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Aims and Scope

JAMR focuses on publishing scholarly articles from the areas of management, management principles, recent inventions in management, company management, financial management, human resources, accounting, marketing, operations management, human resource management, statistics, international business, information technology, environment, risk management, globalization and related areas. Asian journal of management research seeks original manuscripts that identify, extend, unify, test or apply scientific and multi-disciplinary knowledge concerned to the management field.

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Contents

Othe Impact of Resettlement Program on the Inc Me of Households in Guto Gida Woreda, East Wollega Zone, Oromia Regional State, Ethiopia.

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A B S T R A C T

The study evaluated the impact f resettlement program on the households' inc me in Guto Gida Woreda of East Wollega Zone Oromia, Ethiopia. Some of the resettlement schemes around the world failed, while some others were successful. The objective of the study was to identify facators that cause resettlement and evaluate the impact of resettlement on the household's annual income in study area. he study was based on cross-sectional data collected from a sample of 140 households (81 were program participants and 59 were non-program participants) using purposive and stratified random sampling techniques. Descriptive statistics and econometric models were employed to analyze the data. The Logit model indicated education status of the households, availability of credit access, availability of agricultural inputs, land farm size holding by household, farm income of household were negatively and significantly related to program participation while shocks, livestock holding by household, access of extension service, and total asset of household were positively affect and significantly associated with program participants. Propensity score matching shows, that the average annual income of resettlement program participants more than income of non participant by 19,162.6463ETB. Based on encouragement of resettlement the findings, the study suggests that strengthening the program have crucial role towards improving the income of households in the study area. Finally, the policy implication of the study is that income sources diversification, incorporated development program, practical based extension service delivery, access to credit service for the purchase of agricultural inputs and its preparations are needs policy attention.

Key Words: Resettlement Programme, Propensity score matching, Househol 's income, Guto Gida Woreda.

1. INTRODUCTION

Resettlement is a population movement planned directly by the government or private developers, where an area is chosen in order to resettle the population (Sherbininet al., 2010). If, resettlement is effectively used, it is a vital to realize these entire notions, and to proactively plan for resettlement as part of equipped protection approach (UNHCR, 2012). The effect of resettlement is more on women than men (Bisht, 2009, Terminski 2013). The resettled households have restricted options

business comes up with. Strategy is one part of a whole range of reasons but not the only reason for success. There are a lot of things that amount to the success of an organization, and leadership without a doubt is one of the main reasons for this success.

Leaders with a high commitment could be a key to the development of an environment that provides organizational effectiveness. Since effective leaders demonstrated to be predictive of attitudes and performance in organizations, the question raised regarding whether other leadership behaviors would also be predictive in the same way or not (Cascio, 2010).

According to Emana(2012), the leadership problems in agricultural cooperatives facing in Ethiopia summarized into the following important areas of concern: understanding the use of financial statements, leadership training, strategic planning, board/manager relations, legal responsibilities, and performance assessment. Koopman(2004) underlines that effective board of directors teamed up with qualified professional management are essential for success of the cooperative. Therefore, this study isdeals about the effect of leadership on agricultural cooperatives business performance in HoroGuduruWollega zones of oromia regional state, Ethiopia. The specific objective of this study is „to examine the knowledge of leaders about basic cooperative principles as a key factor for Agricultural cooperatives business performances".

2. LITERATURE REVIEW

Leadership can be defined in different ways that it is hard to come up with a single working definition. Leadership is not just a person or group of people in a high position. Leadership is a process in which leader is indulged in various activities to achieve any goal. Leadership refers to the behavior/ attitude of a leader to collect and direct the individuals towards any goal. Leadership is a communication process of leader and individuals. So the effectiveness of an organization depends upon the effective leader and effective leader is that person who has an effective leadership style. Leadership is a very important factor for any organization or group. There are three famous ways in which we can describe leadership from different perspectives.

An effective leader adapts its leadership style to a group of persons of individuals to gain the best results from each one of them, among the best qualities are being a good listener, give straight directions, follow up the employee"s activities, and solve conflicts, openness to create a productive atmosphere (Druskat, et al. 2003). Empowerment and effective leadership are related in the way that a good leader will want to delegate activities and rest responsibilities" upon his or her employees. A good leader will tend to build his or her employees commitment and abilities to the company in order to develop, and one way of doing this is by means of empowerment (Druskat, et al. 2003).

A successful institution is the shadow and projection of the personality of a leader that behind every successful cooperative there is a person of integrity, vision, driving interest, dedication and perseverance. A leader must have strong faith in the movement.

Informed leadership is the very basis of a cooperative movement. It is important that a leader must know the principles and philosophy of cooperation, business policies basic principles of accounting, elements of parliamentary procedures for conducting board and general meeting, etc. the cooperatives, therefore, have to pay sufficient attention in electing the ablest, efficient and enlightened leaders who have genuine and keen interest in the development of the cooperatives movement. Cooperatives are democratic

institutions. The successful operation of cooperative democracy in cooperatives depends on the democratic leadership. A successful democratic leader is one who is able to behave appropriately, direct and guide properly, and provide freedom to all member patrons without any discrimination.

Leadership plays a crucial role in the commitment of the members of the cooperative. Previous success of cooperatives does not guarantee future success. This is partly because of the causal link that relates to the success of cooperatives to members‟ commitment. Members‟ commitment to the cooperative is influenced by the decision-making process adopted by the cooperative leaders (Fulton, 2008). According to Perry(2001) and Beaver (2003), poor leadership practices in businesses are the cause of many business failures. Gordon and Yukl(2004) advocated moreresearch on leadership skills relevant to turbulent small business environments. (Beaver, 2003) examined records from 200 bankrupt of businesses, from which he concluded that the primary failure of the organizations was a lack of leadership knowledge and neglect by management.

3. RESEARCH METHODOLOGY

This study was conducted on farmer‟s agricultural cooperative societies in HoroGuduruWollega zone of oromia regional state. This study were employed a concurrent mixed approach (quantitative and qualitative) approach due to the nature of the study. The researcher convinced that the design could be appropriate for this study, as it is inclusive, and appropriate for collecting both qualitative and quantitative data for the study purpose. The study employed Cross-Sectional survey research design and it is economical, allows comparison of the variables at only one point at particular time (Saunder, 2003), and allows exploring more detailed reality about the problem understudy through its qualitative data gathered via focus group discussion and key informants. The study data was collected from 96 leader respondents of sampled agricultural cooperatives and 192 individual members of the cooperatives. In general, the total sample size of the study was 288 respondents. The collected data through different instruments were analyzed with the help of descriptive statistics and inferential model called multiple regression models.

4. DATA ANALYSIS AND PRESENTATIONS

The populations of this study were 288, which mean 96 of them were leaders of the sampled primary agricultural cooperative societies and 192 of them were active individual members of the sampled primary cooperative societies from Chaffe Bulluk and Haragufarmers‟ cooperative union. All of them are leaders and members of Primary agricultural Cooperative societies.

Knowledge of leaders about basic cooperative principles as a key factor for cooperative business performance majority (57.3%) of leader respondents were agree with that leaders of the cooperative societies have the knowledge of open membership as a cooperative principles to practice in their leadership practices and about (14.6%) of them were strongly agree that leaders have the knowledge of open membership principle. The rest (28%) of the respondents were opined as undecided, disagree and strongly disagree with leader‟s knowledge of open membership cooperative principles. As it is seen from the analysis of this investigation, there is a knowledge gap among some leaders of the cooperatives about open membership as basic cooperative principles to lead the cooperatives towards better performances.

Regarding leaders knowledge about voluntary membership principle, majority (44.3%), (10.4%) and (4.2%) of them were opined as undecided, disagree and strongly disagree about their knowledge of the

voluntary membership principle to practice in their cooperative society while onlythe rest (24%) and (16.7%) of them were agree and strongly agree with the issue respectively. As the result of analysis reveals, most leaders of cooperative societies don‟t have required knowledge about voluntarily membership principle to apply in the leadership of their cooperative societies.

Regarding leaders knowledge of cooperative Members democratic control of their capital, majority (58.3%) and (21.9%) of them were opined as agree and strongly agree, while the rest (13.5%) and (6.3%) of them were opined as undecided and disagree with leaders knowledge of members democratic control of their capital in their cooperatives. As the result of analysis shows, there is a knowledge gap with leaders of the cooperatives about democratic management of the capital of the cooperatives with its patrons.

Regarding democratic election (one man, one vote) of the cooperatives, majority (49%) and (20.8%) of the leader respondents agree and strongly agree with leaders knowledge about democratic election (one man, one vote) principle to exercise in their cooperatives while the rest (12.5%), (9.4%) and (8.3%) of them were opined as undecided, disagree and strongly disagree about their knowledge of democratic decision making. About (31.3%), (17.7%) and (4.2%) of leader respondents opined as undecided, disagree and strongly disagree about leaders knowledge of Members right to fire committee if needed in the cooperatives. As the result of analysis indicates, leaders of the cooperatives have knowledge gap of democratic election practices and members right to fire committee of cooperatives if needed for proper management of the cooperatives and their business.

Descriptive statistics of leaders knowledge of Basic Cooperatives Principles

Table 4-3.2 illustrates that the respondents knowledge of the basic cooperatives principles (BCP) to practice in the successful performance of the cooperatives business. Leaders could achieve the goal of cooperatives in implementing the basic cooperatives principles. The medium mean score indicates that the cooperative leaders have the knowledge of open membership principle and voluntary membership principle ($\bar{X}$=3.96 and 3.75). Leaders knowledge of decision making in cooperatives are based on one man one vote principles and members democratically control their capital have the mean score of ($\bar{X}$=3.65 and 3.39) respectively. In cooperative business organization, cooperative leaders have the knowledge of members right of freely electing and firing the committee and have required autonomy and independency to perform their activities ($\bar{X}$=3.30, 3.28 and 3.14).

The other is about leader‟s knowledge about cooperative local horizontal cooperation and regional vertical cooperation have the mean score of ($\bar{X}$=3.15 and 3.38) respectively. The remaining seven variables have less than 3.0 mean values about the leader‟s knowledge of basic principles of cooperatives. This result indicated that leaders of cooperative society have notgood understanding about cooperative principles as a key factor for cooperative success. Moreover, key informants of the study also explained asLeaders of primary cooperative society are farmers who have little formal education and knowledge but they elected from the farmer members by their relative better local knowledge and their innate leadership qualities. Leaders have no cooperative principles and values knowledge to lead their cooperatives. Therefore, to solve this problem the union has been trying some remedial activities like training to leaders but it is very less because of budget scarcity and less consideration given to such knowledge. In addition to these, focus group discussion (FGD) of the study described leaders of primary cooperative society lacks understanding of basic cooperative principles and leading their cooperatives in traditional form.

The mean scores of the variable of business performance of cooperatives (BP).This construct are about how the leaders perceive the performances of cooperatives business. The items of the variable more focus on financial, production and marketing performances of the cooperatives businesses. The mean perception values of the respondents to the business performances practices in cooperatives organizations found to be moderately ranging from $\bar{x}$= 3.04 to $\bar{x}$= 3.76 for ten mean values. The rest five mean scores describe low mean values ranging from $\bar{x}$= 2.70 to $\bar{x}$= 2.84. Therefore, the overall leaders" perception to financial, market and production performance of the cooperative business performance were low.

MODEL SUMMARY

Mo d el	R	R Squar e	Adjust ed R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.807a	0.651	0.375	0.263	0.651	2.356	42	53	0.002

a. Predictors: (Constant), Basic cooperative principles
b. Dependent Variable: Business Performance

In this case the value of R2 = .651 and this means that the model explains 65.1% of the variance in dependent variable (BP). Several residual statistics can be used to assess the influence of a particular case. If a case does not exert a large influence over the model, the adjusted predicted value is very similar to the predicted value when the case is included (Field 2009).

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.281	16	0.205	2.244	.010[b]
	Residual	7.219	79	0.091		
	Total	10.5	95			

a. Dependent Variable: Business performance
b. Predictors: (Constant), the coops participate on community development, coop render education to publics, the coop is socially concerned, members fire the committee when needed, independency of cooperatives, members develop the capital of their coops, dividend is shared for members as thierpartici, cooperative membership is open for all, local horizontal partnership, members paid fixed interest on thiercaptal, regional vertical partnership b/n coops, Membership is voluntary in coops, member & committee education and training, coop members democratically control the capita, Autonomy of coop members, one man, one vote

The above ANOVA table reveals us that, the "F" statistic for the model has a significance level of 0.00. This entails that at least one of the correlation between each of the independent variables are not equal to zero.

Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.054	0.306		3.44	0.001
	cooperative membership is open for all	-0.152	0.059	-0.358	-2.564	0.012
	Membership is voluntary in coops	0.056	0.056	0.147	1.007	0.017
	coop members democratically control the capita	-0.042	0.049	-0.13	-0.873	0.085
	one man, one vote	0.118	0.045	0.412	2.606	0.011
	members fire the committee when needed	-0.164	0.049	-0.496	-3.308	0.001
	devidend is shared for members as thierpartici	0.071	0.043	0.197	1.65	0.003
	members develop the capital of their coops	0.004	0.058	0.008	0.062	0.051
	members paid fixed interest on thiercaptal	0.055	0.053	0.133	1.033	0.005
	Aoutonomy of coop members	0.09	0.058	0.232	1.564	0.022
	independency of cooperatives	-0.053	0.044	-0.168	-1.202	0.033
	member & committee education and training	-0.066	0.046	-0.208	-1.454	0.05
	coop render education to publics	-0.02	0.058	-0.042	-0.341	0.034
	local horizontal partnership	0.015	0.045	0.04	0.331	0.042
	regional vertical partnership b/n coops	0.08	0.049	0.217	1.629	0.007
	the coop is socially concerned	0.019	0.05	0.058	0.39	0.007
	the coops participate on community devt	0.036	0.043	0.098	0.831	0.009

a. Dependent variable: business performance

All variables of the basic cooperative principles are significant at 0.05 significant levels. This result entails us that leader‟s knowledge of cooperative principles has significant impact on business performances of the cooperative societies in the study area.

CONCLUSIONS

As the results of analysis reveals, cooperative leader‟s knowledge of cooperative principle as a key factor for cooperative business success is a key problem affecting business performances of agricultural cooperatives in the study area. The government and other community development partners should arrange trainings for leaders to improve the effectiveness of Leadership in enhancing business performance of cooperatives, and leaders of cooperatives need to focus on basic cooperatives principles as key factor for success of business practices of the cooperatives. These actions will ensure the survival, productivity, improved living standard of the cooperatives members, competitiveness, and prosperity of cooperatives businesses.

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Employee Retention

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A B S T R A C T

In the modern business competitive world, employee retention became an important element which has to be considered by every organization because due to increasing opportunities in the market, the employees are skittering from one organization to the another where better position and salary are offered.

Employee retention refers to the ability of an organization to retain its employees. Generally, employee retention is considered as an employer's attempt to retain the employees in their organization. In this view, retention considered as strategy more than an outcome.

This article contains the description about the concept of employee retention, different retention strategies used in the organization. It includes the notion of employee turnover and its factors. It also includes best practices like recruitment, socialization, training and development, employee engagement, compensation and rewards for the retention of employees.

Keywords : Employee retention, strategies, turnover, compensation, rewards, organization

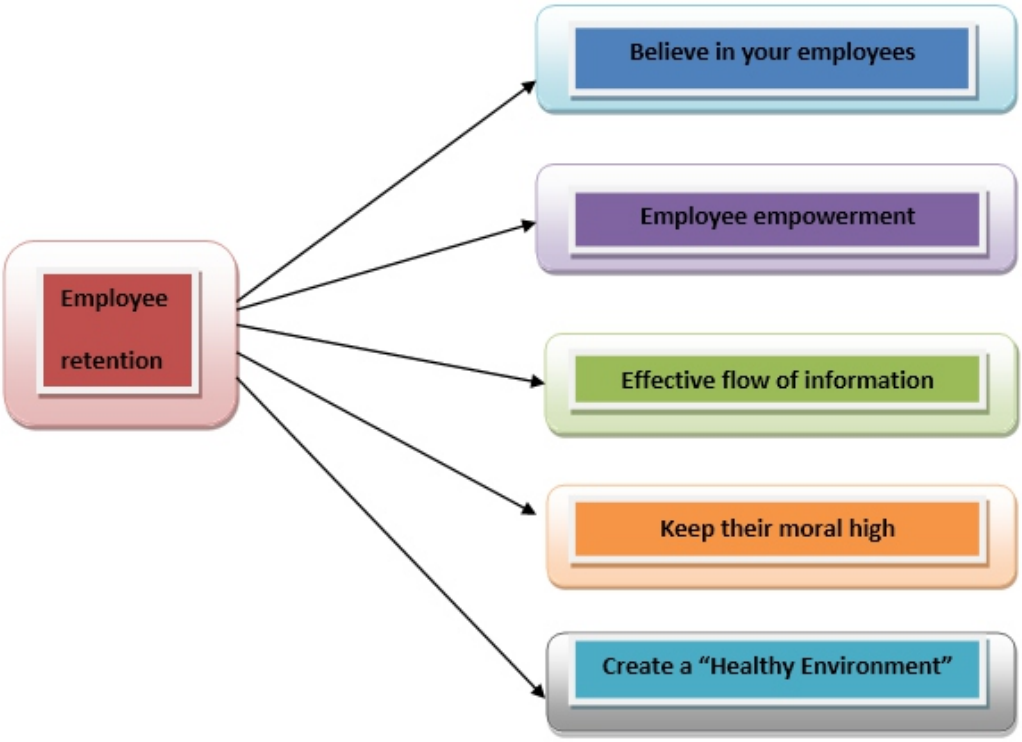
OBJECTIVES

- To study the retention strategies to reduce employee turnover.
- To know how to hold back the employees by providing good compensation and rewards within the organization.
- To learn about the factors leading to the employee turnover and various best practices to avoid turnover and increase retention

INTRODUCTION

Employee retention is a procedure where the employees are motivated to retain in the organization for more time period or until the project get completed.

EMPLOYEE RETENTION STRATEGIES



1. Believe in your employees

It is very important for an employer to have trust in their employees. Initially at the time of hiring, the HR manager has to analyze the commitment of the employee towards the organization and they has to believe that those new employees can able to do the specific work and also face different challenges at work place. The employee must also believe the employer and follow them. Here the employer support is very important for the employee to reach the individual goals and also the organizational goals. This kind of employer belief and trust in employee can retain the employees.

2. Employee empowerment

Employers has to encourage employees to perform prescribed and voluntary activities. To achieve the goals, organizations use a number of HR practices that directly affect the person, process and context components of job performance. Employees reactions to these practices determine their levels of engagement and commitment. Even though the employee is independent and self-motivated, it is the duty of employer to motivate and empower the employees.

Generally, when the new employees are encouraged and involved in several activities then they starts liking the work place and they don't want to hop to any other company.

3. Effective flow of information

It was said that for the success of the organization or any business, the two factors are to be considered
i. Optimal Cash flow
ii. Effective Information flow

Effective communication is very important in any organization. There can be different levels of management in the organization so the decisions taken by top level or any other level of management has to conveyed to all the employees within the organization if required. The transparency has to be

maintained regarding the information so that all the employees can have the adequate knowledge about several aspects related to the organization.

Maintaining important information transparency can increase the interest of the employees towards the organization as they known the several details and it indirectly increases the rate of retention.

4. Keep their moral high

Employee morale can be defined as the attitude, satisfaction and perspective of employees the interactions within the organization. The employees who are not convenient in the workplace, will constantly complain and crib about the various aspects of an organization, like employee rules, organization culture, facilities at workplace etc tend to have a low employee morale. Low employee morale can increase the employee turnover.

5. Create a "healthy environment"

The most important retention strategy which holds back the employee from leaving the organization is maintaining the good and healthy workplace environment. The organization must have the adaptable rules and regulations, facilities (like canteens, drinking water, rest rooms, cafeteria etc) are to be provided, friendly environment has to be created for the employees. The organization must involve the cultural activities, celebrations of festivals, annual days, fests, several events to create interest in the employees. The organization has to provide the flexible and happy environment so that the employee can work effectively and with 100% efficiency.

EMPLOYEE TURNOVER

Employee turnover is a deeper issue in any organization which is not so easy to resolve, and it may include low employee interest, confusing career path, low recognition, poor relationships or many other issues. Employee turnover leads to the involvement of various direct and indirect cost.

Direct cost	Indirect cost
Recruitment cost	Lost knowledge
Advertising cost for new position	Loss of productivity
Orientation and training of new employee	Cost due to lack of motivation before leaving
Severance cost	Cost due to loss of trade secretes

Turnover is of two types:

• **Voluntary turnover:** voluntary turnover is the process where employee himself/herself wants to leave the organization due to different reasons.

for example – turnover due to personal problems like health issues, shifting for one area to the another .

• **Involuntary turnover:** Involuntary turnover is the process where employees are given no other option than termination.

for example - turnover due to nonperformance , misbehavior, breaking the organization rules and regulations.

Even though the compensation influences the stay back behavior of employee, but in some situations it is given the least preference. There are various factors leads the employee to leave the organization they are,

EMPLOYEE TURNOVER FACTORS

- No growth opportunities
- Non fulfillment of Expectations of the employee regarding job
- Lack of appreciation
- Low compensation and benefits
- Inappropriate leadership
- Less support of management
- Unhealthy organization culture
- Work life imbalance
- New and better job offers

BEST PRACTICES

Recruitment

Recruitment is the procedure of searching for the potential employees and making them to apply for the job. It is the duty of the HR manager to recruit the right person for the right position at the right time. HR manager must possess the skills of analyzing the new entrant whether

- they can work for the organization with utmost dedication
- how much interest they posses to retain in the same organization for the longer time.

Socialization

In the case of employee retention, Socialization basically refers to the interactions among employee and their employer within the organization. It is very important for the organization to maintain a good employee-employer relations. The organization has to provide the intranet and direct communication channels to make the employees expressing their views, ideas and other informal discussions. Basically the organization has to provide an interactive environment for the employees which enhances their relationships and to explore themselves.

Training and development

Most organizations fail to understand how training their staff is important. It may be the employee on-boarding or any other formal training process, employees should be well- equipped to perform their tasks at work and achieve their goals. Generally, the training will help employees sharpen their skills, which will not only benefit them but also the organization. In order to retain the employees, the organization has to provide the appropriate T&D programs for the employees in order to increase their career opportunities which leads to their career growth. Basically, no employee will be interested in working at the same position for many years in an organization, they definitely wish to work in the higher positions or they need some kind of improvement in their position and salary, if the organization can provide the best training and development programs, then employee retain in the same organization or if organization fails to reach their expectations then the employee will leave the organization.

It is important to involve the employees in various activities within the organization, It may be the job related activities or other cultural activities.

The job related activities like assigning the task, reaching the targets, submitting the assignments, involving in decision making, participating group discussions, attending the meetings.

Other activities are like celebrating birthdays, flash mobs, sports competitions, fests, team lunch, pot locks.

It is the responsibility of the employer to create the interest in the employee to participate in several activities so that they can retain in the same organization.

Compensation & Rewards

Compensation and rewards are the most important factors which can hold the employees or they may lead to leave the organization. The organization has to pay the appropriate salaries to the people for their employment. Various financial and non- financial benefits are to be provided to the employees. These compensation and benefits indirectly motivates the employee to work efficiently.

Financial benefits	Non-financial benefits
Incentives	Awards
Bonus	Gym membership discounts
Shares	Sabbatical leave
LTC	Flex-time

Compensation and rewards can retain the existing employee and attract new talents which indirectly improves the organization goodwill.

LITERATURE REVIEW

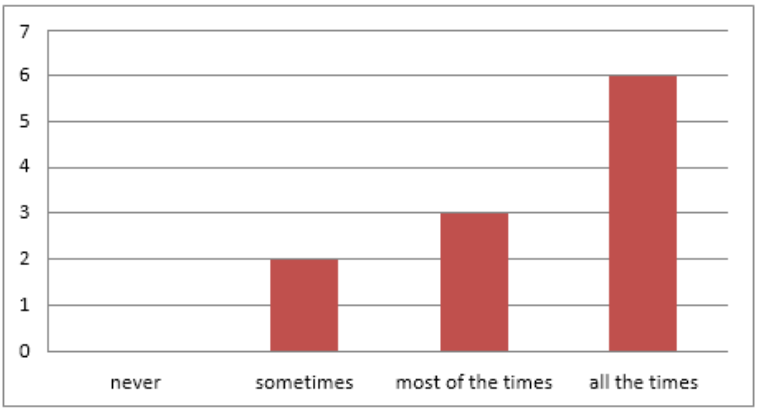
Yiu Lichia and Saner Raymond (2014), measured HR function by reporting on the findings of a survey of attrition in Indian companies and discussed the possible strategies chosen by Indian companies to counter costly labour turnover. Higher attrition can be minimized through the payment of higher compensation packages. The researchers suggested that Indian companies should do more to strengthen the bonding of internal social networks and deepen individual job satisfaction and organizational commitments to ensure talent retention through competence

Jeen Dorance Batty S. (2014), aimed to the factors which may be the possible reasons for an employee to leave an organization. Employee's turnover intention and its impact on organizational outcomes were analyzed and that was collected through questionnaires from the first and middle line employees in selected organized retail outlets in Bangalore. From the econometric analysis, it was found that turnover intention has influenced attrition factors such as Quality of Work Life, career growth, working hours, personal/family reasons, and relation with internal co – worker, welfare, working condition, and salary.

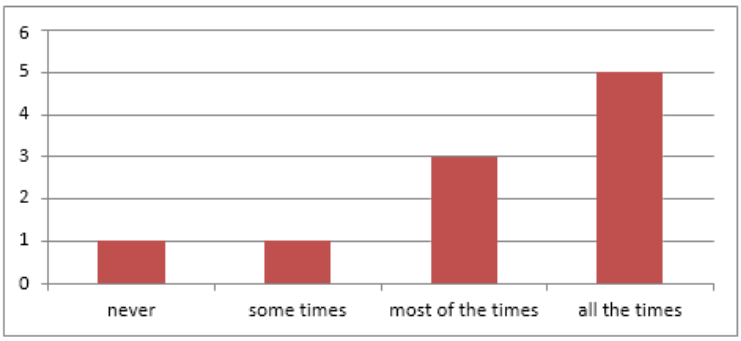
Mathur, Atul and Agarwal, P. K. (2013), aimed to understand the impact of retention strategies on employee turnover in sugar industry in India. The focus of this study was on dysfunctional turnover. Other variables such as welfare benefits, personal satisfaction and organization culture, which are associated with the employee turnover, were also investigated as a part of this study. It was found that the main reason for leaving the organization by employees were compensation and working environment. Results of the study revealed that retention strategies have direct impact on employee turnover. Researcher suggested that by using different HR practices like effective compensation policy, performance appraisal, training and development programme, feedback and assigning competitive work the condition of employee retention can been increased.

QUESTIONNAIRE

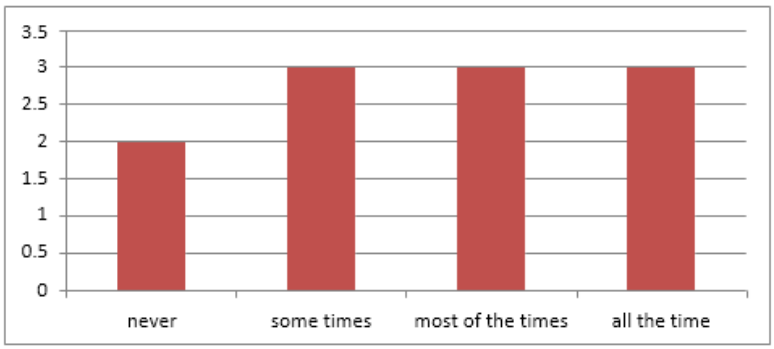
1. Do you think that employee retention leads to the development of organization? Never [ ] Sometimes [ ] Most of the times [ ] All the times[ ]



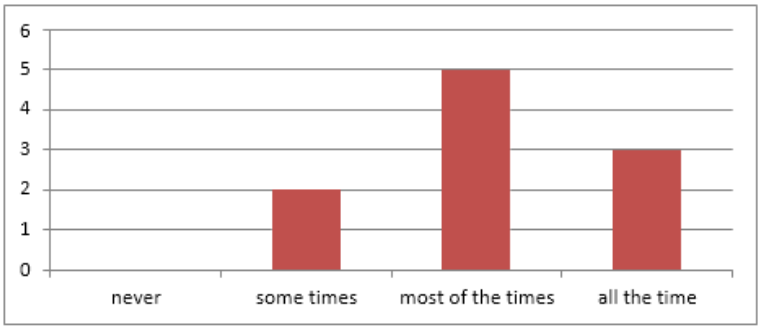
2. Do you think that the implementation of five retention strategies will increase employee retention? Never [ ] sometimes [ ] most of the times [ ] all the time[ ]



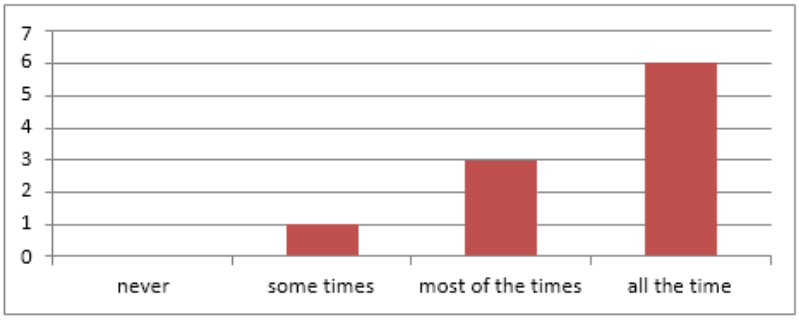
3. Do you think healthy workplace environment can retain the employees?
Never [ ] sometimes [ ] most of the times [ ] all the time [ ]



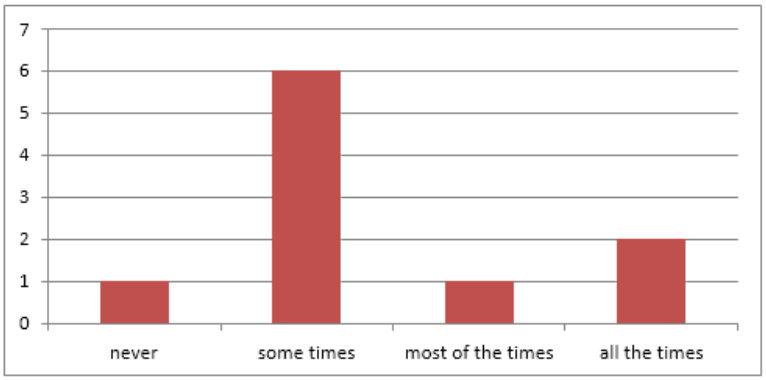
4.Can compensation alone holds back the employee from leaving the organization?
Never [ ] sometimes [ ] most of the times [ ] all the time [ ]



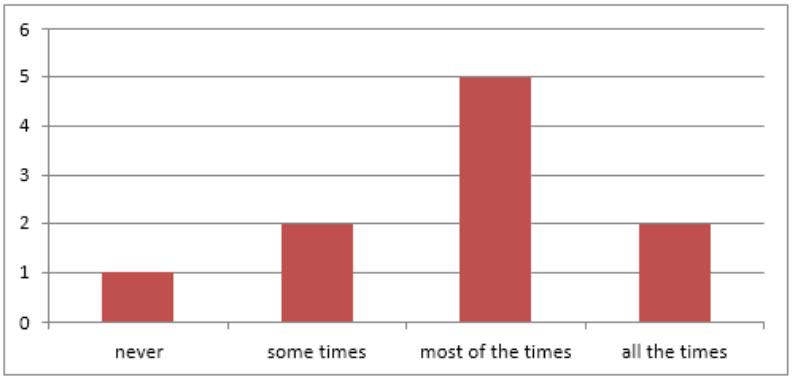
5.Is training and development important for an employee to increase the career opportunities ?
Never [ ] sometimes [ ] most of the times [ ] all the time [ ]



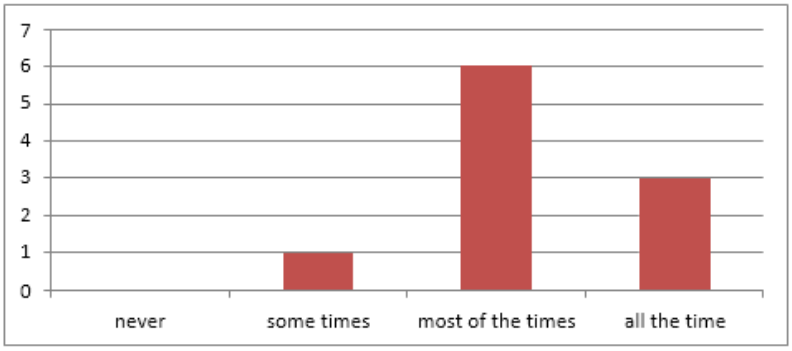
6.Does turnover of employee always due to the improper organization aspects?
Never [ ] sometimes [ ] most of the times [ ] all the time [ ]



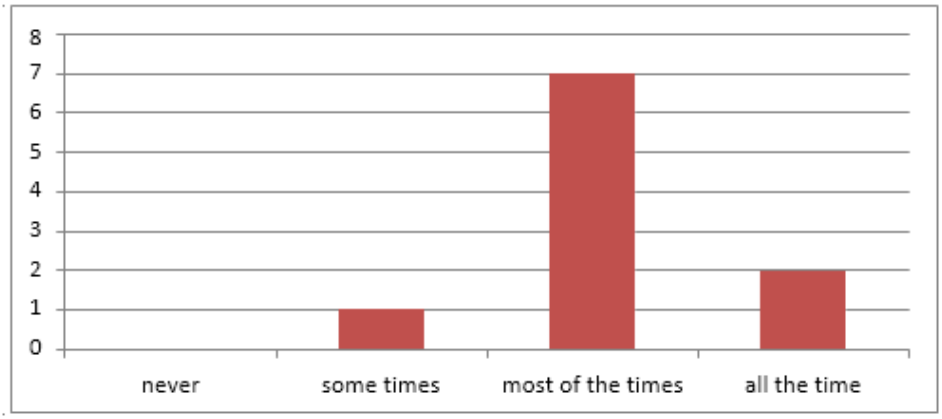
7.Is employee turnover a loss for the organization?
Never [ ] sometimes [ ] most of the times [ ] all the time [ ]



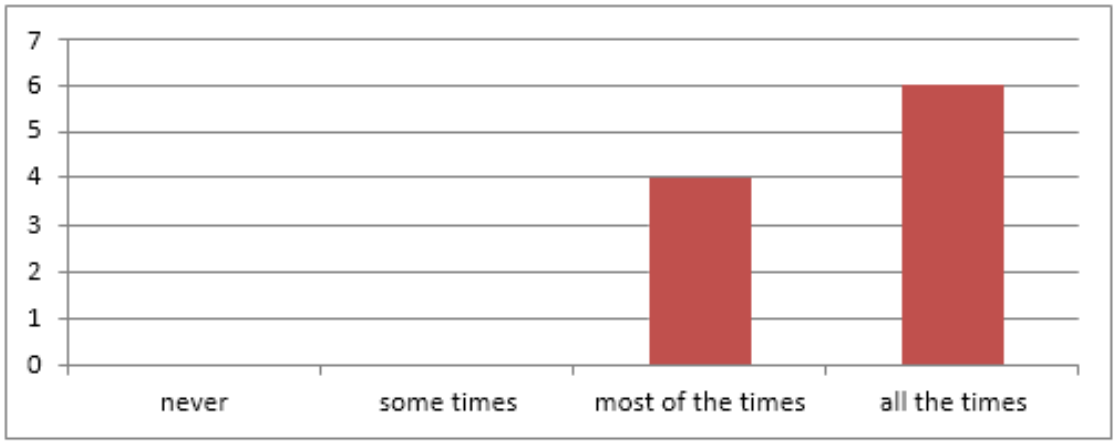
8. Is it important to provide the rewards to motivate the employees?
Never [ ] sometimes [ ] most of the times [ ] all the time [ ]



9. Can employee engagement creates the interest in the employees?
Never [ ] sometimes [ ] most of the times [ ] all the time [ ]



10. An effective communication channel has to be created in the organization?
Never [ ] sometimes [ ] most of the times [ ] all the time [ ]



FINDINGS

- Due to improper aspects of work place environment employee turnover increases.
- Giving rewards can motivate the employees to retain in the organization.
- Training and development can increase the career opportunities of employees.
- Empowering employees and involving then in several aspects of organization can increases the interest of the employees.
- Around 60% of people believe that employee retention leads to the development of organization.

SUGGESTIONS

- For retaining employees, good compensation and rewards are to be provided for the employees by the organization.
- The organization has to increases the interest of the employees by engaging them in several activities of organization.
- The organization has to help the employees to utilize their career opportunities by providing training and development programs.

CONCLUSION

Human resources are complex and not easy to understand. These are the assets which can make as well as break an organization. Retaining them will help in the long-term growth of an organization

and will also add to their goodwill. Employee retention is a method of holding back the employees who depart from organization by implementing various retention strategies. There are several factors leading to the employee turnover so, the best practices like recruitment, socialization, training and development, employee engagement, compensation and rewards are adopted by the organization to increase the rate of employee retention.

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Computer Forensic Investigation Process and Judicial Response to the Digital Evidence in India in Light of Rule of Best Evidence

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INTRODUCTION

The use of science to investigate the facts in court of law is known as Forensic. In the present time, almost every crime is investigated with the help of forensic science and this science is used as evidence to prove the guilt or defend the accused. The forensic evidence includes Physical evidence such as bullets, fire arms and Medical evidence such as blood and DNA. The term Computer forensics includes the acquisition, examination and reporting of information which is found in computers along with networks that pertain to an investigation civil or criminal as well. The computer contains all the materials left whether it is deleted files or registry entries. The traces which are left by someone can be restored easily. As we all are living in the era of modern devices and internet, the role of Cyber forensic investigation comes into picture due to certain problems attached with the internet. The Internet is a significant problem for legal investigations. The prime issue is related to jurisdiction, The crimes such as scams, fraud, phishing and other relevant crimes are enabled due to global internet. It is very easy for a criminal sitting in one country to commit a crime against a person in another country, Due to such complexities and dynamic nature of the Net, a site on the Internet used to perpetrate a crime one day may be different or lost on another day, With regard to the origin of Cyber Forensics, nothing is clear i.e. when did it came into existence. However, this is a certain fact that with the evolution of Computer Science, the crimes relating to computers also started committing. Hence, it can be clearly opined that cyber forensics has been evolved when reporting of incidents of cybercrimes started; as to gather evidences from the target computer and the Internet. Although Internet is a universal abstract, even then, internationally, there is not even a single unanimously accepted document providing standards practices, nor is there a generally accepted governing body for this field. The marks of the need of cyber forensics can be traced back to 1980. The beginning of 1980 saw the need for the techniques to deal with the crimes committed by/against the computers. In 1984, for the first time, a Computer Crime Unit was organized by the United Kingdom. Later, in the same year the United States of America also established a Magnetic Media Program through its department of Federal Bureau of Investigation. India enacted its first legislation only in 2000 with the introduction of Information Technology ACT, 2000. Later, the relevant other legislations were also amended as per the need of the hour.

Computer Forensics is simply the application of computer investigation and analysis techniques in the interests of determining legal evidences. It mainly deals with the issues relating to the analysis of computer media or computer system for digital evidence in relation to the perpetration of cyber crime. The computer forensics can also be described as "the autopsy of a computer hard disk drive" due to the specialized tools and techniques. Judd Robbins, a prominent computer forensics investigator, defines computer forensics as ―the application of computer investigation and analysis techniques within the interests of determining potential legal evidence[1].

According to Steve Hailey of Cyber security Institute[2], computer forensics is —The preservation, identification, extraction, interpretation, and documentation of computer evidence, to incorporate the principles of evidence, legal processes, integrity of evidence, factual reporting of the information found, and providing expert opinion in a court of law or other legal and/or administrative proceeding as to what was found3. There is a proper cyber investigation process which is need to be followed while collecting the cyber evidences. The purpose of a Forensic Computing Investigation is to investigate criminal conduct committed by the use of a computer or other electronic device. The Computer Investigation Process is to be followed by the 4 steps which can be described as under:

1. Collection and Preservation of Evidence:

The primary step which is followed by investigator in cyber forensic process is determining the appropriate tool along with some other relevant factors such as type of computer, purpose of use of computer and network used in committing the crime etc. The investigator, or crime scene technician, collects the evidence. The collection procedures vary depending on the type of digital device, and the public and private resources where digital evidence resides such as computers, phones, social media etc. for different digital forensics practices pertaining to multimedia, video, mobile. Law enforcement agencies have standard operating procedures that detail the steps to be taken when handling digital evidence on mobile devices, Internet- enabled objects, the cloud and social media platforms. Unique constraints that could be encountered during the investigation should be identified. For instance, cybercrime investigators could encounter multiple digital devices, operating systems, and sophisticated network configurations which can require specialized knowledge, variations in collection procedures, and assistance in identifying connections between systems and devices (e.g., a topology of networks). However, the manner in which an investigator obtains the data should be complete, yet minimizes the interference with the target data. Such data may simply be printed and copied. Although, this may result in alterations to the meta data associated withthe target data, which may create vulnerabilities. Therefore, most common techniques are adopted to obtain forensic data. These tools and techniques may be;

a) Software Imaging Tools
b) Hardware Imaging Devices
c) Imaging Validation Tools
d) Write Protection Tools

2. Extraction of Evidence

Evidence is extracted from the seized digital devices at the forensic laboratory i.e., static acquisition. At the forensics laboratory, digital evidence should be acquired in a manner that preserves the integrity of the evidence by ensuring that the data is unaltered and that too in a forensically sound manner. To achieve this, the tools and techniques used to acquire digital evidence must prevent alterations to the data or when this is not possible, at least minimize them. The tools and techniques which are used for this particular purpose of extracting evidence should be valid and reliable4.The limitations of these tools and techniques should be identified and considered before their use. The US National Institute of Standards and Technology has a searchable digital forensics tools database with tools with various functionalities (e.g., cloud forensics tools, among others). There are two types of extraction performed: physical and logical. Physical extraction involves the look for and acquisition of evidence from the situation within a digital device where the evidence resides, like the disk drive of a computer. A physical extraction may be conducted using keyword searches based on terms provided by the investigator, file carving and by examining unallocated space i.e., space available on a system because it was never used or because the

information in it was deleted and partition which separates segments of the hard drive from each other. Logical extraction involves the look for and acquisition of evidence from the situation it resides relative to the filing system of a Computer Operating System, which is employed to keep track of the names and locations of files that are stored on a storage medium such as a hard disk. The type of logical extraction conducted depends on the digital device, filing system, applications on the device and OS. A logical extraction involves the acquisition of knowledge from active and deleted files, file systems, unallocated and unused space, and compressed, encrypted, and password protected data. The following tools are used for extraction of evidence:

a) Hidden Data Recovery Tools
b) Known File Filtering
c) Encryption Identification Tools
d) Password Recovery Tools
e) Steganography Detection Tools
f) Virus Detection Capabilities

3. Examination of Evidence

The digital forensics process also involves the examination and interpretation of digital evidence (analysis phase), and therefore the communication of the findings of the analysis (reporting phase). During the analysis phase, digital evidence is extracted from the device, data is analysed and events are reconstructed. Before the analysis of the digital evidence, the digital forensics analyst within the laboratory must be told of the objectives of the search, and given some background of the case and the other information that was obtained during the investigation which will assist the forensics analyst during this phase (e.g., IP address or MAC addresses)5. Various sorts of analyses are performed counting on the sort of digital evidence sought, like network, filing system, application, video, image, and media analysis. Files are analysed to determine their origin, and when and where the data was created, modified, accessed, downloaded, or uploaded, and the potential connection of these files on storage devices too. Generally, there are four types of analyses that can be performed on computers:

a) time-frame analysis
b) ownership and possession analysis
c) application and file analysis
d) data hiding analysis

The time-frame analysis seeks to create a timeline or time sequence of actions using time stamps (date and time) that led to an event or to determine the time and date a user performed some action. This analysis is performed to attribute a crime to a perpetrator or at the very least attribute an act that led to a crime to particular individual. The ownership and possession analysis is used to determine the person who created, accessed or modified files on a computer system. For instance, this analysis may reveal a picture of kid sexual assault material (i.e., the "representation, by whatever means, of a toddler engaged in real or simulated explicit sexual activities or representation of the sexual parts of a toddler for primarily sexual purposes6. This piece of information alone is not enough to prove ownership of child sexual abuse material. Further evidence is required to prove this like exclusive use of the pc where the fabric was found. The application and file analysis is performed to examine applications and files on a computer system to determine the perpetrator's knowledge of and intent and capabilities to commit cybercrime.

4. Organisation of Evidence

Evidence preservation seeks to guard digital evidence from modification. The integrity of digital evidence should be maintained in each phase of the handling of digital evidence. First responders, investigators, crime scene technicians, and digital forensics experts mustdemonstrate, wherever possible, that digital evidence was not modified during the identification, collection, and acquisition phase. The ability to do so depends on the digital device e.g., computer and mobile phones and circumstances encountered by them (e.g., need to quickly preserve data). To demonstrate this, a chain of custody must be maintained. The chain of custody is "the process by which investigators preserve the crime (or incident) scene and evidence throughout the life cycle of a case. It includes information about who collected the evidence, where and the way the evidence was collected, which individuals took possession of the evidence, and once they took possession of it". After collecting and documenting the evidence either by forensic imaging or by storing it in other devices like USBs, hard drives etc., the evidence is packaged, labelled, tagged and is updated in the evidence database. Once the digital evidence is seized, orders of the competent court could also be sought to retain the seized properties or send the digital evidence for forensic analysis. In cases where the owners of the property approach the court for the discharge of the impounding properties, the IO should send a forensic imaged copy of the seized property instead of the first material seized for smoother investigation. However, the organization of digital evidence is critical to any investigation. Hence, it is quite necessary that an investigator must be able to take a piece of evidence and determine how it fits in the larger framework of the case. In most cases involving digital evidence, it is really easy for the investigator to become swamped by so much data that it is hard to decipher the key pieces of information. With proper case management and information chaining, the investigator can brief his search to the sources of key evidence. There are different tools which are used by the investigator for organisation of evidence. These are as follows:

A. Link Analysis Tool:

For the right direction investigation, not just the collection of evidence necessary but understanding that how each piece relates to each-other is also important. So, the Link Analysis Tool comes into play. This tool allows the investigator to get a better understanding of the case and could result in solving the case much faster. With the help of this tool, an investigator can draw associations between disparate pieces of evidence and make it effective and presentable in court.

B. Network Forensics:

As the name suggests, the collection of digital evidence in a network environment is termed as Network Forensics. There are several complications to a cyber investigation when a network is involved. These complications can hamper the investigator and require special training to complete the investigation process complete. Network Forensic also involve, „the reconstruction of events on a client network deduced from the clues at hand"7. In this regard, LAN (Local Area Network),WAN (Wide Area Network) and ETHERNET8 play a vital role in the networking system.

C. Intrusion Detection System Analysis:

An intrusion detection system is designed to inspect all in-bound network activity that may indicate a network attack, record the event, notify the appropriate security administrators of suspicious events and take some action to block activities from the concerned source.

D. Incident Forensics:

It involves the investigation of a compromise or attack that has occurred on a system. After the attack, there are two approaches: active system analysis9 and inactive system analysis10. The active system analysis requires processing steps before the standard computer forensic methodology is applied. On the other hand, the inactive system analysis requires the same basic methodology associated with the computer forensic process, with a different set of objectives being the identification and recovery of modified system files and processes.

Relevancy and Admissibility of Digital Evidence and Rule of Best Evidence

The law of evidence has long been guided by the rule of "best evidence" which is considered to have two basic prototypes: a) avoidance of hearsay and b) production of primary evidence. These rules are believed to weed out infirm evidence and produce only that which cannot reasonably be doubted. In light of the Indian Evidence Act, 1872, this will be understood as only an individual who has himself perceived the very fact being proved can depose with reference to it, and not someone who has received the information second hand. Similarly, where a document is to be wont to prove some extent, the first should be produced in court, and not a replica or photograph or the other reproduction of the same, not even statements regarding the contents by someone who has seen it. For any reproduction of a press release or document is lower on the rung of authenticity than the first, giving opportunities for fraud or fabrication. Under the Indian Evidence Act, any substance on which matter has been expressed or described are often considered a document, as long as the aim of such expression or description is to record the matter. Electronic records are defined within the Information Technology Act, 2000 as any data, record or data generated, any image or sound stored, received or sent in an electronic form or micro film or computer generated micro fiche. An electronic record is often safely included under such a definition because matter is recorded on the pc as bits and bytes, which are the digital equivalent of figures or marks. Computer records were widely considered to be hearsay statements since any information retrieved from a computer would consist of input provided by a human being. Thus, be it a word document containing statements written by one party, or an image of a missing person generated by the computer based on inputs given to it, all such records will be hearsay. An electronic document would either involve documents stored during a digital form, or a print out of an equivalent. What is recorded digitally may be a document, but can't be perceived by an individual not using the pc system into which that information was initially fed. Thus, if music composer A mixed certain tunes on his computer, and another composer, B, wanted to sue him for copyright violation, B wouldn't have access to the digital records on A‟s computer. Even though such a document are often imprinted onto a magnetic base, like a compact disk (CD), it might still require access to A‟s computer. A document containing a print out of computer records, though a document lato sensu, are often perceived by anybody. Whenever the print out of such documents is taken, it amounts to Secondary evidence as per the strict provisions of Indian Evidence Act. In India, this attitude has come with a change after the amendment to the Evidence Act in 2000. Sections 65A and 65B were introduced into the chapter concerning documentary evidence. Section 65A provides that contents of electronic records could also be admitted as evidence if the standards provided in Section 65B is complied with. Section 65B provides that shall be considered documents, thereby making it primary evidence, if the pc which produced the record had been regularly in use, the knowledge fed into the computer was a part of the regular use of the PC and the PC had been operating properly. It further provides that each one computer output shall be considered as being produced by the pc itself, whether it had been produced directly or indirectly, whether with human intervention or without. This provision does away with the concept of computer evidence being hearsay. Thus, with the amendments introduced into the statute, electronic

evidence in India is not any longer either secondary or evidence, but falls within the simplest evidence rule i.e. the Rule of Best Evidence.

Judicial Response to the Digital Evidence in India

This is the rule of law that for any piece of evidence to be introduced in court, it must meet certain standards of legal permissibility that allow the court to receive and consider it. Manifestly speaking, one of the prime considerations before evidence is considered to be admissible, its relevance to the matter at issue. Lets‟ have a look upon certain case laws which prove that admissibility of digital evidence in India has been warmly accepted.

From the beginning we find in a very popular case of Twentieth century Film Fox Corporation v. NRI Film Production Association (Pvt) Ltd.11 in which the Hon‟ble Court observed the conditions which must be complied in order to authenticate the video conferencing. The suggested conditions are:

i) Before a witness is examined in terms of the audio-video with as is to file an affidavit duly verified before a notary or a judge that the person who is shown as the wItness is the same person who is about to depose on the screen. A copy is to be made available to the opposite side.
ii) The person who examines the witness on the screen is also supposed to file on undertaking before examination along with a copy to the opposite counsel/party with regard to identification.
iii) The witness has to be examined during working hours of Indian court and oath is to be administered through the media.
iv) The witness should not plead any innocence on account of time difference between Indian and United States of America.
v) The learned judge is to record such remarks as is material regarding the demeanour of the witness on the screen.
vi) Before examination of the witness. a set of plaint, written statement and other documents must be sent so that the witness becomes acquainted with the document and an acknowledgement is to filed before the court in this regard.

There is another case of State v. Navjot Sandhu12, popularly known as Parliament Attack Case, which led to the conviction of the Respondent under various provisions of the Indian Penal Code, 1860 and the Prevention of Terrorism Act, 2002. One of the pieces of evidence relied by the prosecution and subsequently forming the basis of conviction was the call records of the accused. The Hon‟ble Supreme Court held that printouts taken from the computers/servers by mechanical process and authorized by a responsible official of the service providing Company are often given into evidence through a witness who can identify the signatures of the certifying officer or otherwise speak to the facts supported his personal knowledge. This would make the call records admissible. The Supreme Court went further on to state that regardless of the compliance of the wants of Section 65B of the Evidence Act which may be a provision regarding handling of admissibility of electronic records, there is no bar to adduce secondary evidence under the other provisions of the Evidence Act, namely Sections 63 and 6513.

In Amitabh Bagchi v. Ena Bagchi 14 the Calcutta High Court also observed the importance of Section 65B of Indian Evidence Act, 1872. Accordingly the Hon‟ble Court held that physical presence of a person in court may not be required for the purpose of adducing evidence and the same can be done through other mediums such as video conferencing. Section 65A and 65B provide provisions for evidence relating to electronic records and admissibility of electronic record and it is notable that definition of electronic records includes video conferencing.

While having reading several other judgments passed by other High Courts and Hon‟ble Supreme Court we find in Jagjit Singh v. State of Haryana15 that the Speaker of the Legislative Assembly of the State of Haryana disqualified a Member on the ground of defection. The Supreme Court, whilst hearing the matter, also considered the appreciation of digital evidence within the sort of transcripts of digital media including the News Channels. The channels involved were Zee News channel, the Aaj Tak television channel, and the Haryana News of Punjab Today television channel. The court indicated the extent of the relevant digital materials and determined that the electronic evidence placed on the record was admissible, and upheld the reliance placed by the Speaker on the interview recorded on the CDs for reaching the conclusion that the persons recorded on the CDs were equivalent as those taking action and their voices were also identical. This judgment enhanced the role of Digital Evidence in perspectives of Best Evidence Rule also. The prosecution in the case of The State of Maharashtra and Ors. v. Rajesh and Ors. 17 relied on the CCTV18 footage recovered from the petrol pump wherein theaccused had refueled the vehicle. Bharat Petroleum Corporation had given the contract to the Kores India Limited for installation of CCTV Cameras at the premises of petrol pump. Eight numbers of CCTV cameras, Network Video Recorder19 and monitor, etc. were supplied at their petrol pump by the Kores India Limited. All the cameras were functioning 24×7 hours and in case of any malfunctioning in the system, pump operators had to lodge the complaint to the Bharat Petroleum through the Broma Software. Prosecution affirmatively stated that till date of commission of the said crime there was no occasion to lodge complaint about the malfunctioning of the CCTV cameras and its system installed at their petrol pump. The court observed that there is a revolution in the way the evidence is produced before the court, it makes the systems function faster and more effective and any documentary evidence by way of an electronic record under the Sections 59 and 65A of Evidence Act are often proved only in accordance with the procedure prescribed under Section 65B. The purpose of those provisions is to sanctify secondary evidence in electronic form, generated by a computer. This is to be noted that the Section starts with a non obstante clause. Thus, notwithstanding anything contained within the Evidence Act, any information contained in an electronic record which is printed on a paper, stored, recorded or copied in optical or magnetic media produced by a computer shall be deemed to be a document as long as the conditions mentioned under Sub-section (2) are satisfied, without further proof. The very admissibility of such a document, i.e., electronic record which is named as computer output, depends on the satisfaction of the four conditions specified in (2) of Section 65B.

CONCLUSION

Cyber forensics involves the identification, documentation, and interpretation of computer media for using them as evidence and it is the process of identifying, collecting, preserving, analysing and presenting the computer-related evidence in a manner that is legally acceptable by court. Forensic sciences have been developed to ensure that criminals are hunted down and brought to the court of law. This branch of science provides benefits to the society at large. However, Cyber forensics became tougher since new forms and techniques of knowledge storage are continuously being changed and new technologies are being developed. One of the major challenges faced by the investigators and courts is the lack of legal framework. In India after the enactment of Information Technology Act, 2000 subject to satisfaction of the provisions laid down under section 65B and ratio decidendi stipulated in Anwar P.V. v. P.K. Basheer, amendments in the Indian Evidence Act, 1872 and the Indian Penal Code, 1860, electronic record is admissible evidence. However, the major problem is to jurisdictional issues. The tasks of identifying cyber- criminals and bringing them to justice pose formidable challenges to enforcement agencies across the world and need a degree and timeliness of cooperation that has been until only recently considered difficult, if not impossible, to realize . In India, all electronic records are now

considered to be documents, thus making them primary evidence. At an equivalent time, ablanket rule against hearsay has been created in respect of computer output. These two changes within the stance of the law have created paradigm shifts within the admissibility and relevancy of electronic evidence, albeit certain precautions still being necessary. However, technology has itself provided answers to problems raised by it, and computer forensics make sure that manipulations in electronic evidence show up clearly within the record. Human beings now only got to make sure that electronic evidence being admitted has relevancy to the very fact in issue and is in accordance with the Constitution and other laws of the land

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2. *Steve Hailey is an Information Technology veteran of thirty years, with twenty-three years of experience developing and delivering technical training. Steve has twenty-seven years of data recovery experience, and has been conducting digital forensic analysis professionally for sixteen years. He is a highly skilled expert witness and dynamic instructor, bringing to bear his combined skills in information security and digital forensic analysis. He currently instructs the information security and digital forensics curriculum at Edmonds Community College in Washington State. Retrieved from http://www.cybersecurityinstitute.biz/experts.htm, on 26/06/2017.*
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9. *An active system analysis is performed before the shutting down of system*
10. *Inactive system analysis is the approach of traditional computer analysis11. AIR 2003 KANT 148. 12. AIR 2005 SC 3820.*
13. *The Court held that merely because a certificate containing the details in sub-Section (4) of Section 65B is not filed in the instant case, does not mean that secondary evidence cannot be given even if the law permits such evidence to be given in the circumstances mentioned in the relevant provisions, namely Sections 63 and 65.*
14. *AIR 2005 Cal 11*
15. *(2006) 11 SCC 1.*
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17. *2016 (3) Bom. C. R. (Cri) 55, MANU/MH/0660/2016. See also Mohammad Akbar v. Ashok Sahu and Ors, MANU/CG/0405/2016; Nepal Singh v. The State of Tripura, MANU/TR/0233/2016; Radhanath Yadav and Ors. v. State of Assam, MANU/GH/0532/2016; Rakesh Jain v. State of Haryana, MANU/PH/0164/2016*
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19. *A network video recorder (NVR) is a software program that records video in a digital format to a disk drive, USB flash drive, SD memory card or other mass storage device. An NVR contains no dedicated video capture hardware. However, the software is typically run on a dedicated device, usually with an embedded operating system. Alternatively, to help support increased functionality and serviceability, standard operating systems are used with standard processors and video management software. An NVR is typically deployed in an IP video surveillance system. Retrieved from https://en.wikipedia.org/wiki/Network_video_recorder on 06/07/2017 at 15:35 hrs*

The Impact of Resettlement Program on the Inc Me of Households in Guto Gida Woreda, East Wollega Zone, Oromia Regional State, Ethiopia.

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A B S T R A C T

The study evaluated the impact of resettlement program on the households' income in Guto Gida Woreda of East Wollega Zone Oromia, Ethiopia. Some of the resettlement schemes around the world failed, while some others were successful. The objective of the study was to identify facators that cause resettlement and evaluate the impact of resettlement on the household's Tannual income in study area. The study was based on cross-sectional data collected from asample of 140 households (81 were program participants and 59 were non-program participants) using purposive and stratified random sampling techniques. Descriptive statisticsand econometric models were employed to analyze the data. The Logit model indicated education status of the households, availability of credit access, availability of agricultural inputs, land farm size holding by household, farm income of household were negatively and significantly related to program participation while shocks, livestock holding by household, access of extension service, and total asset of household were positively affect and significantly associated with program participants. Propensity score matching shows, that the average annual income of resettlement program participants more than income of non participant by19,162.6463ETB. Based on the findings, the study suggests that strengthening the encouragement of resettlement program have crucial role towards improving the income of households in the study area. Finally, the policy implication of the study is that income sources diversification, incorporated development program, practical based extension service delivery, access to credit service for the purchase of agricultural inputs and its preparations are needs policy attention.

Key Words: Resettlement Programme, Propensity score matching, Household's income, GutoGida Woreda.

1. INTRODUCTION

Resettlement is a population movement planned directly by the government or private developers, where an area is chosen in order to resettle the population (Sherbininet al., 2010). If, resettlement is effectively used, it is a vital to realize these entire notions, and to proactively plan for resettlement as part of equipped protection approach (UNHCR, 2012). The effect of resettlement is more on women than men (Bisht, 2009, Terminski 2013). The resettled households have restricted options to rebuild their livelihoods (Wilmsen et al. 2011 and 2015) Ogwang et al. 2018b). Many African governments to respond to the mismatch of Population numbers and environmental conditions, inter alia, to cope with landscapes that could not sufficiently care for their inhabitants have employed resettlement (Tilt B, 2016).

The other way of resettlement scheme would be implemented through centrally planneds coordination of the government policy intervention. This was really practiced in Ethiopia at different

administrative regime where the areas were selected by resettlement administering authorities, without consultation of the host communities and assessment of the area (Adugna M. 2012). On the other hand, a change in any one of these assets may result in a difference in the6income assets of the settlers either positively or negatively (Zeleke,T., 2014,P 3).mAs several researchers have tried to assess the resettlement schemes and identified practicalevidences on factors affecting success or failure of resettlement programs, some of the resettlement schemes around the world failed, while some others were successful. This is due tonthe proper planning, site selection, size of land allocated to settlers, land teure and farming systems, management and administration. (Woldeselassie, 2014, Gebregzihabher, 2014). In a China, studies found that resettlement is associated with a range of negative impacts on communities, such as reduced land holdings (Tilt, B.; Gerkey, D, 2016), reduced access to natural resources and ecological services (Wilmsen, B.; Webber, M.;2015 and Yuefang, D. 2011), declined household incomes (Sikka, G.; Mathur, V, 2015).Besides, McDonald et al. (2018) investigated different villages after resettlement and found that some villages have higher incomes than others. Most existing literature on resettlement in developing regions, including Africa, has focused on the general effects (Quetulio-Navarra et al. 2014; Kyomugasho 2016: Ogwang et al. 2018a). A major cause of resettlement in Africa is the exploitation and transportation of raw materials and the creation or expansion of conservation areas. During the a1970s and 80s, the most drought stricken are as were limited to northern Ethiopia, especially The suffering brought by displacement and resettlement makes it hard for the women to adapt in the new environment (Terminski 2013). A study by Ogwang et al. (2018b) in the Albertine region of Uganda indicated that shortage of land and exploitation of the cash from compensation on treaties and freedom by me led to family collapse. The resettled households have limited options to reconstruct their livelihoods (Wilmsen et al. 2011). A study by Yan son et al. (2018) indicated that several challenges such as water scarcity, decreased access to forest products such as charcoal and firewood, and reduced access to fertile soils constrain the coping strategies of resettled communities. Hence, this researches that assess the impact of resettlement on the income of settler population is expected to play an important role in filling the existing knowledge gap, in terms of understanding the impact of resettlement on the income of settler population on lives of resettled people in their demographic factors economic factors and social capital. As the best knowledge of the researcher has checked that other researchers have not conducted studies on this title i Guto Gida Woreda, East Wollega Zone Oromia Regional state of Western Ethiopia. Therefore, this research contributes to fill the gap in the literature in this regard. So the research goal is to respond the following research questions:

1. Did resettlement affect the income level of the households? If yes, (positively or negatively by what amount ?)
2. What are the major challenges faced to settler households in the study area?
3. What are the impact of the resettlement programme on the household's annual income?

Resettlement at the international level

Resettlement is a lifeline open to some of the world's most vulnerable refugees (InaStrøm, 2017). According to the WBED report, transportation was the cause of 24.6 percent of resettlement projects between financed by world Bank and active in 1993. We have therefore only random data on the scale of displacement accompanying the most spectacular projects of this kind (Terminski, 2013). Resettlement is recognized today as a vital instrument of international protection, integral to comprehensive protection and durable solutions strategies(UNHCR, 2011, 2017). In 2010, a massive earthuake in Haiti displaced over 1.5 million people. By 2012, more than 100,000 transitional shelters

had been built across Haiti and 420,000 individuals had resettled in the United States of America. Extreme weather events in 2015 and 2016 further affected food access and agricultural production (NMUN.NY, 2016).

Resettlement in Africa

In Africa, resettlement is a serious matter of current as well as future concern. Africa's share of displaced people has been exceptionally high (Ohta and Gebre 2005). In some cases, local congestion was so serious that people were no longer able to produce enough food to feed their families and had to be assisted with food by the government (Mwiza, 2010). Resource redistribution is also another factor for displacement. The contested land reform and resettlement programme of Zimbabwe and Namibia is a typical example (Chimhowu and Hulme 2006).

Resettlement in Ethiopia

During the mid-1980s, the Ethiopian government relocated about 600,000 peo affected and over-populated regions to different resettlement sites, namely, le from drought- etekel, Metema, Assosa, Gambella, and Kefa, located in the western and southwestern parts. Of the total figure, over 82,000 people moved to etekel area (also called Pawe or Beles area), Western Ethiopia, originally inhabited by the Gumz shifting cultivators (Yntiso, 2002). Resettlement under the Imperial regime: The major objective of the plan was not food insecurity and famine as they were principal causes in the later government rather to relive population pressures in the highlands (Desalegn, 2003b).

Nevertheless, these were habitually small in size, informal in nature, and were mainly designed to achieve specific and limited objectives (Berhane 2003).

Resettlement under the Derge: Thebasic rational to design the policy of the Dergo in relationt resettlements was the defective estimate of unutilized and underutilized land resources found particularly in the southwestern parts, and south of Ethiopia. Consequently, between 1975 to 1984 following the 1975 land reform proclamation, the resettlement authority (RA) and the relief and rehabilitation commission (RRC) jointly lunched the first phase planned resettlement programmes and thereby resettled 110,090 persons in 88 different sites (Mengistu, 205). The rational for this programme was that existing arrange-ment of dispersed settlements made it difficult to provide social services and to use resources efficiently (Kassahun 2000 and Desalegn 2003b).Planned resettlement gained currency and gathered momentum after the initiation of the innovative process in 1974 (Berhane 2003). Resettlement under the EPRDF: The basic assumptions behind the current resettlement programme remain similar to those made during previous periods (Imperial and Dergregime). Official declaration, voluntary resettlement is view as a main and essential factor of endeavours aimed at addressing the paramount problem of food insecurity in 2001). Cause of the resettlement in Ethiopia thiopia (GFDRE The official objective of resettlement plans in Ethiopia, both in the past and current regimes, as stated in various documents, w s to prevent famine or attain food security) by moving people from drought-prone and overloaded areas to lightly populated regions and unoccupied virgin lands (Yntiso 2002).Resettlement programmes in Ethiopia are taken as part of rural development strategy(Alula Pankrust, 2004).

The rapid population growth particularly in rural areas has decreased the size of land holding leading to landlessness and deterioration of the environment which were considered as causes of migration and resettlement (Ahmed Mohammed, 2005). Due 4 to a long history of improper la d use the soil in these regions unwisely used infertile and in capable of supporting productive capacity of the land (Asrat

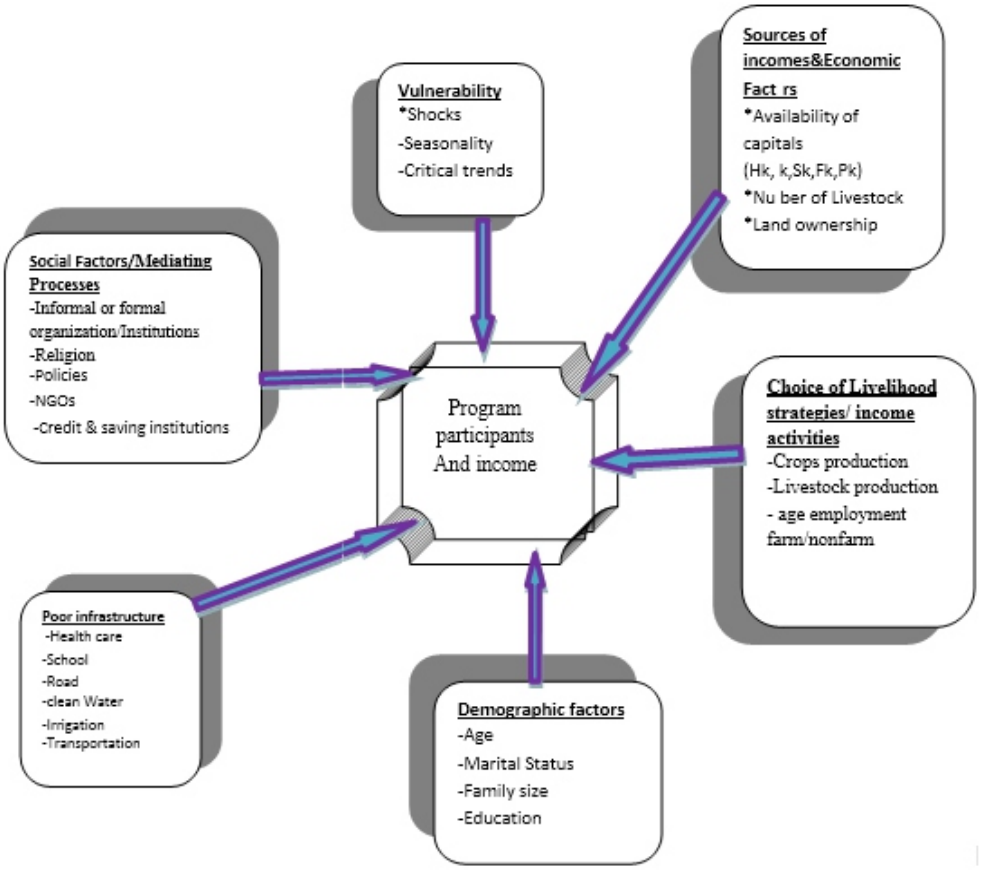
FUNCTIONS OF RESETTLEMENT

States are not obliged to accept refugees for resettlement, but rather voluntarily offer resettlement places as a tangible expression of international solidarity (UNHCR, 214).The current resettlement program is narrowly focusing on shifting of people from the densely populated to sparsely populated areas of high potential agricultural land. Farmers continue to practice the unsustainable system of production in virgin lands thus presenting grave consequences creating catastrophic environmental conditions. Following the resettlement program there is considerable damage to the natural vegetation of the study area. Large areas are cleared of their vegetation for crop production, to build homesteads and to acquire fuel wood (Haile, 2007).

Conceptual and Analytical Framework

To know the concepts of key issues of the study and analytical framework is extremely significant. In this chapter, it is endeavour to give the importance to unusual issues that are raised in t is study and what analytical framework was followed for investigation. There are varied types of approaches and logical frameworks to study income of the settler peoples. In this paper sustainable income, approach is used as guiding framework. The framework consists of different mechanism, which is interrelated to each other being one factor dependent on the other factor. The major components of the framework are the context (trends, shock, local cultural practice and seasonality, landless, jobless, homeless, poor infrastructure, shortage of food, famine, drought, erratic rain falls poor soil fertility and etc that affecting income or livelihoods), income assets (human, social, financial, natural and physical assets), meiating institutions, livelihood strategies (farming, off farm, and nonfarm activities) (Genanew, A. 2011).

Figure 1: Conceptual Framework.



Source: Adopted From Different Literatures (2020)

2. METHODOLOGY

The researcher was used qualitative and quantitative data and cross-sectional design. The data had been collected using open ended and closed ended questionnaires. For the analysis of the data both descriptive and econometric analyses was employed. The sampling frame for this study was rural resettled and non settled households that are living in lowland/kol. The study was employed different sampling te hniques to select the representative samples due to obtain both residents. Guto Gida Woreda has 23 kebeles of which 20 was rural and three (3) were Town kebeles having resettlement dwellers. Firstly, the Guto Gida Woreda was pur osively selected. In addition to this, three kebeles which had settler's and non-settler's populations namely, Madda Jalala, Gadisa Oda and Kenafi had been selected from 23 kebeles of the Wored purposively and by simple random sampling.

The selection of these kebeles are due to the majority of the households dwellers are new r settlers, which were settled in 1995EC/2003GC coming from Western Harargeh and the origin populations were less than these settlers. The total populations survive in the selected kebeles were 13145. The sample frame of the settlers and non-settlers from the three kebeles were13,142 from these (5764)settler populations and (7378)original populations of which 2657 male and 4721 female non-settlers and 2567 male and 3197 settlers).

From the total population 1314 of the three kebeles 5,224 are male and 7,918 female. Thirdly, adequate Respondent households had been selected from both settlers and non-settlers by using systematic Random sampling techniques from selected kebeles. Hence, 140 households had selected randomly for the study from these sample kebeles including both ale and female-headed households (Source: Guto Gida Woreda office, 2020).

METHODS OF DATA ANALYSIS

The study was employed both descriptive statistics and Econometric model. Statistical descriptions like table, graph, frequency descriptive, inferential statistical methods and percentages, Logit model and Propensity Score Matching method (PSM) were employed for analyzing and interpreting the data.

Conventionally, linear regression analysis was widely used in most economic and social investigation because of availability of simple computer packages, as well as ease of interpreting the results. However, according to Amemiya(1981), Maddala(1997) and Gujarati(2004) the linear probability model has an obvious defect in that the estimated probability values can lie outside the normal 0-1range and that it models the probability of Y=1 as being linear: $Pr(Y=1|X)=\beta 0 + \beta 1 X$. If we were to use an OLS regression line, we would get some straight line- perhaps at high values of X we would get values of Yabove1and for lo values of X we would get values of Y below 0. Nevertheless, a probability cannotbelessthan0orgreaterthan1.This nonsensical feature is an inevitable consequence of the linear regression model. Thus, t e predicted probability should remain within the [0, 1] bounds, i.e. $0 \leq Pr(y = 1|x) \leq 1$ due to bound between [0, 1] for all X. This requires a nonlinear functional form for the probability such as "S-curve".

Econometric Model Specification

The study was affected by the independent variables such as demographic factors, social factors, Economic factors, and sources of income factors, household education, and factors causes' resettlement. The major pillars of this model are individuals, treatment and potential outcomes.

The treated households were from the resettlement programme participants and the control group will from the non-participants for comparison. In order to overcome the problem Propensity score matching method will be applied for impact evaluation in the absence of baseline survey data. Imbens (2000) and Lechner (2001) when leaving the binary treatment case the choice of multinomial log it is quite relatively preferable mathematical easier to analyze dichotomous variables al performance to estimate. In the cause of and approaches binary treatment the treatment indication Di equals 1 if individual i received treatment and 0 otherwise.

The potential outcomes were then defined as Yi (Di) for each individual i, where I =1…, N and N denoted the total population. The treatment effect for an individual i was written as: T = Y (1) – Y (0) A log it model would be used to estimate propensity scores using a composite of pre-intervention characteristics of the sample households (Rosenbaum and Rubin,1983) and matching was then performed using propensity scores of each observation. In estimating the log it model, the dependent variable was resettlement programme participation, which took the value of 1 if a household participate in resettlement and0 otherwise. The specification of the logit model was as follows:

We begin from the linear probability model of the form:

$$P(y=1/xi)=Zi=\beta_0+\beta_1x_1+\beta_2x_2+---+\beta_kx_k----------(1)$$

Pi = $\frac{1}{1+e^{-zi}}$ is simplified to:

Pi = $\frac{e^{zi}}{1+e^{zi}}$ ----------(2)

Where, Pi is the probability that the i^{th} households will participate in resettlement, z_i -is a linear function of 'n' explanatory variables (x) and will be expressed as:

$$Zi=\beta_0+\beta_1x_1+\beta_2x_2+ \quad --+\beta_kx_k+Ui----------(3)$$ ssion

Where, þo -intercept, þi - regr ϵcoefficients to estimate, U_i– is an error term.

1 − Pi = $\frac{1}{1+e^{-zi}}$ is simplified to:

1 − Pi = $\frac{1}{1+e^{zi}}$ ---------- (4)

Where 1 – Pi is the probability tlat a household belongs to the non-programme participant.

$\frac{Pi}{1-Pi}=(\frac{1+e^{zi}}{zi})=e^{zi}$or $_{1+e-}$

Or $(\frac{Pi}{1-Pi})=(\frac{e^{zi}}{1+e^{-zi}})=e^{(\beta_0+\beta_1x_1+\beta_2x_2+---+\beta_kx_k)}$ ------(5)

This is known as Odds ratio. Taking the natural logarithm of the Odds ratio, thelogit model is:

$$Li=\ln\left[\frac{Pi}{1-Pi}\right]=\ln e^{(\beta_0+\beta_1x_1+\beta_2x_2+---+\beta_kx_k)}=\beta_0+\beta_1x_1+\beta_2x_2+---+\beta_kx_k\ldots\theta$$

Where x_1, x_2, --------, x_k are demographic, social and Economic factors that cause resettlement which will be included in the above econometric model.

Evaluation the impact of resettlement on income of settler population Propensity scores and PSM Prior to analyzing the impact f resettlement program by employ PSM mathhing algorithms, logit regression model is used a a necessity to identify the program participant's annual income in order to understand the importance of resettlement program. As indicted in the former sections the dependent variable in this

model is a twofold variable indicating whether the household head is resettlement program participant or non-participant. The model is estimated with STATA software using the propensity score-matching algorithm developed by Leuven and Sianesi (2003). Propensity score matching (PSM) build a statistical evaluation group that is based on a model of the probability of participating in the treatment, using observed characteristics.

Program participants are then attached on the basis of this probability, or propensity score, to nonparticipants of the program. The average treatment effect of the program is then deliberate as the mean distinction in outcomes across these two groups. The validity of PS depends on two circumstances: (a) conditional independence (namely, that unseen factors do not affect participation) and (b) sizable common support or overlap in propensity scores across the participant and nonparticipant samples (Shahidur R. Khandker,Gayatri B. Koolwal & Hussain A. Samad, 2010).

Relocated people suffer from th loss of farmland, forestland, houses and other properties, which may then reduce their income (Wang, P, 2013, Tilt and Gerkey 2016). McDonald et al. (2018) found resettlement could have ositive impacts on maintaining and raising the income level of the resettled community. Galipeau et al. (2013) compared the distinction between a resettled community and a non-resettled community in term of income and landholding, showing that resettled communities have a higher income level.

The establishment of this counterfactual often creates problems where before intervention situation remains missing. Impact through this outcome variable was obtained by matching an ideal comparative group (non-s ttler farmers) to the treatment group (settler farmers) based on propensity scores (P-scores) of X. X was the set of observable characteristics that determine settlement participation. By so doing, the selectivity bias was largely eliminated.

Equation 1 below presented the basic evaluation problem comparing outcomes Y across treated and non-treated individuals i:

$$Yi = \alpha Xi + \beta Ti + \varepsilon i \quad \text{..... (1)}$$

Here, T is a dummy equal to 1 for those who participate in resettlement program and 0 for those who do not participate in the program. X was set of other observed characteristics that determine participation in resettlement and 'ε' is an error term reflecting unobserved c aracteristics that also affect Y. To develop the PSM model, let Yibe the outcome variable of household i, such that Y1i and Y0i denote household outcomes with and without participating in resettelment, respectively. A dummy variable Ti denotes rettlement participation by household i, where Ti = 1 if the household had participated in resettlement and, T0 = 0, otherwise. The outcome observed for household i, Yiwas defined by the switching regression (Quandt, 1972).

$$Yi = TiY1i + (1-Ti)Y0i \quad \text{..... (2)}$$

The impact of resettlement on income of settler i's is given by;

$$\Delta iYi = Y1i - Y0i \quad \text{..... (3)}$$

Where, ΔiYi denotes the change in the outcome variable of farmer i, resulting from participation in resettlement. A farmer cannot be both ways, therefore, at any time, either Y1i (resettling farmer) or Y0i (non-resettling famer) is observed for that farmer. This gives rise to the selectivity bias problem

(Heckman et al., 1997). The most commonly used evaluation parameters are averages (Heckman et al., 1997), i.e., using the average treatment effect, (ATE) and the average treatment effect on the treated (ATT). For this study, ATT was used to estimate the impact of rettlement on income of settler population and it was represented as follows:

$$ATT = \{E(\Delta i|Ii=1)\} = E\{Y1i - Y0i|Ii=1\} = E\{Y1i|Ii=1\} - E\{Y0i|Ii=1\} \ldots \quad (4)$$

From equation (4), E{Y0i|Ii=1} was the missed data representing the outcomes of non-resettling group. The outcomes of non-res ttling farmers could rewritten as:

$$E\{\Delta i|Ii=1\} = E\{Y1i|Ii=1\} - E\{Y0i|Ii=1\} \ldots \quad (5)$$

However, a bias of the magnitude indicated in equation (6) below results when non-resettling farmers were selected for comparison with settling farmers, without controlled for the non- random resettlement assignment (Namara, 2014).

$$Bias = E\{\Delta i|Ii=1\} + \{E[Y0i|Ii=1] - E[Y0i|Ii=0]\} \ldots \quad (6)$$

Finally, up on establishing common support for the resettler farmers, the ATT of resettlement on settlers' income can then be estimated using the following equation:

$$ATT = [E(\quad_i|I_i = 1] = \frac{1}{I_i} \sum (Y_{0i}) I_i = \frac{1}{I_i} \sum \Delta_i I_i \quad (7)$$

Table 1: Summary of Variables included in the models

S/n	Variable		Units of measurement	Expected Sign
1	Progptn	participation in resettlement Programme	Dummy (Program participant=1, not participant=0)	
2	Totinc	Total annual income(outcome variable)	Continuous: Measured in Birr or total annual income in birr.	
3	Gen	Gender of household	Dummy: 1 if male, 0 otherwise	-ve
4	Age	Age of house hold head	Continuous Measured in year	+ve/-ve
5	Educ	Educated household	Dummy: 1 if Literate , 0 Otherwise (Illiterate)	+ve
6	Famsize	Family size of lousehold	Continuous	+ve/-ve
7	Farmsize	Farm size	Continuous in hectare	+ve/-ve
8	Shoc	Shocks	Dummy, 1(if there is drought & famine), 0 otherwise (shortage of land)	-ve
9	Nfarminc	Total Non-farm income	Continuous: measured in br.	+ve
10	Farminc	Total farm income	Continuous in Ku or Kg	+ve
11	Craa	Credit access	Dummy (No=0 , Yes =1)	+ve
12	Extns	Extension service	Dummy (access=1, no access=0)	+ve
13	Acoirrin	Access of irrigation	Dummy 1 If irrigation access, 0 if no access	+ve
14	Dismark	Distance to market	Continuous: Walk hours	-ve/+ve
15	Livestock	Livestock hol ding	Continuous measured in TLU	+ve
16	Tot asset	Total household asset	Continuous Measured in br/number/hectare	+ve
17	Agrinp	Access of agricultural input	Dummy: 1 if access to agri. input, 0 otherwise.	+ve/-ve

Source: Own Estimation, 2020.

3. RESULT AND DISCUSSION

Descriptive Analysis of Sample Households' Characteristics

The results of descriptive analyses were presented in the form of mean, mean difference, standard deviation, frequency distributions and percentage. The descriptive statistics was runned to observe the distribution of the independent variables. The socio-demographic, socio-economic and institutional characteristics of the respondents' household heads were analyzed. The sample under consideration consists of 140 households. Of the total, sample respondents 81 (57.86%) were participants of the program and 59 (42.14%) were non-participants of the program.

Chi-square (χ 2) and t – statistics tests were used to identify whether the explanatory variables are statistically significant or n t significant. The t-test was used to test the significance of the mean value of continuous variables of the two groups of participants and non-participants and chi-square (χ 2) was used to test the significance of the mean value of the potential discrete (dummy) explanatory variables. Generally, in this section socio-demographic characteristic of sample households such as gender of household heads, age of household heads and total family size; economic characteristics of sample households such as livestock holding, farm land size and inputs of production used; households characteristics or attributes such as education status of household heads and accessibility to information; institutional characteristics such as availability of extension services and credit services characteristics of sampl households and distance of household residence from nearest to water source, nearest to health, nearest to school and nearest market center for discrete as well as continuous variables were anal zed.

Households' Socio-Economic haracteristics

Households' farmland size holding: The average mean of land holding of the surveyed households equal to 3.69 ha with a minimum of 2and a maximum of 12 ha. This figure is larger than the average national figure, which is 1.2ha (CSA, 2008) indicating the existence of relatively higher land holdings in the study area. Even though this figure is over than the national average, there exists a high gap among farmers based on their farmland holdings. The average mean of land size for program participants and non-participants were 5.54 and 2.35 respectively with the mean difference of 3.197. This implies that mass of resettlement pr gram participant farmers had small land size. However, they were economically active age groups while host households or non-program participant farmers had large land size. Land size here consists of both cultivable and non-cultivable lands owned by the household farmers. No cultivable lands are mostly used for grazing and other purposes. The main source of labour fo in the study area is family labour due to they have excess productive force as t-cultivable lands crop production e researcher was observed the study area. The average family size of the surveyed farm households equals to 8.06. This is slightly higher than the national average of 6 members (CSA, 2008).

Households' Livestock Holding: This reveals the total livestock the farmer own in tropical livestock unit. It is a proxy variable for the wealth position of the farmers. The study area was known by mixed crop- livestock farming. Average livestock owned in TLU by each farm household equals to 7.79. The minimum and maximum livestock owned is 1 and 20, respectively. The draught power used for different farming activities was take as major source of production in the study area. The household farmers with higher number of oxen would be more confident to produce more crop grains rather than counterparts because they had one of the most important factors of production, which creates confidence in hearts of the household's farmer for crops production. T is was mainly because one with higher number of oxen could finish farming activities efficiently on time. The result of FGD and field observation by the

researcher were indicates that most of the household heads undertook beef farming activities in the study area. Majority of farmer households attained their income from mied farming (like beef cattle rearing for commercialization and production, rarely dairy farming, grain crop production and others). The average number of livestock owned by each farmer was equal to 7.79 in TLU with standard error of 0.245and a 95% confidence interval of [7.308 8.278].

Household heads access to Agricultural input (agrinp): Regarding to agricultural inputs from the total sampled households 85(60.71%) access to agricultural inputs while 55 (39.29) farmers were not access to agricultural inputs. The mean difference between those gained agricultural inputs in the program participation and non-participation were 0.27. Generally, the null hypothesis' was rejected, due to our variable, access to agricultural input was more important in our study.

Institutional Factors: From the total 140 farm households 83 (59.29%) households had been credit access while the remaining 57 (40.71 %) households did not have access to credit. The mean difference between program participants and non-participants on credit a cess was 0.56. It is statistically significant at a significance level 1%, 5% and 10% [2.624, 1.761, and 1.345] respectively. Therefore Ho: is rejected. It means that our variable was important in our study. Of the total respondents, 105 (75%) households had access to extension while the rest 35 (25%) did not have access to extension.

The average mean of credit access of those participating in resettlement program were 0.73 while non-program participants mean average of access to credit were 0.78. Usually, the null hypothesis' was rejected, due to our variables (access to credit, and access to extension services) we e more vital in our study.

Hypothesis testing and econetric model results

1. Hypothesis Testing

Table 2: Summary results of LR test of hypotheses for the aforementioned results

Null hypothesis	Calculated LR ratio	Critical LR at 5% level	Decision rule
$\beta_1 = \beta_2 = \ldots \beta_{14} = 0$	139.66	6.57	Reject Ho
$\delta_1 = \delta_2 = 0$	8.36	0.013	Reject Ho
$\beta_1 = \beta_2 = \ldots = \beta_6 = 0$	34.56	1.635	Reject Ho

Source: Own computation from survey data (2020)

Results of Logit model for resettlement program participation decision of the sample households
As already mentioned, this st dy employed the logit model to estimate and conclude the parameters of the determinants of farmers' resettlement program participation decision in the study area. The frequency distribution of resettlement program participation reveals that out of the 140 total sampled households, 81 households (57.86%) were participants in the program while the remaining 59 (42.14 %) were non-participants of resettlement program. Thus, the result expose that more than half of the sampled respondents were program participants.

Table 3: Estimates of Maximum-likelihood logit model on the determinants of resettlement program participation.

Progptn	Coef.	Std. Err.	Z	P>z	[95% Conf.Interval]	
Gen	-.1659368	1.805019	-0.09	0.927	-3.703709	3.371835
Educ	-2.098819	.9166884	-2.29	0.022**	-3.895496	-.3021432
Craa	-1.884239	1.010618	-1.86	0.062*	-3.865014	.0965356
Extns	2.453423	1.123667	2.18	0.029**	.2510768	4.65577
Agrinp	-1.697162	.86886	-1.95	0.051*	-3.400097	.0057718
Shoc	3.157063	1.2286	2.57	0.010**	.7490517	5.565074
Famsize	.3221672	.2140418	1.51	0.132	-.097347	.7416813
Age	-.0125211	.0564392	-0.22	0.824	-.1231399	.0980976
Dismark	-.0623245	.0576121	-1.08	0.279	-.1752422	.0505932
Livestock	.3418422	.1365745	2.50	0.012**	.0741612	.6095233
Farmsize	-1.26825	.3594521	-3.53	0.000***	-1.972763	-.5637372
Nfarminc	3.50e-06	9.65e-06	0.36	0.717	-.0000154	.0000224
Farminc	-.0000226	7.93e-06	-2.85	0.004***	-.0000382	-7.08e-06
Totasset	.0000279	.0000117	2.38	0.017**	4.95e-06	.0000508
Constant	.1390963	3.129724	0.04	0.965	-5.99505	6.273242

Logit Regression

		Number of observation	140.000
Mean of dependent Var.	0.579	LR chi2(14)	139.67
SD of dependent Var.	0.496	Prob> chi2	0.0000
Log likelihood	-95.304848	Pseudo R2	0.7328

***p<0.01, ** p<0.05, * p<0.1

Source: Own computation from survey data using stata14.2 (2020)

***, ** and * shows significance at 1%, 5% and 10% significance levels, respectively.

Out of the total 14 explanatory variables, 9 variables of which 5 were dummies and 4 continues variables were found to be significantly creating variation on the probability of farmers' resettlement program participation.

The coefficients of gender of household head, age of household heads in years, family size of household heads in number, distance from market in kilometres and non-farm income were not % statistically significant at all 1 important in affecting the probability , 5% and 10% significance levels implying that they were less of participation in resettlement program.

Nevertheless, under logit model coefficient of the variable have no direct interpretation; as a result, we can use Marginal effect. Logit is all about prediction for interpretation and hence, we must find predicted probabilities to interpret the significant variables. Therefore, interpretation can be derived from the marginal effects after logit.

Table 4: Estimation of Marginal effects after logit regression

Marginal effects after logit
y = Pr (progptn) (predict)
= 0.76763364

Variable	dy/dx	Std. Err.	z	P>z	[95% C.I.]		X-bar/mean
gen*	-.0283911	.29758	-0.10	0.924	-.611638	.554856	.957143
educ*	-.3821786	.14572	-2.62	0.009	-.667778	-.096579	.457143
craa*	-.3045143	.15859	-1.92	0.055	-.615346	.006317	.592857
extns*	.5150614	.20673	2.49	0.013	.109879	.920244	.75
agrinp*	-.2734329	.13802	-1.98	0.048	-.543953	-.002913	.607143
shoc*	.4686937	.12067	3.88	0.000	.232194	.705193	.392857
Famsize	.0574657	.04044	1.42	0.155	-.021805	.136736	8.06429
Age	-.0022334	.01015	-0.22	0.826	-.02213	.017663	45.3857
Dismark	-.011117	.00989	-1.12	0.261	-.030497	.008263	17.6214
livest~k	.0609752	.02561	2.38	0.017	.010785	.111165	7.79286
Farmsize	-.2262206	.07985	-2.83	0.005	-.382727	-.069714	3.69286
Nfarminc	6.24e-07	.00000	0.37	0.711	-2.7e-06	3.9e-06	22201.4
Farminc	-4.03e-06	.00000	-3.25	0.001	-6.5e-06	-1.6e-06	124758
Totasset	4.98e-06	.00000	2.29	0.022	7.1e-07	9.2e-06	181864

(*) dy/dx is for discrete change f dummy variable from 0 to 1 Source: Own computation from survey data using stata (2020)

Interpretation of Significant Variables

Education status of household head (educ): The coefficient of this variable was significant at 5% level of significance and it is influencing resettlement program participation negatively. Our result was showed that educated household heads did not more involve in resettlement program. The marginal effect result shows that, negative sing which implies educated households had a lesser probability to involve in resettlement program. Educational attainment by the household head could lead to awareness f the possible advantages of resettlement program in order to innovation of new site due to enhance household incomes.

This shows households with better educational background are less likely to involve in resettlement program rather than illiterate households. The marginal effect of t e variable shows that keeping all other variables constant at their mean value, educated household heads have 38.2% times less probability of participation in resettlement program than those illiterate household heads. It is agreed by the finding of Vande Walle (2000) and Melaku (2014).

Credit access (craa): Farmers who have credit access are fewer participants in resettlement program. This is mainly because of the fact that even if their farm production is affected due to different factors they can start a business without participating in the resettlement program.

Therefore, access to credit influences the farm households' participation in resettlement negatively. The study result also reveals that credit access is statistically significant at 10% level of significance and a change from no credit access to access decreases the probability of the decision to join resettlement program other things remain constant, households those had access to credit has30.45%less probability to participate in the programme than their counterpart. It is supported by Muez (2014) and Adugna, (2012).

Access to extension services (extns): access to extension service influences the farm households' participation in resettlement program is positively associated with household total income and statistically significant at 5% of probability level. This may indicate that in the study area, those households who get technical advice, training or those who participated on field demonstrations are well aware of the advantage of agricultural knowledge and willing to generate more production, in this manner improving the household annual income. This result was decided with Adugna, (2012) and Muez (2014). The marginal effect of the variable indicates that household access to extension service of the discrete effect change from 0 to 1 in access to extension service decrease the probability of participation in resettlement program by 51.51 percentage points than their counterparts others remain constant at their mean value. Access to agricultural input (agrinp): Farmers who have access to agricultural input can increase their income rather than those who have no access agricultural inputs. So this implies that decrease the participation in resettlement program as compared to those who do not have access. Those who have access to agricultural input have the chance of producing more output. Therefore, access to agricultural input influences the farm households' probability of participation in resettlement program negatively. The study result also reveals that access to agricultural input is statistically significant at 10% level of significance and a change from no access to access agricultural input decreases the probability of the decision to join the program in by by -27.34% higher than their counterparts, holding other variables constant. It is decided the finding of W.Zeweldet, al. (2015).

Shocks (shoc): The coefficient on the shocks (drought & famine) is significant at 5% level of significance with positive sign. It puts forward that a farmer who is facing challenges coming from drought and famine is more likely to participate in resettlement program as compared to those who are not facing droug t and famine. The result indicates that being exposed to shocks (droughts and famine) increase the likelihood of household participation in the resettlement program by 46.87% than households not exposed to shocks. It is agreed by A. Arnall (2014).

Livestock: livestock holding, measured in tropical livestock unit, was found to have positive and significant effect at 5% level of significance on the probability to participate in resettlement program. The positive relationship indicates that households with larger livestock holding may migrate to new site to feeding his/her livestock's. Moreover the implication of the result was that livestock are an important source of income in rural areas to allow purchase of farm inputs that are needed to enhance farmer's production/income. Households who have huge number of livestock might consider their asset base as a mechanism of cover any threat associated with the participation of resettlement program. In the study area marginal effect of this variable shows that as the number of livestock in tropical livestock unit increases from its mean value by one unit, the chance to participate in resettlement program increase by 6.098% points, while keeping all covariates constant at their mean value. The evidence of this finding reflected in contrast to the idea that farmers who have enormous number of livestock are wealthier and have sufficient number of oxen to plough their field timely as a result of which they quickly decide to participate in the resettlement program. This is in line with the result of Asayehegnet, al. (2011) and Hadush (2014).

Farmland size in Hectare (f rmsize): This is the total land size owned by each sampled household heads given in hectare. The result of this study showed that size of farmland has a negative significant effect at 1 level of significance on the probability of farmers' decision to participate in resettlement program. Farmer households that had large farm size did not participate in resettlement program since he/she has sufficient land used for mixed farming system both crop production and livestock rearing. The marginal effect of thi variable reveals that, a marginal change in farm size from the average of 3.693hectare is associated with a 22.62% points decrease in program participation, keeping other variables constant at their mean average. This resultagainst the expectation supported by Asayehegn et al., (2011), as Asayehegn finding households having large cultivated land has more income but my finding were against this finding.

Farm income of Household (farminc): The result of this study shows farm income from different farming activates were also one of the variables that affect participati n in resettlement program. The coefficient on farm income of the household's head is significant at 1% of significance level with negative sign. The marginal effect of this variable shows that as farm income from mixed farming source increases from mean value (124758.2) by one Birr, the probability of participation in resettlement program less by 4.03x10-6percentage (-0.000403%) than their counter parts, while other variables were kept constant at their mean value. The result of this finding is in line with the findings of Jamal Haji & Mohammed Aman (2013).

Total asset owned by house old (totasset): Household's total asset was found to have a positive effect on the program and significant influence on the probability of participation in resettlement program of the household heads. Total asset owned by sampled household obtained from different assets or capital sources such as: [human, social, financial, physical and natural] capitals. The FGD conducted there showed that human capital was one of the household assets. Some seasonal diseases affect the household's asset in study area. As the residence said that physical capital less in the study area, this indicates that some projects are infant stage as a researcher observed a study sit . Example [New airport site and asphalt]. Financial and social resources were to some extent available, while natural capital like land resource was the abundant assets for each sampled households in the study site as the researcher discussed with respondents. This variable is statistically important at 5% level of significance. The marginal effect results showed that a one Birr increase in total asset of household heads from the average/mean 181,864increases the likelihood of participates in resettlement program by 4.98x10-6percentage whereas other factors remaining constant.

The major challenge faced to settlement Program participants Different challenges were faced to resettlement program participants and non-participants during resettlement program were intended. As the researcher was undertook FGD with the sampled household heads they were raised more ideas regarding to challenges proble s faced to them.

Especially those program participant households were talk different factors that challenged them to involve in the program. Those factors are shock (drought and famine), shortage of own land size in hectare, family size mean that over populated and joblessness while non program participants were talked proble s like shortage of land size due to it shared for settler household and other social resources which is common for all societies. The major problem was famine, drought and shortage of farming land. Desalegn was stated that a lot of problems and challenges had characterized history of resettlement program in Ethiopia, especially the resettlement under taken during the Derg regime (Desalegn, 2003b).

Impact Evaluation

An impact evaluation is essentially a problem of missing data, because one cannot observe the outcomes of program participants had they not been beneficiaries. Without information on the counterfactual, the next best alternative is to compare outcomes of treated individuals or arison group that has not been treated. In doing so, one attempts to pick a comparison group that is very similar to the treated group, such that those who received treatment would have had outcomes similar to those in the comparison group in absence of treatment. Successful impact evaluations hinge on finding a good comparison group (Shahidur R. Khandker,Gayatri B. Koolwal & Hussain A. Samad, 2010).

Propensity scores

Prior to analyzing the impact f resettlement program by employ PSM mathing algorithms, logit regression model was used as a necessity to identify the program participant's annual income in order to understand the importance of resettlement program. As indicted in the former sections the dependent variable in this model is a twofold variable indicating whether the household head was resettlement program participant or non-participant. The model was estimated with STATA 14.2 computing software using the propensity score-matching algorithm developed by Leuven and Sianesi (2003). The validity of PSM depends on two circumstances:

(a) conditional independence (namely, that unseen factors do not affect program participation) and (b) sizable common supp rt or overlap in propensity scores across the participant and nonparticipant samples (Shahidur R. Khandker,Gayatri B. Koolwal & Hussain A Samad, 2010).

Evaluation of Impact of Resettlement on Income of Settler household by Propensity Score Matching

Under this, Propensity score use logit model to estimate the probability of each group i.e., resettlement participants and non-participants as a function of observable covariates. The result of propensity score matching of program participant and their counterpart was sed to define the common support region. Suppl orientation to the propensity sc mentary, the quality of matching algorithms also identified in res pseudo R2 and significance level of each covariates. Table {4} shows the logit estimation results or marginal effect after logit of sample household head in the program were used to create propensity score. The Pseudo R2 which makes clear to how well the regressors explain the participation probability is 0.7328 for logit model is larger. A large pseudo-R2 value shows that resettlement program participants' households do have some divergent individuality overall and automatically finding a good match between participants and non-participants households becomes less challenging.

Depending on the propensity score-matching distribution of both resettlement program participants and non-program participants, the common support region was identified. As shown on table {5} below the estimated propensity scores vary between 0.0442142 to 1 for the program participant and 1.36x10-15to 0.908626 for non-participant.

The common support region is area, which lies between 0.0442142 up to 1, is larger than that of none program participant common support region [1.36x10-15 to 0.908626]. Therefore, household who estimated propensity score is less than 1.36x10-15and larger than 0.908626 were surplus from common support region. So observations which lie outside this region are discarded from analysis. It is support by (Marco & Sabine Kopeinig, May, 2008). Thus, 56 households from program participant were out of the common support region while 25 household heads' were involved in common support region.

Table 5: Distribution of estimated Propensity Score matching.

Resettlement program	Sample size	Mean	Std. Dev.	Min	Max
Total observation	140	0.5791825	0.4341378	$1.36x10^{-15}$	1
Participants	81	0.9030572	0.1930847	0.0442142	1
Non-participants	59	0.1345411	0.229484	$1.36x10^{-15}$	0.908626

(Source: Own computation survey data, 2020)

Matching algorithms

According to Khandker et al (2010), comparing different matching methods results is one approach to check robustness of average treatment effect. Four matching algorithms (i.e., Nearest Neighbour matching, Radius matching, Calliper matching, and Kernel matching) were checked to choose the best matching methods. The choice of matching estimators was based on pseudo R2, matching sample size; mean test referred to as to balance test and insignificancy of variables in analysis after PS matching.

Low pseudo R2 value and large matched sample size is preferable. In order to accept the findings of PSM, it is suggested that the standardized mean difference needs to be at most 20% and the pseudo R2needs to be low after the matching process (Rosenbaum, 2005; Calierdo and Kopenig, 2008). In line with those authors, the researcher would be obtained the least amount of pseudo R2 that was 5.5% and 80 number of matched observation.

Thus depending on the kernel matching criteria, kernel(0.5) was selected in which the mean difference of the two groups explanatory variables were significant, Pseudo R2 is the lowest compared to other matching categories and finally balance 80 sample size.

Table 6: Performance of Propensity Score Matching Estimators

Matching estimator Sample size	**Balancing test**	**Pseudo R2**	**Matched**
Kernel matching			
0.01	7.6e+14*	1.000	65
0.1	126.5*	0.255	76
0.25	66.7*	0.078	80
0.5	**54.9***	**0.055**	**80**

(Source: Own computation survey data, 2020)

Testing the balance of propensity score and covariates

The common support or overlap condition assumes that units (sampled households') with the same covariate values have a positive probability of being both treated and untreated. As shown in table (7), the PS distributions appear with sufficient common support region that allows for matching. PSM require the fulfilment of the balancing property, i.e., the covariate means between participants and non-participants should be similar after matching. The aim of this is belonging to verify that treatment is independent of unit characteristics after conditioning on the observed covariates (Dagne and Fischer, 2015).

Table 7: Propensity Score Matching and Covariate balancing.

Variable	Samples	Mean		Reduction Bias %	t-test	
		Treated N=81	Control N=59		T	p>|t|
Gen	Before Matching [Unmatched]	.96296	1	-17.9	-1.75	0.081
	After Matching [Matched]	.94118	.98279	-20.2	-0.62	0.540
Educ	Before Matching [Unmatched]	.30864	.16049	31.4	2.25	0.026
	After Matching [Matched]	.58824	.42662	34.3	0.93	0.361
Craa	Before Matching [Unmatched]	.35802	.91358	-140.7	-8.94	0.000
	After Matching [Matched]	.47059	.50386	-8.4	-0.19	0.852
Extns	Before Matching [Unmatched]	.7284	.93827	-48.5	-3.71	0.000
	After Matching [Matched]	.58824	.71385	-29.0	-0.75	0.458
Agrinp	Before Matching [Unmatched]	.49383	.17284	68.7	4.58	0.000
	After Matching [Matched]	.64706	.4531	41.5	1.12	0.269
Shoc	Before Matching [Unmatched]	.64198	.76543	-32.9	-1.73	0.086
	After Matching [Matched]	.29412	.14581	39.5	1.03	0.311
Famsize	Before Matching [Unmatched]	8.8395	13	-154.9	-9.38	0.000
	After Matching [Matched]	7.8235	9.2754	-54.0	-1.22	0.230
Age	Before Matching [Unmatched]	46.185	60.395	-133.1	-8.89	0.000
	After Matching [Matched]	42.353	46.455	-38.4	-1.07	0.294
Dismark	Before Matching [Unmatched]	17.272	24.654	-95.3	-6.83	0.000
	After Matching [Matched]	18.588	17.914	8.7	0.24	0.813
Livestock	Before Matching [Unmatched]	8.4938	10.012	-53.4	-4.14	0.000
	After Matching [Matched]	7.4706	6.5769	31.4	0.91	0.371
Farmsize	Before Matching [Unmatched]	2.3457	4.642	-127.5	-14.08	0.000
	After Matching [Matched]	3.0294	3.5056	-26.4	-0.72	0.474
Nfarminc	Before Matching [Unmatched]	23173	2441.4	30.6	2.88	0.005
	After Matching [Matched]	11699	10353	2.0	0.15	0.881
Farminc	Before Matching [Unmatched]	1.3e+05	1.8e+05	-115.7	. 7.11	0.000
	After Matching [Matched]	1.3e+05	1.4e+05	-31.3	-1.00	0.327
Totasset	Before Matching [Unmatched]	1.8e+05	1.4e+05	87.2	5.94	0.000
	After Matching [Matched]	1.7e+05	1.8+05	-15.4	-0.46	0.648

The whole balance indicators of covariates

T= Treated group
C=Control group

Sample	No. of Observation			Ps R2	LR chi2	p>chi2	Mean Bias	Med Bias	B	R	%Var
	140	T	C								
Unmatched	64	64	0	0.717	158.1	0.000	75.4	68.7	206.9*	20.71*	44
Matched	76	17	59	0.255	12.02	0.678	25.4	29.0	126.5*	0.99	11

Source: Own computation from survey data, 2020

As shown in the table 7 above, matching reduce total bias, reduce pseudo R2 from 0.717 before match to 0.255after match and any difference between the two groups covariates mean in the matched sampled has been reduced and after matching nine variables are significant as before matching and were balanced treated and control group.

Table 8: Impact of resettle ent program participation decision on household income (ATT-Average treatment effect on treated)

Variable	Sample	Treated	Controls	Difference	S.E.	T stat
Totinc	Unmatched	133555.914	115582.22	17973.6932	6351.13923	2.83
	ATT	134445.476	115282.83	19162.6463	15933.3126	1.83

Source: Own computation from survey data, 2020

Average Treatment effect on the Treated (ATT) was estimated depending on Kernel (0.5). The Kernel (0.5) algorithm estimated the average annual income of the matched treated household farmers to be 1, 34,445.476ET and of the matched control of household head farmers to be1, 33,555.914ETB. Hence, the ATT for that reason resettlement program participant was received 19, 162.6463ETB annual income. In summary, the empirical findings suggest that involvement of resettlement program parti ipation is enhanced households' annual income for treated households in a significant way. This is supported with the finding results of Adugna (2012), Jamal Haji and Mohamed Aman (2013).

4. CONCLUSION S AND RECOMMENDATIONS

Conclusions

Resettlement is a recovery liberate to some of the world's most vulnerable displacement. From the research findings, it could b concluded that resettlement program is play a fundamental role in increase of household income in the study area due to resettled in favourable site. Farmers household have confirmed that they were benefit greatly from these resettlement program and they had been improved their income living standards. To sustain the positive impacts of the program and to enable treated households make optimum resettlement participation. Purposely, expansion of new habitat and creating additional access of infrastructures and to obtain fertile/virgin land for agricultural productivity on a sustainable basis and thereby increase smallholder farmers' household annual income.

The logit regression shows that from the fourteen variables included in the analysis, nine of them were significantly affecting the households those participating in the programme. Shocks (drought and famine) and farm land size of household heads were the more susceptible for the programme participation. Household's heads in the study site were not more ed cated rather than they were performing agricultural and non agricultural tasks to achieving enough income for stay alive.

Generally resettlement programme in the study site attained a positive impact on the resettlement program participant households' annual income in improving livelihood like physical asset, natural asset and stipulation of social services like human health service by constructed health centre in the study site, health xtension service at each Kebele, agricultural extension service, veterinary health post service at each Kebele, and as well as availability of all weather road connecting each rural Kebele of the study site and other resettlement sites in the study area. This study concluded that, participation in resettlement program had been a deep impact on improving the annual income of household farmers in the study site.

Recommendations

This study had been indicated that involvement in resettlement program enabled farmer households to increase their annual income. Even though, the detailed studies selection of non- program participants from original places is the best way for comparison as a control group. Regarding the impact of resettlement program on household income, the following main points needed to be considered as a possible policy implications forwarded in order to improve the goal of resettlement program for the rural households.

- The study showed that most of the farmers households' head in this study were depending on agricultural production or obtaining their income from faming activities rather than non-farm income due to low diversification of non -far activity during comparison with farm income in study area. So it is better if local or regional government giving more attention to improve source of income for rural households.

- Farmers need modern agricultural inputs. However not adapting more utilization of all modern agricultural inputs such as improved seed varieties, improved animal breeds for milk, and meat and poultry production for egg, commercial fertilizer and different chemicals. The fact is that the farmers could not have enough money to buy all the required agricultural in uts on cash and lack of habit to use short-term credit from financial institutions in the last cropping seasons. So, it is necessary for the national and regional policy makers t assess and find out ways in which farmers to get the tradition of use credit service for purchase of agricultural inputs in order to produce excess product for food achievement.
- Household head's education level was found to be negatively significant determinant of the resettlement program participation. This shows that educated house olds had enough potential to changing their environment as it is favorable to survive. Therefore, government will gives a great attention as the farmers should be educated by a means that fits with their living condition, such as adult education.
- Shocks is one of the main determinant cause of resettlements progra participation as the researcher undertook analysis from sampled respondents in the study area; therefore, favorable environment should be improved by concerning body to enable farmers easily stabilize their surroundings to living.
- In each three study kebeles development agents were assigned for peasant association to give extension service. Those assigned DA's were only giving theoretical advice for the farmers which was not practically supported and show. It is obvious that extension service provision in training and practical demonstration of farmers has a great contribution to increase production and productivity of the farmers in order to improve their annual income. As a result, it is more important to redesign policy measures for farmers training centers (FTCs) as a practical training and demonstration center of research outputs support level as per the national level farmers training program to build up the producing capacity of the farmers to increase their income.
- Large cultivated land size in the study area were held by economically inactive households heads rather than economically active farmer households, so it is better if local government or other concerned body readjusting the farm land allocation.
- Livestock were the major source of income in the study area but the farmer households were little knowledge about livestock rearing and using modern technology like animal breeding system, it is b farmers increase livesto annual income. it is better if concerning body make awareness regarding to how the k rearing by the way of modern technology for enhance their annual income.
- During data collecting survey supervision, key informants interview and FGD final result, it was observed that the study area has a potential of commercialization farm land. To increase rural household farmer's annual income, it requires the local government, agriculture development office, development centre offices, the policy makers and other concerned parties has crucial role interest to aware and building the capacity of the farmers to use these potential resources effectively and efficiently.
- Generally, as the study showed that resettlement program is the vital alternative to overwhelm the shortage of income and the rural access of land for agricultural production by providing virgin o unutilized cultivable land and accessing necessary basic infrastructural facilities within the intra-regions. Again to enhancing the households total area the concerned body would be take appropriate action to design incorporated development strategy by creating common feeling in wise utilization of the existing resources under sustainable way.

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' Work- Life-balance with Women in it Sector: Case Study with Reference to Navi Mumbai'

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ABSTRACT

With continuing boom of IT sector in India, the industry not only depends male employees, but more on female employees. With increasing participation in IT sector, the question of Work Life Balance playing major role in not only personal life but also professional life of women. This paper is about the Work Life Balance for women working in IT sector. The researcher has concentrated her efforts for this study to the Navi Mumbai region, as the literature review clearly indicates gap in analysis. Here, the sample of 85 respondents is considered for analysis, and the hypothesis is made and divided into 3 different sub-hypothesis. All sub hypothesis were tested with correlations and dependency tests. With acceptance of alternative hypothesis of all three sub hypotheses, it was proved that, there is no significant Work-Life-Balance with women in IT sector working in Navi Mumbai region and this is leading to their personal and professional life on being toss. The data shows that many respondents having physical and mental problems arising from unbalanced work- life and the analysis shows that, personal factors, organizational factors, customized WLB policies were most important factors for women employees and the researcher recommend requirement by both – organization and individual for better work life balance.

Keywords: Customised WLB Policies, IT Sector, Navi Mumbai, Women, Work Life Balance, etc.

1. INTRODUCTION

1.1 Concept of Work Life Balance:

The phrase 'work-life balance' is rather more recent in origin. It was probably first used in the UK in the late 1970s, and in the US in the mid-1980s. It has, however, taken on a new meaning with the recent technological changes that have made it possible for workers to stay in touch 24 hours a day, seven days a week. Smart phones, remote working technology and the like have meant that, even on holiday, people find it hard to 'switch off' and genuinely rest, and the complaint is often that people are expected to be 'on-call' at all times, without being allowed to have a life outside work.

1.2 Importance of Work Life Balance:

Broadly, Maslow says that people have needs, which had to be met in order. Before anything else can be considered, basic physiological needs such as food, water, and shelter must be provided. After that, people need to feel safe, and then to be loved and belong to a group. They then move on to issues of self-esteem, cognitive needs, and aesthetic needs, and finally, at the top of the pyramid, there is self-actualization, or achieving your full potential as a human being.

What this means in practice is that work provides for basic needs: money earned provides food, and shelter, and a regular income means safety. Work also allows people to belong to a group, and doing well

at work boosts self-esteem. The lower levels are all largely met through aspects of working. This explains partly why a work-life balance is a relatively modern concept, because you truly do need all the basic needs to be met before you have time or energy, or need, to worry about aesthetics or self-actualization.

1.3 Benefits of Work Life Balance:

There are several advantage of work life balance. Some of them are discussed below:

1. Work life balance increases the motivation of employees and helps them perform better at job
2. It helps people to relieve their stress as they can spend leisure time with their near and dear ones
3. Companies can maximise productivity from an employee who is rejuvenated and refreshed as compared to an over worked employee
4. Healthy lifestyles can be maintained by having a work life balance. This includes a good diet, regular exercises etc.
5. Employees who are highly motivated can help the business grow as they are more attached to their job and careers

1.4 Continuous Evolving Nature of Work Life Balance:

Generation like- Baby Boomers, Gen X, Millennials have greatly impacted the work life balance concept. But the overall picture shows that, women are more prone to any instability coming from such hard situations and tend to have more difficulties in managing the both stakeholders- Company and family. This is relevant in Indian context much than other countries.

It's clear that when your worries are taken care of, and your life is spent proportionately doing things that matter to you, it is obvious work will become your prime focus, thus helping organizations grow. This depicts the importance and usefulness of work life balance to women.

2. LITERATURE REVIEW

As per the study conducted by Narendra Preeti, et al (March 2018) [1], the discussion revolves around the importance of WLB in all emerging sectors especially IT. Authors have collected primary data from metro cities like Chennai, Delhi, Mumbai, some major IT driven cities, it wasalso found that, 3 major companies- Capgemini, Infosys, TCS have brought changes to promote Work Life Balance through initiatives such as flex times, part time work, and provision of child care facilities. The Descriptive Research paper highlights the importance of women as a visible part of workplace, also suggesting the fact that, constant requirement to work at optimum performance leads to job dis-satisfaction, employee turnover, reduced efficiency, Absenteeism, alcoholism lack of motivation or creativity. With being that said, paper focuses attention to criticality of finding win-win solutions to both diversity management and work/life professionals. Paper focuses on major factors causing stress in IT sectors like long working hours, work overload, change in work schedule, etc. Authors divide these factors from individual and organizational point of view. The paper concludes on remark of working out models by other companies driving towards engaging workforce to create a successful organisation.

Study by Sakeerthi S, et al (November 2016) [2] shows that, there is significant difference for IT in worldwide operations and IT in India. The research is descriptive in nature and quota sampling method was used for respondents of various levels of job hierarchy. The study was conducted at IT major, NeST Technologies, Technopark, Trivandrum. Authors suggested that the organization need to introduce such WLB policies to facilitate better productivity. Also, one finding shows that, there was negative effect job

performance due to family responsibilities for women. Authors conclude on note that, beyond all the efforts from the part of organizations, it is the support of the family which matters the most and it is one of the most lacking things in India, especially for the Indian working women. If the family support and employer support is there, the problem of work life imbalance will no longer be a problem.

As per the study done by Nidhi Tewathia (2014) [3], excessive pressure leads to stress. Author done primary survey with a sample size of 150 IT employees of Delhi. Many of the stressful life events are related to the workplace and the employee who start to feel the pressure to perform is likely to get caught in a downward spiral of increasing effort in order to meet rising expectations but no increase in job satisfaction. Author finds that, many organizations in Delhi are trying to promote WLB through initiatives which include flex times, part time work, provision of child care facilities etc. Yet, the respondents of this study have expressed their inability to balance professional and personal life .Gender aspect has also been considered vis-à-vis the variables of the study. The paper concludes by pointing out that WLB policies need to be implemented as much as possible in all industries, and on a wider basis in organizations that are currently using them in order to sustain the business performance.

Research paper by Deshmukh Kalpana (May 2018) [4], highlights the point that, ever-increasing work pressure is taking a ring on the working women leaving them with less time for themselves. Study conducted among the married working women of Pune city with sample of 180 using Convenient Sampling. They were from Academic, IT and Healthcare sectors. 60 women from each sector were chosen for the study. The research tool used was questionnaires and guidelines for form filling was given. It was found that, married working women experience 'time- squeeze'and hence find it really very hard to have time for themselves by means of hobbies/leisure activities or maintain friendships and extended family relationships. Also, the another finding was that, married working women find it hard to give the desired input to their families because of their tight schedules or fatigue and they feel helpless as they feel they do not have any control over their working hours and stress levels. Overall result was that, majority of the respondents were not successful in striking a balance between their personal and professional life. This shows the severity of the problems of work-life balance among the married working women. Author concludes on the note that, the problems and difficulties of women are multi-dimensional, so they require further probing to help working women in balancing their work and family life.

3. OBJECTIVES OF STUDY

3.1 Purpose of Study:

Main purpose of this project study are:

1. To find whether there is to find the work life balance in IT sector for women working in Navi Mumbai region
2. To find what are the impacting factors for such current conditions of women working in IT sector
3. To find out why do women feel they have good or bad work life balance in their life

The study was taken considering the boom of IT sector in India and specifically in fields like Software and Hardware along with BPOs, KPOs, etc. in Navi Mumbai region. Also the impact of globalization, current working life trends was seen in Indian women. So, researcher decided to do study based on finding the impact of work life balance in IT sector for women.

3.2 Significance of Study:

As an HR student, researcher genuinely feels importance of employee productivity and impact of stress coming from job affecting the productivity. This is also fuelled by changing technology and business environment. This makes this study relevant in today's challenging and competitive world to understand the employee's perspective and to give the solution based on our understanding and data analysis. This proves very relevant for the Navi Mumbai region.

4. RESEARCH METHODOLOGY

4. 1 Research Design:

The research design used in this project is Descriptive Research design as this form of research does not fit neatly into the either side of quantitative or qualitative research methodologies, but instead it can utilize elements of both. It is typically concerned with describing problem and its solution.

4.2 Sampling Technique:

Here, the convenience sampling technique was used considering time and geographic constraints of the study. Researcher made use of Non-probability sampling technique, in which subjects are usually selected on the basis of their accessibility or by the purposive personal judgment of the researcher.

For this research study, total sample of 85 respondents were taken from Navi Mumbai IT sector companies like Airoli, Vashi, Mahape, etc. based on quick thumb rule by calculating effect size based on alpha and beta values of type I and II errors respectively. So, with maximum acceptable error values of alpha, small effect size of 0.52, sample size of 85 was considered well enough for study of research project.

4.3 Research Questionnaire:

An extensive questionnaire was prepared while conducting the research and was divided into three sections focussing on different aspects to achieve the aim of the study to test the hypothesis. These three sections were as follows:

1. Personal Factors, 2. Company WLB Policies, 3.Customization Requirement in Policies

4.4 Questionnaire Formulation:

Based on various campaigning studies via online and offline media, researcher has formulated various questions for following:

1. To understand perceptions various working conditions and effect on the health of women employees in IT sector in Navi Mumbai
2. To know women employees' awareness of Work Life balance concept and its significance in their lives
3. To know is there any other factors affecting work life balance of women in IT sector

5. DATA COLLECTION AND DATA ANALYSIS

5.1 Data Collection:

Researcher has used both primary as well as secondary data collection methods for analysing the importance of work life balance and its effect on overall employee productivity. Secondary data collection involved journals and research papers pertaining to the topic related to the topic. Both primary

and secondary research have been used to draw inferences. The online way of Google Form was selected as medium to record responses.

5.2 Data Analysis:
Researcher has done the analysis with the help of SPSS V 23 and same software was used for post data validation purpose. The analysis was done by following steps:

Step 1: Collection of Resonses through Google Form

Step 2: Collecting these responses into Excel format

Step 3: Conversion of the data into numeric values- fromation of coding book

Step 4: Creation of Variables in SPPS and assigning the values to each numeric digits

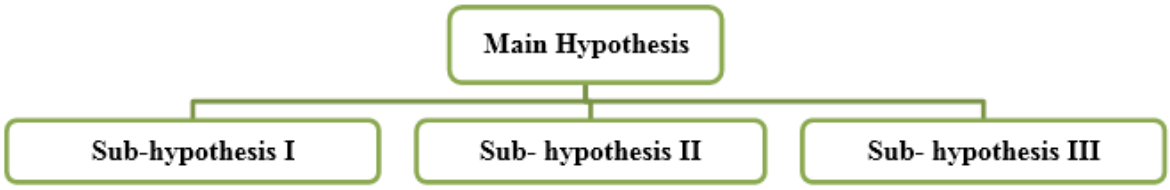
Step 5: Importing the coded data from Excel to SPSS data view

Step 6: Analysing the data in SPSS

Main Hypothesis:

H_0: There is significant Work-Life-Balance with women in IT Sector;

H_1: There is no significant Work-Life-Balance with women in IT Sector;



Sub-hypothesis I:

H_0: There is no significant effect of personal/family factors on Work-Life-Balance of women in IT Sector

H_1: There is significant effect of personal/family factors on Work-Life-Balance of women in IT SectorSub-hypothesis II:

H_0: There is no significant effect of organizational WLB policies on Work-Life-Balance of women in IT Sector

H_1: There is significant effect of organizational WLB policies factors on Work-Life-Balance of women in IT Sector

Sub-hypothesis III:

H_0: There is no significant importance of customized WLB policies on Work-Life-Balance of women in IT Sector

H_1: There is significant importance of customized WLB policies on Work-Life-Balance of women in IT Sector

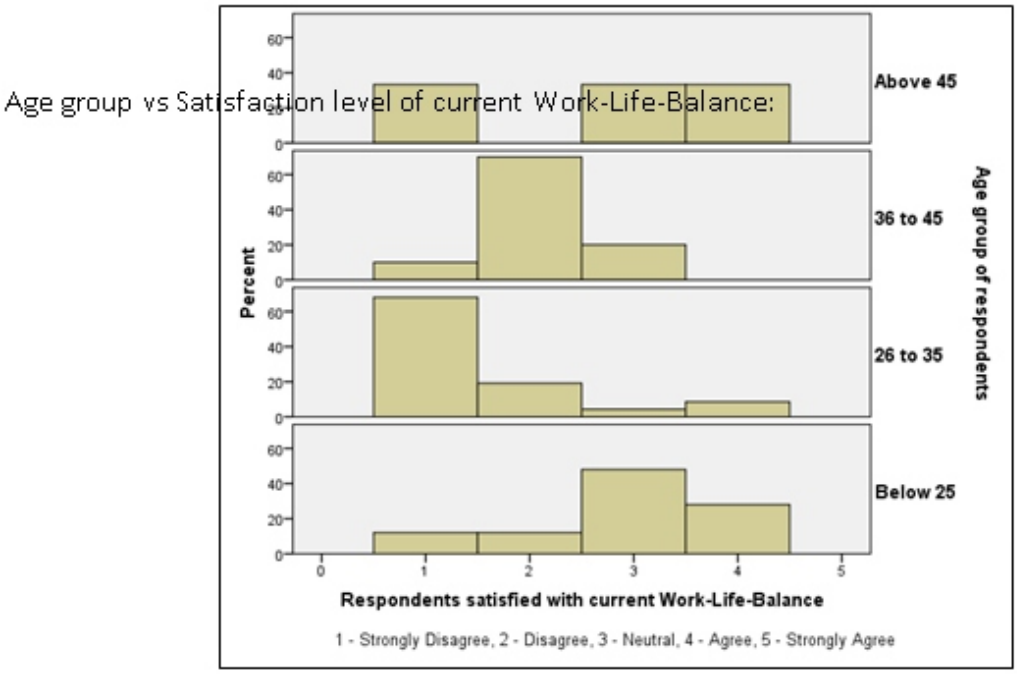


Fig 1: Age group of respondents and their current Work-Life-Balance level

The figure 1 shows that, around 75% of age group of 36 to 45 years disagree that they are satisfied with their current Work-Life-Balance and around 70% of the age group of 26 to 35 years say they strongly disagree on same whereas respondents of age group below 25 years mostly agree or feels neutral about their Work-Life-Balance and remarkably respondents aged above 45 years have kind of mixed reaction.
Marital Status vs Satisfaction level of current Work-Life-Balance:

The figure 2 below shows that, around 82% of Divorcee women strongly disagree with the fact that they have satisfactory Work-Life-Balance followed by the married women among whom 60% strongly disagree and 21% disagree on same whereas single women seemed to be much neutral and much agreeable about their satisfaction level of current Work-Life-Balance as 30% say they are neutral and 28% actually agree with it, this response is quite similar with the windowed women among whom 50% feels neutral and 22% agree and 22% disagree with this fact.

Fig 2: Marital status of respondents and their current Work-Life-Balance level

No. of children vs Satisfaction level of current Work-Life-Balance:

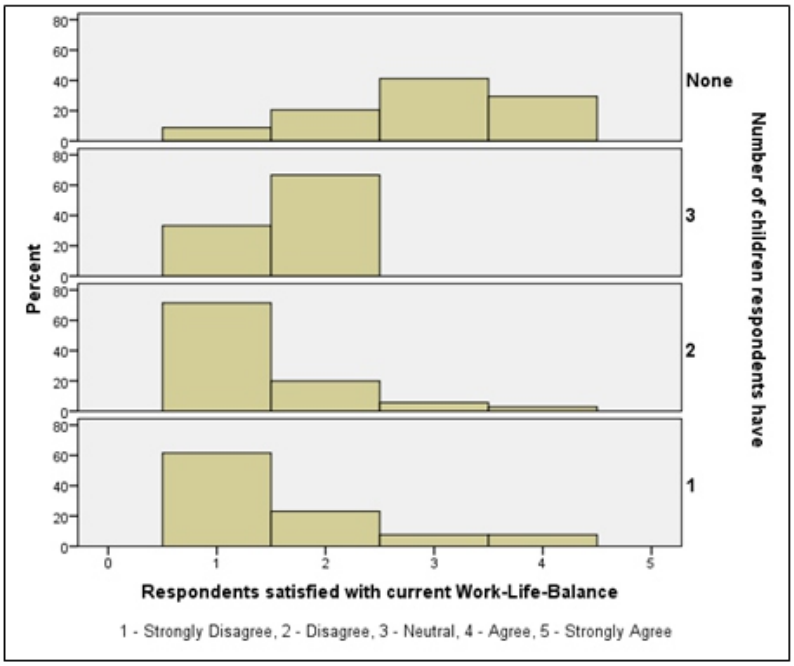


Fig 3: No. of children of respondents vs and their current Work-Life-Balance level

The figure 3 shows that women having children mostly disagree and strongly disagree with the fact that their current Work-Life-Balance is satisfactory as the % is 70% strongly disagree, 20% disagree among women with two children and 36% strongly disagree and 70% disagree among women having three children, and 60% strongly disagree among women having only one have children whereas women having no children are likely to be neutral or agreeable that they satisfactory Work-Life-Balance.

Having Dependent vs Satisfaction level of current Work-Life-Balance:

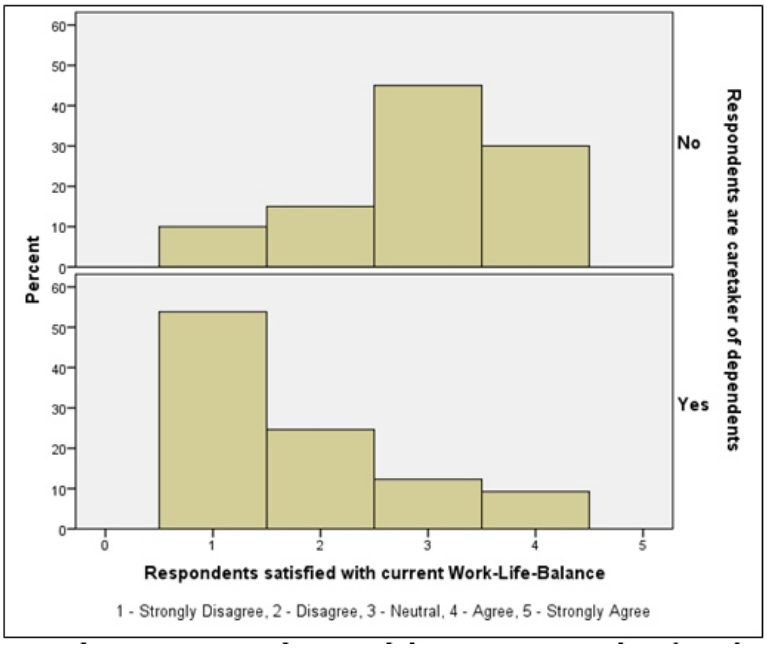


Fig 4: Dependency on respondents and their current Work-Life-Balance level

The figure 4 shows that 48% and 30% respondents who are not caretaker of dependents are neutral and agreeing respectively about the high satisfaction quotient of their current Work-Life- Balance whereas among respondents who are caretaker of dependents 55% and 25% strongly disagree and disagree with the same respectively and 12% being neutral about it.

Overtime vs Satisfaction level of current Work-Life-Balance:

The figure 5 below shows that, among women doing overtime of 3-4 hours, 1-2 hours, 5 and more than 5 hours, 58%, 38% and 99% respectively strongly disagree that they have satisfactory Work-Life-Balance and the percentage of women who disagree is 20% and 38% respectively doing overtime of 3-4 hours and 1-2 hours. Significantly women not doing also strongly disagreed and disagreed that they have satisfactory Work-Life-Balance, the percentage being 40% and 20% respectively and among women who don't do overtime 22% are neutral and 20% agreed on the same.

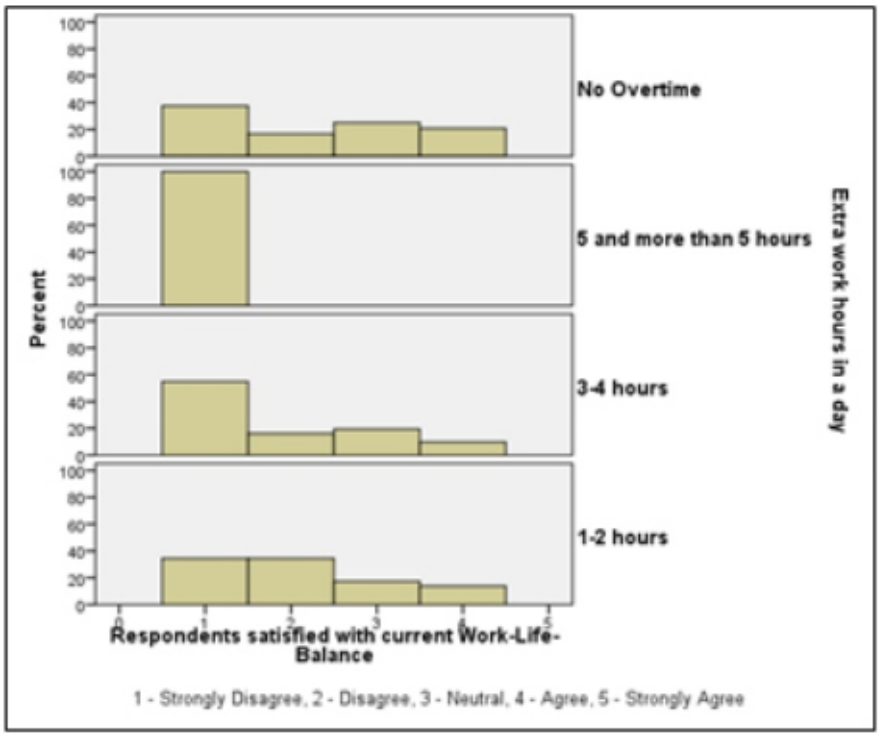


Fig 5: Overtime by respondents and their current Work-Life-Balance level

Travelling Hours vs Satisfaction level of current Work-Life-Balance:

The figure 6 below shows that, among women travelling to reach office for more than two hours and nearly two hours, respectively 82% and 78% strongly disagree of having a satisfactory level of current Work-Life-Balance and 20% among both these category disagree with the same whereas among women having travelling hours less than 30 mins and 30mins – 1 hour are rather inclined on feeling neutral and agreeing with the same.

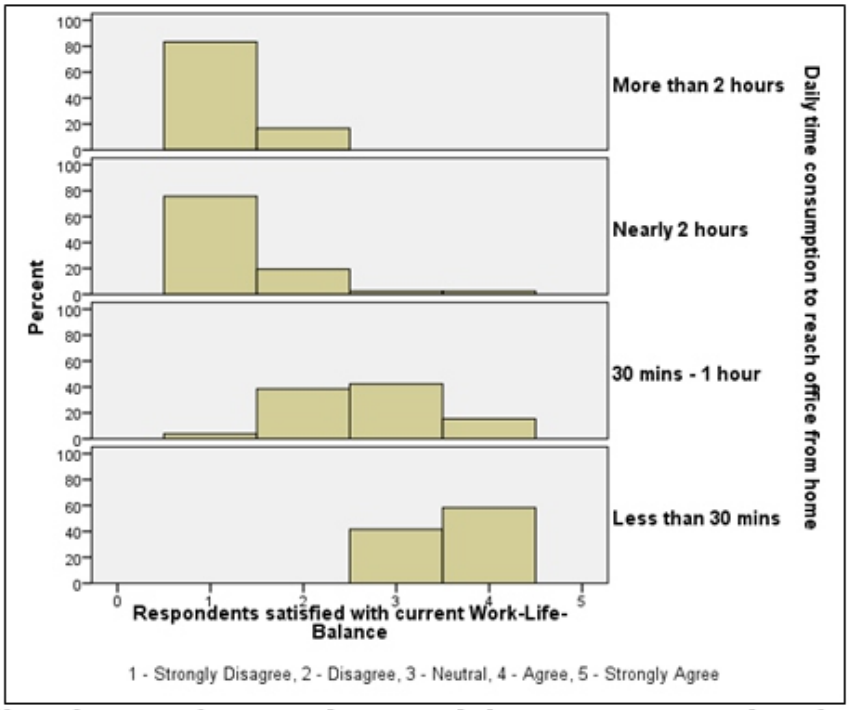


Fig 6: Travelling hours of respondents and their current Work-Life-Balance level

Working shift vs Satisfaction level of current Work-Life-Balance:

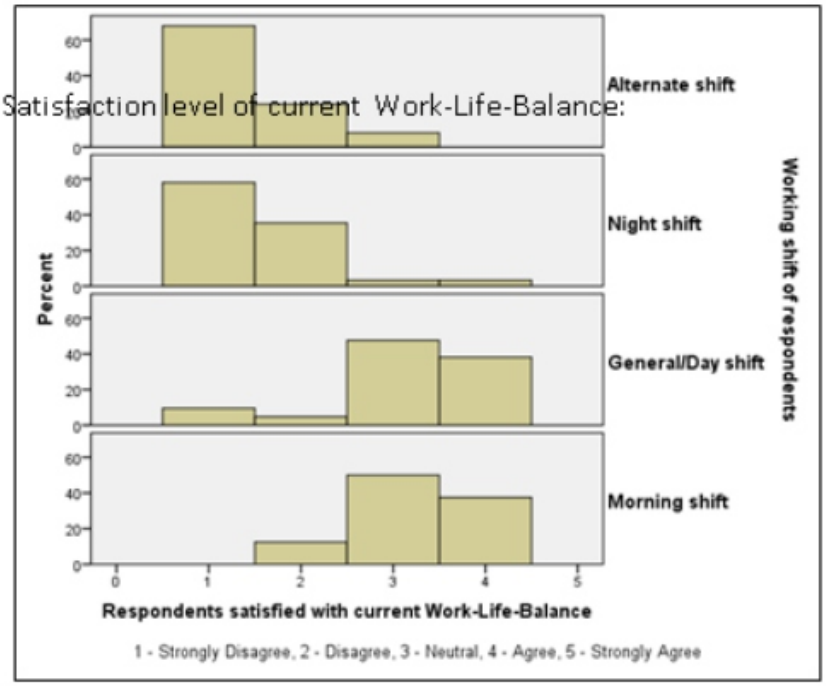


Fig 7: Working shift of respondents and their current Work-Life-Balance level

The above figure 7 shows that, 65% of women working in alternate shift and 58% of women working in night shift strongly disagree and 20% and 38% of women working in alternate shift and night shift respectively disagree with the fact that they have satisfactory Work-Life-Balance whereas women working in general/day shift and morning shift are more likely to feel neutral and agreeable about the same fact with a figure of 48%, 38%, 50% and 40% respectively.

Effect of personal/family factors in Work-Life-Balance:

Sub-hypothesis I:

H0: There is no significant effect of personal/family factors on Work-Life-Balance

H1: There is significant effect of personal/family factors on Work-Life-Balance

1: There is significant effect of personal/family factors on Work-Life-Balance

Dependent sample T-test was conducted to test the hypothesis where independent and dependent variables are as follows:

Independent Variable: Feeling of tiredness or depression at work

Dependent Variables:

a) Missing out quality time spending with family/friends due to workload
b) Complaints from family/friends of not getting sufficient time from respondents
c) Lack of time/energy to fulfil responsibilities outside work by respondents Test is been done at α = 5%. The result table is as follows:

Table 1: Dependent sample T test results for Sub Hypothesis I

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Feeling of tiredness or depression at work - Missing out quality time spending with family/friends due to workload	-0.129	0.737	0.08	-0.29	0.029	-1.62	84	0.019
Pair 2	Feeling of tiredness or depression at work - Complaints from family/friends of not getting sufficient time from	-0.106	1.035	0.112	-0.33	0.117	-0.943	84	0.048
Pair 3	Feeling of tiredness or depression at work - Lack of time/energy to fullfil responsibilities outside work by respondents	1.118	1.886	0.205	0.711	1.524	5.463	84	0.001

From table 1, significance is 0.019, 0.048, 0.001 respectively for Pair 1, Pair 2 and Pair 3, which is lower than 0.05 (α = 5%), Ho is rejected and H1 is accepted, i.e. There is significant effect of personal/family factors on Work-Life-Balance.

Table 2: Correlation between Feeling of Tiredness or Depression at Work and Complaints from Family/Friends of not getting Sufficient Time from respondents for Sub Hypothesis I

		Feeling of tiredness or depression at work	Complaints from family/friends of not getting sufficient time from respondents
Feeling of tiredness or depression at work	Pearson Correlation	1	.668**
	Sig. (2-tailed)		0
	N	85	85
Complaints from family/friends of not getting sufficient time from respondents	Pearson Correlation	.668**	1
	Sig. (2-tailed)	0	
	N	85	85

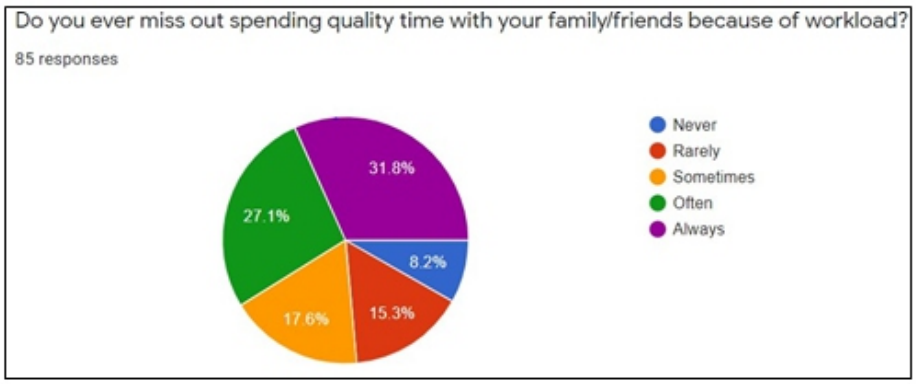
The above table 2 shows that, feeling of tiredness or depression at work and Complaints from family/friends of not getting sufficient time from respondents have high positive correlation since it's 0.668 i.e. much closer to 0.7.

Table 3: Correlation between Respondents suffering from stress related diseases and Respondents' dissatisfaction with current Work-Life-Balance for Sub Hypothesis I

		Respondents suffering from stress related diseases	Respondents satisfied with current Work- Life-Balance
Respondents suffering from stress related diseases	Pearson Correlation	1	0.844
	Sig. (2-tailed)		0.022
	N	85	85
Respondents' dissatisfaction with current Work-Life-Balance	Pearson Correlation	. 844	1
	Sig. (2-tailed)	0.022	
	N	85	85

The table 3 above shows that, respondents suffering from stress related diseases and respondents' dissatisfaction with current Work-Life-Balance have very high positive correlation,
i.e. the more the one, the higher the other and vice-versa.

Fig 8: Missing out of quality time by respondents



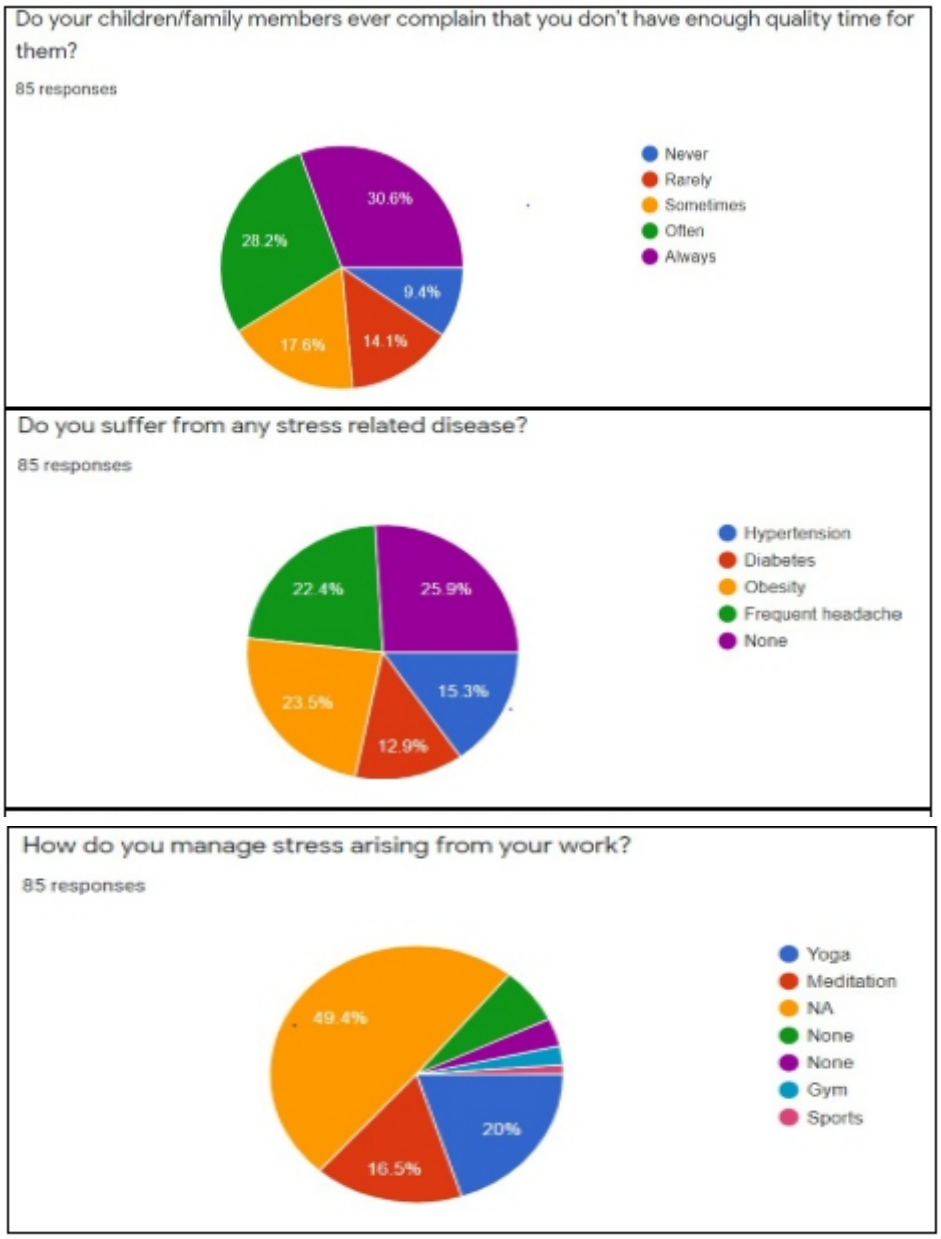


Fig9: Complaints from family/friends of missing out quality time
Fig10: Suffering of respondents from stress related disease
Fig11: Stress management by respondents

The figures above (figures 8, 9, 10 and 11) clearly show that 32% respondents always miss spending quality time family/friends and 27% often misses it and 17% sometimes which implies that this factor being very impactful to have a right work life balance is not being enjoyed by the respondents which leading to development of stress related diseases that is there among around 75% of respondents and around 65% of respondents do nothing to manage such stress which clearly manifests towards the work life imbalance.

Effect of organizational WLB policies on Work-Life-Balance:

Sub-hypothesis II:

H0: There is no significant effect of organizational WLB policies on Work-Life-Balance

H1: There is significant effect of organizational WLB policies factors on Work-Life-Balance

Dependent sample T-test was conducted to test the hypothesis where independent and dependent variables are as follows:

Independent Variable: Respondents satisfied with current Work-Life-Balance

Dependent Variables:

a) Maternity and childcare benefits by organization
b) Freedom to immediately attend urgent family needs during working hours
c) Accessibility of flexible work schedule by respondents
d) Availability of Work-From-Home facility
e) Importance on employee well-being by supervisor Test is done at $\alpha = 5\%$, the result table is as follows:

Table 4: Dependent samples T test results for Sub Hypothesis II

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Respondents satisfied with current Work-Life-Balance - Maternity and childcare benefits by organization	-1.918	1.466	0.159	-2.234	-1.602	-12	84	0
Pair 2	Respondents satisfied with current Work-Life-Balance - Freedom to immediately attend urgent family needs during working hours	-0.329	1.515	0.164	-0.656	-0.003	-2	84	0.048
Pair 3	Respondents satisfied with current Work-Life-Balance - Accessibility of flexible work schedule by respondents	-0.294	1.454	0.158	-0.608	0.02	-1.9	84	0.066
Pair 4	Respondents satisfied with current Work-Life-Balance - Availability of Work-From-Home facility	-0.282	1.402	0.152	-0.585	0.02	-1.9	84	0.067
Pair 5	Respondents satisfied with current Work-Life-Balance - Importance on employee well- being by supervisor	-0.341	1.492	0.162	-0.663	-0.019	-2.1	84	0.038

From above table 4, the significances for Pair 1, Pair 2, Pair 3, Pair 4, Pair 5 are 0.001, 0.028, 0.046, 0.037 and 0.018 respectively i.e. all being lower than 0.05 ($\alpha = 5\%$), H0 is rejected and H1 is accepted, i.e. there is significant effect of established organizational WLB policies on Work- Life-Balance of women in IT sector in Navi Mumbai.

The figure 12 indicates that, amongst age group of below 25 years almost 10% disagree and 9% strongly disagree that they have freedom to attend family needs immediately during workhours whereas in age group of 26 to 35 years 22% says they strongly disagree and 18% says they disagree on the same and in age group of 36 to 45 years there is around 7% who strongly disagree and disagree on the same.

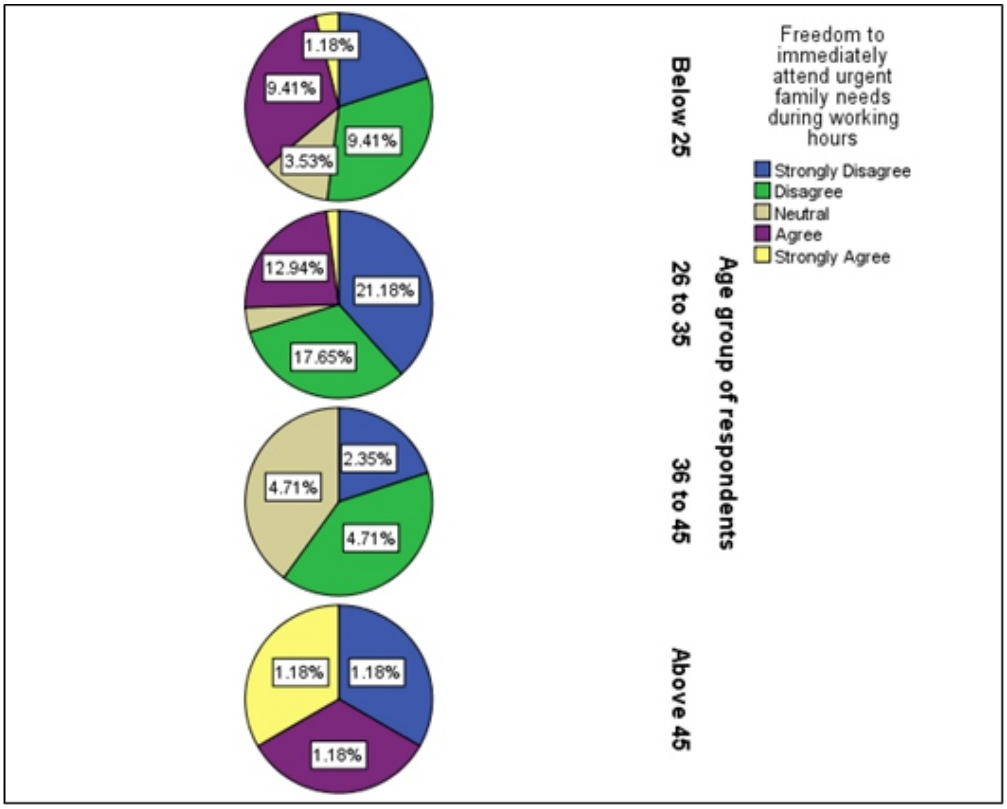


Fig12: Age group vs freedom to attend family needs during work hours

This pie chart from figure 13 shows that, almost 33% respondents strongly disagree with their accessibility of flexible work hours and 23.5% disagree with the same.

Fig13: Flexible work schedule accessibility by respondents

Importance of customized organizational WLB policies in Work-Life-Balance

Sub-hypothesis III:

H0: There is no significant importance of customized organizational WLB policies in Work- Life-Balance

H1: There is significant importance of customized organizational WLB policies in Work- Life-Balance

Dependent sample T-test was conducted to test the hypothesis where independent and dependent variables are as follows:

Independent Variable: Importance of Work-Life-Balance to enhance work quality

Dependent Variable: Customized organizational WLP policy preference Test is done at $\alpha = 5\%$, the result table is as follows:

Table 5: Dependent samples T test results for Sub Hypothesis III

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Importance of Work- Life-Balance to enhance work quality - Customized organizational WLB policy preference	-0.4	1.236	0.134	-0.667	-0.133	-2.983	84	0.004

From table 5, the significance is 0.004 which is lower than 0.05 ($\alpha = 5\%$), H0 is rejected and H1 is accepted, i.e. There is significant importance of customized organizational WLB policies to enhance quality of work.

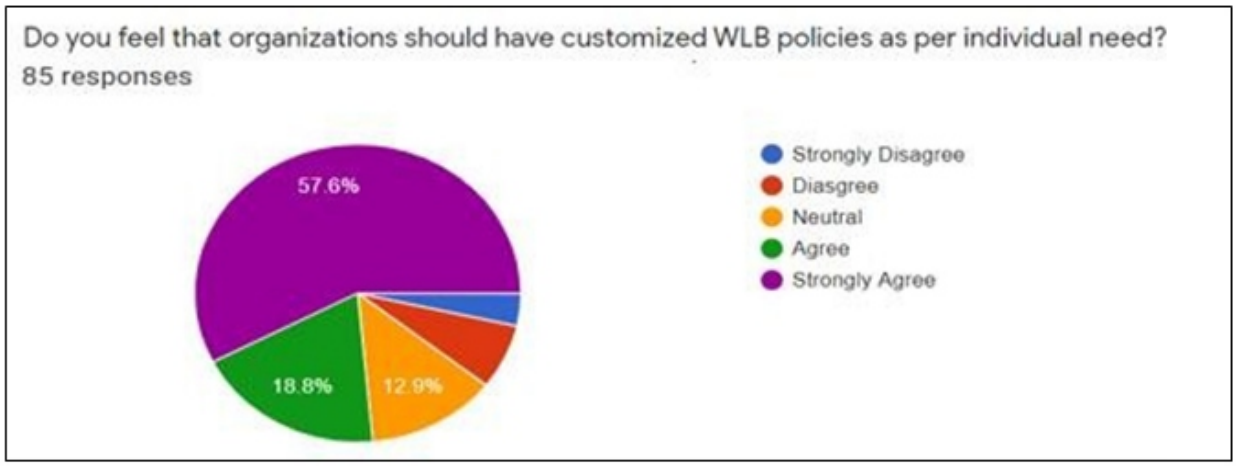


Fig14: Need for customized WLB policies

The figure 14 above shows that, around 58% women strongly agree that organizational WLB policies should be customized as per individual need and almost 19% agree with the same with a figure of 13% women who feels neutral about the same.

After all the analysis done, all the null hypothesis' (H0 of sub-hypothesis I, H0 of sub-hypothesis II, H0 of sub-hypothesis III) are rejected and all the H1 (H1 of sub-hypothesis I, H1 of sub- hypothesis II and H1 of sub-hypothesis III) are accepted, we can reject H0 of main hypothesis and accept of H1 of main hypothesis.

Also the correlations and the analysis shows that there is positive correlation between the Work- Life-balance and family/personal factors, between established organizational WLB policies and Work-Life-balance and Importance of customized WLB policies to improve quality of work.

The pie charts show the level of impact these WLB factors are having on lives of women working in IT sector in Navi Mumbai and the absence of which is leading to high level of imbalance in work life that in turn is affecting health also.

Hence, H0 of main hypothesis is rejected and, H1 of main hypothesis is accepted, i.e. there is no significant Work-Life-Balance with women in IT sector in Navi Mumbai.

6. FINDINGS AND CONCLUSIONS

From this analysis, the following findings and conclusions were made:

6.1 Findings:

It was found that, Personal factors, Organizational factors, Customized WLB Policies were most important factors for women employees for balanced work and life.

It was also found that, women in Navi Mumbai in IT sector are more prone to new age diseases like hypertension and the average age is coming down almost to 25-30 years. With the statistics showing that, 33% respondents strongly disagree with their accessibility of flexible work hours and 23.5% disagree with the same. And this goes same in line leading to development of stress related diseases that is there among around 75% of respondents and around 65% of respondents do nothing to manage such stress which clearly manifests towards the work life imbalance.

6.2 Conclusions:

Here, it has been concluded that, both – Organization and Individual need to take initiative for better work- personal life. And it is important to give more empathise on Customised WLB Policies due to multidimensional problems.

At last, it was concluded that, there is no significant Work-Life-Balance with women in IT sector of Navi Mumbai and this is leading to their personal and professional life on being toss.

7. LIMITATIONS AND FUTURE SCOPE

The survey was definitely for very specific time and limited sample size from Navi Mumbai. Also, possibility of information being generalised so, researcher would suggest that future research should include more demographics like Tier II and Non Metro cities of India.

Researcher also suggests to do indepth analysis on psychological effects and impacts of current living standards on work-life-balance for women in IT sector.

Lastly, researcher hopes that further work accompanied with audit report/ internal assessment of companies would help the study further.

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