. Aczel, A., & Sounderpadian, J. (2002). *Business Statistics Fifth edition*. New York: Irwin: McGraw hill companies.
2. Amaka, C.P. (2012). *The Impact of Internal Control System on the Financial Management of an Organization*. Nigeria.
3. Amudo, A., & Inanga, E. L. (2009). *Evaluation of Internal Control Systems: A case study from Uganda*, *International Research Journal of Finance and Economics*, ISSN1450-2887.
4. Committee of Sponsoring Organizations of the Treadway Commission (COSO). (1992). *Internal Control-Integrated Framework*. Coopers & Lybrand, September, Vol. 14 Committee of Sponsoring Organizations of the Treadway Commission (undated) *Internal Control: Integrated Framework Executive Summary* [online] available at <http://www.aicpa.org> accessed {7 April 2008}
5. Kenya Union of Savings and Credit Cooperatives, (2007). *SACCO star No. 54*. Nairobi Millichamp, A.H. (1999). *Auditing*, (7th edition), London
6. Ministry of Co-operative Development and Marketing, (2008) *Co-operative Development Policy*, Nairobi, Ministry of Co-operative Development and Marketing.
7. Ministry of Co-operative Development and Marketing, (May 2013). *1st Draft Report, A National Strategic Plan 2012/2013-2016/2017 for Savings and Credit Societies*.
8. Mugenda, O.M. and Mugenda, A.G. (2003). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi: Acts Press.
9. Muraleetharan, P. (2010). *Internal Control and its Impact on Financial Performance of Organizations. A case of Private and Public Organizations in Jaffna District, Ghana*. Published Thesis, University of Jaffna.
10. Palys, T. (2008). *Purposive sampling*. In L. M. Given (Ed.). *The Sage Encyclopedia of Qualitative Research Methods*. (Vol.2). Sage: Los Angeles, pp. 697-8.
11. Robson, C. (2002). *Real world research: A resource for social scientists and practitioner researchers*. Oxford. Blackwell, 2 (ed).
12. Romar, E. & Moberg, D. (2003). *WorldCom*. Markkula Center for Applied Ethics, 2003.
13. SACCO Societies Regulatory Authority (SASRA) (2011). *SACCO Supervision Report: Deposit Taking SACCOs*. In House Publication.
14. SACCO Societies Regulatory Authority (SASRA) (2013). *SACCO Supervision Report: Deposit Taking SACCOs*. In House Publication.
15. SACCO Societies Regulatory Authority (SASRA) (2014). *SACCO Supervision Report: Deposit Taking SACCOs*. In House Publication.
16. Zikmund, G.W., Babin, B.J., Carr, C.J. and Griffin, M. (2010). *Business Research Methods 8th ed*. South-Western, Cengage Learning



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### **Acknowledgements**

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