JULY 2019

ISSN 2321 - 3493

Bi-Annual Journal
English

VOL.6 (2)

ODISHA JOURNAL OF SOCIAL SCIENCE

ODISHA JOURNAL OF SOCIAL SCIENCE
VOLUME - 6 ISSUE - 2

July, 2019 **Volume6** **Issue 2**

ODISHA JOURNAL OF SOCIAL SCIENCE

A Bi-Annual Research Journal (English)

Contents

Sl.No.	Topic&Author	Pg.No.
1.	Corporate Governance and Stewardship Theory: A Review from Indian Context ***Dr. Kirti Ranjan Swain*** ***Prof.(Dr) Anup Kumar Samantray***	4
2.	Gender Differences on Perceived Health Status of Family Caregivers: Associations with Socioeconomic Status in East Asia ***Prof Jung Nim Kim***	12
3.	Indigenous Approach to Wellness from Illness: Leads to Happiness ***Prof Nibedita Jena*** ***Dr.Santa Misra***	28
4.	A study on adjustment among secondary school boys and girls ***Mr. Sangram keshari Dash***	36
5.	Situational Analysis of Communication Disorders Among Silver Citizens : A Neuro-scientific Exploration ***Dr.Santa Misra*** ***Jayasankar Panda***	45
6.	Safety management System in Steel Industry: A Proposed Model ***Prof.Mrs. Mamata Nayak*** ***Prof.Dr.Lalata Keshari Pani*** ***Prof.Dr. Barada Prasad Bhol***	59
7.	Challenges & Suggestions in Teacher Education ***Cyma Anjum***	76
8.	Folk treatment for Asthma by Bhuyan Tribes of Sundargarh district, Odisha ***Dr. Julie Das***	82
9.	Trade commerce and Intercourse within territory of India ***Madan Pallai***	92

DECLARATION

1.	Title of the Journal	:	ODISHA JOURNAL OF SOCIAL SCIENCE
2.	Language in which It is published	:	English
3.	Periodicity of Publication	:	Half-yearly
4.	Publisher's Name, Nationality & Address	:	Dr. Santa Misra, Ex-Principal Sri Satya Sai College for Women Bhubaneswar-751030 ODISHA (INDIA). Indian
5.	Place of Publication	:	2624/3484, Baragada Canal Colony, At/Po.-BJB Nagar, Bhubaneswar-751014 ODISHA(INDIA)
6.	Printer's Name Nationality & Address	:	Millenium Art Press, Jaydev Vihar, Bhubaneswar, Odisha(INDIA)
7.	Chief Editor's Name, Nationality & Address	:	Dr. Santa Misra, Ex-Principal Sri Satya Sai College for Women Bhubaneswar-751030 ODISHA(INDIA) Indian
8.	Owner's Name	:	Dr. Santa Misra 2624/3484,Baragada Canal Colony, At/Po.-BJB Nagar, Bhubaneswar-751014

ODISHA(INDIA)
I, Santa Misra, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Santa Misra.

31st July,2019 **(Santa Misra)**
publisher

EDITORIAL

Research is a challenge as well as opportunity before a scholar in general and social science in particular. The dimensions of social science research is varied and complex. The research design is inducted to statistics, mathematics and a good number of disciplines. The interdisciplinary, interdisciplinary as well as multidisciplinary approaches of social science research strengthen its research base. The scholars have attracted towards both qualitative and quantitative social science research.

Odisha Journal of Social Science, Volume 6 (2), is an adolescent research journal in the domain of social science. Its objective is to cater the need of young social scientist and scholar to provide an avenue with an objective to ensure quality research. The scholar can use the platform for optimum potential. The focus is on management, human resource management, gender differences, family health status, health care and social economic status of the people and regions. The positive psychology is another facet of the journal. It deals with wellness, happiness quotient and spirituality, etc. such domain visualizes the indigenization perspective of uplifting individual thinking and reasoning.

This volume has given importance to gender role on adjustment profile of adolescent boys and girls in educational sectors ; on gerontological issues; on communication disorder of age old people; the psychosocial manifestation of communication disorder, etc., highlighting the neuroscientific analysis to the systems.

Attempts also have been made to compare business intelligence with artificial intelligence and spiritual intelligence in different bank sectors within and outside India on ***Bancassurance*.** Accident in industry leads to colossal economic and social loss. Understanding the magnitude of the problem ***Safety Management System in Steel Industry*** is an eye opener for safety management practiceners.

Similarly some research article, based on PhD works, has provided information about ***Folk treatment of asthma,*** conducted on tribal people of Odisha, India**.**

In this issue two new members are being included to the editorial board. I congratulate them to be with us in OJSS and solicit their co-operation.

With these objectives this volume of Odisha journal of social science has emerged to its new shape. I shall not miss these opportunity to congratulate the contributor to make the volume relevant and meaningful.

Santa Misra.

(Santa Misra)

CORPORATE GOVERNANCE AND STEWARDSHIP THEORY: A REVIEW FROM INDIAN CONTEXT

***Dr. Kirti Ranjan Swain**
****Prof.(Dr) Anup Kumar Samantray**

ABSTRACT

This paper attempts to provide an overview of the major literature which has developed in the area of stewardship theory and corporate governance. The paper describe as characterizing the modern corporation and how managers and shareholders may act to control the costs to maximize firm value. The main contribution of this paper is to summarize previous research and the outcomes is important to scholars who are interested in studying corporate governance and it provides a thorough explanation of the relationship between corporate governance and stewardship theory.

Keywords: *Corporate Governance, stewardship theory, agency theory, stakeholder theory*

1. INTRODUCTION

Corporate governance has acquired a new urgency due to changing profiles of corporate ownerships, preferential allotment of shares to promoters, increasing in-flow of foreign capital, and deliberate dismantling of control mechanisms that had hitherto provided protective cover to every poorly managed corporate, a consequence of economic liberalization (Fernado, 1997). Corporate governance is a buzz word in the present corporate world and the concept of corporate governance gained after the sudden crash of Enron, WorldCom, Xerox, Lehman Brothers, the crisis of Satyam etc. In the world of globalization, the concept of corporate governance has taken an important role to provide better transparency and corporate disclosure policy for attracting foreign investors and global fund raising; the corporate houses have to demonstrate high quality governance. Corporate governance has been recognized as significant element in managing corporations in modern global phenomenon. This paper attempts to provide an overview of the major literature which has developed in the area of stewardship theory and corporate governance.

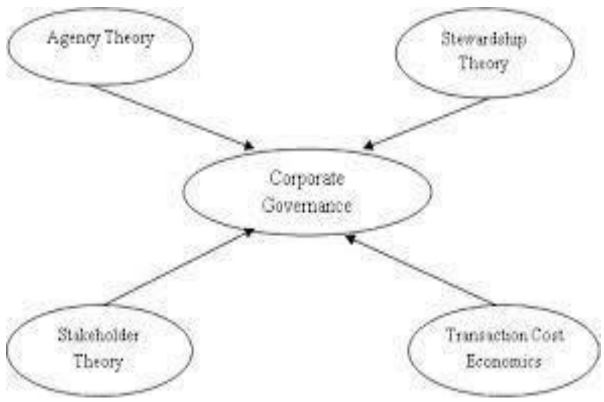
-* *Associate Professor (Accounting & Finance),Indian Institute for Production Management, Kansbahal,,*
drkirtiranjan@gmail.com
** *Dean, Institute of Business & Computer Studies, Siksha "O" Anusandhan University,*
dean.ibcs@soauniversity.ac.in

In this ridge the study includes agency theory, stakeholder theory and stewardship theory. The term corporate governance is a subject of considerable debate. Organization for Economic Co-operation and Development (OECD) has defined corporate governance as, “procedures and processes according to which an organization is directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among the different participants in the organization – such as the board, managers, shareholders and other stakeholders – and lays down the rules and procedures for decision-making."

“Corporate governance is the system by which companies are directed and controlled. Boards of directors are responsible for the governance of their companies. The shareholders role in governance is to appoint the directors and the auditors to satisfy themselves that an appropriate governance structure is in place. The responsibilities of the board include setting the company’s strategic aims, providing the leadership to put them into effect, supervising the management of the business and reporting to shareholders on their stewardship. The board’s actions are subject to laws, regulations and the shareholders in general meeting” defined by the Cadbury Committee (1992).

Naresh Chandra committee (2002) was appointed by the department of company affairs and the committee took forward the recommendations of Kumar Manglam Birla committee. The committee laid down strict guidelines defining the relationship between auditors and clients. In 2003, Narayan Murthy committee was setup by SEBI and the committee came out with the recommendations focusing on strengthening the responsibility of audit committee, quality of financial disclosure, proceeds from initial public offerings and many other important aspects.

In the nutshell, the corporate governance is policy of governing corporations in such a transparent manner that all stakeholders interests are protected and develop the confidence towards corporate.



www.sciedu.ca

Figure: 1- Theories influencing Corporate Governance

2. Stewardship Theory

2.1. Origin of stewardship Theory

Stewardship Theory, developed by Donaldson and Davis (1991 & 1993) is a new perspective to understand the existing relationships between ownership and management of the company. This theory arises as an important counter weight to Agency Theory. This theory illustrates situations in which managers hold motives that are aligned with the objectives of their principals rather than pursue their individual goals.

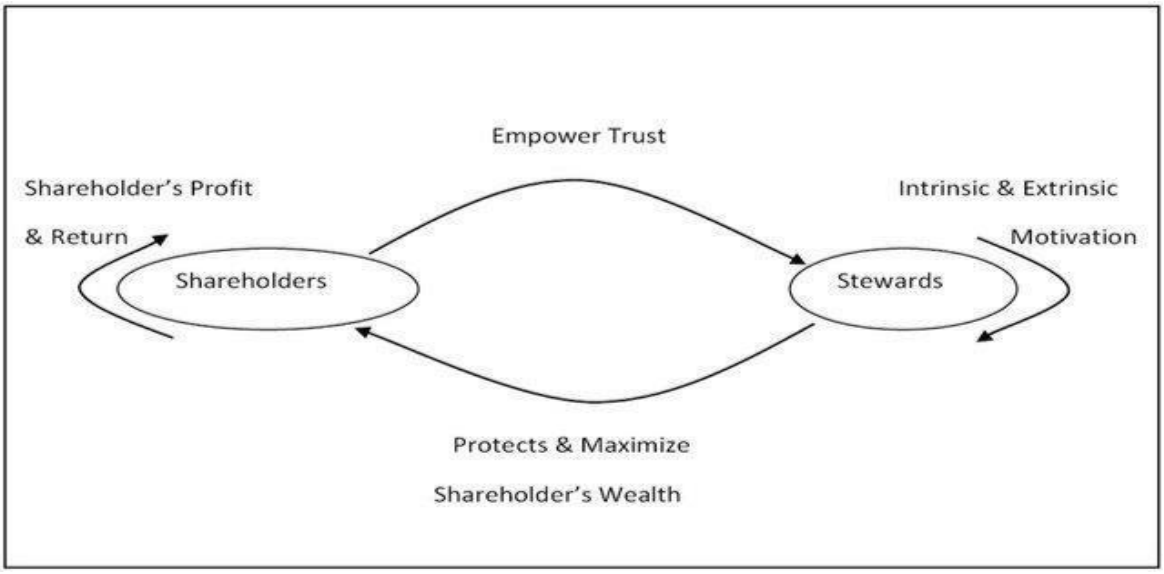
2.2. Definition of stewardship Theory

Stewardship is an ancient concept that is enjoying a modern day renaissance. Recent years have seen the term "stewardship" gaining currency in a wide range of debates over the appropriate roles and responsibilities of industry, government and citizens in various economic and environmental governance processes. According to dictionary definitions, a steward is a caretaker, manager or servant, and stewardship is "the careful and responsible management of something entrusted to one's care." The core idea here is that we do not really own what we think we own – we are merely managers, or stewards, of these things. Stewardship theory is a framework which argues that people are inherently motivated to work for organizations to accomplish the tasks with which they have been entrusted. A steward is one who takes on the responsibility of caring for something on behalf of another person or group of people. It argues that people are collective minded and pro-organizational rather than individualistic and work toward the attainment of organizational, group, or societal goals because doing so gives them a higher level of satisfaction. Stewardship theory therefore provides one framework for characterizing the motivations of managerial behavior in various types of organizations.

2.3 Stewardship Theory and Governance

The stewardship theory of governance has a clear to communicate business needs to the shareholders and the shareholders' needs to the business. Stewardship governance requires that a CEO be trustworthy and willing to put personal gains aside for the good of the organization. Stewardship models may include environmental concerns, where a company believes it should operate with as little impact as possible on the earth. Still others may honor the owner's religious beliefs that show them in the form of servant leadership. These models tend to be subjective, with management determining the boundary between socially responsible or irresponsible behavior. Under the stewardship theory, company executives protect the interests of the owners or shareholders and make decisions on their behalf. The sole objective is to create and maintain a successful organization so the shareholders prosper. Firms that embrace stewardship place the CEO and Chairman responsibilities under one executive, with a board comprised mostly of in-house members. This allows for intimate knowledge of organizational operation and a deep commitment to success. Unlike agency theory, the principal espouses stewardship theory which empowers managers and executives with the information and the equipment and the power believing that they will make decisions in the best interest of the organization and for the principals. It enables the decision makers to act on behalf of the firm and for the firm, having faith that they will maximize the long term return of the firm. Stewardship theory believes in acting in the best interest of the organization, unlike agency theory, therefore it argues that any control or monitoring. Stewardship theory assumes that managers are stewards whose behaviors are aligned with the objectives of their principals. The theory argues and looks at a different form of motivation for managers drawn from organizational theory. Managers are viewed as loyal to the company and interested in achieving high performance gain to exercise responsibility and authority, from peers and bosses. In the context of firm's leadership, this situation is attained more readily if the CEO is also the chairman of the board. The leadership structure will assist them to attain superior performance to the extent that the CEO exercises complete authority over the corporation and that their role is unambiguous and unchallenged. In this situation, power and authority are concentrated in a single person. Hence, the expectations about corporate leadership will be clearer and more consistent both for subordinate managers and for other members of the corporate board. Thus, there is no room for uncertainty as to who has authority or responsibility over a particular matter.[1]

According to the Abdullah and Valentine (2009) stewardship concept suggests that successful organization leads to happiness and hence motivate stewards, not individual success or goals attained.



Source: Abdullah and Valentine 2009

Figure 2. Stewardship theory model.

As per Stewardship Theory, there are situational and psychological factors that predispose individuals to become either agents or stewards. Current literature is able to explain the equilibrium that results when the psychological and situational are aligned to make an individual decide to be a steward or agent. However, existing literature says nothing about a situation where there are conflicts between the psychological and the situational factors. This is the case, for example, where there is a mismatch between the management philosophy of the company and the psychological characteristics of the manager. According

[1] http://ari-glcrc.blogspot.in/2011/12/corporate-governance-theories_07.html

to the work of Davis et al., (1997), this situation will inevitably result in an agency relationship. Our proposal, rather than a deterministic approach, was oriented to understand how an individual can change their internal state, i.e., from agent to steward, by interacting with his counterpart. It is argued that agents can learn to become stewards by shifting their internal motivation, from extrinsic towards transcendent motives.

Davis, Schoorman and Donaldson (1997) defined stewardship theory as “a steward protects and maximizes share-holders wealth through firm performance, because by doing so, the steward’s utility functions are maximized”. In this definition, the writers identified firm executives and managers as the stewards working for the principal. Later, Block (1996) suggested the stewardship role as “ser-vice over self-interest” believing that both organizational and individual needs will be achieved at the best by honoring relationships and treating followers like “owners and partners”.

According to existing stewardship literature, becoming a steward or an agent results merely from a rational process. In the existing literature on Stewardship Theory it is not evident which are the underlying mechanisms that make an individual opt for one position or the other. It is necessary to understand what kind of inner force drives the person to transcend his own self-interest and resolve his internal inter-motivational conflict. This paper outlined the role that virtuousness plays to explain how an individual may move from an agent position, oriented towards extrinsic results, towards a steward position, oriented towards transcendent results.

2.4 AGENCY THEORY AND STAKEHOLDER THEORY

Agency theory and stakeholder theory are both used to understand and explain various types of relationships in business. Both theories provide a means to understand business challenges. Problems may be a result of genuine misinformation or may actually be caused by clashing business interests. These theories are often used to outline the interests of shareholders, employees, customers, the public and vendors. Many challenges that manifest within the business world as a result of incomplete information, miscommunication and conflict may be explained using these two theories. Agency theory describes the problems that occur when one party represents another in business but holds different views on key business issues or different interests from the principal. The agent, acting on behalf of another party, may disagree about the best course of action and allow personal beliefs to influence the outcome of a transaction. The agent may also choose to act in self-interest instead of the principal's interests. This may result in conflict between the two parties and may be an agency problem. Stakeholder theory describes the composition of organizations as a collection of various individual groups with different interests. These interests, taken together, represent the will of the organization. As much as possible, business decisions should consider the interests of this collective group and advance overall cooperation. Conflict represents an erosion of these interests. Bringing these distinct groups together to reach agreement may not always be possible, so business decisions must consider each point of view and optimize the decision making to include all voices.[2]

[2] http://www.investopedia.com/ask/answers/031615/whats-difference-between-agency-theory-and-stakeholder-theory.asp

2.5 STEWARDSHIP THEORY AND STAKEHOLDER THEORY

Stakeholder theory and stewardship theory distinctively approach to employees, perceive their role and contribution. Distinctiveness among these theories in terms of manager's role, motivational model, use of information, rules' function, key values etc. Organizational goal, from stakeholder theory's perspective, is to balance profits with other objectives across all participants, while stewardship theory defines organizational goal in terms of creating long-term and achieving best interests for all. On managerial level, personal goal of steward is to achieve potential whereas manager from stakeholder theory's viewpoint honors relationships (Podrug, 2010). Integrating stakeholder and organizational interest is focus of stakeholder theory; however stewardship theory's vision is to increase organizational wealth to serve all interests (Caldwell et al., 2006). According to stakeholder theory employees are stakeholders, but in reality their position is inferior to other stakeholders. In process of decision making employees experience that their interests are not consistently treated when compared to other stakeholders (McCall, 2002). If employees are involved in decision making process with repercussions concerning them as well, then they will almost certainly be controlled by formal mechanisms as in agency theory (Podrug, 2010). In stewardship theory employees are valued as ends in themselves and their values and needs are respected. Employees are empowered owners and partners in creating wealth and are supervised in the best possible manner, while employees in stakeholder theory's perspective are stakeholders to whom a balance of benefits is guaranteed--but are often treated in contradiction to that rule (Lea, 2004).

To end with, distinction lies also in perception of the future. The corporation is able to benefit all stakeholders and the future is a function of balancing their needs in stakeholder theory, meanwhile in stewardship theory the corporation creates value for society and all stakeholders by maximizing long-term wealth creation.

CONCLUSIONS

Stewardship is still a relatively new concept in business and there is a general lack of agreement on how it should be defined. While more development is needed around the principles and practices of leading as a steward, the concept will prove critical to solving key governance issues within organizations in the future. In reality, stewardship theory is consistent to stakeholder theory and upgrades stakeholder theory[3]. Stewardship theory is still in its embryonic stage with a lot of open questions, but noticeably theory is compatible to stakeholder theory. Respect of interests, needs and expectations of diverse stakeholders is irreplaceable segment of business ethos, and therefore stewardship theory proposes optimal governing model in contemporary business environment.[4] Stewardship theory stresses the beneficial consequences on shareholder returns of facilitative authority structures which unify command by having roles of CEO and chair held by the same person. The safeguarding of returns to shareholders may be along the track, not of placing management under greater control by owners, but of empowering managers to take autonomous executive action.[5]

[3] http://www.stewardshipasia.com.sg/knowledge/effective_stewardship.pdf

[4] http://www.freepatentsonline.com/article/Annals-DAAAM-Proceedings/246014180.html

REFERENCES

Abdullah, H. & Valentine, B.(2009).“Fundamental and Ethics Theories of Corporate Governance,” Middle Eastern Finance and Economics, No. 4, pp. 88-96.

Block,P (1996) “Stewardship: Choosing Service over Self-Interest,” Berrett-Koehler Publishers, San Francisco.

Boyd, B.(1995). “CEO Duality and Firm Performance: A Contingency Model,”Strategic Management Journal, Vol.16, No. 4, pp. 301-312.

Chia, C. W.; Lin, J. B. & Bingsheng, Y.(2008). “CEO Duality and Firm Performance: An Endogenous Issue,” Corporate Ownership & Control, Vol. 6, No. 1, pp. 58-65.

Dayton, N.(1984). “Corporate Governance: The Other Side of the Coin,” Harvard Business Review, Vol. 62, pp. 34-37.

Denis D. J;. Denis, D. K &. Sarin, A.(1999) “Agency Theory and the Influence of Equity. Ownership Structure on Corporate Diversification Strategies,” Strategic Management Journal, Vol. 20, No. 11, pp. 1071-1076.

Davis, G.(1991) “Agents without Principles? The Spread of the Poison Pill through the Inter-Corporate Network,” Administrative Science Quarterly, Vol.36, No.4, pp.583

Davis, J.H;.Schoorman, F.D &Donaldson, L.(1997).“Toward Stewardship Theory of Management ,” Academy of Management Review, Vol. 22, No. 1, pp. 20-47.

Donaldson L.&.Davis, J.H.(1989). “CEO Governance and Shareholder Returns: Agency Theory or Stewardship Theory,” Annual Meeting of the Academy of Management,

Donaldson,L.&Davis, J.(1991). “Stewardship Theory or Agency Theory: CEO Governance and Shareholder Returns,” Australian Journal of Management, Vol.16, No.1, pp. 49-64.

Etzioni, A.(1998). “A Communitarian Note on Stakeholder Theo-ry,” Business Ethics Quarterly, Vol.8, No.4, pp.679-691. Washington, pp.49-63.

Freeman, R.E.; Andrew, C. W. &. Parmar, B.(2004).“Stake-holder Theory and The Corporate Objective Revisited,” Organization Science, Vol.15, No.3, pp.256-265.

Fama, E. F.(1980). “Agency Problems and the Theory of the Firm,” The Journal of Political Economy, Vol.88, No.2, pp.288-307.

Freeman, R. E.(2004) “A Stakeholder Theory of Modern Corporations,” In: Ethical Theory and Business, Prectice Hall, Upper Saddle River, pp.56-65.

[5] Corporate Governance, By Chris A. Mallin

Fama, E.F.&Jensen, M.C.(1983)"Separation of Ownership and Control," Journal of Law and Economics, Vol.26, No.2, pp.301-325.

Jensen, M.C.(1976). "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," Journal of Financial Economics, Vol.3, No.4, pp.305-360.

Kehoe, M.R(1996). "Franchising, Agency Problems, and the Cost of Capital," Applied Economics, Vol.28, No.11, pp.1485-1493.

Kesner, I.& Dalton, D.(1986). "Boards of Directors and the Checks and (Im) Balances of Corporate Governance," Business Horizons, Vol.29, No.5, pp.17-23.

Roberts, R.(1992). "Determinants of Corporate Social Responsibility Disclosure: An Application of Stakeholder Theory," Accounting, Organisation and Society, Vol.17, No.6, pp. 595-612.

Shleifer, A.& Vishny, R.W(1997) "A Survey of Corporate Governance," Journal of Finance, Vol. 52, No. 2, pp. 737-783.

Watts, R.L.& Zimmerman, J.L.(1978) "Towards a Positive of the Theory Determination of Accounting Standards," The Accounting Review, Vol. 53, No. 1, pp. 112-134.

Williamson, O.E.(1988). "Corporate Finance and Corporate Governance," Journal of Finance, Vol. 43, No. 3, , pp. 567-591.

GENDER DIFFERENCE ON PERCEIVED HEALTH STATUS OF FAMILY CAREGIVERS: ASSOCIATIONS WITH SOCIOECONOMIC STATUS IN EAST ASIA

*Prof Jung Nim Kim**

ABSTRACT

Purpose of the study: Family caregivers experience negative impacts on their physical and mental health from care giving of frail elderly people, but few studies have explored gender differences in the socioeconomic status (SES) of family caregivers in East Asia. This study examined gender differences in perceived health status association with SES of family caregivers who live with frail elderly people in East Asia.

Design and Method: The subjects were family caregivers who live with frail elderly people who need care and have disabilities at homes. Cross-sectional data were collected in 2013 using structured questionnaires through the placement method in Japan and via face-to-face interviews in Korea, China, and Taiwan. The number of valid participants were 783 in Japan, 611 in South Korea, 800 in China, and 555 in Taiwan. The dependent variables included the perceived health status of family caregivers. The independent variables included education attainment, employment situation, and economic situation.

Results: A multiple linear regression model revealed gender differences in all samples, male and female family caregivers who were not working and financial difficulty, and female family caregivers with middle school education were associated with poor perceived health status in East Asia. For gender differences in countries, Japanese male and female, Chinese and Taiwanese male family caregivers who were in hard economic situation had poor perceived health status, respectively. On the other hand, Chinese and Korean female family caregivers who attended less than or middle school were in poor perceived health status, whereas, Taiwanese male family caregivers who had attended college and university had better health status than others.

Implications: This study provides evidence that gender differences of family caregivers linked to their socio-economic status still remain across perceived health status in Korea, China, and Taiwan, but SES accounted for a very small parts of the gender differences in health of family caregivers in Japan.

Key Words: *family caregivers, frail elderly people, perceived health status, gender differences, socioeconomic status, East Asia*

**Prof in Psychology 2020-1, Sanocho, Isesaki City, Gunma, Japan Phone: 81-270-20-3764 (direct)*

INTRODUCTION

Average life expectancy at birth has increased greatly over the past few decades in East Asia and according to OECD, it was 85 years in Japan, 83 years in Korea, 76 years in China, and 80 years in Taiwan in 2017 (CIA World factbook, 2018). In 2025, when all baby boomers (born 1947 to 1949) will be at least 75 years old and over, the population in this age group is expected to be 36.8 million in Japan (Cabinet Office, 2017). The increasing number of persons in this age group has led to an increase in the number of chronically ill or functionally impaired and they are needed at least some level of physical and/or mental care and support.

Most family members provide private care for frail elderly people who are ill, frail, and have a physical and mental impairment who live in the community in East Asia (Kim, 2013). More recently, it has been reported that the proportion of men proving care for elderly people has been increasing, in 2017; approximately 30% of caregivers of frail elderly people were men who are the spouse or adult sons in Japan (Cabinet Office, 2017). In order to sustain the capacity of family caregivers to give care giving for frail elderly people, a public long-term care insurance system was established in 2000 in Japan and in 2008 in South Korea but not yet established in Taiwan and China. However, long-term care services cannot sufficiently support elderly person with disabilities who lives in the community, thus family members will continue to play central roles in care giving for their spouse, elderly parents, and relatives.

Several studies show that most caregivers are ill-prepared for their role (National Alliance for Care giving & AARP, 2004; Family Caregiver Alliance, 2000) and some family caregivers may continue to provide care to frail elderly people even though they suffer from poor health themselves because of such care giving. Overall, approximately 80% of family caregivers are female including the wife, daughter-in-law, and daughter of the person receiving care (Kim, 2013). Moreover, the family caregivers have been providing almost unpaid care giving as an assumed responsibility of family members in East Asia. The estimated average monthly cost of in-home long-term-care is 78,000 Yen (approximately USD 750; Japan Institute of Life Insurance, 2018), however, the costs of caring in long-term care service is higher in cases of more intensive levels of care needed by frail elderly people in Japan and Korea. Thus, family caregivers of low socio-economic status cannot use sufficient care services even though they have poor health status.

More research is needed, therefore, on the lives and extent of care provided to frail elderly people, and to understand their health status and the implication of the self-rated economic status factors. The relationship between health status and socio-economic status (SES) is well established, meaning that people with high SES have significantly better health status (Kim, 2013), however, only few studies have been published in the literature about gender differences in perceived health status of family caregivers association with SES in East Asia. In Korea, married women even with lower SES have to remain focused on the obligation of care and financial support to their parents-in-law due to cultural expectations of gender roles (Kim, 2012). Indeed, these studies have been cited to explain why females have dominated as primary caregivers: in the gender-role socialization framework (Gillomgan, 1982) and in labor marked segregation and householder labor (Rose, 1987; Pinquart and Sorensen, 2006). Thus, more females than males are likely to become informal family caregivers for care giving of their spouses, parents, and parents-in-law in East Asia (Kim, 2013). It is thus important to examine the gender differences in perceived health status association with SES of family caregivers who live with frail elderly people in East Asia.

Research focused on gender differences of family caregiver's in health status in East Asia. Kim (2013) showed that more female than male family caregivers were older adults, had higher morbidity rates, poorer health, and higher levels of care burden. Compared with male caregivers, female caregivers have higher levels of **care giving** stressors, have fewer social resources, and report lower levels of psychological and physical health (Pinquart and Sorensen, 2006). According to Rafale et al. (2012), the subjective burden is statistically significant different between men and women. Women experience substantially higher level of depression and anxiety disorders than men (Kessler et al., 2003), and women had more distress, lower mental health, and life satisfaction than men (Hagedoorn et al. (2008). However, Yee and Schulz (2000) indicate that women spend more time providing care than men, but found no significant gender difference. In gender gap, Rieker and Bird (2005) indicated that, although men's and women's overall mental health is similar, the most common mental health disorders differ by gender. Despite extensive examination of the studies, gender differences of family caregivers in caregiving have not been consistently or conclusively documented, uncertain, and the majority of studies have been carried out among women (Sharma et al. 2016). Indeed, few studies have examined to the issues of gender differences in health status of family caregivers who live with frail elderly people in East Asia. This is the first study to consider gender differences of family caregivers who live with frail elderly people in East Asia.

Among several factors relation with health, SES is frequently implicated as a contribution to the disparities in health (Andresen and Miler, 2005; Kim, 2010) and higher status is associated with more efficient acquisition and processing of health information. Gender differences in health status emphasizes men's and women's social position and people with lower SES (including income, education attainment, and occupation status) have poorer health (including exposure to behavioral risk such as domestic violence, smoking, poor diet) (Rieker and Bird, 2005). Older people with the higher levels of educational attainment had significantly better health status for both men and women in Korea (Kim, 2010). Better education leads to more efficient use of a given set of health inputs by improving decision-making abilities (productive efficiency) and improving the allocate efficiency among various health information (Li and Powdthavee, 2015). The most discussed effect of education on health is through its effect in the labor market. For example, Card (1999) shown that better-educated people tend to enjoy better employment outcomes and higher wages. These people tend to exhibit more health promoting behavior with physical activity and access to better healthcare. Recently, research findings from low- and middle-income countries have suggested that relative to men, women have worse general health (Ng et al. 2010).

Although SES is often assumed to be accompanied by an extended period of good health, little evidence exists that male family caregivers of higher SES are experiencing better health than female family caregivers of the same status who live with frail elderly people in East Asia. A focus on economic situation, income differences may result from a variety of factors over the life course including occupational choice, opportunities for employment and advancement, work-related skills and experience, as well as access to job benefits including health insurance, pensions, and other retirement income (Rieker and Bird, 2005). On the other hand, the employed caregivers who attempt to balance work with family care may find it easier to focus on the personal spare time, thus experiencing decreased care burden and positive health consequences. Likewise, family caregivers who are employed part-time rather than unemployed may have more personal spare time, and have resources to meet the care needs of frail elderly people, thus they have better health. Historically, the unpaid care work of women has been a cultural norm through the traditional division of labor that gives responsibility of filial piety as adult children and daughter-in-law to caregiving for male parents in East Asia.

Adler and Newman (2002) showed that better SES impacts health associated with health care, environmental exposure, health behavior, and lifestyle. For example, family caregivers with higher levels of education attainment, better employment conditions, and higher incomes are more likely to have the means to pay for healthcare and to afford better nutrition (Adler and Newman, 2002), thus they may also have better healthy lifestyle habits. Although the impact of SES on health would be expected to be the same for men and women, the levels of SES may vary by gender for a variety of reasons. Overall, for an improved grasp of the experience and more accurate understanding of gender differences of family caregivers, this study explores gender differences in health status association with SES of family caregivers.

Purpose of Current Study and Hypotheses

The previous literature provides substantial evidence that gender differences offer considerable insight into explaining women have greater morbidity and physical harm than men. However, the findings to date were different in gender differences on perceived health status and SES of family caregivers who live with frail elderly people in East Asia. To fill this gap in the literature, the purpose of present study examined SES and perceived health status in gender difference of family caregivers to provide care giving for frail elderly people with live at home in East Asia. This study considered the current SES models to explain the health status of family caregivers in gender differences. Thus, it may be useful to understand how gender differences apply to perceived health status of family caregivers for care giving of frail elderly people and to evaluate the adequacy of the current care giving situation to identify aspects of care problems.

This study hypothesizes the following associations between SES and perceived health status in gender differences. First, SES might differentially affect male and female caregivers in perceived health status. Thus, a low SES in female compared to male family caregivers are associated with deleterious effects of perceived health problem in East Asia. Second, this study evaluated whether the SES of family caregivers explains the gender differences in perceived health status in East Asia.

Methods

Data and subjects

The data subjects were family caregivers who were caregiving for frail elderly people who live at home both in Japan, Korea, China, and Taiwan. Frail elderly people included only those who received care needs certification in the public long-term care insurance (LTCI) system in both Japan and Korea, and those who are house-bound (defined as those who cannot take a walk to a neighborhood house without a help) and those with care needs both in China and Taiwan. Both in Japan and Korea, eligibility for the recipients for care services is dependent on the certification of LTCI. The out-of-pocket expenses are 10% to 30% for in-home services and residential care in Japan, however, these are 15% for in-home services and 20% for residential care in Korea.

Cross-sectional data were collected in October, 2013. The data was collected using a structured questionnaire through the placement method in Japan and via face-to-face interviews in Korea, China, and Taiwan. The number of valid participant responses were 783 (92.9%) cases in Japan, 611 (78.1%) cases in South Korea, 800 (88.9%) cases in China, and 555 (80.2%) cases in Taiwan.

Measures

Dependent Variable

Respondents were asked their perceived health status and the question was “How do you rate your current health state?" The scale was based on five possible responses: very good, good, fair, poor, and very poor. It was coded such that a higher score indicates poor health (See Table 1). Despite the subjective nature of this question, indicators of perceived general health have been found to be a good predictor of mortality and functional ability (DeSalvo et al., 2005).

Independent variables

The SES indicators included current employment situation of family caregivers, the economic situation of frail elderly people, and educational attainment of family caregivers (See Table 1). The educational attainment is classified into 6 categories (1=less than elementary school to 6= graduate degree), thus, this study was coded with dummy variables (1=less than middle school and middle school, 1=college and university degree, high school=reference category). The individuals’ economic situation is captured via the question: “Thinking about the economic situation of your frail elderly people, is your frail elderly people able to make ends meet? And the economic situation of frail elderly people was coded into 5 categories (1=really hard, 2=some hard, 3=fair, 4=fairly easily, 5=very easily), thus, this study was coded with dummy variables (1=hard, 1=easily, fair=reference category). Self-rated economic status is a variable general indicator for financial capacity (Litwin and Sapir, 2009). The current employment status of family caregivers was coded as a dummy variable (white-collar workers=1, blue-collar workers=1, not working=1, and services workers =reference category).

Control variables and data analyses

Respondent characteristic items as control variables included the sex, age, Activities of Daily Living (ADL), Instrumental Activities of Daily Living (IADL) of frail elderly people, and age of family caregivers. Descriptive statistics for these variables are shown Table 1. ADL and IADL were measured by the sum of seven items, with a higher score indicating more dependence (3-24), respectively.

The study population characteristics are in Table 1. A multifile regression assessed the association between SES and health status of family caregivers with adjustment for age and sex of frail elderly people and family caregivers in gender differences. Analyses were conducted using STATA V.12.

Table 1. Characteristics of respondents

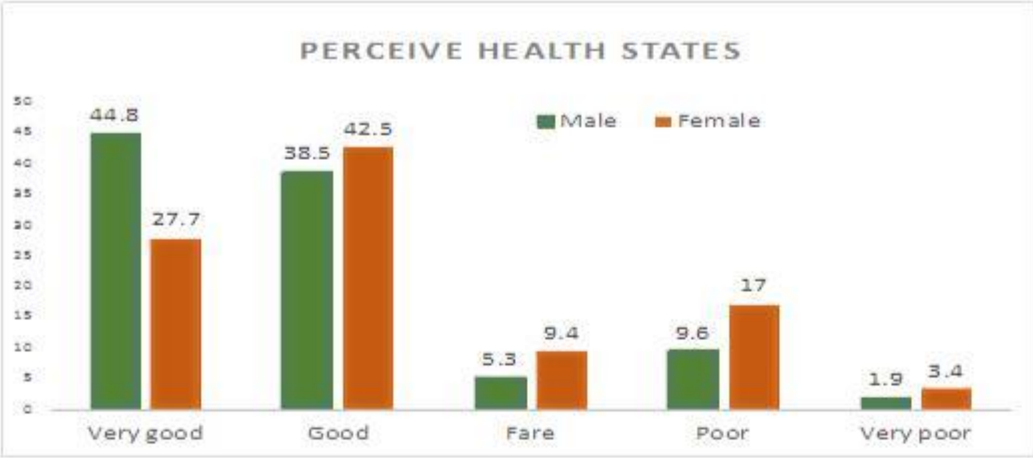
Variables		Mean (SD) %	Minimum-maximun	Notes for coding
Frail elderly people:				
Gender	%, female	59. 0	0–1	Dummy variable
Age		81	65 – 103	Years old
ADL		14. 49 (5. 09)	3 to 24	1=possible to 3=need all support
IADL		18. 11 (5. 10)	3 to 24	1=possible 3=need support at all
Demermcia:	%, yes	27. 8	0–1	Dummy variable
Family caregiver:				
Gender:	%, female	70. 2	0–1	Dummy variable
Age		77	20–98	Years old
Relationship to frail elderly	%, spouse	20. 5		Dummy variable
	sun	23. 8		
	daughters	28. 3		
	daughter-in-law	19. 7		
Educational attainment		3. 51 (1. 25)	1 to 6	6=graduate university
Economic situation		2. 91 (0. 80)	1 to 5	1=really hard to 5=very easy
Employment situtaion:	%, white collar	23. 6		Dummy variable
	service	11. 3		
	blue collar	11. 6		
	not working	44. 7		
	et al	8. 7		
Preceived health states		3. 51 (1. 25)	1 to 5	1=very good, 5=very poor
Country:	%, Japan	29. 1		
	Korea	20. 3		
	China	28. 4		
	Tawian	22. 2		

Notes: Activities of Daily Living (ADL), and Instrumental Activities of Daily Living (IADL) of frail elderly people

Results

The situation of perceived health status

Figure 1 shows the current situation of perceived health status of male and female family caregivers in overall samples, in East Asia. 45% of male and 28% of female family caregivers were in very good health status while about 39% of men and almost 43% of female family caregivers were in good health status. Slightly more male family caregivers compared to females were of very good health status and more of both genders of family caregivers were in good or very good health than those in poor or very poor health in East Asia.



Cross Analyses for Gender Differences in Health Status and SES

A chi-squire for independent smaples was used to evaluate the differnece between health status and SES in gender differences. Cross tabulation of Table 2 showed that according to the overall sample, among family caregivers, male family caregivers were in better health status than female. Family caregivers with a college and university degree had better health status compared to those with high school and (lower) middle school grade (p=.001), and family caregivers who were in white collar jobs, service jobs, and blue-collar jobs were in better health than those not working, respectively (p=.001). In addition, family caregivers who had good and fair of economic situation were in better health status when compared with those in financial difficulties (p=.001). Among countries, Chinese family caregivers were in better health than those in Japanese, Korean, and Taiwanese.

Considering gender differences in East Asia, male and female family caregivers with college and university degree had better perceived health than those high school and middle school grade (p=.001). In addition, male and female family caregivers whose spouse attended college and university had better perceived health than those who only attended high school and lower middle school (p=.001). Family caregivers with white collar jobs, service jobs, and blue-collar jobs were in better health status than those who were not working, both in male and female caregivers (p=.001). Otherwise, male family caregivers with a fair economic situation were in better health status when compared with those in financial difficulties (p=.001). However, female family caregivers who had good and fair economic situation were in better health status when compared with those in financial difficulties, respectively (p=.001). In gender differences in countries, Japanese, Koreans, and Taiwanese male and female family caregivers were in poorer health status, however, Chinese male and female family caregivers were in better health status (Supplementary Table 2).

Table 2. Perceived health status rates by SES and gender differences of family caregivers

Variables		Total: Perceived health status					Chi-square test	Male of family caergivers Perceived health status					Chi-square test	Female of family caergivers: Perceived health status					Chi-square test
		Good	Fair	Poor	Total	N		Good	Fair	Poor	Total	N		Good	Fair	Poor	Total	N	
Frail elderly: Gender:	Male	56.1%	13.2%	30.7%	100.0%	667		86.3%	5.0%	8.7%	100.0%	219	x2=36.84	41.7%	17.1%	41.2%	100.0%	444	x2=12.57
	Adjuested residual	0.6	-0.7	-0.1			x2=0.56	5.9	-2.5	-5			df=2	-3.4	0.5	3.2			df=2
	Female	54.6%	14.4%	31.0%	100.0%	918	df=2	62.5%	11.2%	26.2%	100.0%	267	p<0.00	52.1%	16.0%	31.9%	100.0%	631	p<0.00
		-0.6	0.7	0.1			p=0.56	-5.9	2.5	5				3.4	-0.5	-3.2			
Family caregiver: Gender:	Male	72.8%	8.5%	18.7%	100.0%	492	x2= 83.44												
	Adjuested residual	9.1	-4.1	-6.8			df=2												
	Female	48.1%	16.3%	35.6%	100.0%	1087	p<0.00												
	Adjuested residual	-9.1	4.1	6.8															
Educationa attainment																			
	>Middle school	45.2%	15.9%	38.9%	100.0%	352		55.3%	17.1%	27.6%	100.0%	76		31.3%	20.0%	48.7%	100.0%	195	
	Adjuested residual	-5.4	2	4.4			x2= 102.66	-4.7	2.8	3.3			x2=35.64	-5.8	1.6	4.8			x2=64.12
	High school	48.5%	18.8%	32.7%	100.0%	388	df=4	70.1%	13.1%	16.8%	100.0%	137	df=4	45.5%	22.0%	32.5%	100.0%	354	df=4
	Adjuested residual	-4.2	4.2	1.5			p<0.00	-2	2.2	0.6			p<0.00	-2	3.8	-0.8			p<0.00
	<College , University	72.1%	6.3%	21.5%	100.0%	520		86.0%	3.7%	10.3%	100.0%	243		61.2%	9.8%	29.0%	100.0%	449	
	Adjuested residual	8.9	-6.4	-4.9				5.3	-4.1	-3.1				6.5	-4.9	-3.1			
Educational attainment of spouse																			
	>Middle school	37.9%	19.1%	43.0%	100.0%	272		60.5%	14.0%	25.4%	100.0%	114		38.80%	17.20%	44.00%	100.00%	232	
	Adjuested residual	-7.3	2.8	5.8			x2=102.66	-4.3	3	2.8			x2=41.02	-4	1	3.4			x2=56.92
	High school	51.4%	19.2%	29.4%	100.0%	506	df=4	67.3%	10.0%	22.7%	100.0%	110	df=4	41.1%	22.2%	36.7%	100.0%	275	df=4
	Adjuested residual	-3.4	4.4	0.4			p<0.00	-2.2	1.1	1.8			p<0.00	-3.6	3.9	0.8			p<0.00
	< College , University	69.6%	7.7%	22.6%	100.0%			90.3%	1.8%	7.9%	100.0%	165		64.4%	8.3%	27.3%	100.0%	348	
	Adjuested residual	8.9	-6.4	-4.9				6	-3.7	-4.2				7	-4.6	-3.8			
Employment situation:	white collar	85.4%	4.6%	10.0%	100.0%	411		93.0%	2.1%	4.9%	100.0%	143		81.5%	5.7%	12.8%	100.0%	265	
	Adjuested residual	14.3	-6.3	-10.7				6.4	-3.3	-5			x2=135.88	12.6	-5.4	-9			x2=271.89
	service	78.7%	7.9%	13.5%	100.0%	178	x2=431.05	91.5%	4.2%	4.2%	100.0%	71	df=8	69.5%	10.5%	20.0%	100.0%	105	df=8
	Adjuested residual	6.7	-2.4	-5.3			df=8	3.8	-1.4	-3.3			p<0.00	4.6	-1.7	-3.5			p<0.00
	blue collar	68.0%	14.9%	17.1%	100.0%	181	p<0.00	84.3%	5.6%	10.1%	100.0%	89		53.9%	24.7%	21.3%	100.0%	89	
	Adjuested residual	3.6	0.5	-4.3				2.7	-1.1	-2.2				1.2	2.3	-3			
	not working	27.2%	20.3%	52.6%	100.0%	685		39.7%	18.6%	41.7%	100.0%	156		24.1%	21.4%	54.6%	100.0%	515	
	Adjuested residual	-19.7	6.6	16.3				-11.4	5.4	9.1				-15.1	4.4	12.4			
Economic situation																			
	Self-rated economic situation: Hard	29.1%	18.9%	52.0%	100.0%	371		34.7%	17.9%	47.4%	100.0%	95		28.2%	19.5%	52.3%	100.0%	262	
	Adjuested residual	-11.5	3.2	10			x2=166.92	-9.3	3.6	8			x2=91.93	-7.4	1.6	6.4			x2=88.04
	Fair	63.7%	14.8%	21.5%	100.0%	921	df=4	84.2%	6.1%	9.7%	100.0%	310	df=4	53.3%	19.4%	27.3%	100.0%	604	df=4
	Adjuested residual	8	1.3	-9.6			p<0.00	7.5	-2.6	-6.7			p<0.00	3.9	3.1	-6.5			p<0.00
	Good	61.3%	4.6%	34.1%	100.0%	305		73.8%	7.1%	19.0%	100.0%	84		57.3%	3.7%	39.0%	100.0%	85	
	Adjuested residual	2.4	-5.2	1.3				0.2	-0.5	0.1				3.1	-5.6	1.1			
Country:	Japan	26.9%	34.4%	38.8%	100.0%	387		35.9%	29.7%	34.4%	100.0%	64		25.2%	35.1%	39.8%	100.0%	322	
	Adjuested residual	-12.9	13.5	3.8				-7.1	6.5	3.4				-9.8	10.9	1.9			
	Korea	31.3%	5.7%	62.9%	100.0%	402	x2=750.55	36.0%	4.0%	60.0%	100.0%		x2=224.41	31.3%	6.5%	62.3%	100.0%	310	x2=458.37
	Adjuested residual	-11.1	-5.4	16			df=6	-7.8	-1.5	10			df=6	-7	-5.5	11.6			df=6
	China	96.1%	2.0%	1.8%	100.0%	541	p<0.00	95.6%	1.8%	2.5%	100.0%	275	p<0.00	96.6%	2.3%	1.1%	100.0%	266	p<0.00
	Adjuested residual	23.5	-9.7	-18				12.8	-6	-10.3				18.2	-7.1	-13.5			
	Tawian	49.6%	19.7%	30.7%	100.0%	274		57.7%	19.2%	23.1%	100.0%	78		46.6%	20.1%	33.3%	100.0%	189	
	Adjuested residual	-2	3.1	-0.1				-3.3	3.7	1.1				-0.5	1.6	-0.7			

Regression Results for Gender Differences in Health Status and SES

Table 3 indicates multivariate regression results of the overall sample and in observed perceived health status and SES among men and women family caregivers in East Asia. A multiple regression model was used to evaluate the relationship of the health status and SES in gender differences and in East Asia.

In the overall sample, female family caregivers with middle school educate were positively associated with perceived health status (p=0.05) than those who high school grade.

This means that female family caregivers with middle school grade were in poorer perceived health status. However, education attainment of male family caregivers had no significant difference in perceived health status. Employment situation was significantly related to perceived health status in both male and female family caregivers (p=0.05, p=.001, respectively). Therefore, male and female family caregivers who were not working were in poorer health than those male and female family caregivers with service jobs. Moreover, hard economic situation was statistically significant associated with health status in both male and female family caregivers (respectively, p=0.001). Thus, it is seen that male and female family caregivers who were in hard economic situation were in poorer health status.

In this controlled model, the age of male and female family caregivers was positively and statistically significant associated with health status (Supplementary Table 3), thus, older male and female family caregivers were in poorer health. In addition, both male and female family caregivers were in poorer health status in Japan, Korea, and Taiwan compared to China (Supplementary Table 3).

Table 3. Multiful regression analysis for perceived health states in gender differences: Model 1 with overall sample in gender differences

			Male			Female		
			B	95% CI		B	95% CI	
Frail elderly people	ìender:	Male	Reference			Reference		
		Female	.038	-.08	.22	-.036	-.199	.034
		Age	-.016	-.01	.01	.005	-.007	.009
		ADL	.016	-.02	.03	-.003	-.018	.017
		IADL	.021	-.02	.02	.065	-.005	.035
Family caregiver								
		Age	.225 **	.01	.02	.217 **	.013	.024
Educational attainment								
		High school	Reference			Reference		
		>Middle school	.093	.140	.231	.072 *	.283	.731
		<College , University	.013	-.188	.205	.018	-.099	.179
Employment situation		service	Reference			Reference		
		white collar	.019	-.172	.250	.008	-.149	.190
		blue collar	-.013	-.254	.191	.016	-.154	.273
		not working	.117 *	.019	.451	.164 **	.215	.515
Economic situation		Fair	Reference			Reference		
		Hard	.155 **	.186	.614	.081 **	.077	.355
		Good	.070	-.018	.373	-.004	-.161	.137
Country		China	Reference			Reference		
		Japan	.095 *	.003	.524	.188 **	.230	.627
		Korea	.199 **	.337	.915	.294 **	.568	.978
		Tawian	.148 **	.144	.561	.170 **	.324	.706
		R2(df)	.33(17)**			.27(17)**		
		(-2 log likelihood)	144.913			434.756		

Notes: CI: 95% conficence interval (lower-upper bound). df: degree of freedom.
Significance levels: **<.00 *<.05.

According to the gender differences in countries (Supplementary Table. 4), in China, male family caregivers in hard and good economic situation were significantly and positively associated with perceived health status (p=0.05). This means that male family caregivers who were hard or good economic situation were in poorer health compared with those who were in fair economic situation. Chinese female family caregivers who attained middle school grade or lower had significantly poorer perceived health status (p=0.05). Thus, it is seen that female family caregivers who attained middle school education were in poorer health than female family caregivers who attended high school. However, the employment situation of male and female family caregiver had no significant differences on perceived health status in China.

In Taiwan, both male and female family caregivers who were not working were in significantly poorer health compared with those in service jobs (respectively, p=0.001). Male family caregivers who attended college and university were in significantly better health than male family caregivers who had high school education (p=0.05), and male family caregivers who were in a hard economic situation were in poorer health than those in fair economic situation p=0.001). However, the employment and financial difficulty of female family caregivers was not associated with any significant differences in perceived health status in Taiwan.

In Japan the both male and female caregivers who were in hard economic situation were significantly poorer healthy than those in fair economic situations (p=0.001). However, no significant health impacts were observed for male and female family caregivers associated with education attainment and employment situation only in Japan.

The female family caregivers with attended college and university and blue collar jobs had in poorer health status in Korea (p=0.05, p=0.001, respectively). Whereas, the financial difficulty of both male and female family caregivers, and the education attainment and employment situation of male family caregivers was not statistically significant on health status in Korea.

Table 4. Multiful regression analysis for perceived health status in gender differences: Model 2 with countries

		China						Taiwan					
		Male			Female			Male			Female		
		B	95% CI		B	95% CI		B	95% CI		B	95% CI	
Family caregiver:													
Educational attainment	High school	Reference			Reference			Reference			Reference		
	>Middle school	-.037	-.256	.137	.153 *	.040	.386	.001	-.423	.428	.027	-.231	.359
	<College , University	-.079	-.256	.060	.109	-.020	.264	-.207 *	-.706	-.043	-.019	-.305	.226
Employment situation:	service	Reference			Reference			Reference			Reference		
	white coller	-.042	-.238	.129	-.023	-.180	.128	.053	-.282	.515	.034	-.238	.407
	blue collar	-.038	-.263	.146	.011	-.200	.240	.017	-.377	.457	-.017	-.926	.669
	not working	.065	-.113	.309	.064	-.105	.270	.246 **	.101	.823	.264 **	.282	.828
Self-rated economic situati	Fair	Reference			Reference			Reference			Reference		
	Hard	.108 *	-.002	.529	.091	-.022	.454	.227 **	.128	.818	.097	-.035	.554
	Good	.111 *	.007	.407	-.004	-.144	.133	.032	-.310	.463	-.099	-.530	.026
	R2(df)	.12(12)**			.23(12)**			.34(12)**			.21(12)**		
	(-2 log likelihood)	15.795			23.472			38.506			73.904		

		Japan						Korea					
		Male			Female			Male			Female		
		B	95% CI		B	95% CI		B	95% CI		B	95% CI	
Family caregiver:													
Educational attainment	High school	Reference			Reference			Reference			Reference		
	>Middle school	.124	-.244	.817	.010	-.193	.243	-.075	-1.468	.866	.126 *	-.193	.243
	<College , University	.045	-.354	.546	-.051	-.326	.077	-.025	-.873	.737	.096	-.326	.077
Employment situation:	service	Reference			Reference			Reference			Reference		
	white coller	-.014	-.857	.759	.005	-.307	.338	.006	-1.224	1.264	-.012	-.414	.337
	blue collar	-.099	-.816	.367	-.062	-.504	.124	-.041	-1.461	1.128	.012	-.465	.589
	not working	.183	-.195	.893	.030	-.184	.310	.034	-.918	1.099	.285 **	.419	1.047
Self-rated economic situati	Fair	Reference			Reference			Reference			Reference		
	Hard	.245 **	.123	.899	.186 **	.246	.621	.050	-.748	1.016	.010	-.272	.327
	Good	.075	-.376	.843	-.070	-.598	.037	-.047	-1.157	.867	.039	-.197	.415
	R2(df)	.21(12)**			.11(12)**			.23(12)**			.23(12)**		
	(-2 log likelihood)	22.217			67.124			25.800			135.951		

Notes : CI: 95% conficence interval (lower-upper bound). df: degree of freedom.

Significance levels: **<.00 *<.05. Gender, age, ADL, and IADL of of frail elderly people, age of family caregivers are controlled.

Discussion and Limitations of the Study

Given the physical and cognitive limitations that can accompany frailty, these frail elderly people often rely on family caregivers to resolve their needs. The present cross-sectional study of family caregivers provides evidence that female family caregivers have poorer perceived health status than males in East Asia. These female family caregivers' disadvantages were observed in health status in Japan and Korea (Kim, 2012). Through overall samples, this study found that low SES of family caregivers is associated with poor perceived health status in family caregivers of any gender, however, female family caregivers with middle school educational attainment have poorer perceived health status in East Asia. In addition, these findings make it appear that Korean female and Taiwanese female caregivers with lower SES are more vulnerable in health status, however, female caregivers were not more vulnerable and had similar health status to males in Japan. Although in the overall sample, the health status of family caregivers was not associated with employment and economic situation for both men and women, education attainment of female family caregivers has still partially impact on perceived health status in East Asia, thus partially supporting the hypothesis of this study. This study provides some of the first empirical evidence of the associated with SES and perceived health status of family caregivers in gender differences, who live with frail elderly people in East Asia.

In line with education attainment, through overall samples, the study found that statistically associations between education attainment and perceived health status in female family caregivers, and this study partially supports the initial hypothesis. These female family caregivers' disadvantages were observed in Korea and China, thus, female family caregivers with lower and middle school education had poorer perceived health status, whereas Taiwanese male family caregivers who had attended college and university had better perceived health status. Reiker and Bird (2005) showed that higher levels of education may provide additional knowledge, opportunity, and income with which to avoid multiple risk factors. Indeed, the high levels of education attainment improves people's diets and they tend to engage in more regular exercise and drinking moderately (Li and Powdthavee, 2015). Female family caregivers have a substantial relative disadvantage in caregiving because those who have lower levels of education are taking less time to relax and achieve very little, thus, they cannot prevent the buildup of stress by taking time to relax on a regular basis. Regarding gender differences in Japan, however, education attainment was not significantly associated with the health status of family caregivers. Additional research is needed to resolve the reasons that men and women family caregivers with levels of education attainment report different health status, in order to suggest what might be done to better their health status.

Regarding current employment situation, through analysis of the overall samples, both male and female family caregivers who were not working had poorer perceived health status. In addition, Korean and Taiwanese female and Taiwanese male family caregivers who were not working had poorer perceived health status. Association with this hypothesis, gender differences was patricianly supported between employment situation and health status only in Korea. However, the hypothesized advantages to have better health for male blue-collar workers compared to female are not consistently observed in East Asia. More than half of male family caregivers were employed full-time than females, so there may be complex impacts to balancing work with their caregiving role in Korea. In a study of caregivers by Choi et al. (2007), full-time paid workers were less likely to be caregivers for frail elderly people than family caregivers with non-workers, and thus this relationship was significant for non-working family caregivers of both genders. With regards to female family caregivers, Pinquart and Sorensen (2003) showed that providing care to a chronically ill family member or close friend can have profound negative effects on the caregiver's own physical and psychological health, increase social isolation, adversely impact their quality of life, and well-being. For example, family caregivers who are not working could get so stressed that they find it hard to juggle caregiving activities with other family responsibilities. While the gender gap of social activities is narrowing, the perceived health gap in gender differences of family caregivers continues to widen with the employment situation in Korea than in Japan and China. Historically and culturally, daughters-in-low are more expected than sons to carry out the role of main support or to provide caregiving for parents-in-law as filial piety of family members at homes and in community (Kim, 2012). As a consequence, the gender role of family caregivers on the employment situation still continues to be maintained in Korea compared to other countries in East Asia.

Self-rated economic situation of family caregivers had a positive effect on perceived health status of male and female family caregivers in East Asia. Unlike other studies conducted in low- and middle-income countries (Lee et al. 2014; Okusuzyan et al. 2018), this study observed a male disadvantage in cognitive health status in China and Taiwan. This finding is in contrast to evidence on the gender of family caregivers in Japan. Association with this hypothesis, gender differences was patricianly supported for economic situation and health status only in China and Taiwan.Therefore, family caregivers were hard of economic situation might have reduced or stopped spending money on their own health and begun spending more of their annual income in caregiving expenses. However, the great majority of Japanese elderly receive a national pension and they can have efficient care services out-of-pocket for 10 to 30 percent payment when they are using long-term care services. Thus, both male and female family caregivers with higher levels of incomes are more likely to afford better nutrition (e.g., better quality and variety of fresh fruits and vegetables), housing, and recreation (Adler and Newman, 2002). Although factors included in the economic situation are directly related to gender differences in perceived health status in China and Taiwan, fortunately, historical indicators of gender equity are available in Japan.

As this study initially hypothesized, the study shows that employment and economic situation are associated with perceived health status in both male and female family caregivers, however, education level are associated with perceived health status in female family caregivers in East Asia. In countries, perceived health status and education attainment was observed in Korea and China for female caregivers, and for male family caregivers in Taiwan. However, perceived health status and employment situation was observed for both male and female family caregivers in Taiwan and for female family caregivers in Korea. Perceived health status and economic situation was observed for both male and female family caregivers in Japan and for male family caregivers in China and Taiwan. Gender differences in the economic situation of family caregivers may result from factors including education attachment, opportunities for employment and advancement, as well as access to job benefits including social insurance (healthcare, pensions, and other retirement income). Moreover, women are also more likely to be private family caregivers and to either have never been employed, or to have to quit their employment, thus they have a lower income per capita. Since the social security system (include the public healthcare and income in Japan, Korea, and Taiwan), and public long-term care insurance (in Japan and Korea) has been shown to improve physical and cognitive heath, a relative lack of social security systems could help to explain the country differences in health status in East Asia. On the one hand, incomes tend to decline in late life, due to retirement, and at the same time health-related expenses tend to rise, insurance coverage not withstanding (Cook & Settersten, 1995; Litwin, 2009). Thus, both male and female family caregivers who were hard of economic situation and were not working had to give caregiving for frail elderly people based on caring needs in East Asia.

The present study has some limitations. First, this study was based on cross-sectional analyses for both genders in Japan, Korea, China, and Taiwan. Longitudinal research is needed in the future. Second, this study was concerned about gender differences in the SES association with perceived health status of family caregivers. However, other factors such as public in-home care services and the needs levels of frail elderly people might affect the health status of family caregivers, thus these independent factors would require further study in the future. Third, certain factors such as an effective linkage of clinical check evaluation of health status as a dependent variable with community-based factors would require further study in the future. It is likely that providing help significantly addresses the needs and desires of good health among male and female family caregivers of all levels of SES to give caregiving for frail elderly people. Thus, the government and future researchers need to develop and test interventions designed to enhance the health of family caregivers and to explore possible gender differences in more detail.

Funding

This work was supported by Japan Society for the Promotion of Science KAKENHI Grant Numbers 21330121 (Kim JN).

Footnotes

The author declare that I do not have a conflict of interest.

REFERNCES

Adler, N.E .and Newman, K. (2002). Socioeconomic disparities in health: pathways and policies. Health Aff, 21. 60-76.

Andresen, F.M.and Miler, D.K. (2005). The future (history) of socioeconomic measurement and implications for improving health outcome among African Americans. The Journals of Gerontology, Series A, 60,1345-1350.

Bond, J.H.O. Dickinson, F. & Matthews, C. et al. (2006). Self-rated health status as a predictor of death, Functional and Cognitive Impairments: A longitudinal cohort study. European Journal of Ageing, 3, 193-206. Cabinet Office. (2017). Aging society white paper.

Card, D. (1999). The causal effect of education on earnings. (http://davidcard.berkeley.edu/papers/causal_educ_earnings.pdf. 2019.5.16).

Choi ,NG., Burr, J.A., Mutchler, J.E. & Caro, F.G. (2007). Formal and informal volunteer activity and spousal caregiving among older adults. Research on Aging 29, 99–124.

CIA World factbook, (2018) （https://www.indexmundi.com/map/?t=0&v=30&r=as&l=en 2019.2.25)

Cook, F.L.& Settersten, R.J. (1995). Expenditure patterns by age and income among mature adults: Does age matter? Gerontologist, 35,10-35.

DeSalvo, K.B., V.S.& Fan, M.B. et al. (2005). Predicting mortality and healthcare utilization with a single question. Health Services Research, 40, 1234-1246.

Family Caregiver Alliance. (2006). Caregiver assessment: Principles, guidelines and strategies for change. Report from a National Consensus Development Conference (Vol. I). San Francisco.

Hagedoorn, M, Sanderman, R,& Bolks HN, et al. (2008). Distress in couples coping with cancer: a meta-analysis and critical review of role and gender effects. Psychological Bulletin. 134 (1):1.

Kessler R.C., Berglund, P.,& Demler O, et al. (2003). The epidemiology of major depressive disorder: results from the National Comorbidity Survey Replication. Journal of the American Medical Association, 289, 3095–3105.

Kim J.N. (2013). The Study of Socioeconomic Status and Health disparities in Japanese Elderly. The Science of Health (Hoken no Kagaku), 55(3), 173-179.

Kim, J.N. (2012). Financial support to parents and parents-in-law: How the social status of married women affects financial support for parents in Korea, Japan, and China. Changing Families in northeast Asia. Ishihara K and Tabuchi R. Sophia University Press, 89-110.

Kim, J.N. (2010). Social status and health states. GEMC Journal, 3, 34-49.

Kim, J.N. (2015). A positive and negative appraisal of the caregiving of family caregivers for frail elderly living at home in Japan and South Korea. Odisha Journal of Social science, 2(1), 4-16.

Lee J., Shih, R., & Feeney, K., et al. (2014). Gender disparity in late-life cognitive functioning in India: Findings from the longitudinal aging study in India. Journals of Gerontology, (B): psychological sciences and social sciences, 69, 603-611.

Li, J. and Powdthavee. (2015). Does more education lead to better health habits? Evidence from the school reforms in Australia. Social Science and Medicine. 83-91.

Ltwin H., & Sapir, E.V. (2009). Perceived income adequacy among older adults in 12 coun tries: Findings from the survey of health, aging, and retirement in Europe. The gerontologist, 49 (3), 397-496.

National Alliance for Caregiving & AARP. (2004). Caregiving in the U.S. Washington, DC.Ng ,Y.L., Mann, V., & Gulabivala, K. (2010). Tooth survival following non-surgical root canal treatment: a systematic review of the literature. International Endodontic Journal 43, 171–89.

Oksuzyan, A., Singh, P.K., Christensen, K.et al. (2017). A Cross-National Study of the Gender Gap in Health Among Older Adults in India and China: Similarities and Disparities. Gerontologist, 58(6), 1157-1165.

Pinquart ,P. & Sorensen, S. (2006). Differences between caregivers and non-caregivers in psychological health and physical health: A meta-analysis. Psychology and Aging, 18, 250– 267.

Pinquart, P. & Sorensen, S.. (2003). Differences between caregivers and noncore givers in psychological health and physical health: A meta-analysis. Psychology and Aging, 18, 250-67.

Rafael del-Pino-Casado, Antonio Frías-Osuna, Pedro A. Palomino-Moral, et al. (2012). Gender differences regarding informal caregivers of older people. Journal of Nursing Scholarship, 44, 349-357.

Rieker, P.P. & Bird, C,E. (2005). Rethinking Gender Differences in Health: Why We Need to Integrate Social and Biological Perspectives, The Gerontological Society of America, 60B (2), 40–47.

Ross, C. E. (1987). The division of labor at home. Social Forces, 47, 816–833.

Sharma ,N, Chakrabarti, S, & Grover S. (2016). Gender differences in caregiving among family caregivers of people with mental illnesses. World J Psychiatry, 22;6(1):7-17.

Yee, J. L., & Schulz, R. (2000). Gender differences in psychiatric morbidity among family caregivers: A review and analysis. The Gerontologist, 40, 147-164.

INDIGENOUS APPROACH TO WELLNESS FROM ILLNESS: LEADS TO HAPPINESS

***Prof. (Dr.) Nibedita Jena**

** **Dr. Santa Misra**

ABSTRACT

The philosophers say -"Let me be carried away by muted dreams of childhood, Let my heart burn in the silent youth, Let my voice be unheard in the suffering old age, Then let me stand behind the angel of death"

Based on these words, this paper aims at visualizing some important aspects of search for happiness which each and every human being desires and which is also the basic objectives of positive psychology, focusing on Indigenous Approach to health and wellbeing through self control, meditation, yoga, energized awareness, upliftment of consciousness and spirituality following Patanjali series of principles on body and mind. Especially the focus is here on the effects of nutritious diet on health and wellbeing. It is a pilot study of the Ph.D. programme.

Key words*: - Indigenous Approach, Patanjali Yoga sutras, Consumerist, Adolescence, energized awareness upliftment of consciousness , spirituality Happiness and Wellness***.**

INTRODUCTION:

Mental health is undeniably one of our most precious possessions which needs to be nurtured, promoted and preserved as best as we can.It is the state of mind in which the individual can experience sustained joy of life while facing of adversities without loosing the capacity to function physically, psychologically and socially.It is a barometer of the Social , personal and mental life.WHO States a positive State of physical , mental and Social well-being is known as health.

Attainment of good mental health / happiness is the innate desire of every human being, but our life style, attitude and values have undergone a radical change with rapid modernization and more towards consumerist culture for which we are going far away day by day from the happiness. As per the Positive psychology, facilitator state of physical, mental and social well-being is known as health. It has been described as a value judgment, in a continuum from illness to wellness. The question is can it be possible in our present life style and can lifestyle modification help someone to reach wellness? Then how to define the term life style? Normally life style means the way of life, the pattern of living of a person & how he spends his time from moment to moment. It also means the food we take drinking habit, exercise, diet- Particularly, overeating, consuming too many high fat, low fiber food, constantly facing higher stress situations, likes and dislikes of a person. These result from our experience, beginning from early childhood, evolving through adolescence and adulthood. A healthy life style holds the key to the prevention of many diseases.

---

* *Visiting Professor, Ravenshaw University, Cuttack, Odisha, India*

** *Associate Professor and ex - Principal SSS College for Women, Bhubaneswar, Odisha, India*

In this regard Indian thought process should be highlighted. Indian thought contains valuable conceptual, methodological and theoretical ideas and insights that could provide alternative hypotheses concerning human nature that could be genuinely complementary to the "western approach, in taking almost wholly a mechanistic view of man. The belief that by **practicing** Yoga and meditation one could attain wellness in life. Indigenous psychology searches for techniques, for controlling body and mind, by relaxation, meditational techniques, yoga practice, balancing the food habits and fostering self-control, which is the ultimate aim of human being.

The use of indigenous approach like Yogasana, Meditation and their effectiveness in the treatment of various forms of personality disorders are having tremendious impact on the feild of clinical psychology

These types of Yogic practice can lead to our wellness keeping us far away from illness Wellness is characterized by Lyon (1990) as the experience of somatic comfort and a functional ability level at or near the person. There are two approaches to control and express emotions. One is somatic control (Emotions, mood, calmness, pleasure, joy, relief, happiness and another is physical sensation energized awareness, emotion, growth. And Illness is a continuum from low (I am not feeling well) to high (I am very much ill) level from physical and psychological point of view.. Research findings says wellness and illness are culture specific and time specific which have a great effect on our behaviour.

Behavioural risk factors such as smoking cigarettes, drinking excessively, using drugs, eating high fat and high cholesterol diets, eating too much & becoming over weight, inviting stress are the causes of major chronic diseases which can be controlled through modifications of life style , mainly controlling the diet / in-taking habits as their healthy life routine.

.

<u>Objective</u>

Because the quality of diet determines how a person looks and feels, the main objective of study was to determine the relationship between life style and healthy living in exploring the role of nutritious diet on physical and mental health, among different individuals of differential age groups.

METHODOLOGY

Sample:

The total sample consists of 60 male and 60 female with younger and older age group. The mean age groups of younger males were 24.7 years, and of younger females were 23.5 years, older males were 59.4 years and older females were 59.2 years.

Instrument:

Three questionnaires were used in the present study to collect data with survey method. The first two questionnaires were based on the psychological and physical symptoms (David Frawly , 1979). The third questionnaire was designed to measure health habit index.

- Questionnaire-1 described (according to vata, pitta and kapha), physical frame, weight, chest, appetite, voice, speech, memory, emotional tendencies, sleep, faith, dream, activity, strength, exertion, sensitivity, resistance to disease, and sexual nature. It consisted of 20 items, each having 3 alternatives; A=Vata, B=Pitta, C=Kapha.
- Questionnaire-2 described (according to vata, pitta and kapha) pain, fever, bodily discharge, mouth, throat, stomach, intestines, feces, urine, onset of disease, time of day when diseases get aggravated. It consists of 15 items, each having 3 alternatives like A=Vata, B=Pitta, C=Kapha. The subjects were asked to select any one alternative for each item.
- Questionnaire-3 consisted of 20 items describing positive health, daily habits. Each item has 3 alternatives, always (scored-2), sometimes (scored-1), never (scored-0). Subjects were asked to select any one alternative for each item.

Procedure

A pilot study was conducted by taking older and younger age group of individuals in the areas of holistic health and healthy life style based on their food habits The subjects were also regulated to check one alternative under each item that describes them accurately. They were given two weeks time to complete. Diet and nutrition are very important for healthy living. So a balanced diet chart and daily nutrient requirements chart were also taken to study healthy living.

RESULTS AND DISCUSSION

The quality of diet determines how a person looks and feels. Chemicals, water, carbohydrates, protein, fats, vitamins, and minerals make identifiable contribution to the metabolic process of the body (Greenfield, 1985.). So a balanced diet chart and daily nutrient chart are taken in the present study (See table-1 and table-2). Poor diet can lead to cancer, hypertension, arteriosclerosis and many more other diseases.

Table - 1 : Showing **Balance Diet: (qualities in grams)**

Our daily Nutrient requirements

	Calories	Protein	Fat	Calcium	Iron
Average man	2875	60	20	400	28
Average Woman	2225	55	20	400	30
Adolescent boy	2447	67	22	600	41
Adolescent girl	2056	62	22	600	28

Psychological and physical symptoms representing 3 humor vata, pitta, kapha

questionnaire of Davis Frawly were administered on two age group males and females and response analyzed on the basis of each personality type. Another questionaire was administered to measure health habit index of vata; pitta and kapha domaint people in the total sample (see table-3)

Table - 2 : **Showing daily Nutrient requirements**

Table-2

Quality Nutrient Requirements

	Calories	Protein	Fat	Calcium	Iron	ron
Average man	2875	60	20	400	28	28
Average Woman	2225	55	20	400	30	30
Adolescent boy	2447	67	22	600	41	41
Adolescent girl	2056	62	22	600	28	28

Psychological and physical symptoms representing 3 humor vata, pitta, kapha questionnaire of Davis Frawly were administered on two age group males and females and response analyzed on the basis of each personality type. Another questionaire was administered to measure health habit index of vata; pitta and kapha domaint people in the total sample (see table-3)

TABLE -3 : Showing Men good health score of younger and older adult showing predominant personality types

Age group	Personality type	N	Mean good health scan
Younger Group 20-30	Bata	18	22.5
	Pitta	06	29.5
	Kapha	06	24.1
Older Group 55-65	Bata	13	24.0
	Pitta	09	19.0
	Kapha	11	22.2

Table-3 presents in younger group that 18 persons are having bata personality, the mean good health scan is 22.5,6 persons are having pitta personality with the mean good health scan 29.5 and 6 kapha personality with mean good health scan 24.1 where as in older age group 13 are having bata personality with mean good halth scan 24.0, 9 pitta personality with mean good health scan 19.0 and 11 kapha personality with mean health scan 22.2.

Table-4 - Mean health habit index score of Bata,pitta and kapha domaint people in the total sample

Bata	**21**	**17.52**
Pitta	**14**	**23.25**
Kapha	**21**	**24.90**
Balanced	**04**	**25.50**

This shows that the mean health good score of younger and older persons showing predominant personality type.

This result shows out of 60,21 bata predominant humor having 17.52 mean health habit score,14 pitta predominant humor having 23.25 mean health habit score, 21 kapha predominant humor having 24.90 mean health habit score and 4 balanced personality having 25.50 mean health habit score. So we can say yhat 4 pesons who maintain a balanced pesonality in their life style were healthier than any other predominant personality type.

Conclusion

The main objective of this study was to determine the relationship between lifestyle and healthy living based on food habits. A daily routine of life style check list, disease check list and mental and physical health check list used for this purpose . The hypothesis that people who followed the ideal healthy life style were healthy that other people who does not follow the healthy life routine. Though only 60 subjects were taken, but the findings were very encouraging . The mean score of 15 younger male is 24.7 and the mean score of 15 younger female is 22.6. The mean score of 15 older male is 26.3 and mean score of older female is 23.1. It has been found out that people who followed a healthy life style were healthier in mental and physical state than other people irrespective of age and sex. This small study attempted to integrate life style and holistic health with a view to reconstruct and develop a holistic (Physical, mental, spiritual) healing process.

This study may be treated as an exploratory pilot study. The measure used in the study could be simultaneously used for the constitutional examination. Today many people are affected by oriental healing system because these approaches offer the promise of a preventing healing system that is at once holistic, powerful, effective and gentle with the least side effect. They rightly feel that occurrence of disease is not an arbitrary phenomenon but for definite reason, which if correctly understood could help to cure and more importantly, prevent recurrence. Thus attention to quality of life issues has been useful in pinpointing some of the areas that require particular attention and intervention. Thus we can conclude that with the help of yogic meditation, correct life style and holistic approach of health, the personality type can be rectify and a man can enjoy his life without disease both in mind and body.

References

Abhedananda Swami (1967). Yoga Psychology. Calcutta (India): Rama KrishnaVedana Matha

Acharya. S.B. (1995). Personality, Motivational and Cognitive competence of invulnerable children. Unpublished Doctoral Research Report, Utkal University.

Brodoiv, V.(1984), Indian Philosophy in modern times. Moscow : Progress publishers.

Cambell. A.: Converse, P.E: & Rodgers, W.L (1976). The Quality of American life, New work: Russelstage Foundation.

Debroy, B. & Debroy, D. (1990). The Upanishad: Books for All, New Delhi, India

Frawty.D (1990) :Ayurvedic healing A comprehensive guide: Salt Lake City, Vatah, Pallege (Press).

Sivananda,S.(2005), Self culture. A Devine life Society Publication.

Appendix


8 DIMENSIONS
OF WELLNESS
EMOTIONAL
INTELLECTUAL
OCCUPATIONAL
SOCIAL
FINANCIAL
PHYSICAL
SPIRITUAL
ENVIRONMENTAL


frustration
tension
problem
depression
stress
solve
crisis
solution
concept
sad
upset
decision
challenge
failure
worry
unhappy
think
headache
idea
big
mind

A STUDY ON ADJUSTMENT AMONG SECONDARY SCHOOL BOYS AND GIRLS

Mr. Sangram kesharDash

ABSTRACT

The purpose of the present study was to compare the adjustment level among boys and girls of secondary school. The Adjustment Inventory for School Students (AISS) developed by Sinha and Singh was employed to assess the adjustment level of the boys and girl. The study was carried out on a sample of 100 secondary school students. The data so collected was analyzed using statistical measures of Mean, Standard Deviation, and t-test. The finding of the present study showed that, over all adjustments of girl are better than boys. Girls are found emotionally, socially, and educationally more adjusted than their counterpart's boys.

Key words: *Adjustment, Secondary School, Emotional Adjustment, Social Adjustment, Educational Adjustment*.

INTRODUCATION

Education is said to be the most powerful equalizer of people's endowments, with which they expand the horizon of life choices, grasp economic opportunities, gain higher living standards, pursue happiness, and enjoy a life of well being .It acts as the foundation upon which one can build the rest of their life. Education is considered to be not only a means of improving one's own life but also that of others around one. Therein lays the importance of wholesome education in a child's life. In today's multi-cultural world, education necessitates adjustment. Children with different abilities, different skills, different backgrounds, and different cultures get educated together, providing them an opportunity to hone their adjustment skills thus acting as a training ground for the rest of their lives. During school life, a child has to learn to co-exist and co-operate with students and teachers of different religions, different cultures, different opinions, and a different outlook towards life.

The students enrolled in secondary classes are experiencing the storms and stresses of adolescence, a very critical stage of their lives. During this period, they keep vacillating between being children and being adults. Though adjustment is a major concern at all life stages, it becomes especially critical at the Stage of adolescence. Being a phase of rapid growth and development during which physical, sexual, and emotional changes occur, adjustment problems are at their peak during this period. Most adolescents experience adjustment difficulties in emotional, social, educational aspects of their lives. Adjustment has been described by the encyclopedia Britannica as a behavioral process for maintaining equilibrium among one's needs and obstacles offered by the environment. Adjusting to constant changes in their internal as well as external environment becomes a major challenge for the adolescents.

* *Lecture in Psychology, Angul Mahila (Degree) Mahavidyalaya, Angul,* skdpsycho@gmail.com, *M*-9556161802

It seems, over the years, very limited amount of research has been done on adjustment problems of adolescents. Most of the problems centering adolescents are physical appearance, health and physical development, marks scored, relationship with members of their families, their teacher, and peer of both sexes and home adjustment. This maladjustment may lead to absenteeism, truancy, low achievement and other unworthy habits of children the genetic make-up, time and rate of maturity vary for boys and girls, especially during adolescence. Societal norms and perceptions are also different for boys and girls, resulting in significant difference in levels of adjustment of boys and girls. The type of schools and the medium of instruction also influence the adjustment level of the adolescents. There is a need to explore the adjustment problems of school going adolescents and the influence of various demographic factors on their was adjustment abilities. The present study was aimed at exploring adjustment problem of school students.

CONCEPT OF ADJUSTMENT

We think of adjustment as psychological survival in the same way as biological uses the term adaptation to describe psychological survival. Adjustment is the process by which living organisms maintains a balance between need and the circumstances that influence the satisfaction of these needs.

The term ‘Adjustments’ broadly refers to manage environmental and internal demands and conflicts among demands. The term ‘Adjustment’ used interchangeably with the concept such as masterly, defense, coping and adaption. A working definition refers that-it was any response to external life strains that serves to prevent, avoid and control internal distress several investigators attempted to classify the adjustment styles of individuals to environmental situations, but no single and unanimously accepted method has yet emerged.

The problem of adjustment has been existence on earth. Since the appearance of human race adjustment is a relative term, opposite of adjustment was maladjustment. Life presents a continuous chain of adjustment in struggle for adjustment. The process of adjustment in students starts right from the birth of the child and continuous till his/her death. Adjustment is both internal as well as external. It is a multidimensional approach. It is an acquired one. It is a balanced state between the needs of the individual and three satisfactions. It not only depends on psychological process but also psychological process. Adjustment is a ladder to adopt learns and accommodates our needs interests in a hierarchy manner.

RATIONALE

Adjustment is a crucial problem of a student life in the present scenario. Our education system has loaded the curriculum, examination fear, neck-to-neck competitions, peer and parental pressure and tons to their problem. The findings of doctors, psychotherapist, and child psychologist reveal that student's especially higher secondary school students experience anxiety, stress, and depression due to academic pressure. Hence, the researcher opted this study to find out better solutions, provide guidance, and plan strategies for teachers, parents, and students in order to help them cope with adjustment styles.

However, it is observable that so many studies were conducted on adjustment styles in foreign countries. It is seen that in India, very few studies were conducted in the area of adjustment style among school/college students. Moreover, no study has been yet in Odisha to assess adjustment styles. By keeping in mind the above requirement in the field, the researcher decided to take up a study on adjustment style among secondary school boys and girls.

OBJECTIVE

Keeping the above views in mind the major objective was to compare the adjustment level among boys and girls of secondary school.

HYPOTHESES

The investigator of the present study framed the following hypotheses:

1. There is significant mean difference between boys and girls of secondary school with respect to adjustment.
2. There is significant gender difference between boys and girls of secondary school with respect to adjustment.

METHOD OF STUDY

The present study intends to make a comparative study of the adjustment level among boys and girls of secondary school. Thus, the objective of the present study was to compare the adjustment level among boys and girls of secondary school.

Sample design

For the present study a sample of 100(50 boys and 50 girls) secondary school students selected in different areas of Angul District.

As for as possible equal number of adolescents boys and girls were included. Age gender and class was taken in to account.

Tools used

The data for the present investigation was obtained by using the following Tools:-

- **Personal Data Sheet**

Personal data sheet was developed for the present investigation to obtain general information's regarding subject's age, sex and class, native place, school/college name, and data of birth.

- **Adjustment Inventory For School Students (AISS)**

The Adjustment Inventory For School Students (AISS) development by **Prof. A.K.P. Sinha** and **Prof. R.P. Singh** (2005) has to 60 items with 20 items in each of the three are of adjustment : emotional, social and educational. Responses are taken in 'yes' and 'no' for each item. The split-half reliability is 0.95 with product moment correlation between inventory scores and criterions ratings 0.51. For each response indicative of adjustment '0' is given otherwise '1' is given. While high scores on AISS indicate poor levels of adjustment, low scores indicate good adjustment. The minimum scores on the AISS is 0 while the maximum score is 60.

Scoring of Adjustment Inventory for School Students (AISS)

The total score on adjustment is obtained by summing the individual domain scores that indicates the general adjustment status.

Score **Greater Than 11** on the **Emotional Domain** indicates **Unstable Emotions** while **Low Score** indicate **Stable Emotions**.

Individual's with scores **Greater Than 11** on the **Social Adjustment Domain** indicates they are **Submissive** and **Revering**.

Score **Greater Than 11** on the **Educational Domain** indicates that adolescents are **Poorly Adjustment** with their **Curricular and Co-Curricular** programs while **Low Scores** indicative that **Have Interest in School Programs**.

Procedure

With due permission from the headmaster of the school, the researcher randomly selected students. Then, the researcher called the subjects one by one to a calm and quiet place in the school provided by headmaster. After properly interacting with the subjects, the Researcher said to them, "Here is an opportunity for you to test your Academic Adjustment styles which will be very useful for your study in the future" .Each subjects was told to go through the items No – 1 in the scale, and properly understand the statements items. Likewise, the Researcher rated all the 60 items in the scale after having enough discussion with the subjects. Then, he/she is required to put a tick mark in the desired column in the right side of each statement. Finally, the researcher giving a vote of thanks to all the participants, who participate in the data collection.

Statistical techniques used

In the present Study, the statistical techniques used were as under:-

Mean

Standard

Significance of difference between means (t-test)

RESULTS

ADJUSTMENT OF BOYS AND GIRLS OF SECONDARY SCHOOL STUDENTS

The results of the Mean and Standard Deviation of the adjustment scores turned out to be significant are presented in Table-1, and the result of 't' tests presented in Table-2.

TABLE-1

MEAN AND STANDARD DEVIATION SCORES OF SECONDARY SCHOOL STUDENTS.

GENDER	MEAN	STANDARD DEVIATION
BOYS	25.66	5.54
GIRLS	29.6	4.89

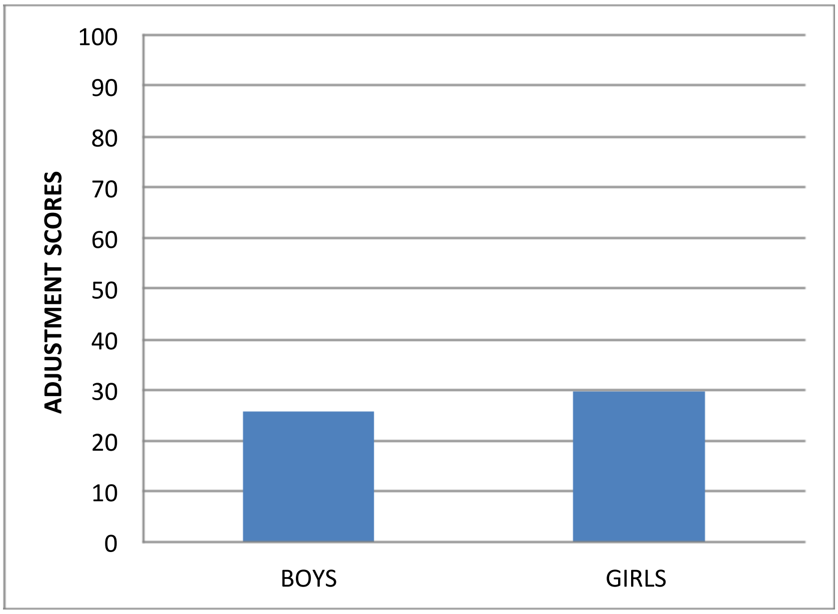


Figure 1.1 Mean of Adjustment Scores.

TABLE-2

A “t” TEST PERFORMED ON THE ADJUSTMENT OF THE BOYS AND GIRLS OF SECONDARY SCHOOL STUDENTS.

GENDEROF STUDENTS	MEAN	sd	df	“t” VALUE
BOYS	25.66	5.54	98	3.77
GIRLS	29.6	4.89		

$P<0.05$

DISCUSSION & CONCLUSION

The results of present study focused on the assessment of adjustment level among boys and girls.Table-1 and Figure-1.1 indicates that, the mean score of adjustment of girls is 25.66 which is significantly higher than that of boys whose mean score of adjustment is 29.6. Therefore, it may be said that girls are emotionally, socially and educationally more adjusted than their boys counterpart Thus, the hypothesis that there is significant mean difference between boys and girls of secondary school with respect to adjustment is accepted.

Similarly, Table-2 indicates that, “t” valve is 3.77 which is significant at 0.05 level and significant at 0.01 level with df=98. It shows that the mean scores of adjustment of boys and girls differ significantly. Thus, the hypothesis that, there is significant gender difference between boys and girls of secondary school with respect to adjustment profile is accepted and It can be concluded that, girls are emotionally, socially, and educationally more adjusted than their counter part boys.

Every individual from the time he/ she steps out of the family and goes to school make to a long series of adjustment between the whole unique personality and the environment the ardent desire of each boy and girl is to become an individual person having a healthy physique, a growing intellectual ability, a greater degree of emotional poise and increased participation in social groups, that can enhance their personality. Even parents, teachers, and other significant members of the society to which person belong will encourage this desire.

EDUCATIONAL IMPLICATIONS,

The results of the present study show significant gender difference in the adjustment of the secondary school students and has its implication for teachers, educational administrators, curriculum framers, and parents.

The first responsibility of the parents and teacher should be to know the area where the students lack adjustment and try to give better condition for proper adjustment in every sphere. As gender difference exists in all the three area of adjustment i.e., emotional, social, and educational, the school should provide facility for students for their better adjustment in all the three areas.

Proper guidance and counseling services pertaining to all the three area of adjustment profile should be provided and the School environment must be cordial and congenial to students .

- There should be proper provision of co-curricular activities in the school.
- Parents should have knowledge of school environment and facilities before getting their words admitted to school.
- Administrators should appoint well qualified staff.
- Teachers should provide congenial environment and equal opportunities to all students for exploration.

LIMITATION

Though a lot of care had been taken to complete the study and efforts have been made to overcome the difficulties, there still remained certain limitations. A few such are as follows:

- The sample size was small which made generalization of results somewhat questionable.
- The data have been mostly collected from urban places.
- There are many safety and security burden.
- The study sample is distributed in wide geographical area.
- Some students are refused to participate in the study.
- Lack of literature and previous studies relative to the adjustment among secondary school students.

SUGGESTION

Considering all these limitations, some suggestions can be given for further research on the same problems, like:

- Sample should be large enough.
- The data have been equally collected from urban and rural places.

Besides it may have far-reaching implication and may be useful in the formulation of policies to provide effective support services for secondary school students.

REFERENCE

Basu, S. (2012).Adjustment on Secondary School Students'. Scholarly Research Journal for Interdisciplinary Studies. Vol.I.III. .pp-430-438.

Chauhan,V. (2013). A Study on Adjustment of Higher Secondary School Students of Durg Distric .IOSR Journal of Research method in Education. Vol.1.1.

Garrett, Henry E., and Woodworth, R.S., Statistics in Psychology and Education, Ninth Indian Reprint (1779), Vakils, FEFFER and Simons Ltd, Bombay.

Gupta, S.P., Statistical Methods, Thirty Ninth Revised Edition (2010), Sultan Chanda and Sons, New Delhi.

Kothari, C.R and Garg, Gaurav, Research Methodology : Methods and Techniques, Third Edition (2014), New Age International Pvt. Limited, New Delhi.

Raju. M.V.R. & Khaja Rahamtulla. T. (2007)Adjustment Problems among School Student. Journal of the Indian Academic of Applied Pshychology.Vol.33.1.pp-73-79.

Makwana,MD. Kaji, SM. (2014). Adjustment of secondary school students in relation to their Gender. The international Journal of Indian Psychology. Vol.2.1.

Mishra, Usha. Pandey,Suman. (2016).Gender And Adjustment: A Comparative Study of Grade VIII Students. International Journal of Education and Psychological Research. Vol.5.4.pp-23-25.

Rajkumar, G.Saravanun, M.Anbarasi, M. (2016). Effect of Academic-Related Factors on Adjustment Problems in Adolescents. Pediatric Review: International Journal of Paediatric Research. Vol.3.9.pp.683-688.

Ray, Corey. E,Elliott. Stephen, N. (2006) Social Adjustment and Academic Achievement A Predictive Model for Student with Diverse Academic and Behavior Competencies. School Psychology Reviews.

Sinha, A.K.P. Singh,R.P.(2005). Manual for Adjustment Inventory For School Students. Agra

National Psychological Corporation.

Wadhauan ,Kompal .(2018). A Study of Emotional, Social, and Educational Adjustment of Senior Secondary Students of Panchkul. International Journal of Research in Social Science.Vol.8.4.pp.793-803.

Yellaiah. (2012).A Study of Adjustment on Academic Achievement of High School Student. International Journal of Social Sciences and Interdisciplinary Research Vol.1.5.pp-84 94.

SITUATIONAL ANALYSIS OF COMMUNICATION DISORDERS AMONG SILVER CITIZENS : A NEURO-SCIENTIFIC EXPLORATION

***Dr. Santa Misra**

**** Jayasankar Panda**

ABSTRACT

*This paper is a part of PhD research work on Gerontological issues. One of the problems in gerontological issues is hearing loss in age-old persons which is a natural biological processes that needs neuro scientific analysis to foster wellness in older people . Neuroscience has become both a useful tool and a source of theory and development strategy in recent research. Keeping in view of the present scenario on gerontological issues this paper is having its objective to focus on neuro-scientific analysis of communication disorder among old people. Communication disorder refers to the impairment in the ability to receive, send, process and comprehend concepts on verbal, non verbal and graphic symbol systems. A communication disorder may be evident in the process of hearing, language and (or) speech development. It is more crucial in case of old people when they are having hearing loss. For which communication disorder in older people is considered to be a vital area of research now. The factors influencing the communication disorders and the remedies to these difficulties is the focus of this research. In this context attempts have been highlighted on the casual biological factors and their effects on psychosocial manifestation of older people. Analysing the result of 60 sample (collected from SVNIRTAR OPD) based on their neuro-scientific approaches, it is found that difficulties due to hearing loss is influencing psychological, physiological, and social-cultural issues among old people .Accordingly the necessary steps is to be taken from all the sectors of society.***

Keywords : *Gerontological issues, Neuro-Scientific Approaches,Communication disorder, Hearing loss, SVNIRTAR, Bio-psycho-social factors*

INTRODUCTION

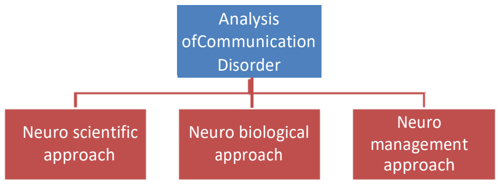
The communication channel leads to an inflection flow in information in which hearing process plays a vital role. In case of old people the communication process in more important than in other stags of the human beings. Even in some cases it leads to fatal effect. So the neuroscientific analysis of communication disorder due to hearing loss is one important factor to analyze. Neuroscience, as stated by Merriam-Webster in Medical Dictionary, is the scientific study of the nervous system. In other words the study of nervous system and the theory & practice of these neural mechanisms, is known as Neuroscience. Traditionally, neuroscience has been seen as a branch of biology. It has now become an inter disciplinary science that collaborates with other fields such as Chemistry, Computer Science, Engineering, Linguistics, Mathematics, Medicine (including neurology), Genetics, and allied disciplines including Philosophy, Physics, and Psychology. It also exerts influence on other fields, such as neuro education (Zull, 2002) and neuro law.

**** Associate Professor and ex - Principal SSS Collegefor Women, Bhubaneswar, Odisha, India*

***Research Scholar*

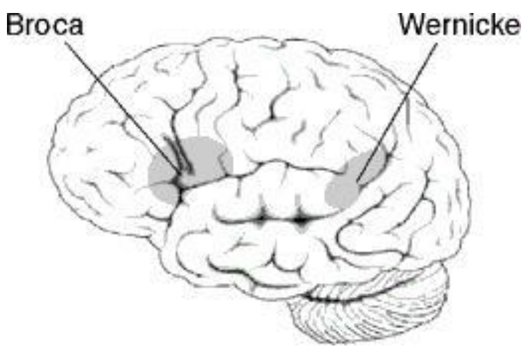
As per its interdisciplinary approach neuroscientific research also deals with Gerontology and geriatric researches consequent upon its neuro management system The focus of the study is to explore on neuro-scientific analysis of communication disorder and its management among old people.

Analysis of Communication disorders in silver citizens



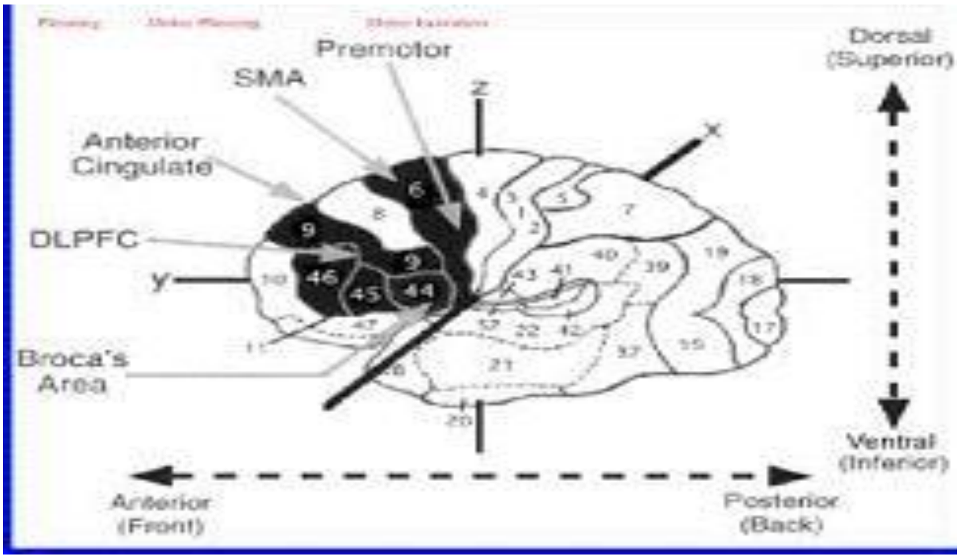
The senior citizens are defined as any person who is a citizen of India and has attended the age of 60 years and above. Hearing loss is a common problem among the older people that not only affects their communication performance but life style as well. Generally, communication performances scales assess communication effectiveness in three-types of situations (social, work and home) and across two types of listening conditions (average and adverse).There are also evidences of gender differences in above issues.

The process of hearing not only involves sensation but perception as well. Neuroscientific approaches have paved the way not only to understand the processes underlying hearing perception in normal persons but also in persons with hearing losses.



Showing the DLPTC

(**Neuroscience Wikipedia)**



Helen Keller is credited with noting that blindness cuts us off from things, but deafness cuts us off from people. The significant impact of hearing loss on communication and interaction with others sometimes, goes unrecognized by healthcare practitioners.

Hearing loss is the most common sensory deficit in the elderly and it is becoming a several social and health problem. Especially in the elderly, hearing loss impairs the exchange of information, thus significantly impacting everyday life, causing loneliness, isolation, dependence and frustration, as well as communication disorders.

Due to ageing of the population in the developed world "Age Related Hearing Loss" is a growing problem as reported, which is reducing the quality of life. The term "Age Related Hearing Loss" refers to the hearing loss that is associated with the cochlear degenerative process of aging by definition. Age Related Hearing Loss also referred to as Presbycusis is bilateral, symmetrical and slowly progressive in nature.

The impact of hearing loss may have a profound consequence on the social, functional and psychological well-being of a person.

Spoken communication often takes place in noisy environments which makes conversation more difficult for older adults with or without hearing impairment (HI; working group on speech understanding and aging, 1988).

Various factors such as peripheral and central processing skills influence speech identification and comprehension ability in older adults (working group on speech understanding and aging 1988, Humes 2007; Humes and Dubno; 2010; Larenzi, Gilbert, Carn, Garnier and Maure, 2006).

The evidence has suggested that the quantity and quality of an individual's social relationship are associated with physical and mental health across the life span (Berkman and Glass, 2000; Cahen 2004 and George, 1989). The absence of social relationship can negatively affect the outcomes associated with both physical and mental health conditions. (Berkman, 1995; Holt-Lunstad, Smith, Baker, Harris, and Stephensan, 2015; Smith, Jacksan, Kobayashi and Steptoe, 2017). Hearing loss consequences can affect emotional well-being leading to degradation in social interaction and can result in reduced quality of life (Ciorca, Blanchini, Peluchi and Poster, 2012, Moser, Luxenberger, and Freidl, 2017).

Coping with hearing loss is different from other disabilities. It is an invisible handicapness. The reactions or behaviours associated with hearing loss may not be apparent, and doesn't guarantee recognition of a disability sometimes.

Hearing loss can create a psychological solitary confinement. Yet many older adults with hearing loss deny the disability or the impact it exerts on their quality of life. The average delay in seeking help following a diagnosis of hearing loss is five to seven years. Thus, a practitioner working with older adults experiencing hearing loss may need to ascertain the individual's stage of acceptance as well as the location along the cultural continuum.

Older adults who are hard of hearing often report that when their hearing loss causes communication problems, the most serious consequences is withdrawal or abandoning participation. The resultant self-talk is predictable: "I can't participate, so I might as well pack it in. I can't contribute, so what good am I?"

Older adults with hearing loss face many of the same fears that anyone with a disability encounters. They worry about loss of significant relationship or jobs or about being perceived as incompetent. Communication breakdown problems may show up in physical symptoms such as tension, exhaustion, and psychological symptoms. With the present set of concepts, this study aims at analyzing the neuro scientific basis of communication disorder as a result of hearing loss among older people.

Rationale:

Communication disorder is impairment in the ability to receive, send, process and comprehend concepts on verbal, non verbal and graphic symbol systems. A communication disorder may be evident in the process of hearing, language and speech development. It is more crucial in case of old people when they are having hearing loss. For which communication disorder in older people with hearing loss is considered to be a vital area of research now.

Objective:

- To explore on neuro-scientific analysis of communication disorder among old people.
- To analyse the factors influencing the communication disorders and how to control them with the remedies to overcome these difficulties
- To study the psychological problems in terms of beliefs and attitudes about hearing loss as a function of degree and type of hearing loss .
- To establish communication effectiveness of elderly people as a function of degree and type of hearing loss.
- To create profile on strategies and intervention on communication skill and psychological problems, of elderly persons with hearing impairment as a function of degree and type of hearing loss.

METHODOLOGY

The study investigates the communication performance of elderly persons with hearing impairment. The sample comprises of 60 adults with acquired hearing loss in the age range of 60-85 years.

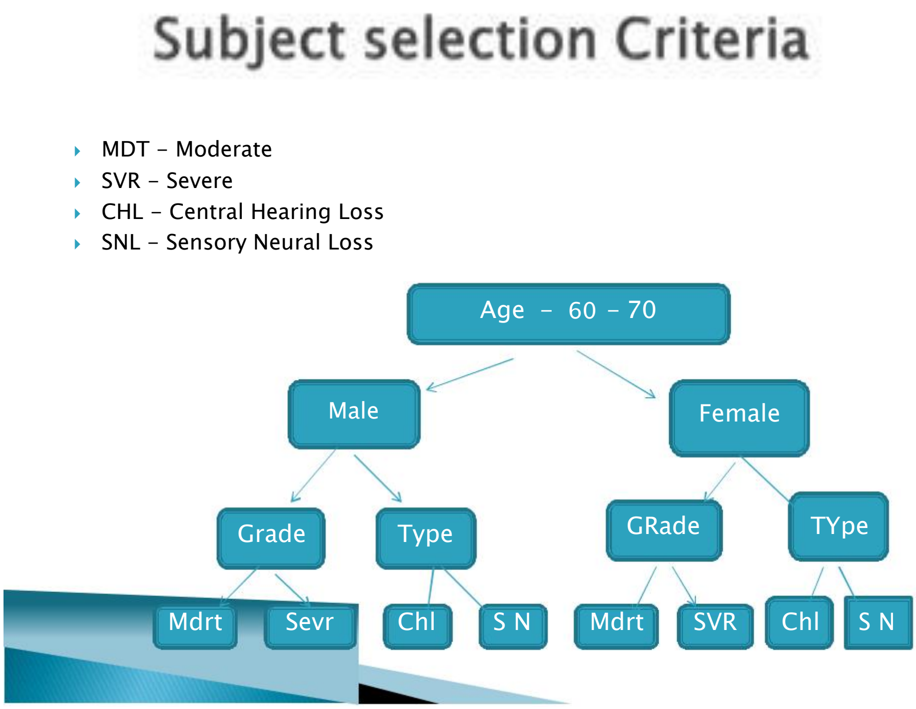
Sample:

The subject were 60-70 : Randomly selected from SVNIRTAR (Swami Vivekananda National Institute for Rehabilitation Training and Research).

Subjects are 49 male and 11 female.

Education-Graduation

Occupation-Retired and Business person



CENTRAL HEARING LOSS

Along with the presence of cochlear hearing loss degeneration along the auditory pathway and auditory areas of the brain can result in loss of auditory processing which is also referred to as central hearing loss or central auditory processing disorders. The compliant of problem in understanding speech in elderly hearing impaired is generally due to a combination of both peripheral and central hearing losses.

SENSORI-NEURAL HEARING LOSS

The loss of hearing due to damage of the hair cells in the cochlea is called as cochlear hearing loss or sensory-ineural hearing loss.

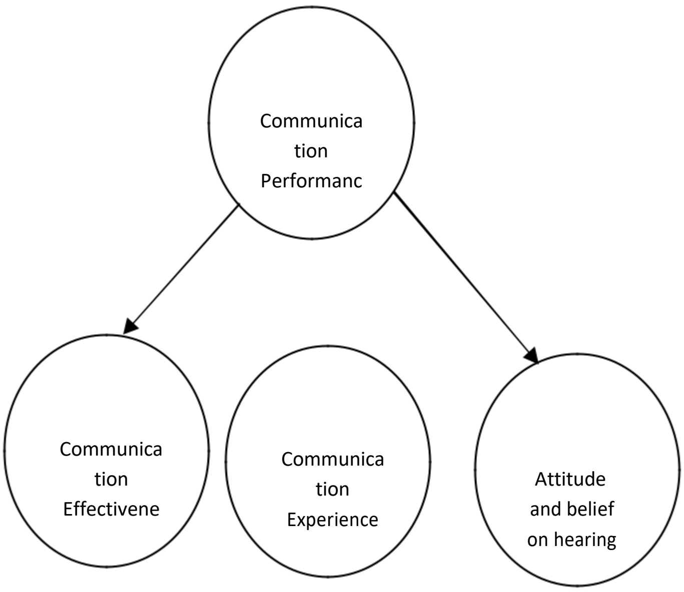
<u>Instrument</u>-

- Physical test (Visual & Orthopedics)
- Audiometric Test by Audiogram for SNHL and CHL
- Communicative skill questionnaire –
- CPHI (Communication Profile For Hearing Impaired), by Demorest & Erdman, 1986))

<u>Procedure:</u>

Training was given based on the task what they were intended to perform. They were trained after undergoing audiological evaluation in the lab of Speech and Hearing department of SVNIRTAR. After that the communication performance was measured by using Communication profile for hearing impaired (CPHI) questionnaire.

Those who are unable to understand the instructions, the details of the instruction were translated in their own languages and were clarified properly. The data was collected based on the answer sheet. The results were recorded and analyzed based on the responses of the subjects and interpreted based on different dependent measures.



Dependent Behavioural Measures

RESULTS AND DISCUSSION

Communication Performance

Communication performance was analyzed at three situations namely social, work and home with respect to degree of hearing loss and gender of subjects. Table -1 depicts the statistical value of communication performance with respect to degree of hearing loss.

Table -1: Communication performance with respect to degree of hearing loss.

Group	Mean	S.D	t-test for equality of Means		
			t	d.f	p-value(1 tail)
Communication Moderate HL Performance Severe HL-social	3.3267 1.7900	0.714 0.524	9.495	58	0.000
Communication Moderate HL Performance	3.3300 1.9400	0.610 0.578	0.052	58	0.000
Severe HL -work					
Communication	3.0667	0.616	5.697		0.000
Moderate HL	2.1993	0.567		58	
Performance					
Severe HL					
-home					

Communication Performance at social situations

The communication performance scores across various social situations of individuals with moderate sensorineural hearing loss indicated a mean score of 3.326 with a S.D. of 0.714, which was better than those with severe sensorineural hearing loss having mean scores1.790 with a S.D of 0.524. It is observed that the t-value of 9.495 is highly significant at 0.0005 level. This indicates that there is a highly significant difference in communication performance at social situations between individuals with moderate sensorineural hearing loss and those with severe sensorineural hearing loss. With advancing age (generally upper middle age i.e over 50 years), individuals tend to have fewer friends and difficulty in making more friends. The presence of hearing loss further heightens this problem. With increase in severity of hearing loss, an elderly person seems to prefer social isolation than social interaction. Similar findings are reported by Weinstein and ventry(1982). Thus, hearing loss when coupled with various personal life situations that are encountered by elderly persons further decrease performance in social situations.

Table-1a: Communication performance and gender

Group	Mean	S.D	t-test for equality of Means		
			t	d.f	p-value(1 tail)
Communication Male	2.5163	0.8745			0.312
Performance Female -social	2.7455	1.4501	-0.504	11.683	
Communication Male	2.6224	0.8214			0.435
Performance Female -work	2.6909	1.3065	-0.167	11.834	
Communication Male	2.6347	0.6741			0.459
Performance Female -home	2.6091	1.0034	-0.104	58	

No significant differences were seen in the mean score for communication performance at social situation in males and females. The t-value was obtained - 0.0504 at p=0.312 indicates that there is no significant difference in communication performance at social situation among the gender.

Communication performance at work situations

The mean score for individual with moderate sensorineural hearing loss in communication performance at work situation was 3.3300 with S.D. of 0.6103 which was higher than the individuals with severe sensorineural hearing loss who had mean scores of 1.9400 with S.D.

of 0.5787. The obtained t-value 9.052 was highly significant at 0.0005 levels. This suggests that there is highly significant difference between moderate and severe hearing loss in communication performance in work situations. Individuals with moderate sensorineural hearing loss function more effectively at work situation and tolerate disturbance in these situations like interference of noise while following instructions, carry on two activities simultaneously and are able to enjoy interpersonal interaction in all situation as compared to severe sensorineural hearing impaired individuals.

There were no significant differences seen in mean scores for communication at work situations among males and females. The obtained t- value is -0.167 at p=0.435 indicates that there is no significant difference.

Communication performance at home situation

It can be seen that the mean for communication performance for home situation for moderate sensorineural hearing loss is 3.0667 with a S.D. of 0.6166 which is higher than for persons with severe sensorineural hearing loss having mean scores of 2.1993 with a S.D. of 0.5699. The obtained t-value is 5.697 is highly significant at 0.0005 level. This suggests that there is significant difference between moderate and severe hearing loss in communication performance at home situations. Person with moderate hearing loss appears to function significantly

Better at home situation than individuals with severe sensorineural hearing loss. Home situation is very important area as it is place where the individuals are engaged in variety of activities at any given point of time such as talking on telephone, watching TV, listening to music, conversation at dining table, etc. These activities require a lot of attention and a fair amount of stress in coping with them for elderly hearing impaired hearing impaired person. The elderly hearing impaired person experience stress in coping with these demanding situations at home, but associated hearing loss increases these stress which further increases with increasing degree of hearing loss. The communication performance of elderly irrespective of degree of hearing loss or varied situations, be it at home front, social, work is found to have difficulties. From Table 1 a. it can be inferred that there is no significant difference among genders for communication performance at home situations.

Table-2: Communication performance- Situation and degree of hearing loss

Group	Mean	S.D	t-test for equality of Means		
			t	d.f	p-value(1 tail)
Condition-Moderate HL Average Severe HL	2.3300 2.5400	0.6407 0.8657	-1.068	58	0.145
Condition-Moderate HL Average Severe HL	2.3667 2.4033	0.6391 0.9122	-0.180	58	0.429
Condition-Moderate HL Average Severe HL	2.2333 3.9933	0.7508 0.6225	-9.884	58	0.000

Adverse and Average conditions

Communication performance with reference to adverse and average situations have been discussed in table 2.The mean value of communication performance at average and adverse conditions for individuals with moderate sensorineural hearing loss is 2.3300 and 2.3667 with the SD of 0.6407 and 0.6391 with is similar to that of individuals with sensorineural hearing loss (mean value 2.5400 with the SD of 0.8657 and 2.4033 with SD 0.9122 respectively). The t-value for Table 2 is -1.068 and -0.180 for adverse and average situations, which do not show significant difference in communication performance. Irrespective of nature of situation, be it adverse or average situations, either at social gatherings, home or work situations, individual with hearing impairment appeared to perform satisfactorily in all these situations irrespective of their degree of hearing loss.

Table-2a: Communication performance – Situations and gender

Group	Mean	S.D	t-test for equality of Means		
			t	d.f	p-value(1 tail)
Condition-Males Average Females	2.4102 2.5455	0.7843 0.6788	-0.528	58	0.299
Condition- Males Adverse Females	2.4571 2.0636	0.7842 0.7131	1.527	58	0.66
Condition-Males Problem Females Awareness	3.0327 3.4727	1.1142 1.1279	-1.181	58	0.121

From table -2a it can be inferred that there exists no difference in mean obtained for average and adverse conditions with respect to gender. The obtained t value –0.528 for average condition and 1.527 for adverse condition do not show significant difference at 0.05 level.

Problem Awareness

The mean value of communication performance for problem awareness among moderate sensory- neural hearing loss is 2.2333 with a SD of 0.7508, which is lower than the severe sensory-neural hearing loss group with mean 3.9933 with a SD of 0.6225. The obtained t-value in -9.884 is highly significant at 0.0005 level indicating that persons with moderate hearing loss are better able to cope with demanding situations, as they do not face much problems as severe hearing loss individuals. Also, the family members and significant other make adjustments to their problems in various situations by talking louder. Hence, they face less problems as compared to person with severe hearing loss. Similar findings are reported by Karlsson, Rosenhall, Erlandsson, Steen(2002).

The above Table-2a indicates no gender differences with regard to problem awareness. The obtained t value -1.181 for problem awareness does not show significant difference at 0.05 level among the gender.

Conclusion and Interpretation:

Communication performances scales assess communication effectiveness in three-types of situations (social, work and home) and two types of listening conditions (average and adverse) along with problem awareness. On the basis of analysing of result by using the SPSS techniques, it is found that hearing loss is an outcome. Hearing loss in elderly is due to degeneration of cochlear nerve which is the outcome of the aging factor.

Hearing loss, when associated with various life situations resulted in social isolation than the social interaction.

The overall situation around the individual is important where the individual are engaged in variety of activities at a given point of time. If the home situation is not conducive it increases the hearing loss which increases the stress of elderly hearing impaired people.

Individuals with moderate sensory neural hearing loss function more effectively at work situation and tolerate disturbance in these situations like interference of noise while following instructions, carry on two activities simultaneously and are able to enjoy interpersonal interaction in all situation as compared to severe sensorineural hearing impaired individuals.

Irrespective of nature of situation, be it adverse or average situations, either at social gatherings, home or work situations, individual with hearing impairment appeared to perform satisfactorily in all these situations irrespective of their degree of hearing loss.

There is no gender difference of the communication performance skill in social, work and home situation.

A highly significant difference is observed between individual with sever sensory neural loss in communication performance at all situations social, work and home, with mild hearing loss, irrespective of degree of hearing loss

Psychological Implications:

Sometimes hearing loss experts a direct impact on mental health resulting in depression and adjustment issues in life situation. Disorder can occur as a natural response to a hearing loss and its subsequent impact on the quality of life. In some people pre-morbid mental health issues in hearing loss simply compounds the problem.

Inability to hear and to discharge message can result in feelings of shame, humiliation, and inadequacy. It can be highly embarrassing to be unable to behave according to applicable social rules. The feeling of shame linked to hearing loss stems from older adults in advertently reacting in inappropriate and society unacceptable ways, such as responding to a misunderstood question in an inaccurate fashion. Older adults may think “How stupid , I must look!” “How embarrassing! Or what will others think?”

Feeling inadequate, stupid, awkward, embarrassed, different, or abnormal are some of the negative emotions that plaque older adults with hearing loss when the condition manifests itself in an unpleasant way. The desire to hide hearing aids often arises from feelings of shame. Hearing aids result in hearing loss being visible. Society’s value on physical perfection and beauty affects everyone, including older adults. For which they felt reluctant to use the hearing aids.

Hence they should be aware of the Neuro scientific base of their hearing loss which leads to their communication disorder and a lot of training and orientation programme, in Govt and Non Govt level should be provided for the neuro-scientific management of their hearing loss that creates problems in communicative processes.

References:

Anand, J.K. And Court, I.(1989). Hearing Loss leading to Impaired Ability to Communicate in Residents of homes for the Elderly. British Medical Journal, 298, 1429-1430.

Berry, P.J. Mascia, and B.A.Steinman. 2004. Vision and hearing loss in older adults: “Double trouble”. Care Manag. J. 5(1): 35-40.

Ciorba, A., Bianchini, C., Pelucchi, S., & Pastore, A.(2012). The impact of hearing loss on the quality of life of elderly adults. Clinical Interventions in Aging, 7, 159-163.

Cohen, S.(2004). Social relationships and health. The American Psychologist. 59(8), 676-684.

Corna, L.M., Wade, T.J., Streiner, D.L., & Cairney, J.(2009). Transitions in hearing impairment and psychological distress in older adults. Canadian Journal of Psychiatry/Revue Canadienee de Psychiatrie, 54, 518-525.

Cox, R.M.(2001). Validation of the SADL questionnaire. Ear Hear. 22(2): 151- 160.

Falkenberg, E-S.(2007). Holistic Aural Rehabilitation: a Challenge. Scandinavian Journal of Disability Research

Fellinger, J., Holzinger, D. Gerich, J.& Goldberg, D.(2007). Mental distress and quality of life in the hard of hearing. Acta Psychiatrica Scandinavica, 115, 243-245.

Fook, L.& Morgan, R.(2000). Hearing impairment in older people: A review. Postgraduate Medical Journal, 76, 537-541.

Garstecki, D.C. and Erler, S.F.(1999). Older Adult Performance on the Communication Profile for the Hearing Impaired: Gender Difference. Journal of Speech, Language and Hearing Research, 42, 785-796.

Harrison Bush, A.L.Lister, J.J.Lin, F. R.Betz, J.& Edwards, J.D.(2015). Peripheral hearing and cognition: Evidence from the Staying Keen in Later Life (SKILL) study. Ear and Hearing, 36, 395-407.

Henrichsen, J.E. Noring, L.Lindemann, B. Christensen, and A. Parving.(1991). The use and benefit of in-the-ear hearing aids. A four-year follow-up examination. Scand. Audiol. 20 (1): 55-59.

Hogan A, O'Loughlin K, Miller P, Kendig H.(2009) The health impact of a hearing disability on older people in Australia. I Aging Health;21:1098-1111.

Lillemor, R.M.Hallberg and Carlsson, S.G.(1991). Hearing Impairment, Coping and Perceived Hearing Handicap in Middle-Aged with Acquired Hearing Loss. British Journal of Audiology, 25, 325-330.

Maurer, J.F.and Rupp, R.R.(1979). Hearing and Aging: Tactics for Intervention. New York, Grune and Stratton.

Myklebust, H.R.(1964). The Psychology of Deafness. New York, Grune and Stratton.

National Sample Survey Organization (2003). Disabled Persons in India (Report No.48 (58/26/1). Ministry of Statistics and Programme Implementation, Government of India

Peelle, J. E., & Wingfield, A. (2016). The neural consequences of age-related hearing loss. Trends in Neurosciences, 39, 486-497.

Stach, B.A. (1998). Clinical Audiology, An Introduction. Singular Publication, 107

Von Leden. H. (1977). Speech and Hearing Problems in the Geriatric Patient. Journal of American Geriatric Society, 25(9), 422-426.

Wax, T. (1983). Poetry Efforts of Aged Deaf: Expression of Life Cycle Experience. Gerontologist, 23, 462-466.

WHO (1980). International Classification of Impairments, Disabilities and Handicaps: A Manual of Classification Relating to the Consequences of Disease. Geneva.

.

SAFETY MANAGEMENT SYSTEM IN STEEL INDUSTRY: A PROPOSED MODEL

*** Prof. Mamata Nayak**

**** Dr.Lalata Keshari Pani**

***** Dr. Barada Prasad Bhol**

ABSTRACT

This paper is part and partial of PhD research works, where a proposed model is suggested for improving the safety in industrial sectors. Safety management system (SMS) emerged from the action-causation theory. Safety management system aims to prevent accident, incident and near miss in the workplace. Safety policy, Safety risk management, safety assurance3 and safety promotion are integral part of safety management system (SMS). SMS benefits the industry by preventive accident and incident, safety practices, safety training, safety officers, safe operating procedures, safe maintenance procedures are the pillars of safety management system. The SMS is grouped in three sequential phases namely, safety planning, safety reengineering and safety prescription. Safety planning includes identification of hazard, hazard analysis and hazard control. It reviews the existing safety system taking safety policy, study of work environment and emergency preparedness into consideration. Safety reengineering includes safety operation procedures, safety maintenance procedures, pollution risk control, and occupational hygiene management to ensure safety, occupational health and environmental pollution. Safety prescription is precisely recommendation of safety audit team.

Keywords: *Safety management system (SMS), safety operation procedure (SOP), safety maintenance procedure (SMP), Measurement of Work Environment, Safety Planning, Safety Reengineering and Safety Prescription.*

1.1 INTRODUCTION

Safety Management System (SMS) have emerged from the action causation theory propounded by H.W.Heinrich in 1931. The function of SMs is to provide an integrated and comprehensive system to manage safety in workplace. The aim of SMS is to prevent the causation process that leads to incident and nearmis. SMS is successful in accident prevention and assumed important in the domain of safety management. The development of safety regulation is an outcome of accident and incident in the workplace. But, such happenings also emphasize for development and planning of SMS in the workplace.

** Associate Professor ,Dept of Computer Science Engg , Purushottam Institute of Engg & Technology, Rourkela, INDIAmamatanayak.rkl@gmail.com*

*** Reader in Commerce , Fakir Mohan (Auto) College , Odisha , INDIA . lalata.pani@gmail.com*

**** Registrar , ISBM University, Chhatisgarh , Chhatisgarh , INDIA baradaprasadbhol@gmail.com*

SMS in industries is claimed as an accident prevention mechanism. The possibility of fire, explosion, and threat of toxic emission is not only a treat to the life of employees but also a threat to the environment. As a result, SMS is a device to develop safety standards, strategies and guidelines to attain safety goals. Safety goals can precisely aim to

I. To prevent unsafe acts

II. To eliminate unsafe conditions

SMS improves the efficiency, effectiveness of accident prevention mechanism. SMS is deemed as a tool, technique and mechanism to address the contingency factors arising out of or in course of employment causing accident in workplace.

Steel industries play a measure role in Indian economy. Steel plants have complex process. The manpower mix of steel industries includes both regular and contract workers. The industries continue with fatal accidents, high profile incidents. Due to the hazards and risks present in the steel manufacturing process the management set high priority in the safety requirement and effective approaches to monitor and control accident.

1.2 Review of Literature

Managing safety is the focal point in safety management. Safety science is an emerging faculty. It is vast and varied. Safety management system theory is oriented towards the organizations management and control process. Safety control is given priority in the safety management process. Occupational health and safety management system is need based approach. It differs process to process. Safety is a problem of an organization. The problem of safety can be addressed by making it relevant and appropriate to the process of organization. Safety strategy should be developed to solve the problem by safety decision. Safety strategy is a solution to the problem of safety.

The system theory is connected with different levels of knowledge generalization. Blom (1997) distinguishes between three systems such as classic, open and self referential. These approaches are based on Luhmann's Letdifferenz, system environment distinction Blom & Hass (1996). Every system is designed to reduce environmental uncertainty. A system must be adaptive to the environment.

According to Bloom 1997 classic approach acknowledges the interaction between environment and the static system. It is assumed that the system is oriented towards internal stability. It is inflexible and insensitive to any change in the operational environment. In other words, the organization of elements is not questioned but determined from inside the system.

open system is defined as a set of elements standing in interrelation among them and with the environment. The relationship between system & environment is dynamic and interactive. Adoption of system to a changing environment is the central issue in an open system. The theory of open system assumes the concept of openers. Within the system the strong elements are preserved and weak elements are eliminated. In this process the system dissolves in the environment.

The self-referential systems perspective (Luhmann, 1990; Maturana, 1980) emphasizes the relationship between system and environment. The system indicates o the realisation of 'Circulatory'. The system's characteristics influence its adaptive capacities. The systems adapt in reference to themselves. The circular relationship between the system's characteristics and its adaptive capacities are highlighted by the concept emergence.

1.3 Components of SMS

There are four pillars of SMS: Safety policy, safety risk management, safety assurance and safety promotion (FAA, 2010). All four pillars must exist in order for SMS to function effectively (Stolzer,et al., 2008). SMS is supported by a cultivated safety culture within an organization. Development and implementation of SMS will benefit employee, employer and the government. Safety practices, safety training and safety officers were deemed to be safety practices that required the most resources. "Safety culture is the engine that drives the organization towards the goal of maximum attainable operational safety regardless of any formats of resistances, obstacles, and pressures" (Lu et al., 2011, p. 29).

Subcomponents of SMS includes

1. Safety policy and organization
2. Safety work procedures
3. Safety training
4. Safety committee meeting
5. Investigation and analysis of accident
6. In house safety rules and regulations
7. Safety promotions
8. Control on contractors for implementation of the requirement of the safety management system
9. Safety inspection
10. Control on safety aspects on fulfillment of maintenance on plants and equipment and process
11. Identification of hazards and hazard analysis
12. Safe use of hazardous material
13. Implementation of occupational health program

14. Preparedness of emergencies
15. Documentation control and management reviews, safety audit

Benefits of SMS

The benefits of SMS may be listed as under:

i. It provides a more active way of identifying hazards
ii. It improves statutory compliance
iii. It addresses risk proactively
iv. It reduces the loss of life and injuries through prevention of accidents
v. It improves the morals of employees by involving in planning phase
vi. It reduces the financial burden of the organization by reducing the direct and indirect accident and incident cost.

1.4 Objective of the study

The study peruses following objectives

1. To review the literature related to SMS
2. To investigate into the issues relating to SMS development and implementation
3. To construct SMS model for steel industry

1.5 Statement of the Problem

Steel industry has grown substantially to support the infrastructure and development of the country. The processes of steel industries are complex as well as hazardous. Although safety regulations and guidelines are available in steel industries, the working conditions are still unsafe and the employees are prone to unsafe acts. Industrial accidents have increased over the period of time. The accident rate and increase in fatality are on rise. There is no specific guideline or master plan to implement to improve the safety protocol. Accident occurs due to non-compliance of statutory provisions by employers. The contract labours working in the steel industry are the victims of industrial accident. It is necessary to develop safety management system to achieve safety goals.

1.6 Scope of the study

The study focuses on exploration of issues related to the development and implementation of SMS in steel industry. The study includes both regular and contract labour working in steel industries.

1.7 Safety Research Methodology

Research methodology has important bearing on the collection of reliable and accurate data. Documentary research method has been adopted in course of study. Survey method has also been adopted to study the components of safety management system (SMS) in steel industry. Safety analysis prevailing in operation and maintenance are also studied in details for construction and recommendation of SMS.

Universe-

The study is restricted to steel industry located in Odisha. Steel industry occupies an important place in national economy. It is the oldest and major manufacturing sector in terms of units and employment. Steel industries contribute substantially towards total values of industrial production makes maximum use of locally available inputs and resources and meet not only the demands of economy but also augment international consumption. In view of the place of industry of national economy, safeties of workers working in the steel industry constitute the subject matter of the study. Components of SMS, safety maintenance and safety operations are also studied.

Sample-

Steel industry is in organized manufacturing industry. The industry is also known for its efficiency and functioning. Following units have been chosen for the purpose of study.

Sl. No.	Name of Organization	Sample taken	
		Workers	Management Representatives
1	Rourkela Steel Plant (RSP), Odisha	120	25
2	Tata Steel, Jamshedpur	80	20
3	Bhusan Power and Steel Limited, Odisha	50	15

Sample Design-

Keeping in view of characteristics of population and variables of the study, stratified random sampling method was used.

The population was stratified as

1. Workers
2. Management representatives

With a view to sufficient representation of each organization, the size of employees were restricted to 250 workers and 60 management representatives includes different categories of workers such as operatives, non-operatives and office bearers of safety committee. Similarly sample of management representatives includes management personnel in different hierarchies in safety departments and management representatives nominated to safety committee including safety officers.

Research Approach-

With a view to achieve the objective of the study, following research approach has been employed.

1. Literature survey to reviewed the system critically
2. The available research on various aspect of safety management
3. Field study to observe the work situation with regard to the safety conditions, unsafe conditions and unsafe acts.
4. Studying of safety records, Annual safety reports and returns, proceedings of safety committee, safety audit reports and safety handbooks of sample organizations.

1.8 Safety System analysis, safety system synthesis and development of safety management system-

The process of developing a model of safety management system is based on a specialized way of thinking. It has undergone following stages:

1. Safety system analysis
2. Safety system synthesis
3. Safety system model

The safety system analysis and safety system synthesis play an important role in the development of model of safety management system. The analysis begins with existing safety system. The analysis of existing system is considered vital as it provides scope to analyse. The strength and weakness of each individual component of whole system were studied in order to solve the related problem. The analysis of present SMS in different steel industry was conducted to visualize the performance of existing system and develop a model for improvement of the system.

Employees, employer and government are main actors of SMS. Employees and employer play a key role in SMS. Government intervenes in the system to provide a broad safety net to the life and property of employees and employers. Employees and employer represent through safety committee. Government monitors the safety management system by the statutory provisions of the Factories Act, 1948, The Employees Compensation Act, 1923, Employees State Insurance Act, 1948., The Contract Labour (Abolition and Regulation) Act, 1986, The Air (Prevention and Pollution) Act, 1981. The Water (Prevention and control of Pollution) Act, 1974. In context of SMS, it includes both regular and contract labour of the organization.

In the context of steel industry sample organization include

Rourkela Steel Plant (RSP)

Tata Iron and Steel Company Limited (TISCO)

Bhusan Steel and Power Limited(BSPL)

The employees and employer of steel industries are the represented by the safety committee. Safety committee is a statutory committee under the Factories Act, 1948. According to the provision of the Act, the employers shall set up a safety committee consisting of equal number of representative of workers and management to promote co-operation between worker and management in maintaining proper safety, health and environment at work. The committee reviews periodically the measure taken in the context of safety, health and environment.

Site appraisal committee is also constituted to advice on the initial location of factory or expansion of the factory involving hazardous process. Site Appraisal Committee consists of

Chief Inspector of Factories & Boiler of the State- Chairman

A representative of Central Board for prevention and control of water pollution A representative from state board appointed under the provision of the water (prevention and control of pollution) Act, 1974.

A representative of central board for prevention of air control.

A representative from the Dept. of Environment in the state.

A representative from the Dept. of Metrological

An expert in the field of occupational health.

A representative from town planning department.

A scientist having specialized knowledge on hazardous process.

A representative from local authority.

Under section 41B of the Factory Act, 1948, the occupier of every factory involving in hazardous process shall disclose information regarding dangers, health hazards and measure to overcome them arising from the exposure of handling of material.Under section 41C of the Factory Act, 1948, every employer is required to maintain up to date health records.

1.9 Development of Safety Management System for Steel Industry

1. **Planning of Safety Management System**

   Safety is defined as freedom from danger, injury or damage. Common hazards in steel plants includes compressed air, explosion, gas hazard, improper lifting of material, fall of pilled material, moving machineries, defecting hand tools, improper use of ladders, removal of guards from machines, mishandling with wire rope and chin slings, working inside the subfloor and in unsafe way of working in roads.

2. **Risk Management**

   A combination of the probability of occurrence of harm and the severity of that harm is referred as risk. Risk may be defined the residual risk and tolerable risk. Residual risk is the risk which is left after the risk reduction process. Tolerable risk is the risk which is accepted in a given control. Risk is analyzed and accessed to evolve risk reduction measures. Risk analysis is a process to use available information to identify hazardous events and to estimate the risk. Risk evaluation is a process in which risk is evaluated on the basis of risk analysis taking the social economic and environmental aspects into consideration. Risk assessment is a process of risk analysis and risk evaluation. Risk in steel industry exists in projection of sharp points, high and low temperature, fire and explosive, lifting of materials, inhalation of harmful chemical agents or biological agents, high intensity light, coherent light and ionizing radiation.

3. **Review of existing system**

   Safety management System (SMS) is a main tool of risk management for reporting hazards and mitigating risk from the operation and support services. The existing SMS comprises of occupational health, environment and safety, safety control measures. Assigning occupational health and employees providing them adequate training and development to ensure safety standard. The occupational health and safety standard is evolved for plant equipment material. The accident, incident are reported and investigated.

4. **Safety Policy and principles**

   Safety policy is the vision document which believes that accident is preventable. All employees are responsible and accountable to maintain the safety standards. Safety standards are incorporated with work procedures. Safety standards are enhanced by the revision of procedures. Safety standards are enhanced through participation of employees and feedback from operations. Continuous improvement in safety performance is needed to realize safety objectives.

5. Standard work procedure

Standard Operating Procedures (SOP) and Standard Maintenance Procedure (SMP) are prerequisites of SMS. The system is not uniform over a period of time. It changeable taking work environment into consideration. The safety program emphasized on identification of risk, assessment of risk and control of risk. The risk relates to hazards associated with process, maintenance, occupational health and environment. Reengineering of work procedure emphasizes on measuring and monitoring of work environment. Evaluation of existing system develops standard work procedure. Standard work procedure controls risk by comparing different types of hazards.

6. Development of occupational health and safety standard

Occupational health is a challenge in steel industry. The employees are exposed to electrical hazards, pressure hazards, and thermal hazards. Control of specific work risk are adopted by following physical agronomics, transport safety, electrical hazard management, proper hygiene of employees are maintained as a part and parcel of risk control. Proper traffic management, housekeeping, management of personal protective equipments, pollution risk control, occupational hygiene management are taken up by the management for the development of occupational hazard and safety standard.

7. Contract workers occupational health and safety program

Contract workers are inseparable part of the total human resource working in steel industry. According to statutes the principle employer is liable to provide safety, health and welfare to the contract labour. The occupational health and safety standard has been modified after modernization. The safety standard for new modified and changed plant training is imparted to employees, supervisors, team leaders, Senior managers, directors and contract labours. On the job health and safety training program is also conducted for contract labour on right spirit.

8. Work environmental measurement and monitoring

Assessment of work environment is the basis of safety management system. Work environment are assessed and measured by supervisors, team leaders. The hazardous substances and dangerous goods used in the process are also assessed. The work environment includes the civil and mechanical structures, pasting of notices, signs, labeling and coding of plants, pipelines, etc. It also includes access to facilities and equipments. Proper housekeeping, pollution control are also silent features of work environment measurement and monitoring.

9. Pollution risk control, occupational hygiene management, emergency preparedness

In steel industry is a Process based industry. Air and water pollution are two basic form of pollution. Pollution risk control measures are tailor made with the process of steel industry. Industrial waste management program has been developed to treat the waste water before inter mingling with the river. Occupational hygiene management is adopted by regular health check up of both regular and contract labours. The health data of each employee is recorded and monitored by qualified medical practitioners and health workers. The steel plants also maintained a multi specialized hospital for their employees and their dependents. Emergency preparedness includes generic control by nominated emergency. There is arrangement of medical emergency named as First Aid. It is functioning in steel plants to meet the casualties or injuries arising out of fire and explosion or otherwise. Emergency preparedness is also available for hazardous substances and dangerous goods. Security arrangement is also taken by steel producing unit for protection of property.

10. Development of safety strategy-

Safety strategy is a method to address the problem of accident. Equipments, materials, machines, work methods are the important components of safety strategy. It elaborates occupational health and safety responsibilities, authorities and duties of each member of the organization.

i. Safety Committee- Safety committee is a statutory committee functioning in every steel manufacturing committee. The committee comprises of equal number of employees and employers. The committee needs as frequency as possible to initiate discussion to determine safety action plans and focus on implementation of the same. Recommendation of safety committee is a voluntary bipartite effort to ensure safety occupational health and pollution free work environment. It is irony to note that the decision taken in safety committee is not mandatory in the part of employer.

ii. Audit- Safety audit is an instrument of safety control. In steel industry, there is an initial survey in which site inspections are done, documented. Discussions are also held at different labels of management between employees and inspectors in order to access the safety management system. Basing on SMS a continuous improvement action plan is submitted to each shop floor for implementation, review and feedback. The progress is reviewed jointly by shop coordinators and head of safety department. Midterm audit is carried out to evaluate the progress in context of occupational health and safety and environment. Final audit is conducted annually basing on record of safety schedules, ongoing safety programs, procedures and performance of shop. Annual edit is conducted by external agency. Discussion at all labels and shop floors are conducted and reviewed the recommendation of safety committee are implemented. Audit report is submitted by external audit agency. The deficiencies pointed out by the external audit committee are noted for rectification. It is recommended for appropriate quarters for compliance.

iii. Housekeeping- Housekeeping covers shop floors, inventory units, stockyards for the purpose of safety. Housekeeping is an important part of Process Hazard Analysis (PHA). The scope of analysis is differs from shop to shop. The responsibility of housekeeping is to prevent incident which could result multiple injuries, fatalities and property damage, etc.

iv. Road Safety- Road safety is a challenge in steel industry. There are three factors responsible for road accident. Those are road conditions, condition of vehicle plying on the road and unsafe human practices. A comprehensive system is adopted by safety department in association with C.I.S.F (Central Industrial Security Force) to exercise check at various locations and record the observations. The C.I.S.F enjoys the power to debar entering of such vehicles for certain periods. The civil engineering department undertakes continuous repair and maintenance by WBM (Wearing off Blacktop) surface. Haphazard parking of vehicles are not allowed. Proper lighting of plant area is also undertaken by the maintenance department. It is an establish fact that 80 percent road accident occurs due to the fault of drivers line over speeding, failure to follow land discipline, failure to maintain safe distance, discard of traffic sign and signals are some of the factors for road accidents. Adequate precautions are taken for maintaining safety in the workplace.

v. Material Handling- Institute of Hazardous Material Management defines hazardous material as an agent (biological, chemical, radiological and/or physical) which has potential to cause harm to human, animal or environment either by itself or by interaction with other agents. OSHA maintains that material hazard of any substance which may either a health hazard or physical hazard. In case of steel industry, material hazards are mostly concerned with material handling and to be managed by material management professionals. Material handling hazards cause injury to the workmen. It also causes acute trauma to the workmen. It may cause physical hazard and health hazard. In case of steel manufacturing industry, material handling is a core function of Safety Department to prevent material related hazards.

vi. Safety Management Information System-Safety management information system is a comprehensive program to document safety data and information. Safety data includes risk survey engineering risk control, administrative risk control, standard work procedure review, occurrence reporting and investigation, information management are some of the important aspects of safety statistics. Safety strategy is designed by taking the help of safety management information system (SMIS). SMIS plays an important role in monitoring different hazards namely pressure, electrical, t5hermal, electromagnetic and gravitational hazardous.

11. Safety job satisfaction

Measurement of safety job satisfaction is a part of behaviour based safety. Behaviour based safety assumed importance in domain of industrial safety. Safety practices results in job satisfaction. Poor safety practices result low level of job satisfaction. Adequate safety standards, low rate of accident, incident and near miss promotes job satisfaction. Steel industry tries to minimize injury in work maintains lifting tools, regular examination of pressure vessels, precaution on working on gas proper safety supervision. Safety induction program for contract labours. Permit to work on acid pipelines, height pass and compliance of statutory provision under Factories Act 1948, use of PPEs, road safety inside plant, crane limit switch, and etc. made workmen satisfied on the safety aspect of their job.

12. Positive Attitude of employees towards Safety Management System

Employees attitude are vital to safety management system of an organization. Attitude may be positive or negative attitude. Positive attitudes are referred as favourable attitude. On the other hand negative attitude are referred as unfavourable attitude. Attitude is the sole of safe performance in the workplace. SMS minimizes unsafe acts and unsafe conditions. Safety study must be conducted periodically to indentify the attitude of workers in the workplace. The safety survey revealed that the workers working in steel industry have favourable attitude towards SMS.

13. Lower rate of accident, incident and near miss

Incident, accident and near miss are the parameters of safety in an organization and steel industry is not an exception to it. Safety strategy includes safety operation and safety maintenance both the safety incident and near miss. Behaviour based safety has been successful in minimizing unsafe acts. Safety training basing on the problems of workstations and jobs are able to minimize rate of accidents.

14. Safety Culture

Safety culture is learning as well as adaptive culture. It can be established without proper safety reporting and informed culture. Safety culture requires a cultural change. It is a pradigmship of existing organizational culture to a modified safety organizational culture.

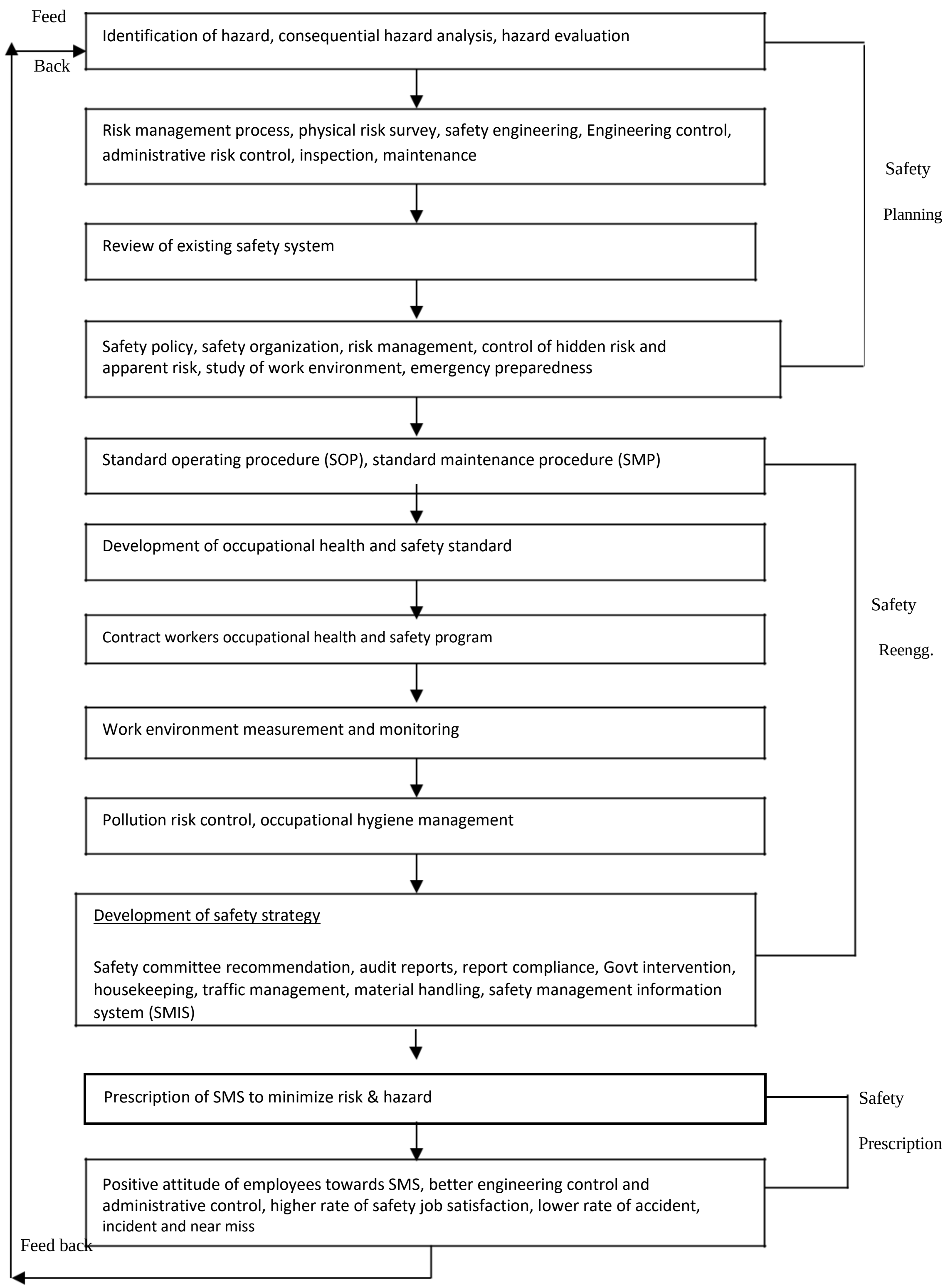
15. Safety Assurance

Safety assurance has three important components.

i. Safety awareness among the employees
ii. Safety job satisfaction of employees
iii. Attitude towards SMS

These components in combination enhance safety knowledge, safety attitude of employees. Safety assurance build higher safety job satisfaction and better motivation, safety training, safety work procedure, safety maintenance procedure, safety officers and safety committee are pillars of SMS. Cost is important factor of SMS in steel sector. Management adapts safety as both principle and practices.

Model of Safety Management System for Steel Industry



1.10 Discussion and Conclusion

Safety is a challenge before every industry. Safety strategy is mostly technology driven. Human participation can minimize accident in the workplace by safe acts while executing their job in the workplace. Safety management system analyses the problem of safety in steel industry and prescribes the system model for minimizing accident. Similar studies may be conducted in other industries to address the problem of accident. SMS is industry specific but it has advantages of its own. SMS is prescribed at a point of time not over a period of time. The variables of safety must be analyzed in the context of technology, process, maintenance and deployment of skilled man power in the industry. The man power must have higher degree of safety job satisfaction (M.Nayak & B.P.Bhol, 2018), and positive Attitude towards (M.Nayak & B.P.Bhol, L.K.Pani, 2018) safety management system. The system recommendation to the safety professionals working in steel industry have appreciated the system and recommended for their practice.

REFERENCES

Blom, C. (1997). Complexiteit en Contingentie [Complexity and contingency]. Kampen: Kok Agora.

Blom, C., & Haas, B. (1996). De ondragelijke lichtheid van systemen [The unbearable lightness ofsystems]. Tijdschrift voor Sociologie, 17(2), 187-204.

Boulding, K. E. (1956). General systems theory-the skeleton of science. Management science, 2(3), 197-208.

Bourrier, M. (2005). The contribution of organizational design to safety. European Management Journal, 23(1), 98-104.

De Sitter, L. (1994). Synergetisch produceren: Human Resources Mobilisation in de produktie een inleiding in structuurbouw. Assen: Uitgeverij Van Gorcum.

De Sitter, L. U., den Hertog, J. F., & Dankbaar, B. (1997). From complex organizations with simple jobs to simple organizations with complex jobs. Human Relations, 50(5), 497.

Dekker, S. W. A. (2005). Ten Questions about Human Error. New York: Lawrence Erlbaum.

European Union. (2012). Directive 2012/18/EU: on the control of major-accident hazards involving dangerous substances. Official Journal of the European Union, 179(2).

Flyvbjerg, B., Bruzelius, N., & Rothengatter, W. (2003). Megaprojects and risk: An anatomy of ambition: Cambridge University Press. Federal Aviation Administration, (n.d.). FAA flight plan.Retrieved from website, http://www.faa.gov/about/plans_reports/media/flight_plan_2009-2013.pdf

Gay, L. R., Mills, G. E., & Airasian, P. (2012). -Educational research: "Competencies for analysis and applications." (10th ed.). Boston: Pearson.

George, K. W. (2013). Economic modeling to improve estimates of the benefits of safety management systems. Collegiate Aviation Review, 31(1), 128-139. Retrieved from https://elearn.mtsu.edu/d2l/lms/content/viewer/main_frame.d2l?ou=4520532&tId=27813690

Grote, G. (2007). Understanding and assessing safety culture through the lens of organizational management of uncertainty. Safety Science, 45(6), 637-652.

Grote, G. (2012). Safety management in different high-risk domains-All the same? Safety Science(50), 1983-1992.

Guldenmund, F. W. (2000). The nature of safety culture: a review of theory and research. Safety Science, 34(1), 215-257.

Hale, A. (2003). Safety management in production. Human Factors and Ergonomics in Manufacturing & Service Industries, 13(3), 185-201.

Hale, A., Heming, B., Carthey, J., & Kirwan, B. (1997). Modelling of safety management systems. Safety Science, 26(12), 121-140.

Heylighen, F., & Joslyn, C. (2001). Cybernetics and second order cybernetics. Encyclopedia of physical science & technology, 4, 155-170.

Hollnagel, E. (2004).- "Barriers and Accident Prevention." Hampshire: Ashgate Publishing Company.

Hollnagel, E. (2012). Fram: The Functional Resonance Analysis Method, Modelling Complex Socio-Technical Systems. Farnham: Ashgate Publishing.

Hollnagel, E., & Goteman, O. (2004). The functional resonance accident model. Paper presented at the Cognitive System Engineering in Process Control, 4 - 5 Nov, pp. 155-161.

In't Veld, J. (2002). Analyse van organisatieproblemen [Analysis of organizational problems].Leiden/Antwerpen: Stenfert Kroese.

International Civil Aviation Organization. (2012). Doc 9859 AN/474: safety management manual.

Kelly, K. (1994). Out of control: The new biology of machines, social systems, and the economic world: Perseus.

Kramer, E. H. (2004). Organizing doubt: Self-organization and army units in crisis operations. Doctoral dissertation: Eindhoven University of Technology

Kramer, E. H. (2007). Organizing doubt: grounded theory, army units and dealing with dynamic Complexity. Copenhagen Business School Press.

Kramer, E. H., de Waard, E. J., & de Graaff, M. C. (2012). Task Force Uruzgan and experimentation with organization design. In R. Beeres, J. V. d. Meulen, J. M. M. L. Soeters & A. L. W. Vogelaar (Eds.), Mission Uruzgan. Amsterdam: Amsterdam University Press

Kuipers, H., Amelsfoort, P., & Kramer, F. J. (2010). Het Nieuwe Organiseren: alternatieven voor de bureaucratie. The Hague: Acco.

Lercel, D., & Patankar, M. (2011). Applicability-based model for SMS compliance by Part 145 repair stations. Center for Aviation Safety Research, Saint Louis University: Parks College of Engineering, Aviation and Technology.Lercel, D., Steckel, R., Mondello, S., Carr, E., & Patankar, M. (2011). Aviation safety management systems return on investment study. Center for Aviation Safety Research, Saint Louis University: Parks College of Engineering, Aviation and Technology.

Luhmann, N. (1990). Essays on self-reference. Columbia Univ Press.

Luhmann, N. (1995). Social systems. Stanford University Press..

Ministry of Defense (2008). Eigen vuur incidenten tijdens operatie Kapcha As, 12-13 [Friendly fire incident during operation Kapcha As]. Letter from the minister of Defence to the Dutch parliament.

Ministry of Defense. (2010). Veiligheidsmanagement bij defensie: een blauwdruk voor belegging en verankering [A blueprint for safety managament at the ministry of Defence].

Mintzberg, H. (1993). Structure in fives: Designing effective organizations: Prentice-Hall

Modig, N. (2007). A continuum of organizations formed to carry out projects: Temporary and stationary organization forms. International Journal of Project Management, 25(8), 807-814.

Moorkamp, M., Kramer, E. H., Gulijk van, C., & Ale, B. J. M. (2014). Safety Management within Task Force Uruzgan: a report on working with Unmanned Aerial Vehicles. In R. D. J. M.Steenbergen, P. H. A. J. M. Van Gelder, S. Miraglia & A. C. W. M. Vrouwenvelder (Eds.), Safety, Reliability and Risk Analysis: Beyond the Horizon. Boca Raton, FL: CRC Press.

Nayak, M. Bhol,B.P., & Pani,L.K. (2017).-“ Safety Job satisfaction of Employees working in Rourkela Steel Plant:IJMER” Vol-6,Issue4(8), pp-34-47

Nayak,M., Bhol,B.P., & Pani,L.K.,(2018). “Safety Climate in Rourkela Steel Plant: IJMER” Vol7,Issue5(3),pp- 228-243

Nayak, M., Bhol, B.P., & Pani, L.K. (2018). “Workplace Hazard Identification in Steel Industry: study in Rourkela Steel Plant, IJMER” Vol7,Issue10(1),pp- 203-2237

Perrow, C. (1999). Normal Accidents: living with high-risk technologies. Princeton: Princeton University press.

Rasmussen, J. (1994). Risk Management, Adaptation, and Design for Safety. In B. Brehmer & N.E. Sahlin (Eds.), Future Risks and Risk Management. Dordrecht: Kluwer.

Rasmussen, J. (1997). Risk management in a dynamic society: a modelling problem. Safety Science, 27(2-3),pp- 183-213.

Reason, J. T. (1997). Managing the risks of organizational accidents (Vol. 6): Ashgate.

Reiman, T., & Rollenhagen, C. (2011). Human and organizational biases affecting the management of safety. Reliability engineering & systems safety, 96(10), pp-1263-1274.

Robson, L. S., Clarke, J. A., Cullen, K., Bielecky, A., Severin, C., Bigelow, P. L., et al. (2007). The effectiveness of occupational health and safety management system interventions: a systematic review. Safety Science, 45(3), pp-329-353.

Roe, E., & Schulman, P. (2008). High reliability management: Operating on the edge: Stanford Business Books.

Roed-Larsen, S., & Stoop, J. (2012).” Modern accident investigation: four major challenges. Safety Science,” 50(6), pp-1392-1397.

Stacey, R. D. (1993). Strategic management and organisational dynamics: The challenge of complexity: Prentice Hall.

Trist, E. (1980). The environment and system-response capability, Futures, 12(2), pp-113-127.

Odisha Journal of Social Science, Vol.6, Issue-2 July, 2019

CHALLENGES & SUGGESTIONS IN TEACHER EDUCATION

*** Cyma Anjum**

ABSTRACT

Education has a very significant role in developing an individual to the level of perfection by drawing out the best citizen from him and the best human being from him. Education is a lifelong process and without the help of a teacher it will be incomplete. Teacher preparation has been a subject of discussion at all levels, from the government, ministries, regulatory bodies, monitoring institution, schools, to teachers themselves. The development of any nation deeply depends on the quality of its education system, which is highly dependent on the quality of its teachers. Some problems are cancering the system of teacher education so the teachers should be given the most appropriate tools during and after their training, including content knowledge and skills as well as teaching methodology to be able to do their work professionally. Efforts have been made to highlight the major challenges and their suggestions to resolves them, these suggestions will be helpful to educationist, Policy Makers, universities and colleges to improve the quality and standard of teacher education.

Keywords: *Education, Teacher Education, Challenges and suggestions.*

INTRODUCTION

Indeed the learner occupies the centre of the education system. The needs, interests, level, age and potentials of the child are taken into account. Now the process of education is not the process of inputting something to the head, but drawing out from the child. Teachers assess the nature of the students, watch their natural interests, encourage potential in them and inspire them to bring out the best in them. Teacher education is a programme that is related to the development of teacher proficiency and competence that would enable and empower the teacher to meet the requirements of the profession and face the challenges therein. It is a well known saying that **“Teacher is the nation builder”**.

Teacher education means all the formal and non-formal activities and experiences that help to qualify a person to assume responsibilities of a member of the educational profession or to discharge his responsibilities more effectively. The quality of education depends upon the quality of the teacher.

** Asst.Professor L.N.M.B.M.(B.Ed.Course)*

The National Council for teacher- education (NCTE) is a regulatory body which Control the functioning of these institutions and prevent them from becoming Commercial (money making) institutions, but because the country is so diverse with innumerable institutions, it sometimes get difficult to monitor all the institutions. Some unscrupulous institutions have become simply money making centre and produce certified but incompetent teachers which is a matter of great concern because incompetency of teachers are continuously deteriorating the system of education.

Selection procedure of teacher education should be controlled by governing body, NCTE and the affiliating universities. No admission should be allowed on management seat without proper selection procedure. A good selection procedure would not only improve the quality of teacher education course but also provide a suitable candidate for this noble work.

Some suggestions are as under:

- Test of General Knowledge should be applied.
- Test of school subjects.
- Test of intelligence should be administered.
- Test of language.
- Aptitude; interest and attitude inventory should be administered.
- Candidate should be interviewed.

There is a considerable lag between the demand and supply of teachers. The State Education Department has no data on the basis of which they may work out for the desired intake for their institutions. This has created the problems of unemployment and underemployment and creates student unrest.

With regard to the deficient in facilities for student -teacher we are aware that teacher education is the cornerstone of education even then it is treated as step-son of by the centre and state governments, Education department in India. Around 20 percent of the government teacher education institutions are being run in dilapidated buildings without any facility. An experimental school or laboratory, library and other equipments are necessary for a good teacher education department. There are no separate gender wise hostel facilities are available for student. Lack of Facilities for Professional Development. Most of the programmes are being conducted in a routine and unimaginative manner. Even the association of teacher educators has not contributed anything towards development of a sound professionalization of teacher education in the country.

Problems of Practice Teaching: Practice teaching is the most important part of this programme but in spite of all kinds of elaborate arrangements regarding practice in teaching, student teachers are non-serious to the task of teaching, deficient in sense of duty irresponsible, aimless, indifferent to children, lacking innovative measure in teaching which are great obstacles in the development of pedagogical skills. So much so the practicing schools are not available to the students because the period of practice teaching has been meaninglessly enhanced and the numbers of schools are less in comparison to the teacher education institutions. Government schools are not willing to this provide facility because their own teachers become sluggish and remain out of school and even their discipline order is affected.

Problem of Supervision of Teaching: The supervisory organizations for practice teaching aims at bringing improvement in the instructional activity of the student teachers by using various techniques and practical skills in teaching and help them to develop confidence in facing the classroom situations. It aims at guiding in planning their lessons, learning to organize contents, formulating suitable gestures and developing other related skills. At present the lesson plans are checked superficially and no discussion is made by the subject method specialist. Incompetency of Students and Teachers The current training programme does not provide proper opportunities to the student teachers to develop competency because the organizers of teacher's training programme are not aware of the present problems of schools. So there should be a close matching between the work schedule of the teacher in the programme and school adopted for teacher preparation in a training college.

Defects in Concerning Papers: A student teacher should know the meaning of education, its objectives, the socio-cultural and politico-economics background, the principles that guide construction of curriculum etc. Following steps may be taken in this connection:

I. allowing more time to learners for good reading and sound build-up of the intellect and attitude,

II. pruning the existing course

III. arranging for exchange of experience than merely attending lectures,

V. the content must have direct implications in the daily school teaching.

Poor Academic Background of Student-Teachers: Most of candidates do not have the requisite motivation and an academic background for a well deserved entry in the teaching profession. They take admission in teacher education programme because they could not take admission in their desirable course due to low performance in such field. So after taking admission in teacher education programme they show poor performance.

Quality Concern of course: Quality in education relates to the quality of the work undertaken by a teacher, which has significantly effect upon his or her pupils. Teacher education has not come up to the requisite standards. Teachers are not able to think critically and solve the issues related to teaching methods, content, organizations etc. more knowledge of theoretical principles is emphasized and teachers are not able to use these principles in actual classroom situations.

Deficient in Curriculum of the Teaching Subject: Curriculum of teacher education programme in our country has long been the subject of criticism. Some educationists feel that it does not fully address the need of contemporary Indian Schools and society and it does not contain relevant contents for teachers who are to impart quality education in school.

Segregation of Teacher's Education Department: As has been observed by education commission, the teacher education has become segregated from schools and current development in school education. The schools consider the teacher education department as an alien institution and not a nursery for the professional development of school teacher. These departments only observe the formality of finishing the prescribed number of lessons no caring for the sounders of pedagogy involved in the procedure. No attempt has been taken to resolve these issues.

Inadequate Empirical Research: Research in education has been considered only for degree sake. The researchers are being carried on in the faculty of Education of different states Private or Government universities of low quality. Before undertaking any research, the teacher programmes are not studied properly.

Faulty Teaching Method: In this country teacher educators are averse to experimentation and innovation in the use of teaching methods. Their acquaintance with modern class-room communication devices is negligible.

Lack of Subject Knowledge: The teacher training programme does not emphasize the knowledge of the basic subject. The whole teaching practice remains indifferent with regard to the subject knowledge of the student teacher. Some other problems of teacher education are mentioned below:

- Poor standards with respect to resources for colleges of education.
- Unhealthy financial condition of the colleges of education.
- Negative attitude of managements towards development of both human as well as material resources.
- Traditional curriculum and teaching methods in the teacher education programme.
- Lacking in feedback mechanisms.
- Objectives of teacher education not understood.
- Secondary level teacher education is not the concern of higher education.
- Lack of dedication of student-teacher towards the profession.
- Unplanned and insufficient co-curricular activities. j. Haphazard and improper organization of teacher education.

Conclusion and Suggestions: The following are some suggestions for improving the condition of teacher education:

- Teacher education institutions should be put under strict control of this regulatory body (NCTE) for the selection of teacher, students and provisions of good infrastructure etc.
- Working of Teacher education institutions should be examined from time to time and strict action should be taken if they fail to come up to expected level. Privatization of
- teacher education should be regulated.
- Affiliation condition should be made strict.
- There should be a planning unit in each State Education Department. The function of this unit should be to regulate the demand and supply of teachers at various levels of schools.

This unit can also be given the responsibility of projecting future requirements of teachers in various categories.

- Educational institution should be equipped with facilities for organizing various types of activities such as daily assembly programmes, community living, social work, library organization and other curricular activities, which promote democratic spirit of mutual appreciation and fellow feeling, human values, no hatred, love all.
- The practicing schools have to be taken into confidence. For this the members of the staff of teachers colleges should be closely associated with the schools. The course of studies and the practical work and practice teaching can be easily moderated in such a way that they will have useful implications for improving school practices.
- Selection procedure must be improved and interviews, group discussions along with common entrance test and marks should be introduced. Educational institutions should be graded according to the standards of the institution and admission should be allowed according to standard of the institutions.
- Teacher educators must be well qualified and experienced with language proficiency.
- Curriculum of teacher education programme should be revised from time to time according to changing needs of society.
- The quality of teacher education programme should be up graded. Teacher education programme should be raised to a university level and that the duration of programme should be appropriately enhanced.
- There should be a free exchange of scholars from one improve the quality of teacher education programmes immensely.
- For professional growth of teacher educators there should be seminars, summer institutes and research symposia at more frequent intervals.
- Correspondence courses in teacher education should be provided, with a strict and high screen for admissions and a rigorous manner of assessment.
- Teachers should be able to think critically make right decisions and maintain harmonious relations with others.
- Evaluation Teacher education, like technical education and higher education must be the responsibility of the central government.
- Among teacher education institutions uniformity must be ensured and maintained in terms of timings of the programme, curriculum and duration.
- Several types of co-curricular activities in the curriculum should be included.
- Government should look after the financial requirements of the institutions.
- Teacher educators must be experienced and well qualified with language proficiency.
- On practice teaching more emphasis should be given till mastery is reached with appropriate feedback.
- Refresher course should be organized for teacher educators frequently.
- Teacher pupil ratio should be ideally 1:8.
- Internship in teacher education should be objective, reliable and valid.

However there are so many problems in teacher education programme but so many government bodies as NCERT, NCTE, NAAC, NUEPA etc. are trying to resolve these problems by different type of panel inspections on time to time of teacher educational institutions. Now it is mandatory for every institution to accredit by NAAC otherwise the affiliation of that institute will be cancelled. Kothari commission rightly remarks "**The destiny of India is being shaped in its classrooms**." No doubt education plays a significant role in nation's development but the quality of education is greatly determined by the quality of teachers, therefore, great efforts were made and still are being made to improve the quality of teacher education.

REFERENCES:

Aggarwal, J.C. (1996). Essentials of Educational Technology. , New Delhi: Vikas Publishing House. Chobe, S.P., & Chobe, A. (2006). School Organization.

Noida: Mayur Paperbex. Vashist S.R. (2003). Professional Education of Goel D.R. and Chhaya Goel (2012). "Teacher Teachers. Jaipur: Mangal Deep. Education Scenario in India: Current Problems &
www.google.com http://archive.mu.ac.in/myweb_test/ma%20edu/Teache Concerns",
„MIER Journal of Educational Studies, Trends & Practices‟, Vol. 2, No. 2, pp. 231-242.

FOLK TREATMENT FOR ASTHMA BY BHUYAN TRIBES OF SUNDARGARH DISTRICT, ODISHA.

***Dr. Julie Das**

ABSTRACT

The indigenous medicines practiced by different tribes of our country tend to be more medicinal and less dietetic, more curative and less preventive by nature. The tribal people particularly Bhuyans have pharmacopoeia of their own for their manifold diseases like asthma, diabetes, malaria, leprosy, scabies, venereal diseases, bowel complaints, cold and influenza, cholera, small pox, diarrhoea, ophthalmic (eyes related) diseases.

Keywords: *Bhuyans, encyclopaedia, asthma, medicine men, allopathy, Malabar Nut, Devil tree, Coral swirl, Sage-leaved Alangium, Marselia, Sacred fig, Clove, Prickly Poppy, Black Pepper, Wood Apple, Elephant Apple.*

INTRODUCTION:

Encyclopedia defines "Medicine" as a social institution. If that be so, then the medicine man is the prime office-bearer of that institution. In a primitive society, the medicine is not considered as something administered into the body system, but as a series of processes that is followed by the medicine men to gather will-power and courage in taking the medicine and obtaining positive results.

The tribal medicine men are regarded as traditional healers in their own respective societies. They do not belong to any specific school such as Allopathic, Ayurvedic or Acupuncture etc. Moreover there is no written body of knowledge, no systematic information and no unanimity in theory and practice. However, the tribal medicine men in the sample study have cured various types of diseases such as headache, stomach-ache, rheumatism, asthma, T.B., Bone fracture, Skin diseases, hernia, jaundice, fever, snake-bite, eye diseases, piles, fits, dysentery, diarrhea, diabetes etc.

**Lecturer in Botany, Kalyani Ray Mahavidyalaya, Rourkela,* email-juliedas92@gmail.com, *M-9438112577*

It has been found that Sundargarh district has 4182 number of heavy industries like (RSP) many sponge iron plants and other allied industries. As the district faces industrial pollution and reduction in green covers, many people of the district including Bhuyan pockets are affected by asthma and other bronchial diseases. This is as per the records of the local hospitals. A detailed perusal of ethno botanical records in the area reveals that several studies have been made by Jain (1971), Choudhry *et al* (1985), Prusti and Panda (1992) Satapathy and Panda (1992),Das *et al* (2003), Acharya *et al* (2008, 2010).

However no detailed report in respect of ethno medicines by Bhuyan tribes has been prepared. Therefore this investigation attempts to document first the various ethno medicines used by Bhuyans in curing asthma and allied diseases in Sundargarh district. Asthma is a respiratory condition marked by attacks of spasm in the bronchi of lungs, causing difficulty in breathing. It is usually connected to allergic reaction or other forms of hyper sensitivity. A common lung disorder in which inflammation causes the bronchi to swell and narrow the air ways, creating difficulties that may range from mild to life threatening. Symptoms include shortness of breath, cough, wheezing and chest tightness.

REVIEW OF LITERATURE

In recent times, with the increased knowledge of life and culture of tribal communities, the social scientists are taking interest in ethno medicinal studies. Many works have also been reported, especially the rural and tribal communities of India by Bhadra & Tirkey (1997), Sharma Thakur (1997) and Choudhury (2000).

Attempts have been made all over the world since beginning of the 20th century to conduct ethnobotanical studies by Rao (1996), Kumar (2002), Nazir *et al*. (2007), Tripathy and Behera (2007), Sharma *et al*. (1992) and Satapathy, (1996).

The World Health Organisation (WHO) Traditional Medicinal Programme by Farnsworth *et al*, (1985) has provided the evidence that ethno medicinal information can lead to valuable drug discovery. A total of 122 compounds, 80% of which are used for the same or related ethno medicinal purposes, were derived from 94 species of plants, Ajibesin *et al*. (2008).

Several active compounds have been discovered from plants on the basis of ethno medicinal information and used directly as planted drugs. Maprouneacin isolated from Maprounne africana is used as an anti diabetic agent by Carvey *et al*. (1999), taxol obtained from Taxus breviflora, is used as an antitumor drug by Samuelesson (1992) and Artimisinin discovered from Artemisia annua, is used as a potent anti malarial compound by Klayman (1993).

The various uses of plants and their products have been reported for post delivery care by Kaur (1999). In Rajasthan state, many ethno botanical studies on medicinal plant resources have been carried out by Kirtikar and Basu (1984), Joshi (1995), Katewa and Guria (1997), Singh and Pandey (1998), Katewa *et al*. (2001, 2004), Jain *et al*. (2004) but the serial documentation of some area is still lacking. Soumyanath, A (2006) reported antidiabetic traditional medicine from plants. Trivedi P.C. (2002) provided a compilation of ethnomedicinal plants of Rajasthan state, India. Out of 4, 20,000 flowering plants reported from the world (Govaerts 2001) more that 50,000 are used for medicinal purposes (Schippmann *et al*. 2002). In India, more than 43% of the total flowering plants are reported to be of medicinal importance (Pushpangadan 1995). Utilization of plants for medicinal purpose in India has been documented long back in ancient literature (Tulsidas, 1631, Samvat, Charak, Drdhbala, 1996). However, organized studies in this direction were initiated in 1956 (Rao 1996) and off late, such studies are gaining recognition and popularity due to fading of traditional knowledge and reducing plant population.

MATERIALS AND METHOD

For documentation of available medicinal flora used by traditional Bhuyan healers, the Bhuyan medicine men were consulted at different regions of Sundargarh district of Odisha, India, in randomly selected villages.

Information was collected through direct conversations, face to face and through a questionnaire. For traditional uses of medicinal plants questions were asked to elderly medicine men and common people, both men and women as key informants.

Using standard protocol or procedure, the medicinal plants were collected and identified in the laboratory using flora books (H.Haines, Saxena, and Brahmam,1996) and were preserved in the form of herbarium.

The traditional healers or medicine men from Bhuyan community have great knowledge on their local plants as well as on ethno medicines. A thorough survey was made in the area for searching the medicinal plants. The medicine men were kind enough to inform the medicinal properties, method of preparation, and dosage administration

for curing local diseases. Names of some medicinal plants, their parts used, method of preparation and method of administration are described below in alphabetical order of family.

RESULTS AND DISCUSSION

The areas inhabited by the Bhuyans were visited for their field work which is the limitation of this ongoing work. I have visited several Bhuyan speaking settlements of the Sundargarh district. Bhuyan villages near Kilinda, Kuliposh, Bad-nuagaon, San-nuagaon,Pattamund,Phuljhar,Uparginia,Badjala,Uskela was visited for research purpose.My informants were of various age groups from 10-12 years children to 75-80 years old people.But Impish Munda and his friends who were between 28 years and Putki Pradhan and Aadharu Dehuri who were between 45-60 years were my principal informants.

They belong to small, villages of Sundargarh district. After compiling the collected information, it was seen that approximately 35-40 local plants are being used even today for treatment of asthma. I have conducted on 24 known plants for the treatment of asthma.

ENUMERATIONS

1. English Name- Malabar Nut
Botanical Name- *Adhatoda vasica/Justicia adhatoda*
Family Name- *Acanthaceae*
Local Name- Adulsa, vasaka, adusa, basang

Method of Preparation-

1. 10-20gms of leaves may be made into juice and a tbsp of honey added to it. This juice if taken regularly controls asthma. In another procedure, decoction of dry leaves may be prepared and taken like tea, 3-4 everyday. This alleviates the asthma substantially.

Method of administration-

i. Decoction of dry leaves may be taken like tea, 3-4 times a day.
ii. Whole plant may be dried in shade and powdered, sieved through fine muslin cloth.10-15 gms of the powder may be given to the patient.

2.English Name- Scholar tree, Dita bark, Devil tree
Botanical Name- *Alstonia scholaris*
Family Name- *Apocynaceae*
Local Name- Chhatiana

Method of preparation- To 1 tsp of Chhatiana bark juice, add 1 tsp honey, a pinch of pippali powder and give to the patient to drink.

Method of administration- It is taken 2 times daily for a month. It provides relief from asthma.

3.English Name- Coral swirl/Tellicherry tree
Botanical Name- *Holarrhena antidysentrica/ Wrightia antidysentrica*
Family Name- *Apocynaceae*
Local Name-Kurai,kiryat, indrajau

Method of administration- Root mixed with equal quantity of harridan (*Terminalia chebula*), Baheda (*T.bellerica*) and Bhejri (*Solanum xanthocarpum/surrattense*) fruits is boiled in water, taken twice daily till one feels ok from asthmatic attack.

4.English Name- Sage-leaved Alangium
Botanical Name- *Alangium lamarckii*
Family Name- *Alangiaceae*
Local Name- Aankul,Rudrakedar

Method of preparation- 1 handful size Ankul rhizome is collected and made to dry naturally. It is rubbed on lemon juice and taken 1 tsp 2 hours before food two times daily. It lessens the effect of asthma and alleviates the pain.

5.English Name- Flowers of India
Botanical Name- *Pergularia extensa*
Family Name- *Asclepiadaceae*
Local Name- Uturuli, gosingha

Method of administration- Grind the leaves and take 10 ml of the juice daily. It is effective as uterine tonic and also controls excessive uterine bleeding.

6.English Name- Hemp
Botanical Name- *Cannabis sativa*
Family Name- *Cannabinaceae*
Local Name- Bhang

Method of administration- If the smoke of bhang is inhaled, it cures the immediate attack of asthma to 100 mg roasted bhang, is added 2-3 gm black pepper and 2gm misri. It alleviates asthma.

7.English Name- Marselia
Botanica Name- *Marselia*
Family Name- *Marsileaceae*
Local Name- Sunsunia saag

Method of administration- Regular use of Marselia provides relief from breathlessness.

8.English Name- Sacred fig
Botanical Name- *Ficus religiosa*
Family Name- *Moraceae*
Local Name- Ashwattha,osto

Method of preparation-1)2-5 gm powder of its dried fruits is taken with water twice a day for 14-15 days. It controls asthma. 2) Equal quantity of bark is mixed with powder. It is ground and ½ tsp powder is taken twice a day.

9.English Name- Red Spiderling, Spreading
hogweed Botanical Name- *Boerhaavia diffusa*
Family Name- *Nyctaginaceae*
Local Name- Rakta Punarba/Punanarva

Method of administration-5 gm root paste of Boerhaavia is boiled in 1 glass water till it is reduced to $1/8^{th}$.The liquid is strained, taken two times daily for at least 15 days. It cleans the lungs and relieves the patient from breathlessness.

10.English Name- Clove
Botanical Name- *Syzygium aromaticum*
FamilyName-*Myrtaceae* Local Name- Lavang

Method of preparation- Equal quantities of cloves, Calotropis flower, rock salt is taken and mixed thoroughly. Small bean-sized tablets are prepared and kept in mouth and sucked only. When the juice seeps inside slowly it provides relief and controls asthma.

11.English Name- Prickly Poppy
Botanical Name- *Argemone mexicana*
Family Name- *Papaveraceae*
Local Name- Shialkanta, Agara
Method of preparation- 1/2 gm powder of its root is given with warm milk or water, twice daily.

12.English Name- Black Pepper
Botanical Name-*Piper nigrum*
Family Name- *Piperaceae*
Local Name- Golmarich,golmirch,kalimirch,kalimiri
Method of preparation-2-5gm black pepper or golmirch powder is taken with honey and ghee, given twice daily. It is very effective in controlling asthma.

13.English Name- Long Pepper
Botanical Name- *Piper longum*
Family Name- *Piperaceae*
Local Name- Pippali,Pipli
Method of preparation-
1) To 1 gm of Pippali powder,2 tsp honey is mixed and given to the patient for quick relief.
2)5 gm root powder mixed with honey, 3 times a day provides relief.
3) 1 gm each of Pippali powder and Triphala powder is mixed and given to the patient twice daily. It is taken in morning time on an empty stomach and evening time half an hour before meals.

14.English Name- Wood Apple
Botanical Name- *Aegle marmelos*
Family Name- *Rutaceae*
Local Name- Bael/Bilwa

Method of preparation- 5 parts each of Bael roots is taken with Adhatoda (Basang) leaves, Opuntia (Nagapheni), ginger, pepper, and pippali and powdered.2-3 gm black pepper is mixed with sugar candy (misri) and taken with the above mixture. It controls asthma.

15.English Name- Sugarcane
Botanical Name- *Saccharum officinarum*
Family Name- *Poaceae*
Local Name- Akhu/Ikh/Ganna

Method of preparation- 5gm jaggery mixed with equal quantity of mustard oil is given to the patient. It provides relief.

16.English Name- Elephant Apple
Botanical Name- *Feronia limonia/F.elephantum*
Limonia acidissima
Family Name- *Rutaceae*
Local Name- Kaitha/kaintha

Method of preparation- A decoction of ripe fruit is mixed with sugar candy (misri) and prepared. To it is added a pinch of pippali powder and consumed daily for six months.

17.English Name- Datura/Thorn Apple
Botanical Name- Datura stramonium/D.metal
Family Name- *Solanaceae*
Local Name- *Dudura*

Method of administration-Take a whole plant, pound it and sundry it. When dried it is powdered. The powder is smoked as snuff which provides immediate relief from asthmatic attack.

18.English Name- Soap berry,Washnut
Botanical Name- *Sapindus mukorossi*
Family Name- *Sapindaceae*
Local Name- Reetha

Method of administration- Reetha fruit is ground with 3-4 pepper (kalimirch) in water.4-5 drops of this liquid is put in the nose to control asthma

19.English Name-Crepe ginger
Botanical Name- *Costus speciosus*
Family Name- *Zingiberaceae*
Local Name- Gai gendalia,keu,gai gobara

Method of preparation-50 gms rhizome is made chutney with 50 gms garlic, 10 gm tamarind, salt to taste.10 gm paste is taken twice with food. It is very helpful in controlling asthma.

20.English Name- Psoralea seeds
Botanical Name- *Psoralia corylifolia*
Family Name- *Fabaceae*
Local Name- Babchi/bavachi/bakuchi

Method of preparation- Take 1/2 to 1 gm seed powder with ginger juice 3 times a day on an empty stomach. It provides relief from wheezing.

21.English Name- Winter Cherry/Indian Ginseng/Poison gooseberry
Botanical Name- *Withania somnifera*
Family Name- *Solanaceae*
Local Name- Ashwagandha

Method of preparation- Take 10 gm root of winter cherry and grind without adding water. Mix 10-15gm sugar candy (misri) in it and boiled in 500 ml water till water is reduced to 1/8th of the quantity. It cures from bronchial asthma.

22.English Name- Prickly Chaff Flower
Botanical Name- *Achyranthes aspera*
Family Name- *Amaranthaceae*
Local Name- Chirchita/latjira/apamaranga/apamarg

Method of preparation-

1) Inhale the smoke of dried leaves through a chillum. It provides instant relief from asthmatic wheezing.
2) Take equal quantity of Apamarg extract and honey, mixed thoroughly. Give 2 times daily to children suffering from bronchial cough.

3) In chronic case of breathlessness,5gm root powder and powder of 5-7 black peppers mixed together in normal water or lukewarm water may be given twice daily for quick relief.

23.English Name- Linseed, Flax seed

Botanical Name- *Linium usitatissimum*
Family Name- *Linaceae*
Local Name- Alasi,phesi,phesu,kshuma,uma

Method of preparation- 3-5 gm Flax seed pound coarsely and soaked in cold water overnight. Next day strain the liquid and warm it. To it is added sweet lime juice and given to patient. It provides relief from asthma.

24.English Name- Shallow-wort, Milkweed
Botanical Name- *Calotropis procera*
Family Name- *Asclepiadaceae*
Local Name- Madar,Arakh, Ark

Method of preparation- Take Arakh leaves and its root, dried in shade for two days. Burn it and put the ash in a chillum and inhale it two times a day preferably in the afternoon and before retiring to bed. It provides relief from asthmatic attack and wheezing.

CONCLUSION

This study reveals the knowledge and usage of herbal medicines for the treatment of asthma by Bhuyan tribals. Nevertheless, the medicinal plants continue to play an important role in the healthcare and system of tribal community.

RECOMMENDATIONS

The present study suggests that there is a need of proper maintenance, preservation and conservation of these groves of Bhuyans. On the basis of medicinal uses practiced by Bhuyan Vaidyas following measures for conservation of these valuable herbs are suggested.

1. Proper identification of local medicinal herbs must be made with the help of Vaidyas, not only in Bhuyan belts alone but also in other tribal areas.
2. Care should be taken not only for conservation of local forest flora but also for preservation of Bhuyan traditional knowledge.
3. The Bhuyan Vaidyas and people should be trained properly so that the medicinal plants can be harvested during the optimal season or specific time period to ensure the procurement of medicinal plant materials and best quality finished products. This will develop an excellent market. The concerned Government departments and NGO's may help more and more in this regard i.e proper marketing of medicinal plant products. This will help in improving the economic conditions of Bhuyan Tribes.

REFERENCES

Bhadra & Tirkey(1997), Sharma Thakur(1997) and Choudhury(2000)- Ethnomedicinal studies.

Choudhry et al(1985)-Less known use of some plants from the tribal areas of Odisha.Bull.Surv,India,17:132-136

Das, J and B.C.Acharya,(2003,2008)-Ethno botanical relevance in tribal life.

Farnsworth et al, (1985) Ajibesin et al. (2008), Carvey et al. (1999), Samuelesson (1992) and Artimisinin, Klayman (1993), Kaur (1999)- valuable drug discovery.
(Govaerts 2001), (Pushpangadan 1995), (Schippmann et al. 2002)- Report on medicinal importance.

Jain,S.K.(1971)-Some magico-religious beliefs about plants among Adivasis of Odisha,Adivasi,12:39-40

Kirtikar & Basu (1984), Joshi (1995), Katewa and Guria (1997), Singh and Pandey (1998), Katewa et al. (2001, 2004), Jain et al. (2004) Soumyanath, A (2006)- Antidiabetic traditional medicine from plants.

Prusti A.B.and Panda, J. (2005)-Some wild plants as food items used by the tribal people of Sundargarh district,Odisha.Adivasi,vol 45,No-2-30-38

Rao (1996), Kumar (2002), Nazir et al. (2007), Tripathy and Behera (2007), Sharma et al. (1992) and Satapathy, (1996)-Relevance of ethnobotanical studies.

Satapathy,K.B and P.C.Panda(1992)-Medicinal uses of some plants among the tribals of Sundargarh district,Odisha,J.Econ.Tax.Bot.Addl.Ser.10,241-249.

Tulsidas, 1631, Samvat, Charak, Drdhbala, 1996), (Rao 1996) – gaining importance of medicinal plants.

Trivedi P.C. (2002)- Compilation of ethno medicinal plants of Rajasthan state, India.

TRADE, COMMERCE AND INTERCOURSE WITHIN THE TERRITORY OF INDIA

* ***Madan Pallai***

ABSTRACT

Indian Trade, Commerce and its intercourse unite by constitutional provision with state boundary. The legal term of the constitution is to unite the national interest of individual. Various constitutional arrangement for inter and intra state trade commerce is very much critical to understand and interpret. The legal and constitutional provision counters the state monopoly and balance of trade industry. Article-301 provides the freedom of trade within the territory of the country with shorten restriction. This article is an endeavor to rollout vis-à-vis with constitutional arrangement. Precisely the constitutional term of trade has been replaced by E-commerce due to the growth of technology, structure and the concept of Liberalization Privatization Globalization (LPG). This concept compiled with background of historical perspectives, constitutional provision, regulatory measures, and restriction of freedom of trade, transportation bottleneck and GST as an individual tax reform.

Key Words:- *Trade, Article- 301, Inter and Intra state, Public Interest, restriction, LPG,GST*

INTRODUCTION

Trade is an oldest art, recent science. After digitalization of commerce becomes a growing profession. In Indian context, trade commerce & its intercourse require a review taking constitutional arrangement in different judicial pronouncements into consideration. Trade and commerce are integral part of a political economy. In a federal country like India, a citizen is free to carry on any trade and occupation across the country. Indian constitution guarantees right to freedom as a fundamental right. Article 301 to 307 of Part XIII of Indian Constitution provide elaborate provisions pertaining to freedom of trade and commerce within the territory of India attaching restrictions to such freedoms in the greater public interest. Article-19(1)(g) guarantees a fundamental rights is carry on trade and business subject to reasonable restriction imposed in the interest of general public. The expression ‘free trade’ can’t be interpreted in an unqualified manner. Parliament may impose restriction on freedom of trade, commerce & its intercourse between one state and another in the public interest.

There is a sea change in the domain of trade and commerce after liberalization, privatization, and globalization. The concept of global village is in its full swing. The Monopolistic Restriction Trade Practices Act, 1969 ensured that the operation of economic system to curb concentration of economic power in the hands of the few. The MRTP Act is replaced by the Competition Act with

**Lecturer in Political Science , Panchayat Degree College, Kalla, Deogarh MOBILE NO- 9338697452 / 9337739249 , EMAIL ID- madanpallai@rediffmail.com*

effect from Sept 1, 2002. The objective of the Act is to prevent adverse effect on competition. It's also enacted to ensure freedom of trade carried on by the participants in the market of India. It also aimed to promote and sustain competition in trade and industry. Competition Commission was also established as a result of the enactment of the statute. The trade policy in India wanted to evolve a trade mechanism with a greater transparency in the understanding of trade policy and practices among WTO members. The recent Goods & Services tax Act, is an instrument of tax simplification. It has made promoting for intercourse transactions.

The paper intends to analyse the constitutional provisions associated with trade, commerce and its intercourse within the territory of India vis-à-vis with the judicial pronouncements to regulate the transactions by keeping the values envisaged in Indian Constitution.

The operational terms trade, commerce & public interest need to be described for a proper understanding of the concepts. Trade refers to exchange of goods for money. In a secondary meaning, it is any business carried out with a view to earn profit. It means business, supply, distribution or control of goods. Commerce is an exchange or buying and selling of commodity on a large scale involving transportation of goods from one place to other. It is the intercourse of a nation's produced, manufacture in each other's territory for a mutual benefit. The goods can be exchanged or re-exchanged between and among the nations for mutual benefit. Commerce includes both external trade as well as internal trade. Public Interest in contrary to individual interest, it is a legal interest violation of which affects general interest.[6]

Democracy is perceived as an art and science of mobilizing the entire physical, economic and spiritual resources of various sections of the people in the service of the common good of all.[7] In a state, attempt is made through constitutional provisions to create and preserve a national economic fabric by remains and preventing local barriers to economic activity in order to remove impediments in the way of intercourse trade and commerce. In such an endeavor effort is made to make the country as one single economic unit so that economic resources of all the various units may be utilized to the common advantage.[8] The framers of the Indian Constitution were fully conscious of the importance of maintaining the economic unity of the Union. Free movement and exchange of goods throughout the territory of India were essential for the economic unity of the country to sustain the progress of the country. Free flow of trade, commerce and intercourse within and across borders is an important pre-requisite for ensuring economic unity, stability and prosperity of a country having a two-tier polity.[9]

---

[6] **See, Law Dictionary**

[7] **Gandhian**

Quote:https://books.google.co.in/books?id=okfdEdoaH70C&pg=PA55&lpg=PA55&dq=%E2%80%9CDemocracy+is+the+art+and+science+of+mobilising+the+entire+physical,&source=bl&ots=Y2IiUmA3Nm&sig=9wmSCvJDP9vyG5UggqIKPlDGm0I&hl=en&sa=X&ved=2ahUKEwih1fa4tsvcAhVIWH0KHd3LBo4Q6AEwBHoECAUQAQ#v=onepage&q=%E2%80%9CDemocracy%20is%20the%20art%20and%20science%20of%20mobilising%20the%20entire%20physical%2C&f=false

8 **http://www.legalservicesindia.com/article/148/Freedom-of-Trade-&-Commerce.html**

9 **http://www.grkarelawlibrary.yolasite.com/resources/FM-Jul14-CL-2-Muriel.pdf**

The Indian Constitution guarantees right to freedom as a fundamental right. Accordingly, all citizens shall have the right to move freely throughout the territory of India and practice any profession, or carry on any occupation, trade or business.[10] In furtherance with these rights the Constitution provides that the trade commerce and intercourse throughout the territory of India shall be free.[11] These provisions are important for free movement of citizens as well as smooth running of trade and commerce across the territory of India. But these rights are not absolute and subject to various articles laid down in the Constitution according to which the Centre and State authorities can restrict such right. Following is the detailed account on the subject.

Objectives-

1. To study the provision of envisaged in Indian Constitution.
2. To examine the provisions vis-à-vis with practice and constitutional argument.
3. To study the dominance of Part-XIII of Indian constitution pertaining to the domain of Union and State.
4. To study the restriction barriers of trade and commerce with reference to constitutional provision.
5. To identify the relevance of GST in interstate trade.

Historical Background of the Provisions in Part XIII of the Constitution:

It is necessary to have a look into the background of the provisions envisaged Part XIII of the Constitution in order to gain better understanding of the topic. Before Independence nearly one-third of the territory of India consisted of numerous native states categorized as princely states. Many of these States claimed varying degrees of sovereign rights subject to limitations imposed by the paramount power. These States in exercise of their power imposed taxes and erected tariff barriers impeding the flow of trade, commerce and intercourse between themselves and the rest of India. The British India was governed by the provisions of Section 297 of the Government of India Act, 1935. Between 1947 and 1950, the process of the merger and integration of the erstwhile princely states with the rest of the country was accomplished. With the merger of princely states, the trade barriers and tariff walls which had been erected by the erstwhile princely states obstruction free flow of trade, commerce and its intercourse throughout the territory of India deeply impressed on the mind of the constitution makers.[12]

While drafting the articles of Part XIII, the makers of the Constitution were fully conscious that economic unity was absolutely essential for the stability and progress of the federal polity which had been adopted by the Constitution for the governance of the country. Political freedom was

---

[10] **Act, 19 Indian Constitution**

[11] **Act, 301 Indian Constitution**

[12] **http://interstatecouncil.nic.in/wp-content/uploads/2015/06/CHAPTERXVIII.pdf**

won and political unity which had been accomplished by the Constitutional Economic unity is necessary in order to strengthen & sustain of freedom. Local apprehensions raised by local or regional problems may persuade the State legislatures to adopt remedial measures intended solely for the protection of regional interests without due regard to their effect on the economy sector. The objective of the constitution makers was to avoid such possibility. Free movement and exchange of goods throughout the territory of India is essential for the economy for sustaining and improving living standards of the Country.[13]

Article 301 of the Indian Constitution is modeled on section 92[14] of the Australian Constitution. The origin of article 301 may be traced directly to sec. 92 of the Australian Constitution but exist some significant differences between the two provisions. The coverage under article, 301 are broader than that of Sec. 92 of the Australian Constitution. The freedom in India is wider than Section 92 of Australian constitution. While Section 92 of Australian constitution refers to intercourse trade only, article 301 includes both inter-state and intra-state trade activities. The restrictions in Australia were spelled out by the Court whereas in India, the Constitution itself lays down restrictions on Article 301 which are elaborated in articles 302 to 305.[15]

The Freedom of trade, commerce and intercourse:

Articles 301 to 307 of the Part XIII of the Constitution deals with the provisions related to freedom of trade, commerce and intercourse within the territory of India and restrictions attached to such freedom. Article 301 provides that commerce and intercourse throughout the territory of India shall be free is subject to the other provisions of this Part trade and commerce. The constitutional provision imposes a general limitation on the exercise of legislative power whether of the Centre or of the States to secure unhampered free flow of trade, commerce both interstate and intrastate. The purpose of article301 is to promote economic unity of India. There should not be any regional or territorial economic barriers.[16]It means that while the general rule of freedom of trade and interstate is enunciated in article 301, it may be subjected to following restrictions imposed by law
(i) by Parliament, under article 302 and 303(2) (ii) by the State Legislatures, under article 304 subject to the limitations prescribed by article 302 and 303 respectively.[17](iii) No such restrictions can be imposed by executive action for Trade, commerce. Business is ordinarily more a comprehensive than the word trade. Both the words synonymous in current eco-political writings. The word trade or business would mean some real, substantial, systematic or organized course of activity with a set purpose.

The word freedom in article 301 do not mean absolute freedom but freedom for all

---

[13]See, Atiabari Tea Co., Ltd. vs The State Of Assam And Ors., AIR 1961 SC 232, 1961 1 SCR 809

[14]Section 92 trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free.

[15]Articles 302, Power of Parliament to impose restrictions on trade, commerce and intercourse. Aarticle-303, Restrictions on the legislative powers of the Union and of the States with regard to trade and commerce. Article-304 , Restrictions on trade, commerce and intercourse among States. Article-305, saving of existing laws and laws providing for State monopolies.

[16]http://www.legalservicesindia.com/article/98/Indian-Parliament-&-States-Powering-Regulation-in-the-Trade-&-Commerce-Industry.html

[17]State of Bihar v. Harihar Prasad Debuka, AIR 1989 SC 1119

restrictions except those are provided in articles of Part XIII, as well as regulatory and compensatory measures. The power of the Union of the State to exercise legitimate regulatory control is independent of the restrictions imposed by article 302 to 305. On the other hand restriction would not be valid if it does not come under article 302-305. Since restrictions under the later provision can be imposed only by law, the freedom under article 301 can't be taken away by executive action.[18]

The Supreme Court emphasized in the *Atiabari case* that article 301 provide that the flow of trade shall run smooth and unhampered by any restriction either at the boundaries of the State or at any other part inside the State. The majority portion of the judgment emphasized that free movement and exchange of goods throughout the territory of India is essential for sustaining the economy and living standard of the countrymen. The word free in article 301 can't mean absolute freedom or that each and every restriction on trade and commerce is invalid. The Supreme Court has held in *Atiabari* that freedom of trade and commerce guaranteed by article 301 is freedom from such restrictions as directly and immediately restrict or impede the free flow or movement of trade.

Throughout the territory of India the freedom not only to intercourse but also in intrastate transactions and movements.[19]According to *State of Bombay v. R.M.D.C.*[20]article 302 and 304 state the words "territory of India" in article 301 to remove all interstate or intrastate barriers, and to considered the country as one unit for the purpose of freedom of trade and commerce.

Scope of Article 301:

Article 301 allows the free flow in the stream of trade, commerce and intercourse throughout the territory of India.[21]Such right to carry on intercourse trade and commerce may be subject to reasonable restrictions in the interests of the general public.[22] In this context state should be construed so as to cover all its organs and agencies covered in article 12 for the purpose of the application of the Fundamental rights and the Directive Principles of State Policy(DPSP). The bodies created by the State and acting on its behalf should be equally subject to it.[23] In *Atiabari Tea Co. Ltd. v. State of Assam*, Shah, J. observes that article 301 incorporates a restriction on the exercise of power by Government agency, legislative as well as executive besides placing an irremovable ban on execution authority. It restricts the legislative power of Parliament and the State Legislature conferred by articles 245, 246 and 248 and relevant entries in the legislature lists relating to trade, commerce and intercourse. It is submitted that article 301 imposes a general limitation on the exercise of legislative power either by Union or States. Such powers certain that trade, commerce and intercourse throughout the territory of India shall be free under any of the

---

[18]See, Indian Constitution

[19] State of Madras v. NatarajaMudaliar, AIR 1969 SC 147

[20] AIR 1957 SC 699

[21]Atiabari Tea Co., Ltd. v The State Of Assam And Ors., AIR 1961 SC 232, 1961 1 SCR 809

[22]BishambharDayal Chandra Mohan ... vs State Of Uttar Pradesh &Ors on 5 November, 19811982 AIR 33, 1982 SCR (1)1137

[23]http://shodhganga.inflibnet.ac.in/bitstream/10603/129409/11/11_chapter%204.pdf

topic enumerated in the three lists.

The limitation of article 301 has been relaxed in the subsequent provisions of Part XIII in favour of the legislature but no such relaxation is given to the executive. Therefore, in regard to executive the limitation of article 301 is absolute and no executive action inconsistent with it can be sustained unless it is supported by a valid law.[24] Right under article 301 can be restricted by a law of Parliament or of a state Legislature but the right cannot be restricted by a mere executive order.[25]In *Jindal Stainless Ltd. v. State of Haryana*[26],the ‘freedom’ under article 301 is referred as a freedom from laws which go beyond regulations which burden, restrict or prevent the trade movement between States and also within the State.

In *State of Punjab v. Devans Modern Breweries Ltd.*[27]the freedom guaranteed by Article 301 are not available to liquor because it is a noxious substance injurious to public health and morality. Therefore, regulation in the interest of public health and order takes the case out of article 301.

Therefore, it can be concluded from above that all the legislative as well as executive powers of the Union and the states are subject to article 301. The freedom under article 301 is not a freedom from all laws but freedom from such laws which restrict or affect activities of trade and commerce amongst the States or any exercise thereof inconsistent with shall be unconstitutional and invalid.

Article 19 (1) (g) and Article 301:

Article 19 (1) (g)[28] in Part III guarantees to every Indian citizen a fundamental right to carry on trade and business subject to such reasonable restrictions as may be imposed in the interests of the general public. Articles 301 to 307 of Part XIII of the Constitution are provisions relating to trade, commerce and intercourse within the territory of India. Article 301 guarantees that trade, commerce and interstate shall be free throughout the territory of India. It imposes a general limitation on the exercise of legislative power whether of the Union or of the States to secure unobstructed flow of trade, commerce and interstate from one part of the territory of India to another. There are two points of distinction as stated below.

While article 19 (1) (g) confers a fundamental right and article 301 confer a justifiable right.
While article 19 (1) (g) looked at the freedom from the point of view of an individual, Article 301 looked at it from the point of view of geographical barrier or restriction against the movement of goods.[29]
While article 19 (1) (g) lays down the rights of the citizen in the matter of profession, trade or business article 301 deals with how the trade, commerce and interstate are to be carried on

[24]Ram Jawaya v. Punjab, A.I.R. 1955, S.C.540; Jayanti Lai Amritlal v. F.N.Rana, A.I.R. 1964

[25] District Collector of Hyderabad v. Ibrahim & Co

[26] AIR 2006 SC 2550

[28]Article 19 (1) (g) to practice any profession, or to carry on any occupation, trade or business.

[29] Automobile Transport (Rajasthan) Ltd. v. State of Rajasthan, AIR 1962 SC 1406

between one place and another, whether the two places are situated in two States or are inside the same State.[30]

In *Bishamber Dayal Chandra Mohan v. State of U.P*[31], it was observed that the freedom under both article 19 (1) (g) and 301 is subject to restrictions imposed by the State in the collective interest which must also be reasonable and neither arbitrary or excessive. These limitations are inherent in both the freedoms. Regulatory measures do not constitute restrictions under either provision. In *Saghir Ahmad v. State of U.P*[32], Mukherjea J. was of the view that while article 19 (1) (g) deals with the rights of the individuals and article 301 provide safeguards for the carrying on trade as a whole distinguished from an individual's right to do the same. However in *Dist. Collector, Hyderabad v. Ibrahim*[33], the Supreme Court denounced the theory that article 301 guarantees freedom in the abstract and not of the individuals.

The Regulatory Measures:

The Regulatory measures are to impose compensatory taxes as regulatory measures. But such measures don't come within the purview of 'restrictions' as contemplated in article 301 because they facilitate flow of trade, rather than hampering it. Such measures need not comply with the requirement of the provisions of article 304(b). Thus, a State law imposing a tax for vehicle on its owner does not directly affect the freedom of trade or commerce even though it indirectly imposes a burden on the movement of passengers and goods within the territory of the taxing State. The Regulatory measures are not regarded as violative of the freedom guaranteed by article 301. The word 'free' in article 301 does not mean freedom from such regulation as is necessary for an orderly society. Regulatory measures do not fall within the purview of the restrictions contemplated by article 301.[34]

In the matter of *G.K. Krishnan v. State of Tamil Nadu*[35],the Supreme Court observed that there is clear distinction between laws interfering with freedom to carry out the activities concerning trade and laws imposing on those engaged therein rules for proper conduct or other restraint directed to the due and orderly manner of carrying out the activities.

The word 'regulation' does not have any fixed meaning. It is difficult to define this word as it has no precise meaning. It is a word of broad meaning and comprehensive in its scope. Every case has to be judged on its own fact and in its own setting of time and circumstances. It may be that in some situations even a 'prohibition' may be regarded as being regulatory in nature and not affected by article 301. In the matter of the *State of Tamil Nadu v. Sanjeetha Trading Co.*[36], the Supreme Court observed

[30] **MotiLal v. Uttar Pradesh Govt., AIR 1951 All. 257**
[31] **AIR 1982 SC 33**
[32] **AIR 1954 SC 728, 742**
[33] **AIR 1970 SC 1725**
[34] **http://www.grkarelawlibrary.yolasite.com/resources/FM-Jul14-CL-2-Muriel.pdf**
[35] **AIR 1975 SC 583, 587**
[36] **AIR 1993 SC 237, 243**

that expression 'free trade' cannot be interpreted in an unqualified manner. Any prohibition on movement of any article from one State to another has to be examined with reference to the facts and circumstances of that particular case whether it amounts to regulation only taking into consideration the local conditions prevailing and the necessity for such prohibition in public interest.

Restrictions upon the freedom:

The limitation imposed upon inter-State freedom of trade, commerce and intercourse by the other provisions of Part XIII are given in article 302 to 305.

A.302: Power of Parliament to impose restrictions on trade, commerce and intercourse

Parliament may enact law imposing restrictions on the freedom of trade, commerce or intercourse between one State and another or within any part of the territory of India as may be required in the public interest.[37] It is subject to non-discriminatory restrictions imposed by Parliament in the public interest (Article 302).

Article 302 empowers the Parliament to impose by law, such restrictions on the freedom of trade, commerce and interstate between one state and another or within any part of the territory of India, as may be required in the public interest. By virtue of article 302, the Parliament is notwithstanding the protection conferred by article 301, authorized to impose restrictions on the freedom of trade, commerce and interstate in the public interest. Thus, article 302 relaxes the restriction imposed by article 301 in favor of the Parliament. The Sarkaria Commission[38] report justified it as under.

The need for empowering Parliament to place restrictions on trade and commerce even within a State is obvious. In a country with varying economic potentiality and considerable difference with regard to existing levels of development the responsibility of union in respect of certain matters. Entail regulating trade and commerce even within a State for achieving national objectives. For an example there is the need to protect the interests of the poor and weaker sections of our community like the tribal people. In discriminatory exploitation of natural resources in one State, deforestation may have far reaching implications for other States which may be affected by floods, silting up of reservoirs etc. Such situations may require imposition of restrictions on trade even within the State. The importance of Parliamentary control over intra-State trade is also significant where centers of production of certain commodities are situated entirely within a State but the centers of consumption are located outside the State.[39]

The majority judgment in *Atiabari case* even suggested that, the question of public interest underlying a Parliamentary law imposing restrictions on the freedom of trade may not be justifiable. If this be the correct approach, then Parliament's power to decide what restrictions need to be imposed under article 302 may be said to be practically unlimited. But the correctness of the

[37] A. 302, The Constitution of India

[38] SARKARIA COMMISSION REPORT, 502 (1988)

[39] http://www.legalservicesindia.com/article/98/Indian-Parliament-&-States-Powering-Regulation-in-the-Trade-&-Commerce-Industry.html

view was doubted in *Kheyerbari Tea Co V. State of Assam*[40]. A tax levied by the State of Assam on the carriage of tea by road or inland waterways was held bad. For the transport or movement of goods the principle of taxation should be solely on the basis of transportation. Such an act directly affects the freedom of trade as contemplated in the provision of article 301. The Supreme Court of India took the view that the freedom guaranteed by article 301 would become illusory, if the movement transport or the carrying of goods were allowed to be impeded obstructed or hampered by the taxation without satisfying the requirements of article 302 to 304. The court did not take into consideration the quantum of tax burden which by no means was excessive. Simply because the tax was levied on movement of goods from one place to another it was held to offend article 301.The view propounded in *Atiabari* case was bound to have great adverse effect upon the financial autonomy of the states.[41]In case of article 19 (1) (g), the concept of public interest is justifiable and there appears to be no reason why article 302 should be treated differently. From a practical point of view to hold 'public interest' as justifiable may not mean much for it is rare for a court to hold that legislation lacks public interest.[42]

Instances of legislation and litigations under article 302 may be as follows.
(i) Essential Commodities Act, 1955,18 (ii) Defence of India Act, 1962, and the Rules made their under.19 (iii)Central Sales Tax Act, 1956, 8(2)(b). (iv) Mines & Minerals (Regulation & Development) Act, 1957.20 (v)Bishamber Dayal Chandra Mohan v. State of UP, AIR 1982 SC 33 (vi) Surajmal Roopchand v. State of Rajasthan, AIR 1967 Raj. 104. (vi) State of T. N. v. Hind Stone, AIR 1981 SC 711

Article 303: Restrictions on the legislative powers of the Union and of the States with regard to trade and commerce [43]Even discriminatory or preferential provisions may be made by Parliament for the purpose of dealing with a scarcity of goods arising in any part of India. *Limitations on Power of Parliament under Article 303 (1) and (2)* The guarantee of freedom is expressly subject to the other provisions of Part XIII Articles 302 to 305 of the Constitution. Article 302 enables Parliament to impose restrictions by law on the freedom of trade, commerce and interstate between one state and another or within any part of the territory of India as may be required in public interest. But this power to place restrictions cannot be used by Parliament to make any law which discriminates between one state and another or gives preference to one State over another by virtue of any entry in the Seventh Schedule relating to trade and commerce.

---

[40]Kheyerbari Tea Co VS State of Assam, AIR 1964 SC 925

[41]http://www.legalservicesindia.com/articles/tradeci.htm

[42]Spra : http://www.legalservicesindia.com/article/98/Indian-Parliament-&-States-Powering-Regulation-in-the-Trade-&-Commerce-Industry.html

[43]Article.303: (1) Notwithstanding anything in article 302, neither Parliament nor the Legislature of a State shall have power to make any law giving, or authorizing the giving of, any preference to one State over another, or making, or authorizing the making of, any discrimination between one State and another, by virtue of any entry relating to trade and commerce in any of the Lists in the Seventh Schedule. (2) Nothing in clause (1) shall prevent Parliament from making any law giving, or authorizing the giving of, any preference or making, or authorizing the making of, any discrimination if it is declared by such law that it is necessary to do so for the purpose of dealing with a situation arising from scarcity of goods in any part of the territory of India.

States' power to regulate trade and commerce, Limitations imposed by article 303(1) on the legislative power of Parliament shall apply to that of the State Legislatures. The State Legislatures do not have the exceptional power to enact discriminatory laws, which is available to Parliament by virtue of article 303(2). Article 304 carves out two exceptions in favor of the State Legislatures to the freedom guaranteed under Article 301.

Article 304: Restrictions on trade, commerce and intercourse among States [44]Non-discriminatory taxes may be imposed by States on imported goods similarly as in intrastate goods. Article 304 (a) The Reasonable restriction may be imposed by a State in the public interest (article. 304(b)).

Article 305:Saving of existing laws and laws providing for State monopolies [45]Nothing in articles 301 and 303 shall affect the provisions of any existing law except in so far as the President may by order otherwise direct and nothing in article 301 shall affect the operation of any law made before the commencement of the Constitution (Fourth Amendment) Act, 1955 in so far as it relates to, or prevent Parliament or the Legislature of a State from making any law relating to any such matter as is referred to in sub clause (ii) of clause (6) of article 19.

It is established from above that apart from the specific provisions in article 302 to 305, the Union as well as State Legislatures have the power to exercise legitimate regulatory[46] control over the freedom of trade and commerce, which does not amount to a restriction. In fact legitimate regulation does not infringe the freedom declared by article 301.[47]

Promote and Hindrances of Intercourse trade and Commerce:

e-Way Services

Introduction of Goods and Services Tax (GST) across India with effect from 1st of July 2017 is a very significant step in the field of indirect tax reforms in India. For quick and easy movement of goods across India without any hindrance, all the check posts across the country are abolished. The GST system provides a provision of e-Way Bill, a document to be carried by the person in charge of conveyance, generated electronically from the common portal. To implement the e-Way Bill

---

[44] A. 304: Notwithstanding anything in article 301 or article 303, the Legislature of a State may by law— (a) impose on goods imported from other States 1 [or the Union territories] any tax to which similar goods manufactured or produced in that State are subject, so, however, as not to discriminate between goods so imported and goods so manufactured or produced; and 179 Freedom of trade, commerce and intercourse. Power of Parliament to impose restrictions on trade, commerce and intercourse. Restrictions on the legislative powers of the Union and of the States with regard to trade and commerce. Restrictions on trade, commerce and intercourse among States. (b) impose such reasonable restrictions on the freedom of trade, commerce or intercourse with or within that State as may be required in the public interest: Provided that no Bill or amendment for the purposes of clause (b) shall be introduced or moved in the Legislature of a State without the previous sanction of the President.

[45] Art. 305: Nothing in article 301 and 303 shall affect the provision of any existing law except in so far as the President may be order otherwise direct; and nothing in article 301 shall affect the operation of any law made before the commencement of the constitution Act,1955, in so far as it relates to, or prevent Parliament or the Legislature of a state from making any law relating to, any such matter as is referred to in sub-clause (ii) of clause (6) of article 19.

[46] Manick Chand Paul v. Union of India, AIR 1984 SC 1249

[47] Malwa bus services Ltd. v. State of Punjab, AIR 1983 SC 634

system, ICT[48] based solution is required. Hence, as approved by the Goods and Services Tax (GST) Council, a web based solution has been designed and developed by National Informatics Centre and it is being rolled out for the use of taxpayers and transporters.[49]

Digital India

Digital India is a campaign launched by the Government of India to ensure that Government services are made available to citizens electronically by improved online infrastructure and by increasing Internet connectivity or by making the country digitally empowered in the field of technology. The initiative includes plans to connect rural areas with high-speed internet networks. Digital India consists of three core components, (a) development of secure and stable digital infrastructure, (b) delivering government services digitally(c) universal digital literacy.[50]

Problems faced by Roads and Transport in India:

The Road transport of the country is facing a number of problems. Some of these problems are discussed below[51]:

1. Most of the Indian roads are not proper under all weather conditions and are not suitable for use of vehicular traffic. The poor maintenance of the roads aggravates the problem especially in the rainy season. It should be checked and maintained on a regular basis. According to one estimate there is about per year loss more than Rs. 200 Cores on the wear and tear of the vehicles due to poor quality of roads. Even the National Highways suffer from the deficiencies of inadequate capacity, weak pavement, poor riding quality, distressed bridges, unabridged level crossings, congested cities lack of wayside amenities and safety measures etc.
2. Indian roads are complex traffic including high speed cars, trucks, two wheelers, tractors, animal driven carts, cyclists and even by animals. Even highways are not free from such malady. It increases traffic time, congestion, and pollution and prone to road accidents.
3. There are multiple check-posts, toll tax and octroi duty collection points on the roads which bring down the speed of the traffic, waste of time and cause irritation to transporters. Rate of road taxes vary from state to state and intercourse permits are very difficult to obtain.
4. Way side amenities like repair shops, first aid centers, telephones, clean toilets, restaurants, rest places are lacking along the roads. There is very little attention on road safety and traffic laws are willfully violated.
5. There is very little participation of private sector in road development in India because of long gestation period and low-returns. The legislative framework for private investment in roads is also not satisfactory. The road engineering and construction are yet to gear up to meet the challenges of the future.
6. There has been no stability in policy relating to highway development in the country. It has changed with the change of government. There are a number of agencies which look after the

---

[48] **ICT: Information and Communication Technology**

[49] **https://docs.ewaybillgst.gov.in/Documents/usermanual_ewb.pdf**

[50] **https://en.wikipedia.org/wiki/Digital_India**

[51] **http://www.preservearticles.com/2012020422772/7-main-problems-faced-by-road-transport-in-india.html**

construction and maintenance of different types of roads. Since there is no co-ordination between these agencies their decisions are often conflicting and contradictory.

7. There is also shortage of funds for the construction and maintenance of roads. Instead of giving high priority to this task, the percentage of allocation has decreased over the years while percentage share of plan allocation was 6.9 % in the First Five Year plan it has come down to less than three percent in the Eighth Plan.

WTO and India:

The Sixth Trade Policy Review of India by the WTO was held in Geneva on 2nd and 4th June, 2015. As a part of the WTO's Trade Policy Review (TPR) mechanism aims at achieving greater transparency in and understanding of the trade policies and practices of WTO members. India's trade policy review takes place once every 4 years, to determine its share in world trade. The Fifth TPR of India was held in September 2011. The TPR exercise had started almost one year before the scheduled date of the review and included preparation of two important reports. One by the WTO Secretariat and another by the Government of India. These two Reports were circulated to all Members five weeks before the actual date of review to facilitate deliberation in TPR. India's Trade Policy Review attracted a high degree of interest among members to understand the direction of India's trade policy as well as to highlight their concerns in various sectors of the economy. During the last stretch of TPR more than 750 advance written questions were posed to India and there were forty three (43) oral interventions at the formal meeting in the WTO. While members recognized and appreciated the reform measures announced by the Government, they also expressed the expectation that India's trade policy, investment and services regimes will continue to be liberalized. India was particularly applauded by several members for its active role and leadership in the WTO and constructive engagement in various WTO processes including Doha Round of negotiations. Overall, the Sixth Trade Policy Review of India was a successful as well as fruitful exercise.[52]

GST and impact on Trade and Commerce:

The Goods and Service Tax (GST) brings benefit to all the stakeholders of industry, government and the consumer. It will lower the cost of goods and services give a boost to the economy and make the products and services globally competitive. Aims to make India a common market with common tax rates and procedures and remove the economic barriers thus paving the way for an integrated economy at the national level.

GST is an indirect tax or consumption tax in India levied on the sale of goods and services. GST is levied at every step in the production process but is refunded to all parties in the chain of production other than the final consumer. Goods and services are divided into five tax slabs for collection of tax - 0%, 5%, 12%, 18% and 28%. Petroleum products and alcoholic drinks are taxed separately by the State governments. There is a special rate of 0.25% on rough precious and semi-precious stones and 3% on gold. In addition a cess of 22% or other rates on top of 28% GST applies

---

[52] http://commerce.gov.in/writereaddata/trade/international_VIth_TPR_India2015.pdf

on few items like aerated drinks, luxury cars and tobacco products. Pre-GST, the statutory tax rate for most goods was about 26.5%. Post-GST most goods are expected to be in the 18% tax range.GST simplified taxes with a unified tax it is therefore expected to dramatically reshape the country's 2.4 trillion dollar economy. Trucks travel time in interstate movement dropped by 20% because of no interstate check posts. India adopted a dual GST model the taxation is administered by both the Union and State Governments. Transactions made within a single state are levied with Central GST (CGST) by the Central Government and State GST (SGST) by the State Governments. For intercourse transactions and imported goods or services an Integrated GST (IGST) is levied by the Central Government. GST is a consumption based tax. The taxes are paid to the state where the goods or services are consumed not by the state in which they were produced. IGST complicates tax collection for State Governments by disabling them from collecting the tax owed to them directly from the Central Government. Under the previous system, a state would only have to deal with a single government in order to collect tax revenue.[53]

The positive impart is this single tax system can solve the issue of multiple tax. One nation one Tax can facilitate companies to generate savings in transportation and distribution cost as there would be free movement and supply of goods in every part of the country without the need to depend on multiple sales depots across the country. It can help to create a single unified and transparent national market. The tax transparency is possible because of the implementation of GST act. It is uniform throughout the country. GST assures tax simplification by abolishing all indirect taxes. Such an act of the government may attract direct foreign investment doing business as a result from the implementation of GST is expected to lead to increase tax compliance and attract more foreign investments.

Discussion:

In this research article an endeavor has been undertaken to simplify constitutional provisions with respect to trade, commerce and intercourse within the territory of India. There should be free flow of trade, commerce and intercourse within the state border. Liberal policy, economic unity, stability and prosperity of a country are to be protected. In the subject of trade, commerce and intercourse in India has been regulated by Liberalization, Privatization, and Globalization (LPG) to service sector grew trended after the growth of information technology. After 1991 there is a revolutionary change in Public Sector Undertaking. The state interference has been minimized as a business strategy. After simplification of trade policy the development of market Gross Domestic Product (GDP) now 6.6%. General Agreement on Trade and Services (GATS) emphasizes on free flow of trades between/among countries. The neighboring country namely Nepal, Bhutan, Bangladesh, Afghanistan, Sri Lanka and Maldives and Pakistan are covered under the trade agreement. The bilateral and Regional Trade Agreements are operational and under negotiation. Agreement on South Asian Free Trade Area (SAFTA) also regulates the trade among Asian countries.

---

[53] https://en.wikipedia.org/wiki/Goods_and_Services_Tax_(India)

The conventional system of trade has been replaced by e-commerce. Due to the exponential growth of internet, nature and structure of competition has been changed dramatically. In traditional way of doing commerce, most of the businesses had to compete within a single industry and often within a limited geographical area, but the internet is breaking all these boundaries by introducing e-shopping. For an example: Amazon.com began as an online bookstore but quickly expanded its trade covering a host of products and enlarging its marketing limits. Digital India requires digital infrastructure for transparence of trade, policy & strategy. In this context, free flow of trade has commenced without any barriers. IT support trade and IT enabled trade made a revolution in the domain of trade and commerce. These concepts are to be studied in the light of the provisions of Indian Constitution.

The state monopoly is now in the melting pot. The Government tried to curb monopoly as a thrust of socialistic economy by enacting the Monopoly Restricted Trade Practice (MRTP) Act. The Competition Act 2002 has been enacted to promote and sustain competition Act was enacted. The later statute is a legal instrument for trade intercourse. There was state monopoly in different public sector undertakings. Government is inviting private players to become its stake holder. In Coal India. Ltd. 21 % of equity is now being owned by private sector enterprises. More equity shares of Coal India. Ltd to the private sector are in the pipe line. Public Private Partnership (PPP) also giving a new horizon to the infra industry and commerce. The PPP scheme is a long term contractual arrangement between the government entity and a private partner whereby the later delivers and funds public services by using the capital asset and sharing the associated risks. Under these contracts, the private investor is under obligation to design, build, finance and operate the capital asset required for service delivery.

Social science is one of the behavioral methods of study. Individual behavior and impacts on Government are under the demand and supply to regulate market conditions. In view of the ongoing changes the provisions of article 301 to 306 of Part XIII of the Indian Constitution require a threadbare academic and judicial discussion. Such an enquiry will open a new vista in the domain of commercial jurisprudence.

Reference

(n.d.). Retrieved from http://www.legalservicesindia.com/article/148/Freedom-of-Trade-&-Commerce.html .

(n.d.). Retrieved from http://www.grkarelawlibrary.yolasite.com/resources/FM-Jul14-CL-2-Muriel.pdf.

(n.d.). Retrieved from http://www.legalservicesindia.com/article/98/Indian-Parliament-&-States-Powering-Regulation-in-the-Trade-&-Commerce-Industry.html.

(n.d.). Retrieved from http://www.legalservicesindia.com/articles/tradeci.htm.

(n.d.). Retrieved from Spra : http://www.legalservicesindia.com/article/98/Indian-Parliament-&-States-Powering-Regulation-in-the-Trade-&-Commerce-Industry.html .

(n.d.). Retrieved from https://docs.ewaybillgst.gov.in/Documents/usermanual_ewb.pdf .

(n.d.). Retrieved from https://en.wikipedia.org/wiki/Digital_India .

(n.d.). Retrieved from http://www.preservearticles.com/2012020422772/7-main-problems-faced-by-road-transport-in-india.html .

(n.d.). Retrieved from http://commerce.gov.in/writereaddata/trade/international_VIth_TPR_India2015.pdf.

(n.d.). Retrieved from https://en.wikipedia.org/wiki/Goods_and_Services_Tax_(India).

(n.d.). *(2004) 11 SCC 26 (Part 141, 116 and 145).*

(n.d.). A. 302, The Constitution of India.

Act, 19 Indian Constitution. (n.d.).

Act, 301 Indian Constitution. (n.d.).

(n.d.). *AIR 1954 SC 728, 742.*

(n.d.). *AIR 1957 SC 699.*

(n.d.). *AIR 1970 SC 1725.*

(n.d.). *AIR 1975 SC 583, 587.*

(n.d.). *AIR 1982 SC 33.*

(n.d.). *AIR 1993 SC 237, 243.*

(n.d.). *AIR 2006 SC 2550.*

(n.d.). *Article 19 (1)(g) to practice any profession, or to carry on any occupation, trade or business.*

(n.d.). *Articles 302, Power of Parliament to impose restrictions on trade, commerce and intercourse. Aarticle-303, Restrictions on the legislative powers of the Union and of the States with regard to trade and commerce. Article-304 , Restrictions on trade, co.*

(n.d.). *Atiabari Tea Co., Ltd. v The State Of Assam And Ors., AIR 1961 SC 232, 1961 1 SCR 809.*

Atiabari Tea Co., Ltd. vs The State Of Assam And Ors., AIR 1961 SC 232, 1961 1 SCR 809 . (n.d.).

(n.d.). *Automobile Transport (Rajasthan) Ltd. v. State of Rajasthan, AIR 1962 SC 1406.*

(n.d.). *Bishambhar Dayal Chandra Mohan ... vs State Of Uttar Pradesh & Ors on 5 November, 19811982 AIR 33, 1982 SCR (1)1137.*

(n.d.). *District Collector of Hyderabad v. Ibrahim & Co.*

http://interstatecouncil.nic.in/wp-content/uploads/2015/06/CHAPTERXVIII.pdf . (n.d.).

http://shodhganga.inflibnet.ac.in/bitstream/10603/129409/11/11_chapter%204.pdf. (n.d.).

http://www.grkarelawlibrary.yolasite.com/resources/FM-Jul14-CL-2-Muriel.pdf. (n.d.).

http://www.legalservicesindia.com/article/98/Indian-Parliament-&-States-Powering-Regulation-in-the-Trade-&-Commerce-Industry.html. (n.d.).

https://books.google.co.in/books?id=okfdEdoaH70C&pg=PA55&lpg=PA55&dq=%E2%80%9CDemocracy+is+the+art+and+science+of+mobilising+the+entire+physical,&source=bl&ots=Y2IiUmA3Nm&sig=9wmSCvJDP9vyG5UggqIKPlDGm0I&hl=en&sa=X&ved=2ahUKEwih1fa4tsvcAhVIWH0KHd3LBo4Q6AEw. (n.d.).

ICT: Information and Communication Technology. (n.d.).

(n.d.). Indian Constitution.

(n.d.). Indian Constitution.

(n.d.). Indian Constitution.

Indian Constitution . (n.d.).

(n.d.). *Kheyerbari Tea Co VS State of Assam, AIR 1964 SC 925.*

Law Dectionary . (n.d.).

(n.d.). *Malwa bus services Ltd. v. State of Punjab, AIR 1983 SC 634.*

(n.d.). *Manick Chand Paul v. Union of India, AIR 1984 SC 1249.*

(n.d.). *Moti Lal v. Uttar Pradesh Govt., AIR 1951 All. 257.*

(n.d.). *Ram Jawaya v. Punjab, A.I.R. 1955, S.C.540; Jayanti Lai Amrit lal v. F.N.Rana, A.I.R. 1964.*

(n.d.). *SARKARIA COMMISSION REPORT, 502 (1988).*

Section 92 trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free. (n.d.).

(n.d.). *State of Bihar v. Harihar Prasad Debuka, AIR 1989 SC 1119.*

(n.d.). *State of Madras v. Nataraja Mudaliar, AIR 1969 SC 147.*

TO BE PUBLISHED IN NEXT ISSUE

Business Intelligence and Decision Making influence Bancassurance System

* Soumen Nanda
** Prof Barada Prasad Bhol
*** Dr Santa Misra

Abstract

Business Intelligence. & Decision making play a vital role in the domain of successful business system in the organizational sectors. Business Intelligence (BI) is identified as a tool & technique of decision making Style (DMS) which has an impact on business strategies. This study is an attempt in exploring how Business intelligence and decision making style of a person are influencing Bancassurance policies in banking sphere of different nationalized banks in India and Netherlands. Bancassurance is a collaborative relationship between a bank and an insurance company. It is the insurance distribution model where insurance company and bank join together to sell insurance product to customer of the bank, that aims at providing customers' satisfaction in same platform , by keeping the money in the bank and availing the different insurance benefits from the same bank as well .

In this study a quantitative survey-based analysis was made to represent the relationship between BI capabilities, decision support benefits, and organizational benefits in context of banking environment on Bancassurance system. On this basis, 120 (N=120) subjects randomly selected from 1260 population, from nationalized banks of India and Netherlands, (n = 60 in each group), and were administered the BI and DMS questionnaire . The finding of the study revealed that BI has a strong impact on DMs on the process of availing Bancassurance system. The study implicates effective and useful insights for investors and business owners to utilize more appropriate BI tools and functions to reach more idealistic organizational advantages. Also it enables managers to have better understanding in the application of BI functions in the process of achieving the specified managerial support benefits on Bancassurance policies .

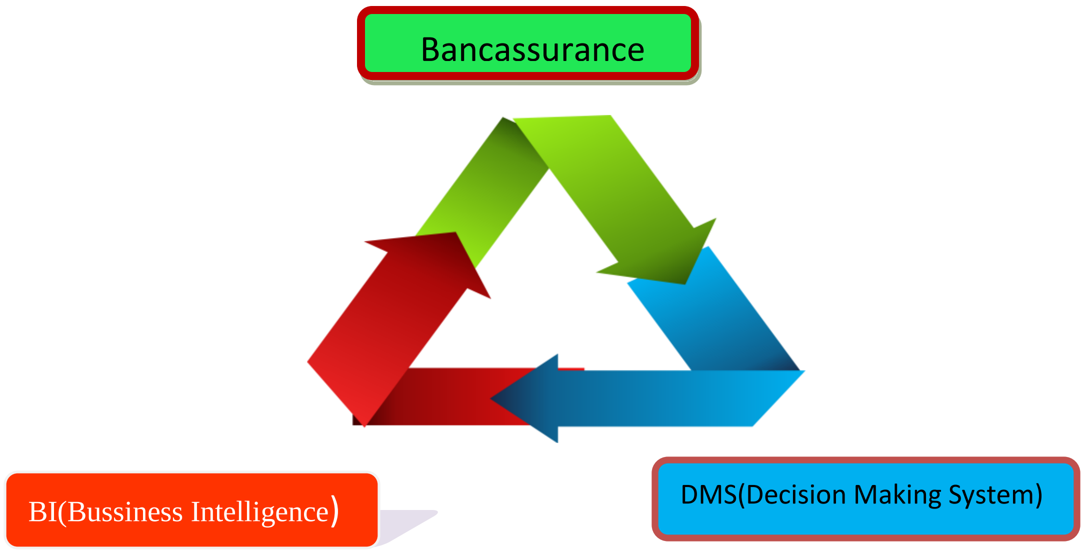
Key words : *Bancassurance , Business Intelligence and Decision Making Style*

* Research Scholar, soumennanda@gmail.com

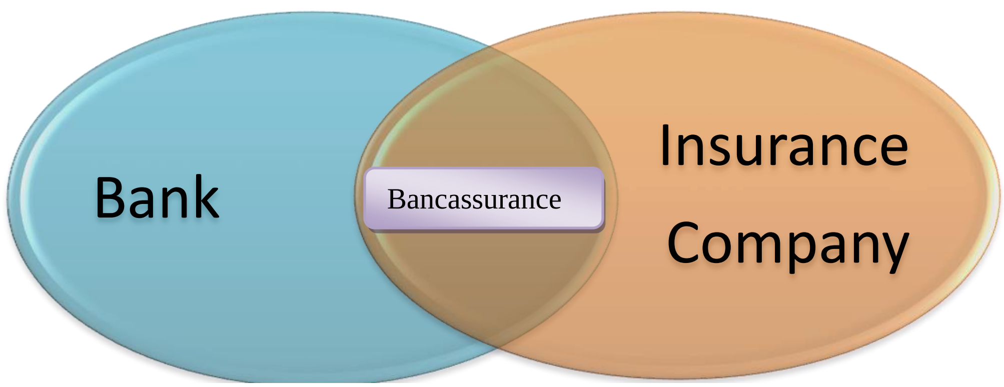
** *Registrar , ISBM University, Chhatisgarh , INDIA* baradaprasadbhol@gmail.com

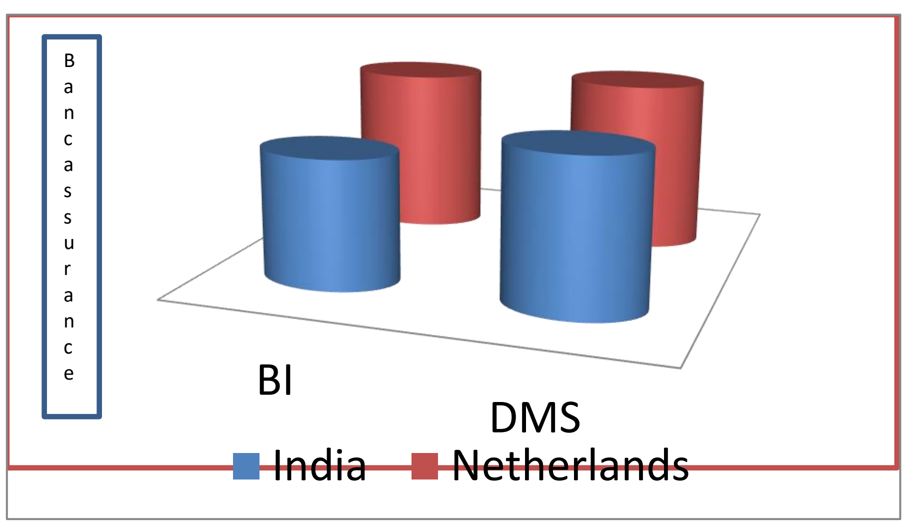
*** *Associate Professor and ex - Principal SSS College for Women, Bhubaneswar, Odisha, India* dr.santamisra@gmail.com

A Model to Incorporate Bancassurance



Bancassurance





GENERAL INFORMATION AND INSTRUCTION TO AUTHORS

Odisha Journal of Social Science is a self-financing, blind referred and peer-reviewed bi- annual (preferably, in January and July of every year) journal with inter disciplinary approach.

1. The articles are invited for the Journal with soft copy/print or hardcopy (type material)
2. The font style should be TIMES NEW ROMAN with size 12 and Auto spacing.
3. All articles must be accompanied by an abstract. Begin the abstract on a separate page. Type the abstract as a single paragraph without paragraph identification. An abstract for an empirical paper should be 200-250 words.
4. All articles must follow the style and format as suggested by the publication manual of the American Psychological Association.
5. The title should be in 15 words or less in length. The running head (within 60 letters) must appear on the title page. The running head is a shortened title to be used for the printed article.
6. Figures and tables must appear on separate sheets of papers. These should be of professional quality and must not exceed 22-28cm. Figures must be drawn on tracing Pagers.
7. The length of the manuscript must be within 20 typed pages including tables, figures and references.
8. Must include all references except personal communications in the reference list. Mention personal communications only in the text. In reference list, place the year of publication in parentheses immediately after the author's name.

Reprints

Authors of papers published in the journal will receive free of charge 10 off prints of their paper.

Subscription Rates

One Issue : $25.00 (foreign); Rs.250.00 (Inland) Subscription are to be sent by Bank Draft of Money Order only to Bhubaneswar Mohapatra, 2624/3484, Baragada Canal Colony, At/Po. BJB Nagar, Bhubaneswar -751014, ODISHA (INDIA)

Correspondence

All correspondence should be made to : Dr. Santa Misra
Chief Editor : Odisha Journal of Social Science
2624/3484, Baragada Canal Colony, At/Po. BJB Nagar, Bhubaneswar - 751014, ODISHA (INDIA),
e-mail : santaamisraaftediffmail.com,
Mob. : 9457211371 133
Web: www.jssodisha.com

OJSS Membership form 2014

Surname: ………...……........………………… First Name: ....

Mailing Address: ……………………………..............City:……………………………. State- …………
Postal Code:…………………….. Country:………………………..
Email………………………………………………Date Submitted: ………...……..

Would you like to receive the publications [ ] electronically or [ ] paper Person you are sponsoring (if applicable):

Surname: ………...……........……First Name: ....
Mailing Address: ……………………………...................City:…………………………......
State- …………………… Postal Code:…………………….. Country:……………………
E-mail………………………………………………Date Submitted: ………...………..

Would she/he like to receive the publications [ ] electronically or [ ] paper.

Payment Summary …………......................…………………………………………

Category of Membership

PATRON	Rs. 10,000 (ONE TIME)
CORPORATE MEMBER	Rs. 9000 (10YEARS VALIDITY)
FELLOW	Rs. 8,000 (ONE TIME)
LIFE MEMBER	Rs. 10,000(10 YEARS VALIDITY)
ASSOOCIATE	Rs. 5,000
MEMBER	Rs. 3,000 (PER ANNUM)
STUDENT MEMBER	Rs. 1,000 (PER ANUM)

Membership Fee for______________ Category .TOTAL PAYMENT: _____________

The amount may be deposited in the account number - 30753198829 , IFSC NO. SBIN 0003341 OUAT, Bhubaneswar, Odisha, to the treasurer, B Mohapatra, against OJSS. 134

**NATIONAL INSTITUTE OF SCIENCE COMMUNICATION
AND INFORMATION RESOURCES**

(Council of Scientific and Industrial Research)
14, Satsang Vihar Marg, New Delhi 110 067 &
Dr. K. S. Krishnan Marg (Near Pusa Gate) -110 012

Ms. V. V. Lakshmi, Head, National Science Library
Phone: 91-11-2686 3759
E-mail: vvlakhmi@niscair.res.in website:nisrair.res.in
NSL/ISSN/INF/2013/1158 Dated: May 22, 2013
Head,
Dept. of Psychology,
Sri Satya Sai College for Women,
Bhubaneswar— 751030
Odisha

Dear Sir/ Madam.

We are happy to Inform you that the following serial(s) published by you has been registered and assigned ISSN (Print)

ISSN 2321 - 3493 Odisha Journal of Social Science

It is important that the ISSN should be printed on every issue preferably at the right hand top corner of the cover page.

The Indian National Centre will be responsible for monitoring the use of ISSN assigned to Indian Serials and for supplying up to-date data of the same to the International Centre for ISSN, Paris. For this purpose we request you to send us the forth coming issue of your serial on complimentary basis.

We solicit your co-operation in this regard.

Yours sincerely

(V.V. Lakshmi)
Head

National Science Library

Please don't forget to send a sample Issue of the journal /URL with ISSN printed on it

Contact : Ms. Shobhna Vij

e-mail : issn.india@niscair.res.in phone : 011.26516672

ISSN 2321 - 3493

Indexed with : **Council of Scientific and Industrial Research**
14, Satsang Vihar Marg, New Delhi -110 067 &
Dr. K.S.Krishnan Marg (Near Pusha Gate) - 110 012
email: wlakshmi@niscair.res.in
Website : www.niscair.res.in

₹ 250/-