

# PRERANA

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among Sanitary Workers – An Empirical Study

Dr. D. Rajan

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Economic Growth – A Comparative Analysis

Mrs. P. B. Saranya

Book Review: '*Leadershift*' by John C. Maxwell



GRG School of Management Studies  
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# PRERANA: Journal of Management Thought and Practice

*PRERANA in Sanskrit means hope and inspiration. The primary objective of PRERANA journal is to enhance the standard of management education by drawing from conceptual and empirical research based articles reflecting current industry practices. PRERANA shall include contributions from eminent members of the academia and sharing of practices by experts from industry. The Journal will also contain book reviews, editorial abstracts and executive summaries of recent publications in management.*

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## CONTENTS

Title	Author(s)	Page No.
Perception of Shift Work and Work Load among Sanitary Workers – An Empirical Study	Dr. D. Rajan	1
A Study On Select Indian Insurtech Startups	Ms. Rama Mokkarala	23
Impact of Perceived Stress on Job Satisfaction among the School Teachers of Pahang and Coimbatore – A Comparative Study	Dr. P. Paramanandam and Dr. Diyana Kamarudin	33
The Causal Links Between FDI Inflows, Imports, Exports, Trade Openness and Economic Growth – A Comparative Analysis	Mrs. P. B. Saranya	43
Book Review: ' <i>Leadershift</i> '		51

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## FROM THE EXECUTIVE EDITOR

It is my pleasure to place before you the second issue of the eleventh volume of '*PRERANA: Journal of Management Thought and Practice*.' The objective of *PRERANA* is to disseminate contemporary developments in the field of management in the form of empirical research that tests, extends or builds management theory and contributes to management practice. *PRERANA* encourages manuscripts that present strong empirical and theoretical contributions to the management field. Preference is given to submissions that test, extend, or build strong theoretical frameworks. The Journal will enable the industry in applying the most recent developments in management thought. *PRERANA*'s international and multi-disciplinary review team ensures maintenance of standards of excellence with regard to the quality of contents. The current issue publishes articles in the areas of General Management, Finance and Human Resources.

Dr.D. Rajan has undertaken an empirical, survey based descriptive research in Tirunelveli city with the aim of identifying the perception of sanitary workers toward various shift work related factors causing heavy workload. Eighty sanitary workers participated in the study. Results revealed that factors such as two shift work system with twelve hours duty, sudden extension of duty, continuous day or night shift, fixing schedule without consent of the employees, rigid approach in implementing shift schedule, lack of cooperation of coworkers to switch over shift work during emergency situations, are the factors associated with shift work causing heavy workload among sanitary workers.

Ms. Rama Mokkarala's paper highlights the salient features of select insurtech companies which have made their impact in the industry. Majority of the insurtech companies are insurance intermediaries. The term insurtech refers to adoption of new business models to enhance savings and efficiency by using technology. Her paper focusses on funds raised, products covered by the companies, number of customers or policies acquired, number of claims handled, etc. The uniqueness of each company is highlighted.

Dr. P. Paramanandam and Dr. Diyana Kamarudin in their study attempted to assess the impact of perceived stress on job satisfaction among the school teachers of Pahang and Coimbatore and also compared the levels of perceived stress among the school teachers of Pahang and Coimbatore. Results showed that teachers working in Coimbatore experience a higher level of perceived stress compared to teachers of Pahang. Approximately twenty-three per cent of the variance of job satisfaction was explained by perceived stress.

Mrs.P.B.Saranya has made an attempt to study the causal link between FDI inflows, imports, exports, trade openness and GDP in the select developing economies. South Asian economies China, Hong Kong, Singapore and India have been considered. The results revealed a long run association among the variables.

I thank all the authors for their contributions towards the second issue of the eleventh volume of *PRERANA*. I look forward for novel, insightful and crafted conceptual work that challenges conventional wisdom concerning all aspects of organizations from academicians, bureaucrats and business executives for publishing in *PRERANA*. The focus of the articles could be on diverse aspects of management focusing on contemporary issues and future challenges.

- Dr. B. Sripirabaa, PhD

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# PERCEPTION OF SHIFT WORK AND WORK LOAD AMONG SANITARY WORKERS – AN EMPIRICAL STUDY

Dr. D. Rajan\*

## ABSTRACT

*This empirical, quantitative and survey based descriptive research has been undertaken in Tirunelveli city, Tamil Nadu, India with the aim of identifying and describing the perception of sanitary workers toward various shift work related factors causing heavy workload. In order to achieve the objective, the study has sampled 80 sanitary workers using both convenience and judgement sampling techniques from selective leading private multi-speciality hospitals in Tirunelveli city. Primary data have been collected from selected respondents using schedule method of data collection with the help of structured self made questionnaire. Secondary data have been collected from books and journals. Percentage method has been used to analyze demographic characteristics of the respondents and perception of the respondents towards factors associated with shift work that cause heavy workload. The result of the study has shown that majority of the respondents have strongly agreed that the factors such as two shift work system with 12 hours duty, sudden extension of duty, continuous day or night shift, fixing schedule without consent of the employees, rigid approach in implementing shift schedule, lack of cooperation of coworkers to switch over shift work during emergency situations, no adequate off between two shifts, compulsorily forcing employees to come for duty during their off period, autocratic approach of the managers in preparing and executing shift schedule and managers not permitting to swap shift schedule with coworker with mutual consent are the factors associated with shift work causing heavy workload among sanitary workers. The study has given suitable suggestions to regulate shift work related factors and thereby reduce heavy workload of the sanitary workers.*

**Keywords:** Work shift, sanitary worker, heavy workload, private multi-speciality hospital, Tirunelveli city.

## INTRODUCTION

### Background of the study

Increased population growth has hugely increased demand for all kinds of basic needs of the people, and as a result of these increased demand, most of the production and service sectors have started shift work. Generally, service sectors, especially healthcare and transport industries were following shift work system in olden days, but now, production and education sectors also have turned to shift work system

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to fulfill increased demand of the people and also utilize limited availability of resources such as infrastructure and machineries to the maximum extent wisely.

Generally there are three types of shift work system (Morning, afternoon and evening or morning, afternoon and night) followed in majority of the organizations, and in some organizations, two shift work system (Morning and afternoon; or day and night) is followed. Shift work system has both advantages and disadvantages equally. On the advantage side, unlike other employees, those who work under shift system have huge benefits. Most of the studies have indicated that particular percentage of the employees who work during night shift and evening shift do another work in another organizations and earn additional income. Those who work in the organizations in which 3 shift systems with 8 hours or 6 hours are followed, they get an opportunity to work outside and earn additional income. In some kind of hotel industry, single speciality hospitals such as eye and dental care hospitals, colleges, super markets and also some production industries, two shift work system i.e., day and evening shift; or day, afternoon and evening shifts are followed without night shift. In many countries large numbers of students pursue their studies working with those kinds of organizations as either full time or part time employees. Some of the organizations, in which both morning and afternoon shifts are followed, allow their employees to extend their shift in accordance with their willingness especially when shortage of employees exist in the organization and this kind of system benefits the employees with more income.

On the disadvantages side, many studies have proved that shift work is negatively associated with personal, family and social lives of the employees. The major health related issue that employees undergo is sleeping deficiency which is the source of many other diseases such as diabetes mellitus, hypertension, fatigue, tiredness, hair falling and body pain. Shift work system affects family life seriously causing work and family life imbalance. It either limits or prevents employees from taking care of their children and parents and also affects social life of the employees in such a way that it does not allow them attending important functions because of this constantly changing time schedule. As the organizations which follow shift work system start their first shift very earlier in the morning,, those who work during day shift have to go to the work earlier in the morning. Similarly, since the second shift ends usually very late in the evening, they have to leave from their duty lately after completing their evening shift and thus, it will get them reaching their home very lately. This kind of tight schedule will interrupt their emotional balance causing angry over their family members.

In addition to these, shift work also interrupts personal life of the employees tremendously. Women workers feel insecure in night shift because usually employees are posted in single digit in each department in hospital sectors. Chances of increased accidents during their work and during their travelling to and from the

workplace are common among night shift workers. While employees are in night shift, normally their sleeping is disturbed, and sometimes they carry out work with sleeping mood and this push them to undergo accidents. In the same way when they return home after completing work they travel by bus and walk with sleeping mood and it causes them to undergo accidents. Similarly, men also are affected in shift work especially when they are posted in night shift. Their sexual life would be disturbed and they cannot give protection to their family members. When men are in night shift duty, their family members would feel insecure in the house and the condition would be rather worse if the house is located out of city and in rural areas. The condition would also be so worst if there are only women in the family. Thus, advantages and disadvantages of the shift work system are decided by the number of shifts and policy followed in the organization.

Demand for hospitals, diagnostic centers and pharmaceutical sectors has been increasing tremendously day by day due to increasingly increasing population growth and speedily changing life style of the people. Since government hospitals alone cannot fulfill demands of healthcare needs of the people, the need of private hospitals is increasing hugely. In India, now a day, healthcare industry plays a major role both in creating rich employment opportunities and deciding economic status of the country. Numbers of private hospitals are increasing dramatically with multiple facilities in par with the developed countries. Huge number of corporate sectors, in addition to the medical personnel, has started investing in healthcare sectors and as a result of this big change, competition among the hospitals has increased dramatically. Hence, operation style of the healthcare sectors has changed entirely differently. All hospitals, diagnostic centers and pharmaceutical sectors have started to run their organization like corporate sectors. Despite rapid changes in hospital sectors, shift work system cannot be changed because hospital sectors need round a clock service.

Shift work system remains compulsory for all categories of both medical and paramedical disciplines. But, few nonmedical departments such as reception, security, maintenance and housekeeping undergo to shift work system. Among these nonmedical departments, housekeeping department has occupied a vital role in maintaining hygienic condition of the hospitals and ensuring satisfaction and safety of the patients. The employees who belong to housekeeping department are called sanitary workers who carry out the work of cleaning, mopping, giving care to the patients, transferring patients to various departments, washing clothes and giving assistance to all medical, paramedical and non-medical departments.

In the study area, two shift work system is commonly followed. But, when shift system is carried out with two shifts, both morning and night, it brings more disadvantages than advantages. Night shift brings advantages for those who are technically qualified personnel such as doctors, senior nurses, pharmacists and

radiographers and laboratory technicians to some extent because they can rest when patients are stable and they have work only when patients are unstable and patents come to hospital to emergency department. But it does not benefit nontechnical workers such as security guards, sanitary workers, and maintenance workers. Among these three nonmedical and nontechnical workers, maintenance department workers can rest and sleep to some extent in the night shift. But, on the contrary, sanitary workers have plethora of workload than other departments' employees and the rest they can take is very little and limited. Most of the hospitals allocate few sanitary workers for night shift and it also increases their workload.

Shift work system benefits technically qualified workers financially a lot because they can do part time job in other hospitals. Especially radiographers, medical laboratory technicians, pharmacists can work on part time mode with other hospitals. Most of the technically qualified employees, such as doctors, surgeons, nurses, ECG and EEG technicians, radiographers, medical laboratory technicians and pharmacists working in government hospitals also work in private hospitals on permanent basis after their shift in government hospitals. But, this kind of facilities are absent to nonmedical employees. They have to work only with their concerned organization where they are working and they cannot work in outside organization. Very few nonmedical employees such as electricians can work outside and earn through on call facility. But, though sanitary workers can go to outside work, hospitals follow very rigid rules such as deducting salary and threatening them with job lose. Moreover, since hospitals do not prepare schedules and allow them to take leave in an accumulated manner like other department employees, they do not get chance to go for outside work mostly. In addition to that, sanitary workers are fully involved in physical work, their health conditions do not support them to go for outside job.

The study area has attained significant growth in all areas. Numbers of schools, colleges, hotels, hospitals, clinics, pharmacies, small, medium and large scale entrepreneurs have increased in large number. Most of the people from village come to city side areas for job because of decline in the agriculture. Education level of the people has increased significantly. Lot of advancement has come in health care industry especially in hospital sectors. Numbers of multi-speciality and single speciality hospitals have increased. All hospitals have established advanced machineries and infrastructures, and also began appointing highly qualified medical and paramedical personnel, because education levels of the people in the District have grown greatly. People of lower community started to know the importance of education and give education to their children and as a result of this, number of graduates are increasing in lower community. Moreover, lot of people prefer going to construction work and hundred days employment which is offered by government because they are given salary on daily basis. Due to these changes, demand for



employees for sanitation work is highly increasing and huge scarcity exists for sanitation work in all industries. Due to this scarcity level, most of the organizations including hospitals in Tirunelveli allocate heavy workload by following two shift works, twelve hours duty and extending shift unhealthily. Therefore, there is a need of knowing various factors associated with shift work system and how they are responsible for increased workload of the sanitary workers.

#### Statement of the problem

Both high absenteeism and frequently availing leave are commonly observed among sanitary workers in private hospitals in the study area. If it is analyzed what are the common reasons behind these, the big reason which sanitary workers report are unhealthy shift schedule and long working hours. Two shift work system with 12 hours duty is commonly followed in most of the hospitals and it is the biggest problem among sanitary workers affecting their work, productivity, behavior and health. Despite there is two shift work system and 12 hours duty, if the organization ensures the presence of proper managers with strong leadership quality, adequate welfare facilities, enough rest, required manpower according to volume of the patients, proper salary in accordance with workload being assigned as well as contribution and experience, recognition and strong motivation for sanitary workers, they would definitely work with much happiness and come to the duty regularly without availing leave and absent to the duty frequently, because enough rest, kind words as well as support from the managers and sharing of the work among the coworkers would reduce their work burden and workload.

In addition to the two shift work system and 12 hours duty, unhealthy job description, shortage of manpower in the housekeeping department which make sanitary workers to perform additional work of 2 to 3 employees, autocratic leadership style of the manager, inadequate rest and inadequate gap between two shifts, bias of the manager in allocating workload and work areas and lack of humanitarian approach are commonly observed in most of the hospitals. These are mainly practiced in most of the hospitals because of the lack of development in human resource management system and lack of implementation government rules and regulations in terms of manpower, salary management and welfare facilities and monitoring of the same by government officials.

Although it is commonly evidenced that two shift work system and twelve hours duty increases workload of the sanitary workers due to shortage of manpower and highly profit oriented nature of the policies of the hospitals, housekeeping managers who are appointed with lack of educational and professional qualification by the hospital management is the another important reason for heavy workload of the sanitary workers. Because of their inadequate educational qualification and poor

leadership qualities, they do not know how to prepare shift schedule fairly in the manner that it does not increase employees' workload and affect their personal and family lives. The unhealthy shift schedule such as prolonged night shift or day shift instead of equal rotating shift prepared by the housekeeping managers is accepted by most of the sanitary workers. Since sanitary workers are illiterate, submissive and from downtrodden community, they submissively accept the schedule and perform all duties assigned to them by their managers, without having courage to raise questions against unfair shift schedules and without knowing that it will react in their health, family and social lives.

Employee turnover is also another issue in housekeeping department, because not all people who join in housekeeping department as sanitation workers accept the work. Very few sanitary workers accept nature of the job and culture of the hospital. Since in hospitals' sanitation work, they need to give care to the patients such as cleaning faeces and urine of the patients which are very hazardous in nature in addition to their routine cleaning, mopping and other routine works, few sanitary workers sustain in the work accepting nature of the work and culture of the hospitals. Few of them quit the job and move to other kinds of work such as small hand craft works and hundred days government scheme work, construction work and security guard work. Moreover, huge availability of these works and its benefits such as daily wages push sanitary workers to migrate from hospital works. Rigid and biased leadership style, low salary, and lack of respectful approach in addition to shortage of manpower and heavy workload are the reasons for employee turnover. In order to manage the shortage of manpower, without filling vacancies existing in housekeeping department, the managers extend duties of the sanitary workers by cancelling their off and calling them to come to the duty even when they are on their routine off. This kind of approach of the managers makes the sanitary workers to continue their work continually without rest. When they are already working under the condition of shortage of manpower and two shift work system, if they are extended their duty without rest and adequate gap between the shifts, definitely it will affect their productivity, health, behavior, personal, family and social lives. Hence, it is needed to analyze various factors which are associated with shift work system and how they are responsible for heavy workload of the sanitary workers and thereby it is needed to regulate the shift work system in such a way that it does not cause heavy workload. Hence, this present research is undertaken with the objective of analyzing and describing various factors associated with shift work and its involvement in causing heavy workload among sanitary workers.

### Scope of the study

The present research has focused sanitary workers working with private multi-speciality hospitals in Tirunelveli city, Tamil Nadu, India. Factors associated with shift work that cause heavy workload have been studied in this research.

### Significance of the study

This present research has discussed richly various factors associated with shift work and how they are responsible for heavy workload. Its results and suggestions would definitely be useful for Hospitals and other similar organizations where shift work system is followed and sanitary workers are employed to revisit into their policy and do the necessary changes wherever it is required and introduce new policies to regulate shift work and reduce heavy workload of not only sanitary workers, but also other category of employees who work under shift work system. The analysis, results and suggestions of this research would assist the supervisors and managers of housekeeping department and other categories of managers who are associated with sanitary workers for their work, to reexamine their leadership style and qualities in terms of strength and weakness and take necessary steps to correct the weakness and enrich strengths. This research will assist to sanitary workers as to balancing their work and family life by learning how to plan the work, share the workload with co-workers, rest to relax the body and take nutritious diet to protect the health. This research would be a strong source of literature for future research studies and would give multiple directions for research scholars to initiate their studies with regard to shift work and workload.

### Research objectives

The objectives of this research are to identify and describe the perception of sanitary workers toward various shift work related factors causing heavy workload and to offer suitable suggestion to reduce heavy workload by regulating shift work.

## LITERATURE REVIEW

Shift work can be described as an arrangement of working hours that uses two or more teams to cover the time needed for production (Harma, 1993). It can also be defined as any regular employment which is taken outside the 7:00 am and 6:00 pm interval (Monk and Folkard, 1992). It comprises work patterns that extend beyond the conventional 8-hour daytime work day. The term night shift can be defined as work performed after 6pm and before 6am the next day, therefore, the activity at night will be out of phase with the circadian body temperature and other coupled rhythms.

Workload can be expressed as the amount of work that should be done at a certain time with a certain quality (Saglamari G and Cinabal B, 2008). As for workload perception, it is relative which may vary in accordance with the circumstances that the teacher has been experiencing. The concept workload is the perception that the work loaded above normal to the individual in the workplace. For most of the job, if the natural load of the work has not been calculated mathematically, it is possible to state that this concept has an abstract content based on the perception (Keser, 2006).

Nishisaki Y *et al.*, (2010) analyzed the relationship between level of patients' dependency and number of incident report and the relationship between the presence of accidental falls and the presence of patients transferred from the intensive care unit to the wards. The result of the study indicated that a higher patients' dependency score was associated with the occurrence of incidents on internal medicine ward. Result also indicated that the presence of transfers from the ICU could be a risk factor for accidental falls.

Muller DM *et al.*, (2013) observed that increases in the number of patients assigned to each nursing team lead to increased rate of bed related falls, blood stream infection, employee turnover and absenteeism. The qualitative analysis of this study explained that medication administration, bed baths and patient transport were the stressors among them and they had caused severe hazards to the patients, provider and environmental safety. The study also observed that nursing staff with fewer patients presented best results of care related and management related patient safety indicators.

Omoloyo OB and Omole CO (2013) studied influence of mental workload on job performance' and examined the influence of mental workload on the job performance of two category of workers namely academic and non-academic in the University. The study tested four hypotheses and indicated that male workers did not exhibit greater mental workload than female workers. There was no significant main influence of age and educational qualifications on job performance but there was significant main influence of length of service on job performance. The study did not find any significant interaction influence of age, educational qualification and length of service on job performance. But, the study found there was significant difference in the level of mental workload on academic and nonacademic workers.

Radzali FM *et al.*, (2013) studied workload, job stress, family to work conflict and deviant work place behavior and formulated new conceptual model of deviant workplace behavior based on the general strain theory. In the model established, it has been indicated that workload, job stress, family to work conflict together cause deviant workplace behavior. It has also been observed that from the reviewed literature and theory that leaving early, taking excessive break, intentionally working slow and wasting resources were the production deviance. Sabotaging equipments, accepting kickbacks, lying about hours worked and stealing from the company were the properly deviance. Showing favoritism, gossiping about coworkers, blaming coworkers and competing non-beneficially were the political deviance. Sexual harassment, verbal abuse, stealing from coworkers and endangering coworkers were the personal aggression.

Rajan D and Chandrasekaran K (2013) in their study identified the risk factors associated with work shift and examined its impact on physical health, individual life and family life of the paramedics namely nurses, pharmacists, laboratory

technicians and radiographers working with private multi speciality hospitals in Tirunelveli city, Tamilnadu, India. The results of the study show that 2 shifts rotating work system with 12 hours duty and irregular schedule of shift. Tiredness, drowsiness and sleepiness, difficulty in initiating and maintaining sleeping were the foremost impact of shift work on physical health of paramedics. Work life imbalance and developing stress were the foremost impact of work shift on individual life. Difficulty finding child care and lack of time to spend with children and other family members was the foremost impact of work shift on family life of paramedics. Hypotheses of the study have proved that demographic variables, age and marital status of the paramedics had no significant relationship with risk factors associated with shift work and impacts of shift work on physical health, individual life and family life of the paramedics.

Goksoy S and Akdag SK (2014) analyzed the perception of workload of primary and secondary school teachers in Turkey in accordance with teachers' opinion. The result of the study which was conducted by content analysis showed that security duties of the teacher and putting teachers the workload of collecting fee from the students were the extra workload of the teacher. The study suggested that these tasks should be assigned to security and finance departments. The study found that the most fatiguing, puzzling and time consuming issues for the teachers were documents and correspondences, students tracking and control, disciplinary procedures, administrative meetings, collection of dues, ceremonies and celebrations, home visits and development of materials.

Beheshti MH and Hajizadeh R (2015) studied workload, occupational stress and general health of female employees of public welfare centres' as correlation study from the sample of 63 female employees from three welfare centers. The study proved that job stress had significant effect on general health of the employees. The result also indicated that workload was significantly associated with job stress. But, no significant connection was found between workload and general health. There was a significant relationship between frustration and general health. Physical environment and responsibility had significant effect on health.

Hossain Sajjad M (2016) studied teaching workload and performance. The study used workload as independent variable and time spent in teaching, administrative activities and co-curricular responsibilities were the subcategories of workload. Teaching performance such as quality of teaching delivery, quality and quantity of research and training and implementation of new technology in teaching were the dependent variable. The result of the study showed that all the dependent and independent variables except time spent on teaching and implementation of new technology and administrative activities and implementation of new technology were positively correlated with each other. Among the variables there was a strong positive correlation between co-curricular activities and quality of teaching delivery

between administrative or non-teaching activities and quality and quantity of research and training and between co-curricular activities and quality and quantity of research and training.

Shihundla RC *et al.*, (2016) identified and described effects of increased nurses' workload on quality of documentation on information at primary health care facilities in Vhembe District, Limpopo Province. The result of the study has shown that increased nurses' workload poses a serious challenges to the documented patient information and documents themselves. The study result also showed that increases workload cause unavailability of information in some of the documents. The result also found that primary health care facilities encountered several effects due to increased nurses' workload where incomplete patient information was documented. Unavailability of documents was observed, whilst some documented information was found illegible, inaccurate and incomplete.

Magalhaes AMM *et al.*, (2017) studied the association between workload of the nursing staff and patient safety outcomes. The study analyzed workload as the ration between the mean number of patients and the number of nursing professionals in 24 hours and in the day shifts. The sample of the study consisted of 151481 patients, 502 nursing professionals and 264 observations of safety outcomes. The ratio of patients per nurse and per nursing technician in day shifts indicate a mean estimate of 14-15 and 5-6 patients per professional respectively. There was a significant association between the workloads in the inpatient units and average length of stay, urinary infection related to invasive procedure and the satisfaction of patients with nursing care. The study concluded that the increase in the workload of the nursing team had an impact on quality of care and safety for patients. An adequate staffing promotes a safer care environment.

Shabbir B and Raza Naqbi SMM (2017) analyzed impact of workload and job complexity on employee job performance with the moderating role of social support and mediating role of job stress of travel agencies. The study tested four hypotheses and the result revealed that there was significant negative relationship between job stress and job performance i.e., when job stress increase job performance decrease. Similarly, workload had negative correlation with job performance, so, when workload increase job performance decrease. There was negative correlation between workload and social support, i.e., when social support increase workload decrease and when social support decrease, workload also decrease. Similarly, there was positive correlation between job stress and workload and there was positive correlation between job stress and job complexity. On the contrary, job complexity and job performance had negative correlation.

Rajan D (2017) in his study identified and differentiated the risk factors associated with shift work and compared the impact of shift work on physical health,

individual life and family life of the paramedics having different shift duty. The paramedics namely nurses, pharmacists, laboratory technicians and radiographers working in from private multi speciality hospitals in Tirunelveli city, Tamilnadu were focused in the study. The result of the study observed that risk factors associated with shift work, impact of shift work on physical health, individual life and family life were highly experienced by both fixed night shift and rotating day and night shift than fixed day shift employees.

From the study reviewed, it can be known that studies have been undertaken in the study area has talked about shift work impact of paramedical employees and it has not researched about sanitary workers. Hence, there is a research gap to study about shift work related factors and its association with workload. Thereby, this present research is undertaken with the objective of analyzing various shift work related factors that cause heavy workload among sanitary workers.

## RESEARCH METHODOLOGY

This empirical, quantitative based survey research is descriptive in nature. The element of this research is sanitary worker working with private multi-speciality hospital in Tirunelveli city, Tamil Nadu. The study has sampled 80 sanitary workers from selected leading private multi-speciality hospitals using both convenience and judgement sampling techniques. From the selected respondents the primary data were collected using schedule method. In order to collect data using schedule method, the structured questionnaire which was prepared based on personal experience and observation of the researcher in the field of hospital administration was used. The questionnaire consisted of two sections namely section A that described profile of the respondents and section B that talked about perception of the respondents about factors associated with shift work that cause heavy workload. Likerts' five point scale that carried five responses namely 'Strongly agree, Agree, No opinion, Disagree and Strongly disagree had been used to know perception of the respondents towards the shift work related factors causing heavy workload among sanitary workers. The five responses in the questionnaire were weighed with the values of 5, 4, 3, 2 and 1 respectively. Schedule method of data collection was carried out by dictating the questions in the questionnaire to the sanitary workers in their mother language of the sanitary workers, 'Tamil' and their answers were recorded. The secondary data for the study were collected from journals and books to add appropriate significance to the study. Percentage method has been administered to analyze demographic characteristics of the respondents and perception of the respondents towards shift work related factors causing heavy workload.

## ANALYSES AND INTERPRETATION

Table 1: Demographic profile of the respondents

Variable	Description	Frequency	Percentage
Sex	Male	16	20.00
	Female	64	80.00
Age	Below 30 years	07	08.75
	Between 30 and 35 years	22	27.50
	Between 35 and 40 years	33	41.25
	Above 40 years	18	22.50
Marital Status	Married	72	90.00
	Unmarried	08	10.00
Year of working experience	Below 2 year	12	15.00
	Between 2 and 4 years	32	40.00
	Between 4 and 6 years	26	32.50
	Above 6 years	10	12.50
Salary (Rs)	Below 5000	12	15.00
	Between 5000 and 7000	41	51.25
	Between 7000 and 9000	21	26.25
	Above 9000	06	07.50

Source: Primary Data, 2018

It can be understood from Table 1 that among the respondents, 20.00% were male and 80.00% were female. Of them, 8.75% were below 30years of age, 27.50% between 30 and 35 years, 41.25% between 35 and 40 years and 22.50% were above 40 years of age. Furthermore, among them, 90.00% were married and 10.00% were unmarried. In all, 15.00% had below 2 years of work experience, 40.00% between 2 and 4 years, 32.50% between 4 and 6 years and 12.50% had above 6 years of work experience. Among them, 15% were drawing below Rs. 5000 of salary, 51.25% between Rs. 5000 and 7000, 26.25% between Rs. 7000 and 9000 and 07.50% of them were drawing above Rs. 9000.

Table 2: Perception towards factors associated with shift work that cause heavy workload

Factors associated with shift work that cause heavy workload	SA (%)	A (%)	NO (%)	DA (%)	SDA (%)
Two shift work system with 12 hours duty	81.67	18.33	0	0	0
Sudden extension of day or night shift	95.00	05.00	0	0	0
Continuous day or night shift	93.33	06.67	0	0	0
Fixing schedule without consent of employees	95.00	05.00	0	0	0
Implementing shift schedule rigidly	70.00	30.00	0	0	0
Lack of cooperation of coworkers to switch over shift work during emergency situations	66.67	33.33	0	0	0
No adequate off between two shifts	66.67	33.33	0	0	0



Perception of Shift Work and Work Load among Sanitary Workers –  
An Empirical Study

Factors associated with shift work that cause heavy workload	SA (%)	A (%)	NO (%)	DA (%)	SDA (%)
Compulsorily ordering employees to come to the duty during off period frequently	93.33	06.67	0	0	0
Autocratic leadership of the managers in preparing and executing shift schedule	86.67	13.33	0	0	0
Managers not permitting to swap shift schedule with coworker with mutual consent	93.33	06.67	0	0	0

*Source: Primary data, 2018*

Table 2 shows the final analyzed data of perception of the sanitary workers towards various factors associated with shift work and its influence on heavy workload. The interpretation for each factor analyzed in Table 2 along with interviewed data is as follows.

### Two shift work system

Majority of the respondents have strongly agreed that two shift work system remain the top most factor causing heavy workload. In the interview, they said that in the two shifts work system, they need to work for 12 hours and it makes them tired very early. A truth is understood from this statement that though even if they are allocated little workload when they continually perform the same workload for longer period of time i.e., 12 hours, definitely it will become heavy workload. Moreover, since sanitary workers perform physical related work majorly, naturally when they need to do their work for longer duration, it will be heavy and cause tired to them. It is known that when little work is done for 12 hours, it will cause tiredness to the employees, if heavy workload is assigned under the condition of 12 hours duty, it will definitely affect their workplace behavior, performance and health badly. In majority of the hospitals in the study area, two shift work system with 12 hours duty is followed, but salary given to both technical and non technical workers is less. Although two shifts work system and 12 hours duty is followed, if employees are given proper job description, adequate manpower and facilities to take rest for a while, they will be able to cope up with long working hours. But, in almost all hospitals, sanitary workers are not given proper job description, adequate salary in accordance with work and rest room to take short break are given. These kind of discrimination and deficiency, when join with long working hours and two shift work system, increase their workload surely, because, when there is no proper job description, naturally they have to do lot of work which are not part of their work. After sanitary workers have completed their physical work, when they do not have place to sit freely, it will hurt their body hugely because no hospitals are giving importance for sanitary workers. This kind of ignorance also will increase their workload mentally causing more stress and depression. Hence, hospital management should possibly try to implement three shift work system with eight hours duty. If not, or if it delaying,

they should be allowed to rest enough and pay additional remuneration to cope up with longer working hours and two shift work system.

#### Sudden extension of duty

Majority of the respondents have strongly agreed that sudden extension of duty is the factor causing heavy workload among them. Due to illiteracy, family commitment and financial burden, absenteeism rate remains high in housekeeping department. When sudden absenteeism happens from employee side, there is no option left for housekeeping managers to extend duty of existing employees, because work of sanitary workers is not replaceable and other department employees do not come forward to look after sanitary workers' work. When sanitary workers have already completed their 12 hours duty, if they are asked to extend the duty very suddenly, it will worsen their health further and push them to undergo accidents and perform unproductive work. Though they are not interested to extend the duty, there is no option left for them but to obey to the words of manager because of job insecurity. Very few employees assertively deny extending the duty and most of them agree with the order given by housekeeping manager because of their submissiveness and fear of job security. This sudden extension of the duty affects the employees' personal, family and social life seriously. Some of the housekeeping managers strictly order and force sanitary workers to extend their duty though they deny explaining their health or family issues. Most of the hospitals pay the same salary when employees assist the hospital by extending their duty. Their illiteracy, community and submissiveness are taken advantage by the managers. If the duty is extended rarely once in a month, it can be accepted, but, if it is done repeatedly it would affect family of the sanitary workers vigorously. Hence, housekeeping managers should generate the work environment where absenteeism rate remain less and employees' cooperation among themselves remain strong. Moreover, managers should try to create policy that if employees extend their shift continuously due to sudden absent of opposite duty employees, they should be given additional remuneration in order to motivate them and make them work willingly. Besides, hospital management should ensure that there is no shortage of manpower in the housekeeping department and always keep relievers to manage the sudden absent of employees.

#### Continuous day or night shift

Majority of the respondents have strongly agreed that continuous day or night shift is the factor causing heavy workload to them. Sanitary workers do round a clock service in the hospital and they also adapt their health to do shift work in such a way that one week for day shift and one week for night shift. Sometimes, they need to extend their shift in which they exist because of absent of other employees who should replace her. If it happens anyone of the time it would not affects sanitary

workers much, but, when it is purposefully made it will affect sanitary workers health. Especially when sanitary workers' night shift is extended for many times continuously, it will affect not only their health and job performance but also affect their family life specifically. Some of the housekeeping managers show partiality in allocating work shift. In most of the hospitals, housekeeping managers need to send sanitary workers to higher officials especially the directors' house for their household work. In order to achieve it, managers need to extend the duty of some sanitary workers. Some sanitary workers who are assertive deny it very boldly, but those who are submissive accept it because of fear. This kind of continuous day or day shift allocation must be avoided unless it is an emergency because of its negative influence on family life. Besides, housekeeping managers must not show any partiality and treat everyone equally in allocating shift work.

#### Fixing schedule without consent of employees

Perception of the majority of the respondents comes under the scale of strongly agree towards the factor, fixing schedule without consent of employees and it is associated with their heavy workload. Normally, almost majority of the managers do not discuss with sanitary workers before they prepare duty roaster, work area and any other activities related to their department, and thus, the managers decide everything and place order to their subordinates to follow it very autocratically. When sanitary workers were asked as to how their managers prepares schedule, they said that, their managers never discuss with them with regard to duty roaster preparation. When the managers prepare schedule without knowledge of their subordinates, they do not know personal and family commitment of the sanitary workers. Since almost half of the month, the sanitary workers do night shift, their personal and family commitment usually would change. Therefore, if their duty schedule is made to meet those changed commitments, they can run both their family and work life easily without any issues. But, when the sanitary workers are forced to work as per schedule rigidly that one week day shift and one week night shift without any leniency, definitely it will make their mental stress increased. When the employees' desire is given at least somehow importance, and the schedule is made accordingly, definitely they would feel happy, and the work is allocated in that conditions, definitely, though how much heavy workload is allocated, it would be taken easily by them and they will complete the tasks wholeheartedly. At the same time, when the sanitary workers are forced to do the work, according to the rigid schedule prepared by the managers without consent of sanitary workers, though the sanitary workers are allocated less workload, it would seem heavy. Hence, the housekeeping managers should give importance to the desires and willingness of the sanitary workers by involving them in the importance decisions which are made in the department.

### Implementing shift schedule rigidly

Majority of the respondents have strongly agreed that, their manager behave rigidly to implement shift schedule prepared. From this strong response, it can be understood that sanitary workers are working under rigid leadership style in terms of shift system. Sanitary workers' work schedule consists of 2 weeks day shifts and 2 weeks night shifts, and in some hospitals, 3 weeks day shift and one week night shifts. As majority of the sanitary workers are women and married, their commitment also would be plenty. They may have important engagement that may arise very suddenly, such as death of relatives, marriage of close relatives and any other cultural functions that must be attended by them. By the time this kind of engagement comes to them, if they are in the day shift, either they have to avail leave or absent. But sometimes, in order to solve this matter, without availing leave, though they exchange their duty with their coworker who is ready to replace her day shift, sometimes, in many hospitals, housekeeping managers do not allow it. They rigidly say that they should follow shift schedule made already. Under this circumstance, the sanitary workers do not have any other chance, but availing leave or getting absent for the duty, and it sometimes pushes the management to deduct their salary. When they are forced by the managers to do the shift work without allowing them swapping the work with their coworker with mutual consent, they feel stress and mentally depressed and this kind of approach of the managers also make their workload high mentally. In the state that, they are already loaded with heavy workload, when they are again forced to follow the schedule rigidly, that can be made flexible by the managers, the sanitary workers will do their work without interest, and this also will make their workload heavy mentally. Hence, the managers should learn to be flexible with regard to their work schedule when it does not affect routine of the hospital works, and allow the sanitary workers to swap their duty so that it does not affect routine work. This kind of flexible approach of the managers would grow commitment and performance of the sanitary workers in their work.

### Lack of cooperation of coworkers to switch over shift work during emergency situations

Perception of the majority of the respondents towards lack of cooperation of coworkers to switch over shift work during emergency situation has fallen under the scale of strongly agree. From this strong response it can be known that cooperation among sanitary workers is not healthy. Mutual cooperation among the coworkers definitely without doubt will make their work ease when they share each other the work. At the same time, when sanitary workers mutually help each other to swap shift whenever they need to avail leave or extend the duty for one day or one week, very few sanitary workers really understand others and their difficulties and accept to swap their duty for them but sometimes coworkers do not accept to swap it. This kind of situations really worsen the life of sanitary workers especially when

one worker is in need of leave and another worker deny to swap with her or him, the particular worker need to either avail leave if they have leave availability or absent without salary. This kind of situation happens two or three times in a month, it will affect their salary and cause mental disturbance to them causing stress and depression. This will also make them think hardly about their work. Hence, it is the duty of the housekeeping department managers to create and nurture cooperation among sanitary workers and give them permission to swap with each other to change their duty and shift without affecting their duty. This kind of freedom will heighten their morale and commitment towards the organization and heighten their respect on their managers. Moreover, it will assist them financially, because they escape from losing their salary.

#### No adequate off between 2 shifts

Majority of the respondents have strongly agreed that they are not given adequate intervals between 2 shifts. From this strong response, it can be understood that work schedule prepared is not healthy. Under the circumstance that when they have already undergone to huge workload in the previous shift, if they come to duty without adequate rest between 2 shifts and if they are assigned work overly, it will affect their health, workplace behavior, performance and work life balance because adequate rest is necessarily needed between two shifts to relax the employees themselves and give rest to the body since they are doing shift work. The housekeeping manager should prepare schedule in such a way that sanitary workers should take rest at least for a day, but without giving enough rest between two shifts they are allocated post to the opposite duty, and whey they are allocated heavy workload again, it will definitely push them to avail leave or absent from the duty to rest their body. Sanitary workers must be given enough rest especially when they have completed their night shift, because they would have not slept in the night shift and when they are allocated day shift immediately it will spoil their sleeping which will be result for poor performance, workplace accidents and lack of productivity. At the same time, sanitary workers perform heavy work in the morning shift, because when compared to night shift, in the morning shift, workload is very heavy. Under this condition, after day shift when they are given night shift immediately and when their body tired joins with sleeplessness, it will deteriorate their health severely. Hence, managers must prepare schedule in such a way that there is enough gap between two shifts in order to ensure that they take adequate rest to continue their next shift.

#### Compulsorily ordering employees to come to the duty during off period frequently

Majority of the respondents have strongly agreed that they are ordered to come to the duty during off period also frequently. From this strong response, it can be understood that they are often disturbed even when they are on off duty. Absenteeism

and sudden leave among sanitary workers are the commonly existing issues in the hospitals. Since duties of sanitary workers cannot be replaced by others and others do not come forward to do duties of sanitary workers, there is no other option for housekeeping managers to extend the duties of existing employees. When employees who exist in duties unavoidably refuse extending the duty, managers would be compelled to call the sanitary workers who are remain on their 'off'. Sanitary workers who are assertive in nature deny coming to job very simply, but those who are submissive and scared of job security would come to duty. If they had taken enough rest in their off period, and if they come to the duty there will be no issues for their health. But, in the condition that they had not taken enough rest, if they are forced to come to the duty compulsorily, it will definitely affect their health and family life also because they had already undergone to heavy workload. When housekeeping department remain already with lack of manpower, it would be very common and high that sanitary workers who remain on their 'off' to be called for duty. In order to overcome from these difficulties, housekeeping department should always have enough manpower according to the workload and also have reliever to manage crisis situation that happen due to shortage of manpower.

Autocratic leadership of the managers in preparing and executing shift schedule

Majority of the respondents have strongly agreed that their managers follow autocratic leadership style in preparing and executing shift schedule. From this majority and strong response, it can be understood that sanitary workers are working under the rigid leadership style of the managers. It is the duty of the manager to prepare shift duty without bias and execute it also. But, generally, most of the housekeeping managers behave autocratically and biased. Managers allocate sometimes only day shift for some employees purposefully and for some employees they always allocate only night shift for their convenience. If it happens occasionally during emergency situations of the employees it can be accepted. But, it is done purposefully, it affects other employees, because when one employee is continually allocated day shift in order to compensate his work a particular employee should be doing compulsorily night shift till day shift employee move to night shift it will affect their work life balance. When an employee looks after night shift continually for longer duration, it would affect their health and family life. At the same time, when an employee is purposefully allocated night shift for longer period of time, another employees should be continually doing day shift till he or she comes to day shift. As far as housekeeping department is concerned heavy workload would exist in day shift and lighter workload would be in night shift though there is sleeping deficiency and also they would miss their family when they are in night shift. As they fully carryout physical work and they perform plenty patients related activities without rest in the morning shift, after one week they usually prefer to go to night shift to rest little. But, autocratic schedule of the manager affect their health and family life

severely. Hence, managers should not show autocratically and rigidly in preparing and executing shift schedule and they should maintain flexibility whenever there is necessity to run the department as well as get the work from the sanitary workers smoothly.

Managers not permitting to swap shift schedule with  
coworker with mutual consent

Majority of the respondents have strongly agreed that their managers are not permitting to exchange their shift schedule with their coworkers with mutual consent. From this major and strong response, it can be understood that managers show strong autocratic leadership style in leading the people. Since majority of the sanitary workers come from downtrodden society and due to their illiteracy, they get married in the young age, and they undergo into the family and social commitments in their very early age of life. Moreover, people of downtrodden society usually do not skip any functions taking place in their society, and they attend all functions and it remains basically a strong culture in their society. Besides, since they do lot of physical work, they frequently suffer with health related issues. Due to these reasons, they are pushed to avail leave frequently. Most of the hospitals follow rigid rules with sanitary workers than other departments in terms of leave and other welfare benefits providing to them. Managers simply deduct their salary if they avail leave or absent even due to emergency situations. The basic rights and benefits that should be provided to them according to the labour welfare acts are not given to them. Their community and illiteracy get managers and hospital management not to think and treat sanitary workers as same as other department employees and their salary is deducted by housekeeping managers without their knowledge. Their submissiveness, low IQ level and fear of lose of job get them not to fight against the salary deduction stating their rights in terms of labour laws with regard to leave and salary. This kind of approach of the managers not only affects them mentally but also lowers their commitment towards work and organization. Therefore, the managers should be flexible enough whenever necessary and deal with them being in their situation empathetically and lead them satisfactorily.

## **SUGGESTION AND CONCLUSION**

### **Suggestions**

Based on findings of the study, the following suggestions are presented by the researcher in order to regulate the shift work and workload.

- Shift system and working hours should be regulated in such a way that two shift system and 12 hours duty can be converted into three shift and 8 hours duty.



- ▶ Housekeeping managers should avoid scheduling continuous day or night shift for longer period, and the managers should prepare rotation schedule in such a way that one week day shift and one week night shift. Managers should avoid extending the duty continuously unless it is necessary. While they have already completed their night shift, if they are asked to continue their day shift also, it will affect their health severely. Sanitary workers should be given enough gaps between two shifts in order to take enough rest and relaxation. Moreover, the housekeeping managers should avoid calling sanitary workers for duty when they are on their routine 'off' unless it is compulsorily needed. In order to avoid this kind of situation, housekeeping managers may have 1 or 2 employees as relievers.
- ▶ Housekeeping managers, when duty schedule is prepared, should allow sanitary workers to give their view and opinion and willingness with regard to their acceptance. Housekeeping managers can be flexible in some occasions especially after shift schedule is made, when employees request for shift changes due to some emergency situations such as health issues as well as personal and family commitments, managers can consider their request and permit them to swap it with mutual consent of the coworkers without getting their work affected.
- ▶ Managers should create and nurture rich interpersonal relationship among sanitary workers so that they can work cooperatively and coordinative and thereby share their work among themselves. Hospital management should give enough training for housekeeping managers with regard to leadership style and qualities especially in the areas of interpersonal relationship, emotional intelligence, motivation and communication. Similarly, management should give education as to how to balance family and work life equally in such a way that one should not affect others with proper education tools analyzing their knowledge of understanding.

### Limitations

This present research is limited to Tirunelveli city only, and it has not focused the entire District. It has also not described how shift work is associated with sanitary workers working in government hospitals, single speciality hospitals and diagnostic centers. This present research has not studied any other category of employees such as nurses, pharmacies, receptionists, medical laboratory technicians and radiographers who work under shift system. Sample size and sampling techniques are other limitations of this research. Due to these limitations, caution is required when generalizing results of this research to another category of the employees and other category of hospitals.



### Directions for further research

This present research gives multiple directions for future research scholars to initiate future research. The same research can be extended to the whole district and also other types of hospitals such as government hospitals, private single speciality hospitals and diagnostic centers. Future research can also be undertaken as to how shift work affect job performance, organizational commitment and health of the employees exclusively. Future research can also be undertaken covering other categories of the employees such as nurses, pharmacies, receptionists, medical laboratory technicians, radiographers and other category employees who work under shift system.

### CONCLUSION

This empirical, quantitative and survey based descriptive research was undertaken in Tirunelveli city, Tamil Nadu, India. The study sampled 80 sanitary workers from selected leading private multi-speciality hospitals using both convenience and judgement sampling techniques and collected primary data using schedule method of data collection to achieve the objective of identifying and describing the perception of sanitary workers toward various shift work related factors causing heavy workload. Secondary data were collected from books and journals. Percentage method was administered to analyze demographic characteristics of the respondents and perception of the respondents towards factors associated with shift work that cause heavy workload. The result of the study described that majority of the respondents strongly agreed that the factors such as two shift work system with 12 hours duty, sudden extension of duty, continuous day or night shift, fixing schedule without consent of the employees, rigid approach in implementing shift schedule, lack of cooperation of coworkers to switch over shift work during emergency situations, no adequate off between two shifts, compulsorily forcing employees to come for duty during their off period, autocratic approach of the managers in preparing and executing shift schedule and managers not permitting to swap shift schedule with coworker with mutual consent were the shift work related factors causing heavy workload among sanitary workers. Heavy workload has occupied an important role in deciding health, job satisfaction, organizational commitment, morale and work-life balance of the employees. When shift work is unhealthy and biased, definitely it would have a role in increasing workload of the employees and thereby affect their productivity and performance also which will further impact on environmental hygienic condition of the hospital and thereby impair both satisfaction and safety of the patients. Thus, since unhealthy shift work and its association on workload have impact on both life of sanitary workers and patients and organization, it remains essential for organization to create appropriate policy to regulate the shift work perfectly and train the managers to implement it in

a proper and healthy manner so that all sanitary workers should be happy in terms of work, personal and family lives and enhance their contribution towards growth of the organization.

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## A STUDY ON SELECT INDIAN INSURTECH STARTUPS

Ms. Rama Mokkarala\*

### ABSTRACT

*The technology is fast evolving and taking every industry into its stride. Insurance is no exception. The insurance industry has to adopt the technology and harness it to insure its future. The business models of brick and motor insurance companies and their products are not sufficient in a market place driven by high customer expectations and competition. The domestic insurance market is estimated at \$70 billion where online commands a share of around 2.5 % but is growing at 40% annually. The insurtech refers to adoption of new business models to enhance savings and efficiency by using technology. The paper highlights the salient features of select five insurtech companies which have made their impact in the industry. Majority of the insurtech companies are insurance intermediaries. The insurtech companies have either revolutionized through innovative products by rebundling the existing traditional products, distribution models, reachability, etc. The paper is exploratory in nature. Secondary data was used from various websites of the companies and other sources mentioned in the bibliography. The study undertakes comparative analysis. The paper adds to the existing body of knowledge. The paper focusses on funds raised, products covered by the companies, number of customers or policies acquired, number of claims handled, etc., The Uniqueness of each company is highlighted. It's expected that by 2020, India will have a \$20-billion strong domestic online insurance market. The online insurance companies are fast reaching the expectation.*

**Keywords:** Derisking, Fintech, Innovation, Insurtech, and VUCA economy

### INTRODUCTION

The Indian insurance sector is fast evolving by adopting the technology. The industry is also trying to address the demanding and changing customer behavior in terms of products, convenience, service, etc. The industry is shifting its gears from “one-size-fits –all” approach to “byte –size- insurance” and “sachet-model-insurance” products. The birth of insurtech companies is changing the Indian Insurance ecosystem. The insurtech companies are challenging the old economy companies.

The Indian insurance sector is fast evolving by adopting the technology. The industry is also trying to address the demanding and changing customer behavior in terms of products, convenience, service, etc. The industry is shifting its gears from “one-size-fits –all” approach to “byte –size- insurance” and “sachet-model-insurance”

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products. The birth of insurtech companies is changing the Indian Insurance ecosystem. The insurtech companies are challenging the old economy companies. Insurtech refers to the use of technology innovations designed to squeeze out savings and efficiency from the current insurance industry model. Insurtech is coined by combining two words “insurance” and “technology” that was inspired by the term fintech. The belief driving insurtech companies is that the insurance industry is ripe for innovation and disruption. Insurtech is exploring avenues that large insurance firms have less incentive to exploit, such as offering ultra-customized policies, social insurance, and using new streams of data from internet-enabled devices to dynamically price premiums according to observed behavior.

The insurtech companies use technology as a weapon to simplify the products and enhance the customer experience. Technology-led insurance is expected to play a significant role in the lives of millennials who in their busy life look for quick Solutions. The insurtech companies focus on simplifying the insurance technology landscape and improving operations. They have started to innovate using technology such as IoT, the blockchain, artificial intelligence and are trying to break the complexity around the product.

The domestic insurance market is estimated at \$70 billion where online commands a share of around 2.5 % but is growing at 40% annually. It's expected that by 2020, India will have a \$20-billion strong domestic online insurance market. According to a PwC survey, 48% of insurance companies think they will lose more than 20% of their business to stand-alone InsurTech companies over the next five years.

According to Inc42 Datalabs, 11 insurtech startups have raised \$337.8 Mn between January 2018 and April 2019. The companies are expected to drive the next growth of phase for the industry.

Asia InsurTechs

City	Region	Country	Startup Count	Total Funding (\$M)
Singapore	Central Region	SGP	17	99.7
Mumbai	Maharashtra	IND	16	103.8
Gurgaon	Haryana	IND	10	161.6
Hong Kong	Hong Kong Island	HKG	8	0.3
Bengaluru	Karnataka	IND	7	–
Shanghai	Shanghai	CHN	6	1,387.3
Bangkok	Krung Thep	THA	6	2.0
Beijing	Beijing	CHN	5	50.0
Dubai	Dubai	ARE	5	26.3
<b>Asia Total (Cities with 5 more InsurTech)</b>			<b>80</b>	<b>1830.9</b>

Source: Venture Scanner ([www.venturescanner.com](http://www.venturescanner.com))

## OBJECTIVES

The paper attempts to study select Insurtech Companies which have disrupted the Indian insurance landscape.

- 1) To undertake a brief analysis of the products /services offered by select Insurtech companies .
- 2) To study the select parameters of Insurtech companies like funding , strengths, motos and future plans.
- 3) To study the current achievements of the select insurtech startups in terms of policies bought, claims processed, cities covered, etc.

## LITERATURE REVIEW

Jonathan Swift (16 May ,2017) “Seven Indian insurtech startups to watch beyond 2017”, the article discusses about the seven top insurtech startups. The article lists the launch dates, founders and vision of the insurtech startups. <https://www.postonline.co.uk/asia/3210056/blog-seven-indian-insurtech-start-ups-to-watch-in-2017-and-beyond>

Fintechnews Singapore( August 29, 2018) “Asia :100 Insurtech companies and counting”, lists the top cities in asia for insurtech startups and the entry of big industrial houses into insurtech startups. The article also lists out the important insurtech startups. <http://fintechnews.sg/23449/insurtech/asia-100-insurtech-companies/>

Tarush Bhalla (Aug1, 2018) “These top-funded insurtech startups are changing how India buys insurance cover”, the article explains the changing insurance ecosystem and talks about highly funded startups in the space which had driven growth. <https://yourstory.com/2018/08/top-funded-insurtech-startups-changing-india-buys-insurance-cover>

## RESEARCH METHODOLOGY

The study was carried out on select 5 insurtech startups of India. The companies were selected at random. The companies are all digital insurance companies that have revolutionized the insurance landscape with either innovative products or distribution networks covering rural India, etc. The five companies selected for the study are Gram Cover, Coverfox, Toffee Insurance, RenewBuy and Turtlemint. The select parameters of the companies like funds raised, innovative products, policies bought, claims addressed, present statistics, future projections, etc. have been considered in the study. The unique feature of each of these Indian insurtech startups have also been highlighted in the study. The study was exploratory. Secondary data was used. The data was collected from websites like economic times, livemint and that of the startup companies.

## LIMITATIONS

The study covered only select insurtech startups. Only some parameters of select insurtech startups were considered. The profits, total investment, commissions earned or revenue generated couldn't be shown. The data availability was a limiting factor. The data was gathered only from news articles on the internet and websites of respective companies.

## DATA ANALYSIS

Snapshot of select Indian Insurtech startups

Insurtech Startup	Founded	Products
GramCover	2017	<ul style="list-style-type: none"> <li>Life insurance for rural communities including cattle in case of deaths, critical illness and also due to natural calamities</li> <li>Non-life insurance - a. Crop b. Livestock c. Health D. Motor—Two wheeler</li> </ul>
Coverfox	2013	<ul style="list-style-type: none"> <li>Term Life</li> <li>Health, Car , Bike, Taxi, Travel</li> <li>CoverDrive</li> </ul>
Toffee Insurance	2017	<ul style="list-style-type: none"> <li>Bite-sized covers for loss/damage to bicycles, backpacks, gym injuries</li> <li>Accident during daily commute</li> <li>Salary protection</li> <li>Dengue and Chikungunya</li> </ul>
RenewBuy	2015	<ul style="list-style-type: none"> <li>Motor</li> <li>Life</li> <li>Health Insurance policies</li> </ul>
Turtlemint	2015	<ul style="list-style-type: none"> <li>Car, Bike</li> <li>Health</li> <li>Life</li> </ul>

### GRAM COVER - Insurance market place for rural India

*Primary Motto:* Derisking rural India

*Focus:* Creating a unique technology led insurance distribution and servicing model which can leverage the rural human capital and make insurance available seamlessly to the rural population.

GramCover offers products with the 5 must-haves to design a relevant product for rural customers:

1. Low premium
2. Competitive value of the policy
3. Low turn-around-time (TAT) for claims settlement
4. Easy documentation
5. Approach able customer service

*Working model:* Product integration with insurers, payment gateway integration with fintechs and partnerships with relevant stakeholders in rural India. GramCover assessed customer profiles of the organizations. It helped them to analyze the

insurance requirements of the customers, the type of channels used to locate them, and the products and features that they currently use, leading to a significant increase in user adoption of GramCover's digital platform.

*Strength:* Their technology-led distribution and servicing model reduces the inefficiencies and transaction costs involved in purchasing insurance policies.

Produced educational videos that focus on content development to help generate awareness about insurance among rural customers.

Gramcover has worked with multiple insurance companies to provide coverage to non loanee farmers under the Pradhan Mantri Fasal Bima Yojana (PMFBY).

*Challenges:* GramCover's primary challenge was to spread awareness about the importance of insurance products, benefits, and claims. Moreover, finding the right set of partners to distribute insurance products was also critical. The most likely partners were microfinance institutions (MFIs), non-governmental organizations (NGOs), or business correspondent network managers (BCNMs), among others.

The other challenge was to integrate with existing insurers and offer relevant products that cater to the needs of the rural population.

*Funding:* Rs 8 Crores from Omnivore in November, 2016

*Future Plans:* Plans to build a network of 25,000 point of sale (POS) locations for customers to understand and purchase policies in the next three years

*COVERFOX – Online Insurance brokerage firm* Premanshu Singh, CEO One of India's most well-funded insurtech startups, backed by prominent investors like SAIF Partners, Accel Partners, NR Narayana Murthy, and the World Bank Group's IFC. Pioneer in Motor Insurance. Recently shifted focus to term life insurance around July, 2017.

*Premier product:* Coverdrive a B2B seller app, in late 2017 to help offline agents grow their business. It aimed to help offline agents go digital, grow their business, get instant quotes from insurers, reduce paperwork, increase operational efficiencies, and earn more and fast.

*Features of coverdrive:* a) Improve discovery of insurance products for agents, b) Increase their revenues and operational efficiency, and c) Automate tracking and maintenance of customer records through an analytics dashboard. Coverdrive claims to have distributed close to a million policies and clocked 300 percent growth in earned premium. Over 50,000 insurance agents, most of whom had never sold a policy before, are using the platform. The Coverdrive app has recorded 80,000+ downloads. In motor insurance alone, Coverdrive has generated Rs 500 crore of premium in FY19.

*Funding:* In June, 2017 Coverfox raised \$15 mn from Transamerica & others

In April 2018, Coverfox raised \$22 million in Series C round from a clutch of investors to fund the new platform. In March, 2019 Coverfox's parent company, Glitterbug, raised \$50 million in new round. In July 2019, the startup raised an additional Rs 40 crore from existing investors, taking its overall funding to about \$59 million.

Future Plans:

- To chart a path to capture more than half the online insurance market in the next year.
- To expand its presence in non-metro markets.
- To be the largest player in the online bike and motor insurance space
- To expand its market share in term life insurance policies.

*Toffee Insurance* - Composite corporate agent.

Rohan Kumar and Jain put together insurance products in healthcare and general insurance and launched Toffee Insurance. The insurance-tech start-up offers Bite-sized Insurance. It is registered as an insurance intermediary, which means it creates products for insurers and sells to consumers via distributors.

*Insurance partners:* HDFC Ergo General Insurance, Apollo Munich Health Insurance, Religare Health Insurance, Tata AIG General Insurance, Future Generali Life Insurance, ICICI Pru Life Insurance, Chola MS, IndiaFirst Life Insurance, Bajaj Allianz General Insurance

*Channel partners:* Wildcraft, Eko India Financial Services, Hero Cycles, Firefox Cycles and TI

*Funding:* In May, 2019 Toffee raised \$1.5 million in a seed funding round, led by Kalaari Capital, Omidyar Network and Accion Venture Lab

Future Plans:

- Estimated revenue Rs 30 Crore
- To expand their product offerings from 12 to 20 by next year. Products in the pipeline include credit insurance, customised travel insurance, gadget insurance and even cover for spectacles.
- To sell 3.5 lakh policies by 2020



### **RENEWBUY - Online Insurance Broker**

Renew Buy is owned by D2C Consulting Services - which has a broking license - and is headed by CEO Balachander Sekhar. Motor insurance specialists based in Gurgaon, Haryana

*Moto:* To establish as India's premier online auto insurance comparison platform

*Competitors:* Easypolicy, Coverfox, Policy Bazar

*Strength:* RenewBuy's unique digital agent model has delivered a sharp month-on-month growth in the last two years to become one of the leading digital insurance aggregators

*Funding:* In its first round of funding, the series A, the startup had raised about \$2.5 million led by Singapore based Mount Nathan Advisors, in addition to an undisclosed number of high net worth individual investors.

Raised \$9.2 million (approx. 60 crores ) from Amicus Capital in October, 2017

Raised Rs 130 crore in its latest round of equity financing, led by venture capital firm Lok Capital and IIFL Asset Management, an investment unit of financial services company IIFL Holdings in July, 2019.

#### **Future Plans:**

- To expand in health, life and Accident insurance
- Expand to 1000 cities
- Increasing agent network to 200,000
- 10 million customers by 2022
- Targeting a premium of Rs 800 crore in FY20

### **TURTLEMINT- Online Insurance Broking Firm**

Founded by Anand Prabhudesai, Dharendra Mahyavanshi and Kunal Shah registered at Mumbai.

*Moto:* To "demystify" insurance by explaining jargon in a simple way and providing smart tools to help a user make the right choice

*Strength:* Proprietary MINTPRO app

*Funding:* Raised around \$2-3 million institutional funding led by Nexus Venture Partners with participation from Blume Ventures in February, 2016

In January, 2019 raised \$25 million in a funding round led by Sequoia India

*Future Plans:* To increase the PSOps to 2,50,00 to 3,00,000 in next few years to expand into home and travel insurance categories

## Current Achievements of insurtech Startups

GramCover	<ul style="list-style-type: none"> <li>• 3000+ villages covered</li> <li>• Customers enrolled 1,90,000 +</li> <li>• Claims settled 1100+</li> <li>• Gramcover has enrolled more than 1.4 lakh beneficiaries under PMFBY</li> </ul>
Coverfox	<ul style="list-style-type: none"> <li>• 50,000 operators</li> <li>• Items from 45 insurance agencies</li> <li>• Sold premiums worth \$100 million</li> <li>• Created \$22 million in income</li> <li>• Million exchanges done a year ago</li> <li>• 30+ Insurer Partners</li> <li>• 10lakh + customers served</li> <li>• 5lakh + policies sold</li> <li>• 80lakh + quotes compared</li> </ul>
Toffee Insurance	<ul style="list-style-type: none"> <li>• 70,000 policies sold in 2018/19</li> <li>• 99% claim settlement ratio</li> <li>• Buy a policy in 90 seconds</li> <li>• Revenue for 2018-19 at Rs 3 Crore</li> <li>• Active in 160-plus cities</li> <li>• Sales are spread equally across Tier I, II and III cities (around 120)</li> <li>• 1500 merchants</li> </ul>
Renewbuy	<ul style="list-style-type: none"> <li>• Crossed over INR 500 Cr through annualised premium payments</li> <li>• Has over 7,000 insurance agents</li> <li>• Present in 450 cities</li> <li>• Wrote Rs 300 crore business in FY19</li> <li>• 90 percent of business comes from motor Insurance</li> <li>• 25K PoS partners</li> </ul>
Turtlemint	<ul style="list-style-type: none"> <li>• 3,00,000+ policies Bought in 2019</li> <li>• 10+ lakh quotes compared</li> <li>• 20+ crores claims processed in 2019</li> <li>• Caters to nearly 25,000 licensed insurance experts (PoSP's)</li> <li>• Spread across 700 plus cities</li> <li>• Over 20 insurance partners</li> </ul>

## CONCLUSION

The advancements in technology is engulfing all the industries. Insurance is no exception. In this VUCA economy, the insurance industry has to catch the stride and go along. The industry has witnessed the evolution of new gen all digital insurtech startups which have revolutionized the insurance ecosystem. The initiatives taken by these startups have defined a new wave through their innovative products which might not be possible by already existing big giants. Gramcover is derisking the Indian rural population with innovative products and technology. Coverfox has become an eminent player in auto insurance and its product coverdrive has made a mark for all the offline insurance agents. Toffee insurance has come out with bite sized insurance for bicycles, bag packs, gym injuries, salary protection by partnering with existing players and technology. Renewbuy with its mission to make insurance easy is making its impact in the motor, health and life insurance industry. Turtlemint had made it convenient for the Indian population to take car, bike, health and life

insurance policies. However, currently, only 3% insurance is bought online in India in an \$80 Bn market. This share is likely to grow given the rising access of consumers to online insurance services. The big players are also now embracing technologies like Blockchain, Data Analytics and IOT not to be left behind. The Insurtech Startups have revolutionized the insurance ecosystem and the industry is awaiting more such surprises.

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# IMPACT OF PERCEIVED STRESS ON JOB SATISFACTION AMONG THE SCHOOL TEACHERS OF PAHANG AND COIMBATORE – A COMPARATIVE STUDY

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## ABSTRACT

*Stress arises when individuals perceive that they cannot adequately cope with the demands being made on them or with threats to their well being. This study attempted to assess the impact of perceived stress on job satisfaction among the school teachers of Pahang and Coimbatore and also compared the levels of perceived stress among the school teachers of Pahang and Coimbatore. Structured questionnaires were administered to assess the levels of perceived stress and job satisfaction among the teachers. Independent sample t-test was applied to test the equality of means. There was a significant difference in the level of perceived stress among the teachers of Pahang and Coimbatore. Teachers working in Coimbatore experience a higher level of perceived stress compared to teachers of Pahang. Regression test revealed that approximately twenty-three per cent of the variance of job satisfaction was explained by perceived stress.*

**Key Words:** Chronic stress, Job satisfaction, Perceived stress, Social support, and Stressor.

## INTRODUCTION

“When someone experiences chronic stress or uses unsuccessful coping strategies, he or she may begin to feel that life in general is unpredictable, uncontrollable, or overloaded. This global appraisal of life is called perceived stress” (Cohen *et al.*, 1983). Perceived stress is considered to be influenced by all the events and activities of daily life (Cohen & Williamson, 1988).

Stress is generally recognized as an unpleasant emotional state. Olson *et al.*, (1989) defined stress as “a state of tension that arises from an actual or perceived demand that calls for an adjustment or adaptive behaviour”. According to International Labour organization (ILO) occupational groups like policemen, prison officers, miners, doctors, nurses, teachers and journalists are the most stressful professions. National Institute for Occupational Safety and Health, (USA) defined occupational stress as, “the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker”.

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Recently teachers' stress has received widespread attention. There have been good number of studies on occupational stress among school teachers. In many countries teaching is considered as one of the most stressful profession. Kyriacou (2000) defined teachers stress as "the experience by a teacher of unpleasant negative emotions such as anger, frustration, anxiety, depression and nervousness, resulting from some aspect of their work". The most common sources of teacher stress include excessive work load, student misbehaviour, children with disability, large class size, poor working environment, low salary, additional administrative work etc.

Job satisfaction is one of the most researched variables in the area of Organizational Behaviour. Job satisfaction refers to an individual's general attitude toward his or her job. E. A. Locke defined job satisfaction as, "the pleasurable or positive emotional state resulting from the appraisal of one's job or job experience". Job satisfaction is the extent to which people like or dislike their jobs. A higher level of job satisfaction may lead to improved productivity, less turn over, less absences, reduced accidents, better health etc.

## REVIEW OF LITERATURE

Roland P. Chaplain (1995) investigated the impact of occupational stress on job satisfaction among 267 primary school teachers in England. Teachers responded to a questionnaire. Principal Component Analysis identified three factors namely, professional concerns, pupil behaviour and attitude and professional tasks. There was a significant correlation between professional concerns and occupational stress. There were significant differences between men and women, and teachers of different age groups and experience groups. Men reported a higher level of stress than women on professional tasks and pupil behaviour and attitude. Only one-third of teachers were satisfied with their jobs. There was a negative correlation between occupational stress and job satisfaction.

Paulse (2005) conducted a study on stress among teachers. A random sample of 115 teachers working in various schools located in Western Cape. Teacher Stress Questionnaire was used for collecting data. Based on the results he concluded that student behaviour was the most stressful for teachers, followed by personal competency, classroom and professional competency. Teachers with less experience reported higher level of stress. Administration was found to be least stressful. The most common symptoms include anxiety, frustration and depression. Paulse concluded that having the necessary support often reduces the impact of stressors.

Singh. M and G. Singh (2005) investigated the psychosocial stress, work-family conflict, anxiety, depression, somatic symptoms and social dysfunction among the female school teachers. A random sample of fifty middle aged female school teachers was selected. An interview schedule and two questionnaires namely General Health Questionnaire and Psycho Social Stress Scale were administered

simultaneously. Fifty-four per cent of subjects reported moderate to high level of stress. A moderate level of Anxiety was observed in 32 per cent and a low level of anxiety was observed in 64 per cent of cases. The level of Depression was low in ninety-two per cent cases. A moderate Somatic symptom score was found in forty-four per cent cases. Social dysfunction score had been moderate in eighty per cent cases. The findings of the study revealed that though the subjects are normal in general, a substantial proportion is at risk of developing psychosocial stress generated problems that may affect their mental health.

Ravichandran and Rajendran (2007) examined the perceived sources of stress among the Higher Secondary school teachers working in Chennai. They considered eight factors namely Personal stress, Teaching assignments, Personal expectation, Teaching evaluation, Lack of support from parents and others, Facilities available at school, Organizational Policy and Parental expectations. Higher level of stress was observed among female teachers on perceived Personal Stress. Teachers' qualification was significantly associated with Personal stress and Teaching Assignment. Significant differences were found in Personal Stress, Teaching Evaluation, Facilities available at school and Organizational Policy among different age groups.

Ekundayo & Kolawole (2013) conducted a study on stress among secondary school teachers in Ekiti State, Nigeria. They investigated the various sources of stress among teachers of secondary schools and also identified the coping strategies adapted by the teachers. Results showed that poor working conditions, poor relations with superiors and late payment of salaries were major sources of stress. The results also showed that managing one's time effectively is the main strategy for coping with stress.

Manabete, John, *et al.*, (2016) examined the level of job stress among school administrators and teachers working in secondary schools and technical colleges in Nigeria. Results revealed that role ambiguity, poor relations with boss, work overload are the principal sources of stress among teachers.

## **OBJECTIVE OF THE STUDY**

The present study aims to compare the levels of perceived stress among the school teachers working in Pahang (Malaysia) and Coimbatore (India) and also to assess the impact of perceived stress on job satisfaction of teachers.

## **METHODOLOGY**

The present study is a descriptive study that seeks to assess perceived stress among the school teachers. Lists of Schools in Pahang and Coimbatore were prepared. Five schools were chosen from each list using lottery method. Then respondents were

randomly selected from the selected schools. Thirty five responses from Pahang and fifty seven responses from Coimbatore were taken for analysis. Perceived Stress Scale developed by Sheldon Cohen et al (1983) was used to assess perceived stress among the respondents. The questions in this scale ask about their feelings and thoughts during the last month. Responses were assessed on a 5 point scale, with Never = 1, Almost Never = 2, Sometimes = 3, Fairly often = 4, and Very often = 5. PSS scores are obtained by reversing responses (Example, 1 = 5, 2 = 4, 3 = 3, 4 = 2 & 5 = 1) to the four positively stated items (items 4, 5, 7, & 8) and then summing across all scale items. Minnesota Satisfaction Questionnaire (MSQ) - Short form was used to assess the level of job satisfaction. Filled in questionnaires were collected and the collected data was analysed. Independent sample t-test, correlation, and regression were used to analyse the data.

## ANALYSIS AND DISCUSSION

This section presents the analysis of the data that was collected from teachers.

Table 1: Demographic Characteristics of the Sample

S.No.	Demographic Variables	Classification	Respondents	Percentage
1.	Age	Below 30 years	15	16.3
		31 to 40 years	46	50.0
		Above 40 years	31	33.7
2.	Gender	Male	51	55.4
		Female	41	44.6
3	Educational Qualification	Diploma	15	16.3
		Graduates	30	32.6
		Post - Graduates	47	51.1
4.	Experience	Less than 5 years	14	15.2
		5 to 10 years	30	32.6
		Above 10 years	48	52.2
5	Marital Status	Single	60	65.2
		Married	32	34.8

Among the 92 respondents, 46 (50.0%) belong to 31 -40 years age group; 51 (55.4%) are male; 47 (51.1%) are post graduates; 48 (52.2%) belong to above 10 years experience group, and 60 (65.2%) are unmarried.



Table 2: Respondents getting upset because of something that happened unexpectedly

Sample	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	t - value
Pahang	35	3.14	1.033	.175	.612	2.968 (.004)
Coimbatore	57	3.75	.912	.121		

A higher level of mean (3.75) was observed among the Coimbatore teachers for 'respondents getting upset because of something that happened unexpectedly'. In order to compare the means between the groups, an independent sample t-test for equality of means was conducted. Levene's test provided a significance value of greater than 0.05, which means that the samples have equal variances. The t- value was 2.968 ( $p < .01$ ). Hence it was concluded that there is a significant difference in respondents getting upset because of something that happened unexpectedly.

Table 3: Respondents feeling that they were unable to control important things in their life

Sample	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	t - value
Pahang	35	2.94	1.083	.183	0.671	3.036 (.003)
Coimbatore	57	3.61	.996	.132		

A higher level of mean (3.61) was observed among the Coimbatore teachers for 'respondents feeling that they were unable to control important things in their life'. In order to compare the means between the groups, an independent sample t-test for equality of means was conducted. Levene's test provided a significance value of greater than 0.05, which means that the samples have equal variances. The t- value was 3.036 ( $p < .01$ ). Hence it was concluded that there is a significant difference in respondents feeling that they were unable to control important things in their life.

Table 4: Respondents feeling nervous and "stressed"

Sample	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	t - value
Pahang	35	3.29	1.073	.181	0.521	2.752 (.004)
Coimbatore	57	3.81	.743	.098		

A higher level of mean (3.81) was observed among the Coimbatore teachers for 'respondents feeling nervous and stressed'. In order to compare the means between the groups, an independent sample t-test for equality of means was conducted. Levene's test provided a significance value of greater than 0.05, which means that the samples have equal variances. The t- value was 2.752 ( $p < .01$ ). Hence it was concluded that there is a significant difference in respondents feeling nervous and stressed.

Table 5: Respondents feeling confident about their ability to handle personal problems

Sample	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	t - value
Pahang	35	2.54	.701	.118	0.367	2.477 (.015)
Coimbatore	57	2.18	.685	.091		

A higher level of mean (2.54) was observed among the Pahang teachers for 'respondents feeling confident about their ability to handle personal problems'. In order to compare the means between the groups, an independent sample t-test for equality of means was conducted. Levene's test provided a significance value of greater than 0.05, which means that the samples have equal variances. The t- value was 2.477 ( $p < .05$ ). Hence it was concluded that there is a significant difference in respondents feeling confident about their ability to handle personal problems.

Table 6: Respondents feeling that things were going in their way

Sample	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	t - value
Pahang	35	2.66	.684	.116	0.376	2.650
Coimbatore	57	2.28	.648	.086		(.010)

A higher level of mean (2.66) was observed among the Pahang teachers for 'respondents feeling that things were going in their way'. In order to compare the means between the groups, an independent sample t-test for equality of means was conducted. Levene's test provided a significance value of greater than 0.05, which means that the samples have equal variances. The t- value was 2.650 ( $p < .05$ ). Hence it was concluded that there is a significant difference in respondents feeling that things were going in their way.

Table 7: Respondents feeling that they could not cope with things that they had to do

Sample	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	t - value
Pahang	35	3.00	1.085	.183	0.526	2.596
Coimbatore	57	3.53	.847	.112		(.011)

A higher level of mean (3.53) was observed among the Coimbatore teachers for 'respondents feeling that they could not cope with things that they had to do'. In order to compare the means between the groups, an independent sample t-test for equality of means was conducted. Levene's test provided a significance value of greater than 0.05, which means that the samples have equal variances. The t- value was 2.596 ( $p < .05$ ). Hence it was concluded that there is a significant difference in respondents feeling that they could not cope with things that they had to do.

Table 8: Respondents feeling about their ability to control irritations

Sample	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	t - value
Pahang	35	2.63	.646	.109	0.822	6.131
Coimbatore	57	1.81	.611	.081		(.000)

A higher level of mean (2.63) was observed among the Pahang teachers for 'respondents feeling about their ability to control irritations'. In order to compare the means between the groups, an independent sample t-test for equality of means was conducted. Levene's test provided a significance value of greater than 0.05, which means that the samples have equal variances. The t- value was 6.131 ( $p < .01$ ).

Hence it was concluded that there is a significant difference in respondents feeling about their ability to control irritations.

Table 9: Respondents feeling that they were on top of things

Sample	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	t - value
Pahang	35	2.89	.471	.080	0.745	6.406 (.000)
Coimbatore	57	2.14	.581	.077		

A higher level of mean (2.89) was observed among the Pahang teachers for 'respondents feeling that they were on top of things. In order to compare the means between the groups, an independent sample t-test for equality of means was conducted. Levene's test provided a significance value of greater than 0.05, which means that the samples have equal variances. The t- value was 6.406 ( $p < .01$ ). Hence it was concluded that there is a significant difference in respondents feeling that they were on top of things.

Table 10: Respondents angered because of things that were outside of their control

Sample	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	t - value
Pahang	35	2.91	1.095	.185	1.121	5.890 (.000)
Coimbatore	57	4.04	.731	.097		

A higher level of mean (4.04) was observed among the Coimbatore teachers for 'respondents angered because of things that were outside of their control'. In order to compare the means between the groups, an independent sample t-test for equality of means was conducted. Levene's test provided a significance value of greater than 0.05, which means that the samples have equal variances. The t- value was 5.890 ( $p < .01$ ). Hence it was concluded that there is a significant difference in respondents angered because of things that were outside of their control.

Table 11: Respondents feeling difficulties piling up so high that they could not overcome them.

Sample	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	t - value
Pahang	35	3.14	1.089	.184	1.068	5.568 (.000)
Coimbatore	57	4.21	.750	.099		

A higher level of mean (4.21) was observed among the Coimbatore teachers for 'respondents feeling difficulties piling up so high that they could not overcome them'. In order to compare the means between the groups, an independent sample t-test for equality of means was conducted. Levene's test provided a significance value of greater than 0.05, which means that the samples have equal variances. The t- value was 5.568 ( $p < .01$ ). Hence it was concluded that there is a significant difference in respondents feeling difficulties piling up so high that they could not overcome them.

Table 12: Respondents' level of perceived stress

Sample	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	t - value
Pahang	35	29.14	4.577	.774	2.208	2.796 (.006)
Coimbatore	57	31.35	3.003	.398		

A higher level of perceived stress (Mean = 31.35) was observed among the Coimbatore teachers compared to Pahang teachers (Mean = 29.14. Levene's test provided a significance value of greater than 0.05, which means that the samples have equal variances. The t- value was 2.796 ( $p < .01$ ). Hence it was concluded that there is a significant difference in perceived stress among Pahang and Coimbatore respondents.

Table 13: Correlation among Research Variables

		Perceived Stress	Job Satisfaction
Perceived Stress	Pearson Correlation	1	-.496**
	Sig. (2-tailed)		.000
	N	92	92
Job Satisfaction	Pearson Correlation		1
	Sig. (2-tailed)		
	N		92

\*\* Correlation is significant at the 0.01 level (2-tailed).

Correlation test revealed that there was a significant negative correlation ( $r = -.496$  &  $p < .01$ ) between perceived stress and job satisfaction among the teachers.

Table 14: Regression analysis with job satisfaction as the dependent variable

Independent variable	Dependent variable	B	t	R2	F
Perceived Stress	Job Satisfaction	-.496	5.418	.238	29.352**

\*\* Significant at 1% level

Regression analysis was conducted to investigate the relationship between perceived stress and job satisfaction. F-Test was statistically significant ( $F = 29.352$  &  $p < .01$ ), which means that the model was statistically significant. The R-Square is 0.238 which means that approximately 23 % of the variance of job satisfaction was explained by the predictor variable, that is, perceived stress. The findings of this study are consistent with the findings of earlier studies like Roland P. Chaplain (1995) etc.

## CONCLUSION

Perceived Stress is a measure of the degree to which situations in one's life are appraised as stressful. The present study compared the levels of perceived stress and also investigated the impact of perceived stress on job satisfaction among the school teachers of Pahang and Coimbatore. Thirty-five teachers in Pahang and fifty-seven teachers in Coimbatore participated in the study. Results indicated that teachers working in Coimbatore experienced more stress compared to teachers of

Pahang. Approximately twenty three percent of the variance of job satisfaction was explained by the predictor variable, that is, perceived stress.

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# THE CAUSAL LINKS BETWEEN FDI INFLOWS, IMPORTS, EXPORTS, TRADE OPENNESS AND ECONOMIC GROWTH – A COMPARATIVE ANALYSIS

Mrs. P. B. Saranya<sup>1</sup>

## ABSTRACT

*Economic growth of a country shall be measured with the help of several macroeconomic aggregate. The Gross Domestic Product (GDP) gains at most significance while estimating the economic growth of any country. Liberalisation of trade practices and globalisation are considered to be a key component contributing to the economic growth in several economies. Several literatures also prove the same. This paper attempts to study the causal link between FDI inflows, imports, exports, trade openness and GDP in the selected developing economies. According to the World Investment Report 2019 published by UNCTAD China, Hong Kong, Singapore, Brazil and India rank among the top 10 developing economies in terms of attracting high FDI inflows. For the purpose of the study the South Asian economies that is, China, Hong Kong, Singapore and India have been considered. The results reveal a long run association among the variables.*

**Key Words:** FDI, Trade Openness, GDP, Economic Growth

## INTRODUCTION

According to the World Investment Report 2018, among the developing and transition economies China is ranked as the second largest recipient of FDI inflows amounting to \$ 134 B USD, followed by Hong Kong amounting to \$ 117 B USD.

Singapore has been ranked as the fifth largest recipient with \$ 77 B USD of FDI inflows and India has been ranked as the eleventh largest recipient of FDI inflows amounting to \$ 44 B USD. Likewise, India, China, Singapore and Hong Kong have been ranked among the top 25 exporting economies. Likewise, in India GDP is considered as an important measure of economic growth. According to the World Bank reports, India GDP amounted to 37 billion USD during 1960 and 2.7 trillion USD during 2018 and the average growth rate of GDP shall be 5.7% since 1960. The Foreign Direct Investments (FDI) had its kick start in the year 1975 and during the years 1975 and 1988 the growth rate of GDP has been above 9%. During the years 1999, 2005, 2010, 2015 & 2016 the growth rate of GDP has been above 8%. A major increase in the FDI inflows was witnessed during 2006 amounting 20 billion USD. FDI inflows to India amounts to 42 billion USD during 2018. A major

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increase in the import export trade was witnessed during the year 2014 amounting to 139 & 126 billion USD. The total value of imports has always been higher than the value of exports. We shall find a lot of interesting literature which deals with the relationship between economic growth and other macroeconomic aggregates. Even though there are several factors determining the economic growth the FDI inflows and trade openness obtains higher significance. The study by De Mello (1997) reveals that 'In the recent years the FDI inflows play a vital role in enhancing the economic growth of developing countries. Likewise, the other factors such as political stability, government policies, host countries openness towards trade, etc., shall also be the determinants of FDI flows. The World Bank development report indicates that there has been a six fold increase in the FDI flows to the developing countries during 1990 – 19998. The World Investment Report published by UNCTAD revealed that the FDI inflows to India rose up by 6% amounting to 42 billion USD making India rank among the top 20 host economies attracting FDI inflows during 2018. The following figures 1, 2 &3 represents the amount of imports, exploits and the GDP of the selected countries. The total value of imports and exports by China has steep increase since 2007. The total value of imports and exports amounts roughly around 2600 B USD. Whereas the other countries total value of imports and exports amount to 650 B USD approximately. China's GDP amounts to 13 T USD, India's amounts to 2.7 T USD whereas Hong Kong and Singapore is less than 1 T USD.

The FDI flows to the developing countries such as China, Hong Kong, Singapore, Indonesia, India and Turkey in Asia amounts to 512 billion USD during 2018 which indicates a 3.9% growth in the amount of FDI inflows. During the year 2019 the global FDI inflows slid by 13% from 1.5 trillion USD to 1.3 trillion USD. The Asian regime remains as the major recipient of global FDI. The FDI's contribution to India GDP has also rose up by 2.5% during 2018 from 1.9% during 2017. The Import Export trade to GDP amounted to 12% during 1975 and 43% during 2018. A decline of about 10% was witnessed during the year 2014 which

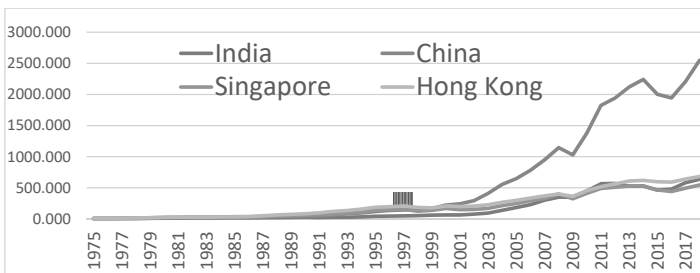


Figure 1: The Imports (in Billion USD)



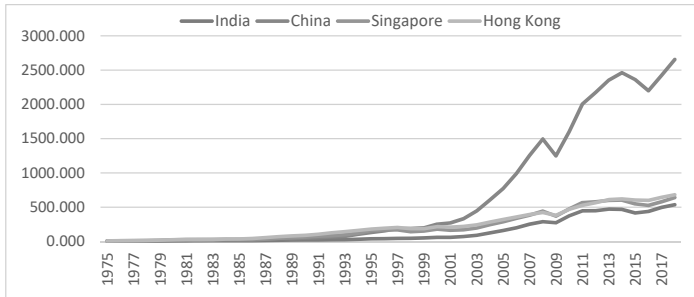


Figure 2: The Exports (in Billion USD)

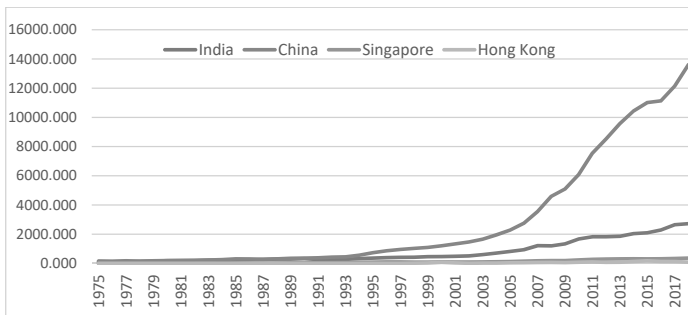


Figure 3: The GDP (in Billion USD)

brought down the contribution of Trade Openness from 56% to 49%. This paper attempts to understand the causal relationship between economic growth, imports, exports, trade openness and FDI flows since 1975. The data for a period of 44 years has been obtained to understand the long run and short run relationship between the variables.

The main objectives of the study are:

- To analyse the short run causal relationship between Trade Openness to GDP, FDI to GDP, imports to GDP, Exports to GDP and Trade Openness to FDI in India.
- To measure the long run relationship between the variables.

## LITERATURE REVIEW

Lal (2015) analysed the casual relationship between FDI, Trade openness and GDP among the developing countries reveals that a long run causal relationship exist among the three variables in Mexico and China. India, Mexico and China exhibit a different pattern of relationship in the short run.

Hansen and Rand (2006) examined the casual link between FDI and growth in developing countries and found that FDI and GDP are positively associated. A strong long run relationship also exist between FDI and GDP.

Makki and Somwaru (2004) examined the relationship between GDP and trade openness and results revealed that increase in trade openness may lead to increase in GDP. Growth in the values of exports may increase the country's productivity. Likewise, an increase in the imports shall indicate an increase in technological inputs too.

Chakraborty and Basu (2002) examined the relationship between FDI and economic growth in India and found that in the short run FDI adjust to the equilibrium of GDP, whereas the Unit labour Cost does not have any impact. The GDP granger cause FDI in India that is the short term FDI flow is explained by GDP.

Grossman and Helpman (1991) analysed the relationship between technology imports & economic growth and found that greater investments impacts the GDP.

Jung and Marshall (1985) commented that in a developing economy, Government shall take steps to liberalise the trade policies which in turn enhance cross border trades and increased economic growth.

Markusen (1998), study revealed that international trade and other macro-economic factors shall complement each other that is the nature of trade shall depend on the nature of FDI.

## **DATA AND METHODOLOGY**

The main aim of this paper is to measure the short run and long run relationship among the variables. The annual data for a period ranging from 1975 to 2018 has been obtained. The total number of observations considered for the study are 44. The computation methodology adapted to measure Trade Openness is the value of Imports plus Exports divided by value of GDP. The data was obtained from the World Development Report published by The World Bank and the World Investment Report published by UNCTAD during the year 2019. The Granger Causality Test and Johnson Cointegration test were used to measure the short run and long run relationships respectively.

## **RESULTS AND DISCUSSIONS**

The Granger Causality Test is a most commonly used test to measure the short run relationship between two or more variables. In order to perform further tests the Stationarity of the data was tested. One of the most common properties of any time series data is non-Stationarity. The data was tested for Stationarity and the results revealed that the data was non stationary at level and first difference. The second difference of the values were obtained and the for the purpose of achieving

Stationarity in the data which shall convert the series into a mean reverting series. This indicates that the mean is zero and the variance is constant. The Augmented Dickey Filler (ADF) Test commonly used test of Stationarity was performed to test the Stationarity of the data at the second difference.

Table 1: ADF Test for Test of Stationarity

ADF Test Results		Imports	Exports	Trade Openness	FDI Inflows	GDP
India	t-Statistic	-3.136013	-2.35636	-11.24503	-6.677101	-9.73836
	Prob.*	0.0027	0.02	0	0	0
China	t-Statistic	-1.542542	-7.958872	-7.302132	-3.782684	-3.318833
	Prob.*	0.0137	0	0	0.0004	0.0016
Hong Kong	t-Statistic	-9.300651	-7.224157	-10.43271	-4.92028	-7.934376
	Prob.*	0	0	0	0	0
Singapore	t-Statistic	-7.8601	-7.684215	-10.9511	-6.346734	-6.346734
	Prob.*	0	0	0	0	0

The probability values being significant at 5% level of significance, this indicates that the series has no unit root and hence stationary in nature. In any time series data analysis it becomes vital to identify the optimum lag length. The fundamental property of the causality test indicates the causation association between a lagged values of a variable with the present values of another variable and vice versa. Assuming that there is no Cointegration among the variables the unrestricted VAR model was adapted to identify the lag length. Based on the AIC values the optimum lag length was identified as 6. The Granger Causality test was performed by taking the optimum lag length into consideration. The results have been displayed in the below table.

Table 2: Granger Causality Test

Null Hypothesis	India	China	Hong Kong	Singapore
GDP does not Granger Cause Exports	0.00	0.183	0.26	0.001
Exports does not Granger Cause GDP	0.01	0.007	0.87	0.153
GDP does not Granger Cause FDI Inflows	0.00	0.003	0.00	0.015
FDI Inflows does not Granger Cause GDP	0.01	0.000	0.13	0.000
Trade Openness does not Granger Cause FDI Inflows	0.01	0.756	0.05	0.115
FDI Inflows does not Granger Cause Trade Openness	0.04	0.783	0.34	0.075
Imports does not Granger Cause GDP	0.02	0.009	0.82	0.113
GDP does not Granger Cause Imports	0.00	0.118	0.20	0.000
Trade Openness does not Granger Cause GDP	0.20	0.098	0.72	0.503
GDP does not Granger Cause Trade Openness	0.00	0.220	0.01	0.043

The test results indicate a strong causal link between the lagged values of GDP and FDI inflows across all the selected countries. There is a bi directional relationship prevails between FDI inflows and GDP in India, China and Singapore. A bi

directional association between imports and exports to GDP is found in India and a uni directional association between the variables in case of China and Singapore. Trade openness in Hong Kong causes changes in FDI inflows. Trade openness and FDI inflows both cause each other I case of India. A short run model has been developed based on the results and is displayed in the figure below.

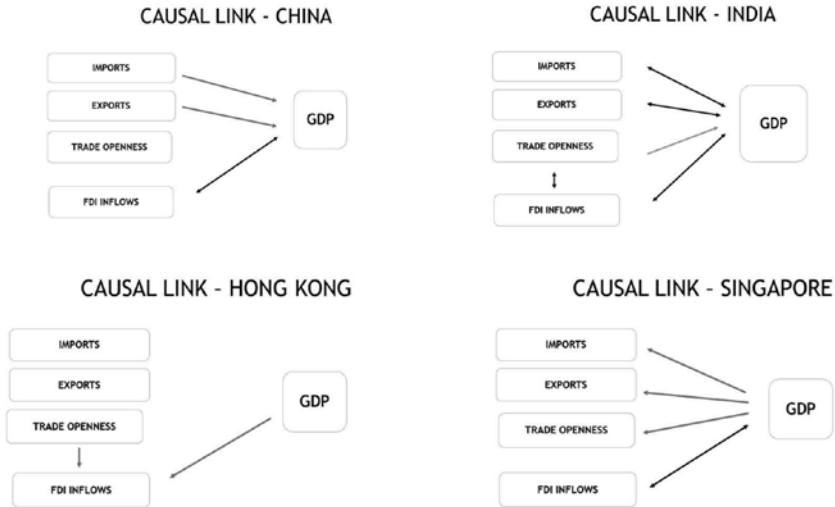


Figure 4: Short Run Association between the Variables

The Cointegration test was performed to understand the long run association among the variables. The probability values indicate that there is an existence of at most 4 Cointegration equations. This indicate a strong long run association among the variables. In order to prove the same, the VECM model shall be used in future studies.

Table 3: Johansson Cointegration Test

Particulars	India	China	Hong Kong	Singapore
None *	0	0	0	0
At most 1 *	0	0	0.0001	0
At most 2 *	0	0	0.0018	0
At most 3 *	0	0.0001	0.0054	0
At most 4 *	0.0002	0.0002	0.0029	0

## CONCLUSION

This paper is an attempt to understand the casual relationship between FDI inflows, trade openness and economic growth in few developing economies. The results indicate that a short run and long run relationship exist between the variables. In India the amount of FDI inflows create a larger impact on the country GDP. The GDP in turn enhances cross border trades. The FDI inflows and country openness to trade compliments each other in India. In the future further researches shall be conducted considering several macroeconomic aggregates to measure the economic growth in developing countries like India.

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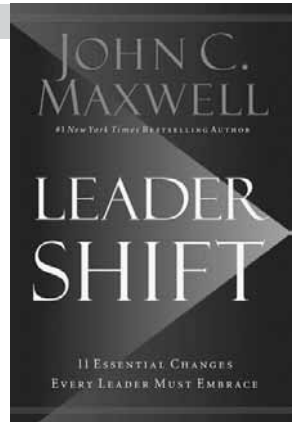


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## BOOK REVIEW

### **LEADERSHIFT: *The 11 Essential Changes Every Leader Must Embrace***

Author : John C. Maxwell  
Publisher : HarperCollins  
Publication year : 2019  
ISBN : 9781404111356, 1404111352  
Price : Rs. 327.00



John C. Maxwell is the world's most influential leadership expert. He has sold thirty million books in fifty languages. In his recent book entitled "Leadershift: The 11 Essential Changes Every Leader Must Embrace", he introduced a new concept called leadershift. He begins the book by reiterating the distinction between management and leadership. Management principles revolve around stability, quantifiable inputs delivering predictable outputs. In contrast leadership guides the organization into the unknown future of the organization. The parameters of that unknown future are becoming increasingly ambiguous as technology gives us the capability to deliver unanticipated paradigm shifts in much shorter time frames. According to him leadershift is the ability and willingness to make a leadership change that will positively enhance organizational and personal growth.

In Leadershift, Maxwell attempts to help leaders gain the ability and willingness to make leadership changes. During the course of his long and successful leadership career he made eleven shifts. Each shift changed his trajectory and set him up for new and exciting achievements, ultimately strengthening and sustaining his leadership abilities and making him the admired leadership expert he is today. Maxwell gives specific guidance to readers about how to make these shifts in their own lives. Each shift requires them to change the way they think, act, and ultimately lead so they can be successful in a world that never remains the same.

The eleven shifts recommended by John C. Maxwell are the following:

***Leadershift #1 — The Focus Shift*** — Soloist to Conductor. Great leaders used to be top producers. Tomorrow's leaders need to orchestrate groups.

***Leadershift #2 — The Personal Development Shift*** — Goals to Growth. Goals help you do better but growth lets you become better. Leaders are growth oriented.

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**Leadershift #3** — *The Cost Shift* — Perks to Price. Great leaders don't think about what they can get. They're focused on what they can give.

**Leadershift #4** — *The Relational Shift* — Pleasing people to Challenging people. You cannot lead people if you need them. Great leaders challenge their teams to do better all the time.

**Leadershift #5** — *The Abundance Shift* — Maintaining to Creating. Have the mindset you want to move things forward rather than standing still. Be a creator.

**Leadershift #6** — *The Reproduction Shift* — Ladder climbing to Ladder building. Forget about ladder climbing. Help others build and ascend their own ladders. Be an equipper.

**Leadershift #7** — *The Communication Shift* — Directing to Connecting. Great leaders don't order people around. They connect, influence and help people.

**Leadershift #8** — *The Improvement Shift* — Team uniformity to Team diversity. Great leaders value diversity highly. Do everything you can to bring people into your teams who are different.

**Leadershift #9** — *The Influence Shift* — Positional authority to Moral authority. A leadership position does not give you leadership authority. You have to earn moral authority.

**Leadershift #10** — *The Impact Shift* — Trained leaders to Transformational leaders. Don't settle for being a trained leader. Become a transformational leader who inspires change.

**Leadershift #11** — *The Passion Shift* — Career to Calling Don't look at leadership as a career. Make it your calling. Find your purpose and you'll never look back.



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The objective of the GRGSMS curriculum is to nurture and develop women leaders with holistic perspective and concern for the society and environment.

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