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The Editor in Chief

Bharti Publications

4819/24, 3rd Floor, Mathur Lane

Ansari Road, Darya Ganj, New Delhi-110002

Mobile : +91-989-989-7381

E-mail : bhartipublications@gmail.com

info@bharatipublications.com

Website : www.bhartipublications.com

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Antecedents of HR Governance – An Insight

Dr. Anita Singh

Professor, IMS Ghaziabad, U.P.

Dr. Timira Shukla

Professor, JIMS Kalkaji, New Delhi

Abstract

HR practices is an essential component of Corporate Governance and includes the internal oversight and management of an organization's HR strategy, programs, practices, and outcomes, through clearly defined roles, responsibilities, and accountabilities both down and across the enterprise. It implies existence and adoption of CSR practices by the employees in the organization. Though every organization has a HR business model oriented towards management and measurement of HR function; it is not essential that employees are considered as an essential building block for effective CSR and governance. The structure of CSR perceptions is not established; concerns embedded in corporate governance should include interpersonal treatment and/or policies and practices that also drive employee engagement as one of the outcomes. In view of these it is pertinent to identify the antecedents of good governance and CSR. Good governance tends to influence employees' behavior only if they are aware of the practices intended by the organization. The diffusion of these practices and subsequent adoption by the employees is influenced by many factors, social as well as psychological. Knowing about past practices and communicating them inside the corporation influences employees' perceptions. Employees who are unaware may be unsupportive of these practices as adoption of these is an individual phenomenon. Conversely, employees who are aware and engaged encourage the adoption of and are more likely to be influenced by these actions.

For this organizations need to ensure that contemporary HR governance is formally embedded in existing structures and practices, and there is proper implementation of effective internal HR governance framework and strategies that reflect relevant industry economics, desired culture, workforce dynamics, and leadership preferences.

In the existing economic climate, management is forcing employees with additional pressures for ensuring compliance as per the government mandate this may result in disengaged employee with increased absenteeism, attrition and organization fails to retain engaged employees. To resolve this issue, employee engagement should be one of the HR strategies and managers must not regard it as HR fad and pay lip service to its value, rather for the management and effective implementation of engagement strategy a right climate and culture in the organization should be established.

In the study undertaken employee is the unit of analysis. The study is empirical; the purpose is to identify the linkages between HR Governance, Employee perception and Employee engagement. The mediating role of employees is the dominant theme of the research.

Key Words: Employee, HR, Governance, Perception, Engagement, Factors

Introduction

Corporate Governance being an economic ideology, seeks to establish and safeguard the assets of the organization by its effective use through executing systems of guidelines. Though employees are not the part of its inner circle, they are important component and are involved in day to day decision making that impacts the identity and profitability of the corporate. Employees are the grass roots of every organization (Laura Jack, 2015) and represent the image of the corporations which is why organization needs to identify ways to pollinate the workforce with their values, and enthusiasm. Realizing the importance of people element of corporate governance leaders have started acknowledging the relevance of HR governance for management of people issues that helps the organization in treating their employees fairly, consistently in compliance with legal and ethical obligations and also adapting best practices framework of systematic processes,

knowledge and support to enable the business to optimize its human capital by aligning it with overall, strategy vision, mission and values.

HR governance facilitates the process and practices in determining the roles, responsibilities, decision making and accountability of management and employees for the interest of the stakeholders.

Purpose of the Study

Ample studies have been conducted on corporate governance, none has investigated the link between governance and employee engagement. There exists study on relationship between corporate governance and organizational performance, (Chiange, 2005) and corporate governance and customer satisfaction (AlQudah, 2012; Duke II & Kankpang, 2011). However, literature on empowerment reveals the importance of employee power in organizational engagement (Claydon & Doyle, 1996). Further through research it has been identified that employees are one of the important stakeholder and has the biggest power in terms of stakeholder engagement (Greenwood, 2007) In view of this, the emphasis of this study is to provide an insight to leaders of the organization, the factors to be considered while formulating and executing the strategy and HR business model, that drives employee engagement and to suggest the ways to include employee as an essential building block for effective governance.

Literature Review

The objective of corporate governance is to manage and control the organization in achieving its goal. It deals with laws and procedures that allows the organization to take managerial decisions in the interest of its shareholders, creditors, the state and employees in particular (Mouli and Veena, 2012). It includes the process and procedures which manages and directs organization to improve long term values of shareholders and respects their legitimate rights in the context of its corporate mission (Alo, 2001). In the views of Parker (2006), corporate governance is founded on the premise that organizations should not just be well-managed but run effectively and internally regulated, both formally and informally (Parker, 2006). In the words of Sulaiman (2003) corporate governance includes the power to balance and direct, manage and make the organization accountable. It basically deals with doing the right things in an organization and encourages people to willingly drive the organization towards success. Corporate governance has engaged the attention of scholars in the research world in contemporary times. The performance of organizations has been attributed to good corporate governance (Love, 2011).

The study conducted by UNESCAP (United Nations Economic and Social Commission for Asia and the Pacific) (2009), demonstrates that there are eight major characteristics of good governance, i.e. participatory, accountability, consensus oriented, responsible, effective and efficient, equitable and inclusive and the compliance with the law of the country. Though all these characteristics reflect their relation with human relation management of the organization, there is lack of empirical research as well as conceptual research dealing with this aspect in practice. Thus it becomes necessary to explore the contribution of HR in creating effective and good governance in the organizations.

A study conducted by Deloitte (2011) suggests that HR governance is a core component of good corporate governance like any financial or risk governance. HR governance formally includes risk management as well as policy and program governance that involves the internal oversight and management of an organization's HR strategy, programs, practices, and outcomes, through clearly defined roles, responsibilities, and accountabilities both down and across the enterprise. It also involves the HR business model, and the organization, measurement and management of the HR function, along with the related implications for its management and employees.

The concept of HR Governance deals with a management approach that takes into consideration the true value of human capital by operating in a manner that encourages and motivates them to take initiative and productive, creating a greater value for society.

It is evidenced that employees are not just part of expense; they are involved in decision making that affect the corporate identity and profitability. The organization need to acknowledge that there is lot to gain from the "bottom up". The active involvement of employee in decision making reduces the communication gap between superior and subordinates. Employees understand that company values their idea and empowers them to influence the outcome of their work leading to increased job satisfaction and positive attitude towards their position and company itself.

As can be evinced from the above literature employees in all areas and at all levels are an integral building block for implementation of HR Governance. In most studies on relationship between corporate governance and customer satisfaction the focus is on external customers; the internal customers, employees are not the pivot point of study. In other words employee satisfaction which stems from employee engagement and HR practices has not been explored in the context of HR governance. The present study is an attempt to bridge this gap and identify the building blocks of HR Governance vis-à-vis Employee Engagement practices. The main objective is to explore the link between HR Governance and Employee Engagement and reposition employees as an important stakeholder in establishing good governance in organizations. Exploratory approach was employed to unveil the elements of employee engagement that may lead to better HR Governance and therefore inculcate a sense of ownership towards governance practices. The primary data has been collected from employees of manufacturing company through a self-administered questionnaire. The implications can help identify the factors that can lead to HR governance; it is implied that HR is a facilitator for good governance in organizations.

Research Methodology

The study is exploratory; primary data has been collected from employees from a manufacturing company of tinsplate, through a structured questionnaire comprising of 35 statements scaled on a 5-point Likert scale. The statements pertain to employee perception of the employee engagement practices being practiced by the organization.

A pilot study was conducted to finalize the self-administered questionnaire. The data has been collected from employees of a manufacturing

organization in Delhi/NCR. The method of sampling is convenient sampling; the total questionnaires included in the study is 501. The method of descriptive statistics is used to profile the employees; EFA is carried out using Principal Component Analysis. The factors have been rotated using Equimax Rotation as the basic premise is to extract factors that are completely uncorrelated to each other.

Findings and Discussion

It can be observed from table 1 that 53% of the employees in the age group of 36-50 years (table 1). It can be observed that 35.5% of employees have work experience ranging from 16-25 years (table 2). The graph in figure 1 shows that employees in the age category of 41-45 years have work experience ranging from 16-25 years. This is important as HR governance is a post-2000 phenomenon in India. It is quite probable that they have been a part of the learning curve and may have reservations about these practices.

The calculated Cronbach alpha for the 35 statements is 0.942 which proves that data is reliable. EFA technique is used to reduce this data set into factors. From table 4 it is observed that KMO value at 0.941 shows that sampling is adequate; Bartlett's Test of Sphericity value (95% level of Significance, $\alpha = 0.05$) shows the p-value (Sig.) of $.000 < 0.05$, therefore the Factor Analysis is valid.

It can be observed from table 4 that the initial communalities are all above 0.30 which is good; table 5 shows that 57.254 percent of variation has been captured and 7 factors have been extracted which is acceptable for an exploratory study. The tables 6 show the rotated matrix.

Factor discussion and factor loadings have been tabulated in table 8.

Table 1 – Frequency Distribution of Age Group

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid <25 years	47	8.0	9.4	9.4
26-30 years	37	6.3	7.4	16.8
31-35 years	30	5.1	6.0	22.8
36-40 years	109	18.5	21.8	44.5
41-45 years	136	23.1	27.1	71.7
46-50 years	67	11.4	13.4	85.0
51-55 years	43	7.3	8.6	93.6
56-60 years	32	5.4	6.4	100.0
Total	501	85.1	100.0	

Table 2- Cross Tabulation of Age Group * Work Experience

Age group	< 3 yrs	4-8 yrs	9-15 yrs	16-25 yrs	> 25 yrs.	Total
<25 years	41	5	0	1	0	47
26-30 years	17	11	5	4	0	37
31-35 years	2	10	10	8	0	30
36-40 yeras	7	16	23	54	9	109
41-45 years	4	8	18	76	30	136
46-50 years	2	2	3	25	35	67
51-55 years	1	1	0	8	33	43
56-60 years	0	0	1	2	29	32
Total	74	53	60	178	136	501

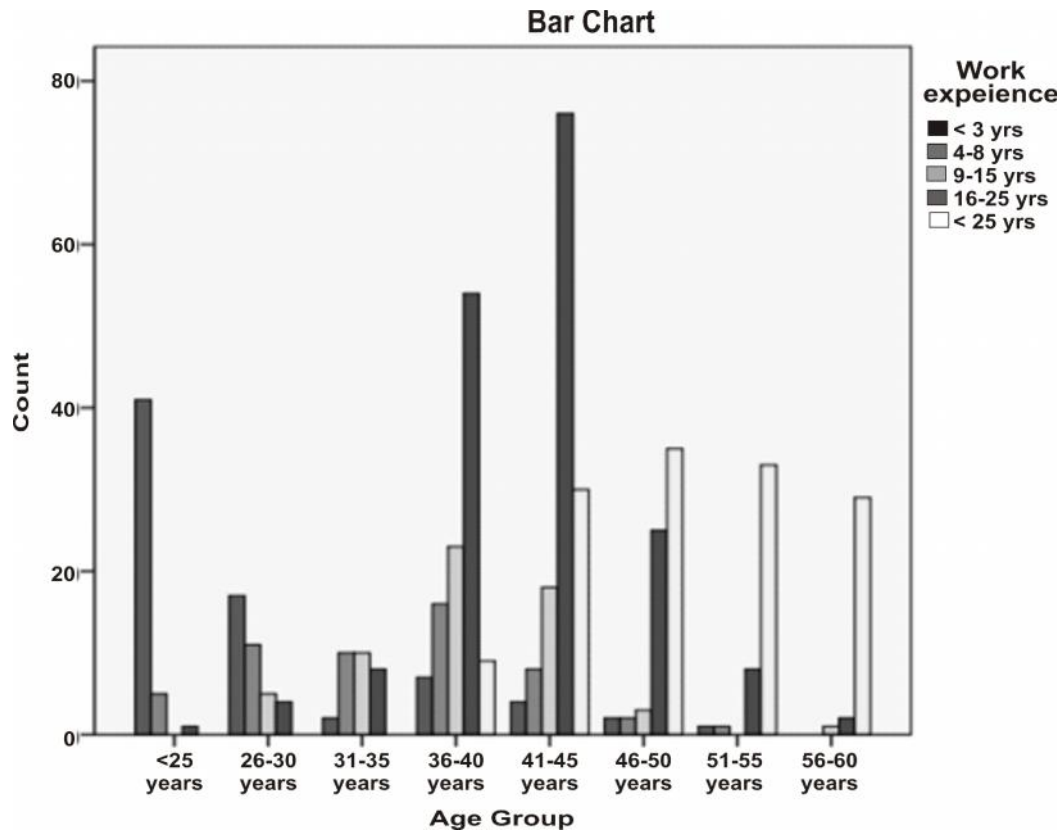


Figure 1 –Graphical Representation of the Cross –Tabulation Between Age Category and Wok Experience

Table 3-KMO and Bartlett’s Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.941
Bartlett’s Test of Sphericity	Approx. Chi-Square	7591.987
	df	595
	Sig.	.000

Table 4-Communalities

	Initial	Extraction
V1. Helping the organisation in achieving goals	1.000	.563
V2. Know what is expected	1.000	.588
V3. Have equipment and material	1.000	.495
V4. Look forward to work	1.000	.524
V5. Orgn. open to suggestions	1.000	.626
V6. Supervisors/ colleagues care	1.000	.483
V7. Job is interesting	1.000	.490
V8. There is openness and transparency in company communication	1.000	.527
V9. I am able to take decision in my area of work.	1.000	.515
V10. Chance to give my opinion in company plans and policies give me sense of high involvement.	1.000	.569
V11. I am able to learn about my job while working in the organization.	1.000	.522
V12. My organization provides me training where there is a need for it	1.000	.587
V13. I get a chance to participate in the discussions about my training and development.	1.000	.667
V14. It excites me to talk and hear good things about my organization outside	1.000	.489
V15. I believe that the company's leaderships are doing what is required for society's growth.	1.000	.542
V16. My organization provides me safe working condition.	1.000	.742
V17. Timely action by management on work environment issues helps me in my jobs.	1.000	.699
V18. In my organization inter departmental cooperation creates congenial working conditions.	1.000	.667
V19. People in my company treat each other mutual trust and respect	1.000	.635
V20. I have a best friend at work	1.000	.629
V21. My organization has forum to give publicity to understanding achievement.	1.000	.408
V22. In my organization outstanding performance is rewarded by increased responsibilities.	1.000	.552
V23. My organization enhances my performance by reviewing my progress objectivity	1.000	.632
v24. At work there are persons who encourage my development	1.000	.628
V25. In the last six month, I have some one at work to talk to me about my progress	1.000	.543
V26. I have received recognition/praise for doing good work	1.000	.577
V27. In my organization the quality of product is seen as very important factor.	1.000	.556
V28. There is a concrete plan for reducing defects and errors in our work.	1.000	.552
V29. I am aware about the needs of our internal and external customer.	1.000	.598
V30. My company is providing adequate housing facilities to me in township	1.000	.551

V31. Recreation avenues are available in township.	1.000	.679
V32 Company provides proper medical care for my dependents and me	1.000	.532
V33. In my organization there is sufficient awareness of standards and norms among the employees	1.000	.535
V34. Existence of systems and procedures helps departmental functioning.	1.000	.535
V35. If organization interest is harmed by any employee; sufficient steps are taken to discipline him.	1.000	.599

Extraction Method: Principal Component Analysis.

Table 5- Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.963	34.181	34.181	11.963	34.181	34.181
2	2.141	6.116	40.297	2.141	6.116	40.297
3	1.571	4.488	44.784	1.571	4.488	44.784
4	1.216	3.475	48.259	1.216	3.475	48.259
5	1.078	3.081	51.340	1.078	3.081	51.340
6	1.064	3.041	54.381	1.064	3.041	54.381
7	1.006	2.873	57.254	1.006	2.873	57.254
8	.997	2.848	60.102			
9	.878	2.509	62.611			
10	.845	2.414	65.025			
11	.831	2.374	67.399			
12	.773	2.208	69.607			
13	.735	2.099	71.706			
14	.713	2.039	73.744			
15	.663	1.895	75.639			
16	.643	1.837	77.476			
17	.578	1.651	79.127			
18	.572	1.634	80.762			
19	.537	1.535	82.296			
20	.524	1.497	83.793			
21	.514	1.468	85.261			
22	.491	1.402	86.663			
23	.483	1.381	88.044			
24	.448	1.279	89.323			
25	.422	1.205	90.527			
26	.415	1.184	91.712			
27	.410	1.170	92.882			

28	.388	1.110	93.992			
29	.359	1.025	95.017			
30	.337	.962	95.979			
31	.323	.923	96.902			
32	.312	.891	97.793			
33	.297	.848	98.641			
34	.247	.706	99.347			
35	.229	.653	100.000			

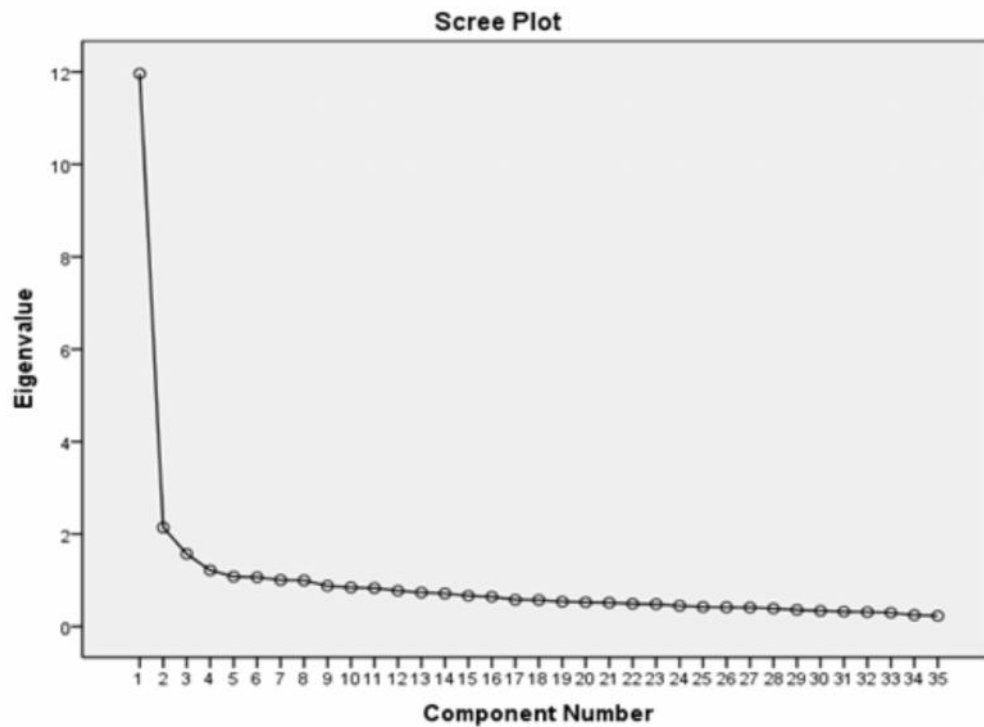


Figure 2- Scree Plot

Table 6- Rotated Component Matrix^a

	Component						
	1	2	3	4	5	6	7
v16	.793	.114	.137	.152	.017	0.162	.179
v18	.677	.216	.256	.189	.188	.086	.134
v17	.669	.126	.222	.013	.312	.261	.148
v8	.482	.280	.224	-.031	.270	.241	.187
V6	.383	.351	.135	.345	.237	.126	.058
v13	.125	.666	.272	.169	.255	.141	.143
v12	.278	.575	.214	.217	.040	.256	.138
v25	.186	.498	.310	.334	.177	.088	.117

Antecedents of HR Governance – An Insight

V3	.285	.490	.273	.050	.099	.1345	.262
v23	.333	.446	.269	.309	-.024	.392	.003
v26	.355	.439	.242	.318	.218	.222	.045
v22	.346	.419	.225	.228	.203	.316	.116
v31	.135	.252	.745	.026	.097	.152	.095
v30	.198	.210	.626	.200	.125	.142	.033
v32	.352	.153	.560	.145	.152	.165	-.006
v34	.323	.050	.437	.213	.368	-.002	.239
v24	.163	.078	.034	.744	.069	.131	.136
v19	.116	.184	.062	.733	.045	.162	.135
v20	-.051	.093	.122	.732	.187	.031	.177
v29	.113	.206	.305	-.007	.647	.102	.145
v27	.066	-.121	.010	.320	.635	.102	.145
v10	.082	.320	.163	-.007	.529	.298	.253
v14	.224	.013	-.275	.184	.455	.251	.243
v28	.380	.259	.203	.292	.425	.176	.058
v33	.249	.277	.406	.150	.407	.183	.100
V5	.219	.336	.053	.215	.103	.611	.180
v9	.104	.325	.151	.073	.293	.533	.029
V7	.144	.036	.080	.077	.173	.530	.381
v35	.060	-.286	.228	.379	.215	.515	-.083
v15	.120	.023	.389	.018	-.022	.503	.349
V1	-.008	-.156	.058	.104	-.020	.129	.712
V2	.191	.188	.118	.066	.211	-.130	.660
v11	.009	.226	-.137	.206	.163	.357	.506
V4	.109	.241	-.261	.187	.249	.317	.434
v21	.147	.228	.236	.187	.310	.131	.360

Table8: Factor Matrix

Variables	Factor Loadings	Factor Name
V 16 My organization provides me safe working condition v18 In my organization inter departmental cooperation creates congenial working conditions v8 There is openness and transparency in company communication	.793 .677 .699	Factor1 Transparency and Team Work
V 13 I get a chance to participate in the discussions about my training and development. v12 My organization provides me training where there is a need for it	.666 .575	Factor 2 Training and development
v31 Recreation avenues are available in townshipv	.745	Factor 3

30 My company is providing adequate housing facilities to me in township	.626	Valued Employee
v32 Company provides proper medical care for my dependents and me	.560	
v24 At work there are persons who encourage my development	.744	Factor 4 Trust and Fair treatment
v19 People in my company treat each other mutual trust and respect	.733	
v20 I have a best friend at work	.732	
v29 I am aware about the needs of our internal and external customer.	.647	Factor 5 Quality Product and Sense of involvement
v27 In my organization the quality of product is seen as very important factor	.635	
v10 Chance to give my opinion in company plans and policies give me sense of high involvement	.529	
Orgn. open to suggestions	.611	Factor 6 Empowerment and Discipline
v9 I am able to take decision in my area of work. Job is interesting	.533	
v35 If organization interest is harmed by any employee, sufficient steps are taken to discipline him	.515	
Helping the organization in achieving goals Know what is expected	.712	Factor 7 Work knowledge
v11 I am able to learn about my job while working in the organization	.508	

Source: author

Factor Discussion

Factor1: Transparency and Team work

The first factor with strong factor loading and 34.181% of cumulative variance suggests that good HR governance provide employee safe working condition. It enables the organization to create an environment full of harmony and support among different departments which leads to congenial working conditions. Employees are motivated to work in team where there is open and transparent communication.

Factor 2: Training and development

From the study it was identified that training and development (40.297 % of cumulative variance) is an important variable from employee’s point of view. Employee’s likes training in relevant areas where there is need for it and would like to participate in the discussions related to their training and development.

Factor 3: Employee Value

The third factor with 44.784 % of cumulative variance suggests that employees can be involved in implementation of HR governance if they feel they are valued by the organization. Research suggests that employees would like to be associated with the organization that provide facilities for recreation avenues in township, housing and proper medical care for them and their dependents.

Factor 4: Trust and Fair treatment

The next variable trust and fair treatment with cumulative variance of 48.259 % depicts that employees are motivated to work in that organization where they are appreciated and encouraged for their performance. The employees can be encouraged to be a part of HR governance by providing an environment of trust and fair treatment.

Factor5: Quality Product and Sense of involvement

The next factor with cumulative variance of 51.340% suggests that employee’s are attracted to work in the organization that focuses in providing quality product to the customers as an important social responsibility. Employees would like to get involved in making of company plans and policies.

Factor6: Empowerment and Discipline

The next factor with cumulative variance 54.381% suggests that for effective governance organization should be empowered to take decision. They should be provided with interesting job and necessary steps should be taken against employees who harm the interest of the organization.

Factor 7: Work knowledge

The last factor suggests that engaged employees helps the organization in achieving goals. They know what is expected from them and are able to learn their job

while working in the organization. They value work knowledge.

Conclusion

The study reveals that it is important to align all employees at all levels irrespective of the generation gap with the organizations' vision. It is important to build HR Governance by bringing in employee perspective; good HR governance should focus on congruence between employee commitment and organizational commitment. Typically, in a manufacturing set up, personal and social factors such as having a friend at work-place, relation with superior, opportunities for training are seen as critical factors to build HR capabilities that lead to engagement and motivation.

Employee engagement is a means but not the end. There is evidence about positive relation between employee engagement and good governance. But organizations often want to improve engagement with the organization rather than with their work.

Implications

It can be seen from the above study that organizations must treat every employee equally and fairly irrespective of age and work experience. They can encourage employees to be a part of the HR Governance if they are involved and valued; employees cultivate a sense of belongingness if they feel they are not only working for the organization but also they are doing something good for the society.

Limitations

The data has been collected from all employees; some belong to the baby boomer generation and some belong to the millennial generation. The study is exploratory and the data has been collected from a manufacturing organization; therefore it cannot be generalized. However, it has identified key factors that lead to HR governance practice.

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A Study of Influence of Demographic Variables on Online Buying Behavior in Delhi and NCR

Dr. Shallu Shing

Associated Professor, Bharathi Vidyapeeth Institute of Management & Research, New Delhi

Dr. Anjali Sharma

Associated Professor, Bharathi Vidyapeeth Institute of Management & Research, New Delhi

Ankit Gupta & Sourabh Bansal

Students, MBA IV Sem, Bharati Vidyapeeth University Institute of Management & Research, New Delhi

Abstract

There is growing trend towards online Buying. People are rapidly opting for it due to ease in functionality and availability of a wide variety on one single platform. This is a study undertaken to highlight the influence of demographics variables on online buying amongst the residents of Delhi &NCR. It is observed that demographic variables like age, gender, marital status, educational qualifications do have an impact on online buying behavior. The implications for the marketers can be focusing more on the segment that supports the youngster creating more awareness through campaigning.

There exists a need on the part of marketers to make the consumer environmentally conscious on the aspect of online shopping.

Key Words : *Demographics, online shopping, age, gender, marital status, attributes.*

Introduction

Online buying is increasing day by day in India . Researches indicate that there exists huge scope and potential for further growth in India in e-commerce sector. Factually e-tailing is one of the most important models in e-commerce business (Liu and Guo, 2008) . This is widely accepted across the world as a means of transactions for goods and services (Bourlakis et. al. , 2008). The final outcome is convenience and wider availability which lends consumer a comfort in buying (Butter and Peppard, 1998). For a consumer who is busy and looks for more convenience and speed, online shopping is workable. (Yu and Wu, 2007)

In India the demography today consists of more youth population who are very much into the online buying . This means that people today want to buy anything from anywhere at any time . On the top of everything the communication technologies and its adaption is a big plus point for Indian population .This is readily been adapted by Indian Youth . If we observe the growth rate of India's e-commerce industry, the results are fascinating. One study indicates India as the fastest growing e-commerce market. India's e-commerce revenue is expected to climb from \$ 30 billion in 2016 to \$ 120 billion in 2020 growing at an annual rate of 51% which is the highest in the world.

India had an internet user base of about 354 million as on June 2015 and is expected to cross 500 million in 2016 . India happens to be the second largest data base user in the world after China (65 million, 45% of population). If penetration of e-commerce is taken into consideration, it happens to be lowered compared to markets like US (266 Million ,84%) or France(54 million , 81% of population), but is growing at an unprecedented rate , adding around 6 million new entrants every month .

In India, The most preferred method of shopping happens to be cash –on –delivery thereby aggregating to 75% of total e-tailing.

Review of Literature

The ever increasing demand for information communication technologies and growing usage of internet has created a hype in the market (Xavier and Pereira, 2006). This increased usage of internet has also given vent to online shopping activities by customers. (Hill and Beatty, 2011). (Kim and Forsythe, 2010) opined that internet has been taken as one of the most significant medium for a massive amount of online sales each year. Internet has also been ranked as the third most dominant activity Li and Zhang (2002). (Wu 2003) opined that nearly half of internet users bought their preferred products and services online.

It has been concluded through researches that there is a correlation between the individual personality and psychographic traits and acceptance of innovative technologies in basic sense and online shopping specifically. These studies have concluded several classifications of internet shoppers (e.g. Brengman et al., 2005; Brown et al., 2003; Childers et al., 2001; Fenech and O'Cass, 2001; Se'ne'cal et al., 2002). It has also been observed that situational factors have an influence on in relation with online and home shopping. Research conducted by (Gillet 1976) concluded that an urge to forgo an additional visit to buy a required also triggered online shopping at home.

Convenience was also taken as a precise factor to evoke the urge for online shopping in case where there were situational limitations like bad health of a consumer or having little kids at home (Morganosky and Cude (2000). It has been therefore summated that situational factors hold lot of importance in influencing and emphasizing online shopping motivations.

Internet knowledge, Social environment (Li and Zhang, 2002), self efficacy (Perea y Monsuwé, Dellaert and de Ruyter, 2004), Demographic factors like age, gender, education, income (Dholakia and Uusitalo, 2002) and Acceptance of new IT application (Al-Gahtani and King 1999) have also been identified to have an impact on online shopping by consumers.

Siu and Cheng (2001) explored that factors like economic benefits stemming from online buying, availability of product, risks in security, monthly income, product technology, opinion leaders and consumer's attitude towards technological advancement Ho and Wu (1999) and Li and Zhang (2002) concluded a positive relationships between online shopping behaviour and five categories of factors comprising e-stores' logistical support, product characteristics, websites' technological characteristics, information characteristics and homepage presentation.

A study on a model of consumer behavior specifically for online shops, where perceptions about reputation and size affect consumer trust of the retailer were studied. It was also observed the level of trust had a positive relationship to the attitude towards the shop and a negative relationship towards perceived risk (Jarvenpaa, Tractinsky and Vitale 2000).

Bandura (1977) emphasized the significance of contextual factors, counting the social, situational, and temporal circumstances within which incidents occurs molding the cognitive appraisal of the causes and consequences of customer's behavior.

Studies reveal social influence from reference groups like virtual communities, other people's opinions and references have a big influence on online shopping. (Christopher and Huarng, 2003).

Objectives of Study:

1. To find out the attributes that affects the buying motives of the consumers who shops online.
2. To find out the factors that influences the behavior of the shoppers while shopping online.
3. To analyze the impact of demographics on the behavior of the online consumers.

Hypothesis

- H₀₁: There is no significant difference between the mean scores of various identified factors of online consumer's behavior for different age groups.
- H₀₂: There is no significant difference between the mean scores of various identified factors of online consumer's behavior for different occupations.
- H₀₃: There is no significant difference between the mean scores of various identified factors of online consumer's behavior for different education qualifications.
- H₀₄: There is no significant difference between the mean scores of various identified factors of online consumer's behavior for different income groups.
- H₀₅: There is no significant difference between the mean scores of various identified factors of online consumer's behavior for marital status.
- H₀₆: There is no significant difference between the mean scores of various identified factors of online consumer's behavior for gender.

Research Methodology

Sample & Data Collection:

A descriptive research is conducted to check the relationship between different identified factors with different demographic factors for the consumers who

prefer to buy online. A structured questionnaire is used to collect the input from 100 respondents varies from demographics factors and primary data was collected using magazines, newspapers. The reliability of the data was checked using Cronbach's Alpha method which is 0.729

Table 1: Reliability Statistics

Cronbach's Alpha	N of Items
.729	40

Instrument Used

The scale is adapted from S. Shallu, S. Anjali, B. Sourabh & G. Ankit (2016). The original scale was modified as per the requirement of the subject. Five point Likert scale is used (5= 'strongly agree' and 1= 'strongly disagree'). SPSS 21.0 was used and tests such as One Way ANOVA and Independent T-test are applied. The analysis was performed at 95% confidence level.

Data Analysis

Objective 1: To find out the attributes that affect the buying motives of the online consumers.

Factor analysis is an effective technique to simplify the data and to provide a correlation between the continuous variables. EFA (exploratory factor

analysis) is used to identify the components and to develop the key relationship between variables, reduces the number of statements into the fewer factors, which provide an ease in naming of the factors in an appropriate manner and also is cost effective.

- A study of Kaiser-Meyer-Olkin's Measure of Sampling Adequacy (MSA) indicates the moderate correlation between the variables with score of 0.781, i.e. the sample size is adequate for factor analysis.
- Barlett test of Sphericity is used to check the overall significance of correlated matrices which is $.000 < 0.05$ and it also provided confirm the validity and reliability of the factor analysis.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.718
Bartlett's Test of Sphericity	Approx. Chi-Square	683.868
	df	136
	Sig.	.000

Principal components analysis method was used to determine the underlying factor relationship between the variables. Total variable explained table implies that there are 4 factors having Eigen Value more than

1 i.e. 4.769, 2.380, 1.842 and 1.507 which accounts for 61.749% of the total variance is used while remaining 38.251% of the information has been lost.

Table 3: Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.769	28.052	28.052	4.769	28.052	28.052	2.952	17.367	17.367
2	2.380	13.998	42.050	2.380	13.998	42.050	2.941	17.298	34.665
3	1.842	10.835	52.885	1.842	10.835	52.885	2.799	16.463	51.128
4	1.507	8.864	61.749	1.507	8.864	61.749	1.806	10.621	61.749

The Rotated Component Matrix Table explains the association between the statements. The matrix extracts 4 components which are well thought by the consumers while purchasing online. Therefore, the names of the factors are **Self Oriented**, **Accessibility**, **Product Centric** and **Complex** respectively. There is a significant relationship between the different attributes of the online consumers affecting the behavior of online shopping.

Factor 1: Self Oriented- In accordance to the survey, shopping through online is easy, gives a better control over the expenses and also compatible to the lifestyle of the consumer as there is no time constraints and no embarrassment if consumer do not shop, are highly considered by the online buyers and they become self centered.

Factor 2: Accessibility- Shopping online gives an easy access to the consumers as they can shop from their home or office or any place which saves a lot of time by not going to the market and get trapped in market crowd. Also they can shop in privacy is also an important element considered by the online shoppers.

Factor 3: Product Centric- Consumers believes that online shopping gives a price advantage as they can compare number of brands at same platform which enhances their selection through the detailed information about the products.

Factor 4: Complex- Some of the consumers think that shopping online requires mental efforts to deal with technology which is considered as complicated and frustrated.

Table 4: Rotated Component Matrix

	Component			
	1	2	3	4
Online shopping makes my shopping easy	.749			
Online shopping gives me better control on my expenses	.731			
I find online shopping compatible with my lifestyle	.718			
I shop online as I can take as much time as I want to decide	.691			
I shop online as there is no embarrassment if I do not buy	.551			
I use online shopping for buying those products which are otherwise not easily available in the market				
I shop online as I can save myself from chaos of traffic		.869		
I shop online as I can save myself from market crowd		.841		
I shop online as I do not have to leave home for shopping		.720		
I shop online as I can shop in privacy of home		.599		
I shop online as I can shop whenever I want		.560		
Online shopping gives the price advantage			.815	
I shop online as I get user/experts reviews of the product			.766	
I shop online as I get broader selection of products online			.728	
I shop online as I can get detailed information online			.678	
Using internet for online shopping require a lot of mental efforts				.839
Online shopping procedure is complicated and frustrating				.829

Objective 2: To find out the factors that influences the behavior of the shoppers while shopping online.
Kaiser Meyer Olkin (KMO) Measure of Sampling

Adequacy originates moderate correlation between the variables with score of 0.711 and Barlett Test of Sphericity sig. value .000 is satisfactory for factor analysis.

Table 5: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.711
Bartlett's Test of Sphericity	Approx. Chi-Square	447.569
	Df	78
	Sig.	.000

Total Variable Explained Table signifies four factors relationship between variables while 32.600% of data which accounts for 67.400% of the variance of the has been lost having Eigen values more than 1.

Table 6: Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.172	24.396	24.396	3.172	24.396	24.396	3.022	23.245	23.245
2	2.872	22.091	46.488	2.872	22.091	46.488	2.134	16.417	39.662
3	1.701	13.084	59.571	1.701	13.084	59.571	1.897	14.593	54.255
4	1.018	7.829	67.400	1.018	7.829	67.400	1.709	13.145	67.400

Rotated Component Matrix Table highlights 4 components which influence the behavior of the online consumers to most. Names of the factors are **Scarce IT Resources**, **Initiator**, **User friendly** and **Friends & Family** respectively. Therefore, there is a significant relationship between the factors influencing the online shopping intention to that of the online shopping behavior.

Factor 1: Scarce IT Resources- There are people who is still away from the access to computer, internet, Debit card/credit card due to which they are unaware of online shopping which gives a limitation to their lifestyle.

Factor 2: Initiator- Many people want to take a lead to showcase their potential. The leadership skills push them to initiate in work and usually they are the first one to taste new technology or product and consult others.

Factor 3: User Friendly- Technosavvy consumers consider the online shopping is easy to access and enjoy.

Factor 4: Friends & Family- Many consumers need the opinion of their beloved ones while shopping online.

Table 7: Rotated Component Matrix

	Component			
	1	2	3	4
I do not shop online as I do not have a computer at home	.887			
I do not shop online as I do not have a computer with internet connection	.846			
I do not shop online as I do not have a credit card	.817			
I do not shop online because internet speed is very slow	.716			
My friends approach me for consultation if they have to try something new		.847		
I am usually the first in my group to try out new technologies		.783		
I am confident of shopping online even if no one is there to show me how to do it		.545		

Sharing my experience through online product reviews will make me noticeable				
Using internet for online shopping is easy			.836	
I feel confident of using internet for shopping after seeing someone else doing it			.637	
Shopping online is fun and I enjoy it			.567	
When I make a purchase my friend's opinion is important to me				.813
I like to shop with my friends and family members				.779

Objective 3: To study the impact of demographics like age, gender, marital status, occupation, income & educational qualification on the behavior of online consumers.

Behavior of Online Shoppers

H₀₁: here is no significant difference between the mean scores of various identified factors of online consumer's behavior for different age groups.

Effect of Age Groups on Various Variables of

Table 8: One Way ANOVA Table of Age on Various Factors

	Levene Statistic	Sig.	F	Sig.	Welch	Sig.
Self oriented	.756	.472	1.221	.300	1.218	.310
Accessibility	.823	.442	.381	.684	.384	.684
Product centric	4.931	.009	4.641	.012	5.229	.010
Complex	1.314	.273	.739	.480	.693	.508
Scarce IT resources	.229	.796	.306	.737	.261	.772
Initiator	.255	.776	3.245	.043	2.964	.067
User friendly	.179	.837	1.406	.250	1.386	.265
Friends &family	1.953	.147	1.854	.162	1.247	.302

One way ANOVA table shows the significant difference for two factors i.e. Product centric and Initiator. Therefore, Welch is considered for Product centric (.010) implies the use of Games Howell and F

is considered for Initiator (.043), Tukey HSD was used. Hence our hypothesis stands REJECTED for Product centric and Initiator. For further analysis Post Hoc test was conducted.

Table 9: Descriptive Statistics of Product Centric

Product centric	N	Mean
21-30 yrs	58	3.7644
31-40 yrs	29	4.2759
41yrs & Above	13	4.3590
Total	100	3.9900

Table 10: Post Hoc Table of Product Centric

		Mean Difference (I-J)	Std. Error	Sig.
21-30 yrs	31-40 yrs	-.51149	.17443	.012
	41yrs & Above	-.59461	.23198	.043
31-40 yrs	21-30 yrs	.51149	.17443	.012

	41yrs & Above	-.08311	.22170	.926
41yrs & Above	21-30 yrs	.59461	.23198	.043
	31-40 yrs	.08311	.22170	.926

Post Hoc Analysis Table depicts that there is significant difference between the respondent of age group 21-30 years (M=3.7644) with 31-40 years (M=4.2759) and 41 years & above (M=4.3590) for product centric. The 21-30 years of consumers are very

conscious and frequent buyers prefer to have the product comparison in terms of price, durability, guarantee, quality etc which is enhanced through detailed information about the products and expert reviews as compared with other age groups.

Table 11: Descriptive table of Initiator

Initiator	N	Mean
21-30 yrs	58	3.1207
31-40 yrs	29	2.9138
41yrs & Above	13	2.3077
Total	100	2.9550

Table 12: Post Hoc table of Initiator

		Mean Difference (I-J)	Std. Error	Sig.
21-30 yrs	31-40 yrs	.20690	.23770	.660
	41yrs & Above	.81300*	.32072	.034
31-40 yrs	21-30 yrs	-.20690	.23770	.660
	41yrs & Above	.60610	.34885	.197
41yrs & Above	21-30 yrs	-.81300*	.32072	.034
	31-40 yrs	-.60610	.34885	.197

Post Hoc Analysis Table for Initiator shows the significant difference of the respondent of age group of 21-30 years with 41years & above respondents. Youngsters always try to taste something innovated and follow the market trend compared with 41years & above. Therefore there family members and relatives take the opinion from them while shopping online.

Effect of Occupation on Various Variables of Behavior of Online Shoppers

H₀₂: There is no significant difference between the mean scores of various identified factors of online consumer's behavior for different occupation.

Table 13: One way ANOVA of Occupation

	Levene Statistic	Sig.	F	Sig.	Welch	Sig.
Self oriented	2.235	.089	1.480	.034	1.232	.029
Accessibility	.475	.701	1.361	.259	1.301	.285
Product centric	.473	.702	3.066	.316	2.944	.414
Complex	2.302	.082	1.305	.277	1.746	.170
Scarce IT resources	1.379	.254	1.839	.145	2.685	.057
Initiator	1.533	.211	2.450	.068	2.384	.081
User friendly	.916	.436	.721	.542	.670	.575
Friends family	1.071	.365	.423	.737	.489	.691

One way ANOVA table of Occupation implies the sig. value of F is significant for Self Oriented (.034) with different occupation. Hence our null hypothesis

stands REJECTED for self Oriented. For further analysis Post Hoc test was conducted. Tukey HSD was used to ascertain the variation among the occupation categories.

Table 14: Descriptive Table of Self Oriented

	N	Mean
Business	18	3.4058
Service	23	3.3519
Housewife	24	2.9722
Student	35	3.4762
Total	100	3.3167

Table 15: Post Hoc table of Self Oriented

		Mean Difference (I-J)	Std. Error	Sig.
Business	Service	-.05395	.05390	.998
	Housewife	.37963	.43360	.570
Service	Student	-.12434	-.07040	.969
	Business	.05395	-.05390	.998
	Housewife	.43357	.37970	.397
	Student	-.07039	-.12430	.041
Housewife	Business	-.37963	-.43360	.570
	Service	-.43357	-.37970	.397
	Student	-.50397	-.50400	.189
Student	Business	.12434	.07040	.033
	Service	.07039	.12430	.041
	Housewife	.50397	.50400	.189

Post Hoc Analysis Table of Self oriented fetches the significant difference for the respondents who are student (M=3.4762) with serviceman (M=3.3519) respondents. While shopping through online, students seem to be more emphasized towards the fashion which must be compatible to their lifestyle and barely feel embarrassment if they do not buy or return the products termed as self concerned consumers in relation to the service class consumers who are also try to build the attribute of their shopping

according to their own taste, allows them to give a better control on their expenses too.

Effect of Education on Various Variables of Behavior of Online Shoppers

H₀₃: There is no significant difference between the mean scores of various identified factors of online consumer's behavior for different education qualification.

Table 16: One Way ANOVA of Education

	Levene Statistic	Sig.	F	Sig.	Welch	Sig.
Self oriented	.102	.903	.358	.700	.348	.708
Accessibility	1.017	.036	.974	.046	.997	.041
Product centric	1.773	.175	1.271	.285	1.240	.299
Complex	.668	.515	.116	.890	.111	.895

Scarce IT resources	4.483	.014	.940	.394	1.003	.374
Initiator	.172	.842	1.828	.166	1.663	.201
User friendly	.445	.642	.124	.884	.128	.880
Friends & family	1.276	.284	3.351	.039	3.960	.025

One way ANOVA table highlight the significant difference for two factors which are Accessibility (.041) and Friends & Family (.039). Therefore, for further analysis Post Hoc test was conducted, Welch is considered for Accessibility with the use of Games

Howell and F is considered for Friends & Family, Tukey HSD was used. Hence our null hypothesis stands REJECTED for Accessibility and Friends & Family.

Table 17: Descriptive table of Accessibility

	N	Mean
Graduation	33	3.1258
Post-Graduation	48	3.4211
Professional Qualification	19	3.5556
Total	100	3.3675

Table 18: Post Hoc table of Accessibility

		Mean Difference (I-J)	Std. Error	Sig.
Graduation	Post-Graduation	-.29530	.22512	.336
	Professional Qualification	-.42983	.27487	.045
Post-Graduation	Graduation	.29530	.22512	.336
	Professional Qualification	-.13454	.27620	.782
Professional Qualification	Graduation	.42983	.27487	.045
	Post-Graduation	.13454	.27620	.782

Post Hoc Analysis Table of Accessibility explains the significant difference for the Professional Qualified respondents with Graduates. The table shows that Professional qualified consumers like doctors, lawyers, civil engineers are indulge with their work as they are enable to go to physical outlets, but

shopping online gives them a advantage to shop from anywhere within limited span of time which also eliminate market crowd and traffic problems, followed by Graduate consumers as they are also busy in exploring their area of interest and are in need for ease access to shopping.

Table 19: Descriptive Table of Friends & Family

	N	Mean
Graduation	33	3.5000
Post-Graduation	48	3.0313
Professional Qualification	19	2.9737
Total	100	3.1750

Table 20: Post Hoc table of Friends & Family

		Mean Difference (I-J)	Std. Error	Sig.
Graduation	Post-Graduation	.46875	.20008	.049
	Professional Qualification	.52632	.25481	.102
Post-Graduation	Graduation	-.46875	.20008	.049
	Professional Qualification	.05757	.23982	.969
Professional Qualification	Graduation	-.52632	.25481	.102
	Post-Graduation	-.05757	.23982	.969

Post Hoc Analysis Table shows that 'Friends & Family' is considered by the Post Graduate respondents as they are more socialize surrounded by their school friends, college friends, loveable friends which plays an important role in one another's purchases. On the other hand, they understand their duties and showing concern towards their family by spending the time in making them to realize the importance of digital

world through online purchase.

Effect of Income on Various Variables of Behavior of Online Shoppers

H0₄: There is no significant difference between the mean scores of various identified factors of online consumer's behavior for different income groups

Table 21: One Way ANOVA of Income

	Levene Statistic	Sig.	F	Sig.	Welch	Sig.
Self oriented	.187	.905	.068	.977	.067	.977
Accessibility	.386	.764	.309	.819	.253	.859
Product centric	1.499	.220	1.362	.259	1.435	.246
Complex	.625	.601	.925	.432	1.074	.371
Scarce IT resources	2.822	.043	.612	.609	.764	.521
Initiator	.629	.598	1.544	.208	1.323	.281
User friendly	1.247	.297	1.639	.185	2.016	.126
Friends & family	.160	.923	.884	.452	.868	.466

Analysis of Variance shows that, the all the variables of consumer behavior for online shopping do not differ significantly on the basis of Income which means that buying behavior is not affected by Income. So, null hypothesis stands ACCEPTED for various identified factors of online consumer's behavior for different income groups.

Effect of Marital Status on Various Variables of Behavior of Online Shoppers

H0₅: There is no significant difference between the mean scores of various identified factors of online consumer's behavior for marital status.

Table 22: Independent sample T Table for marital status

		Levene's Test for Equality of Variances				t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Difference
Self oriented	Equal variances assumed	3.082	.082	-1.335	98	.185	-.25433	.19047
	Equal variances not assumed			-1.301	81.447	.197	-.25433	.19546

Accessibility	Equal variances assumed	.043	.836	-1.841	98	.069	-.37500	.20374
	Equal variances not assumed			-1.825	89.266	.071	-.37500	.20547
Product centric	Equal variances assumed	.364	.548	2.058	98	.042	.36959	.17955
	Equal variances not assumed			2.060	92.818	.042	.36959	.17937
Complex	Equal variances assumed	1.524	.220	.095	98	.925	.02029	.21391
	Equal variances not assumed			.096	95.672	.924	.02029	.21164
Scarce IT resources	Equal variances assumed	.129	.721	-.469	98	.640	-.08320	.17721
	Equal variances not assumed			-.469	92.476	.640	-.08320	.17721
Initiator	Equal variances assumed	4.165	.044	-.946	98	.347	-.20373	.21539
	Equal variances not assumed			-.919	79.810	.361	-.20373	.22179
User friendly	Equal variances assumed	.050	.824	-.347	98	.730	-.07143	.20599
	Equal variances not assumed			-.347	93.064	.729	-.07143	.20564
Friends & family	Equal variances assumed	.443	.507	-2.319	98	.022	-.41396	.17853
	Equal variances not assumed			-2.316	92.100	.023	-.41396	.17872

Independent Sample T-Test table extracts the significant difference for two factors affecting the consumer behavior with respect to marital status. The survey reports that the married people generally prefer to have a product comparison as they have to shop according to their monthly budget and are more responsible to serve best for their family. Hence, while shopping online they check for prices, quality and full description about the products. Another factor Friends & Family is also given an equal weightage by married

people as they always engaged in shopping with their family or friends rather to shop alone. Therefore, our null hypothesis stands REJECTED for Product centric (.042) and Friends & Family (.022).

Effect of Gender on Various Variables of Behavior of Online Shoppers

H₀: There is no significant difference between the mean scores of various identified factors of online consumer's behavior for gender.

Table 23: Independent sample T table of Gender

Levene's Test for Equality of Variances t-test for Equality of Means

		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.
Self oriented	Equal variances assumed	1.179	.280	-.795	98	.429	-.15164	.19080
	Equal variances not assumed			-.785	89.066	.435	-.15164	.19324
Accessibility	Equal variances assumed	.038	.845	-.457	98	.649	-.09420	.20618
	Equal variances not assumed			-.458	96.120	.648	-.09420	.20581
Product centric	Equal variances assumed	.091	.764	-.765	98	.446	-.13929	.18211
	Equal variances not assumed			-.761	93.425	.448	-.13929	.18299
Complex	Equal variances assumed	3.025	.085	-.473	98	.637	-.10064	.21281
	Equal variances not assumed			-.464	85.550	.644	-.10064	.21670
Scarce IT resources	Equal variances assumed	.014	.905	.103	98	.919	.01812	.17668
	Equal variances not assumed			.102	93.558	.919	.01812	.17749
Initiator	Equal variances assumed	.002	.968	-.857	98	.394	-.18398	.21469
	Equal variances not assumed			-.857	95.439	.394	-.18398	.21472

User friendly	Equal variances assumed	4.133	.045	.459	98	.647	.09420	.20507
	Equal variances not assumed			.451	85.273	.653	.09420	.20890
Friends & family	Equal variances assumed	1.139	.288	.011	98	.991	.00201	.18262
	Equal variances not assumed			.011	87.942	.991	.00201	.18529

Independent Sample T-Test table reveals that there is no significant difference in identified factors affecting the behavior of consumers shopping online with respect to gender. Therefore, our null hypothesis stands ACCEPTED for all the factors as self-oriented, Accessibility, Product Centric, Complex, Scarce IT resources, Initiator, User friendly and Friends & Family.

Findings and Conclusion

The purpose of the paper is to ascertain the impact of demographics elements on buying behavior and perception of the customers towards the online shopping. Data of 100 Respondents is used to conclude the outcomes. In accordance to this paper, we can observe that an increase in number of respondents implies more awareness and habitual towards online shopping. The behavior and purchasing pattern of the consumers likely to depend on 6 demographics are age, gender, marital status, occupation, education qualification and income. First; this paper identified that the respondent of age group 21-30 years are 'Product Centric' and 'Initiator' consumers as they are very focused, frequent buyers prefer to have the product comparison and having courage to try something innovating followed by 31-40 years of consumers. Second Gender has no relation with online shopping behavior of consumers which means that both male and female are equally engaged in shopping which does not create any difference. Third marital status has an impact on consumers buying behavior as married people generally prefer to have a product comparison though they have to shop according to their monthly budget and are more responsible to serve best for their family are termed as 'Product centric' consumers. Fourth; occupation also has a significant effect towards the attitude of online consumers. students seems to be the fashion creators compatible to their lifestyle with no time restrictions and hardly feel embarrassment if they do not buy or return the products termed as 'self oriented' consumers followed by the service class people. Fifth; educational qualification has a major impact on behavior of consumers shopping online. In contrast to this, the Professional Qualified people like doctors, lawyers are highly busy with their work as they are unable to go to physical outlets and alternate to this is

shopping online which gives them a advantage to shop from anywhere within limited span of time are termed as 'Accessibility' consumers. Also; 'Friends & Family' is considered by the Post Graduate respondents as they are more socialize which plays an important role purchasing behavior. On the other side, they understand their duties and showing concern towards their family by spending the time in making them to realize the importance of digital world through online purchase. Sixth; income has no relation with behavior and perception of online shoppers. Therefore income has no link with the buying motives of the online consumers. According to the outcomes, we are able to conclude that behavior of the consumers buying online has a high impact factors through demographics and their behavior and perception changes with demographics factors. The implications for the marketers can be focusing more on the segment that supports the youngster creating more awareness through campaigning. Also is needed on the part of marketer is to make the consumer environmentally aware by telling them the probable related aspects of the online shopping.

Managerial Usefulness of the Study

Market Analysts can take advantage our research and can check the relationship between the different identified factors and different demographic factors. On the basis of this, they can make marketing strategies and IMC strategies for different sections of society. Advertisement Agencies can also take advantage from our paper and can use different tools and techniques to attracting customers. Different online companies can plan and make best use of social media so as to promote their product. Products play an important role in companies' revenue. The online retailers should target the younger generation (generation Y and generation Z) and should strategize in a way that attracts the customers and sales increases. The analysis from this research paper helps the e-commerce websites to understand how different demographic factors such as Age, Gender, Occupation, Marital Status, Education Qualification and Income effects the buying decision of the customers. So, the companies can do proper STP analysis before launching the products.

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Sustainable Development Plan for Ageing World Population: Challenges and Way Forward

Pradeep Kumar Panda

Economist

Abstract

According to data from United Nations, the number of older persons has increased substantially in recent years in most countries and regions, and that growth is projected to accelerate in the coming decades. Globally, the number of older persons is growing faster than the numbers of people in any other age group. As a result, the share of older persons in the total population is increasing virtually everywhere. While population ageing is a global phenomenon, the ageing process is more advanced in some regions than in others, having begun more than a century ago in countries that developed earlier, and getting underway only recently in many countries where the development process has occurred later, including the decline of fertility. This is poised to become one of the most significant social transformations of the twenty-first century, with implications for nearly all sectors of society, including labour and financial markets, the demand for goods and services, such as housing, transportation and social protection, as well as family structures and intergenerational ties. Preparing for the economic and social shifts associated with an ageing population is thus essential to ensure progress in development, including towards the achievement of the goals outlined in the 2030 Agenda for Sustainable Development. Population ageing is particularly relevant for the goals on poverty eradication, ensuring healthy lives and well-being at all ages, promoting gender equality and full and productive employment and decent work for all, reducing inequalities between and within countries, and making cities and human settlements inclusive, safe, resilient and sustainable. There is urgent need to consider older persons in development planning, emphasizing that older persons should be able to participate in and benefit equitably from the fruits of development to advance their health and well-being, and that societies should provide enabling environments for them to do so. As populations become increasingly aged, it is more important than ever that governments design innovative policies and public services specifically targeted to older persons, including those addressing, inter alia, housing, employment, health care, infrastructure and social protection. In many rural settings, old age women are still being seen as the care-taker of the family – responsible for child minding, facing harsh challenges, especially with the effects of climate change and culture making it difficult to access clean drinking/cooking water; all these factors along with customary laws prevent the women population from fully participating and contributing ideas to the betterment of their communities. Gender focused Community-based Development Plans will lead to better social security protection from all population of the communities.

Key Words: Population, Ageing, sustainable development, issues, Social security, Housing, Gender Equality, Culture

Introduction

The world's population is ageing: virtually every country in the world is experiencing growth in the number and proportion of older persons in their population. Population ageing—the increasing share of older persons in the population—is poised to become one of the most significant social transformations of the twenty-first century, with implications for nearly all sectors of society, including labour and financial markets, the demand for goods and services, such as housing, transportation and social protection, as well as family structures and intergenerational ties. Preparing for the economic and social shifts associated with an ageing population is thus essential to ensure progress in development, including towards the achievement of the goals outlined in the 2030 Agenda for Sustainable Development. Population ageing is particularly relevant for the goals on poverty eradication, ensuring healthy lives and well-being at all ages, promoting gender equality and full and productive employment and decent work for all, reducing inequalities between and within countries, and making cities and human settlements inclusive, safe, resilient and sustainable. The 2002 Madrid International Plan of Action on Ageing (MIPAA), adopted during the Second World Assembly on Ageing, highlighted the need to consider older persons in development planning, emphasizing that older persons should be able

to participate in and benefit equitably from the fruits of development to advance their health and well-being, and that societies should provide enabling environments for them to do so. As populations become increasingly aged, it is more important than ever that governments design innovative policies and public services specifically targeted to older persons, including those addressing, inter alia, housing, employment, health care, infrastructure and social protection.

According to data from World Population Prospects: the 2015 Revision (United Nations, 2015), the number of older persons—those aged 60 years or over—has increased substantially in recent years in most countries and regions, and that growth is projected to accelerate in the coming decades. Between 2015 and 2030, the number of people in the world aged 60 years or over is projected to grow by 56 per cent, from 901 million to 1.4 billion, and by 2050, the global population of older persons is projected to more than double its size in 2015, reaching nearly 2.1 billion. Globally, the number of people aged 80 years or over, the “oldest-old” persons, is growing even faster than the number of older persons overall. Projections indicate that in 2050 the oldest-old will number 434 million, having more than tripled in number since 2015, when there were 125 million people over age 80. Over the next 15 years, the number of older persons is expected to grow fastest in Latin America and the Caribbean with a projected 71 per cent increase in the population aged 60 years or over, followed by Asia (66 per cent), Africa (64 per cent), Oceania (47 per cent), Northern America (41 per cent) and Europe (23 per cent). Globally, during 2010-2015, women outlived men by an average of 4.5 years. As a result, women accounted for 54 per cent of the global population aged 60 years or over and 61 per cent of those aged 80 years or over in 2015. In the coming years, average survival of males is projected to improve and begin to catch up to

that of females so that the sex balance among the oldest-old persons becomes more even. The proportion of women at age 80 years or over is projected to decline to 58 per cent in 2050. Both improved longevity and the ageing of larger cohorts, including those born during the post-World War II baby boom, mean that the older population is itself ageing. The proportion of the world’s older persons who are aged 80 years or over is projected to rise from 14 per cent in 2015 to more than 20 per cent in 2050. The older population is growing faster in urban areas than in rural areas. At the global level between 2000 and 2015, the number of people aged 60 years or over increased by 68 per cent in urban areas, compared to a 25 per cent increase in rural areas. As a result, older persons are increasingly concentrated in urban areas. In 2015, 58 per cent of the world’s people aged 60 years or over resided in urban areas, up from 51 per cent in 2000. The oldest-old are even more likely to reside in urban areas: the proportion of people aged 80 years or over residing in urban areas increased from 56 per cent in 2000 to 63 per cent in 2015.

Globally, the number of older persons is growing faster than the numbers of people in any other age group. As a result, the share of older persons in the total population is increasing virtually everywhere. While population ageing is a global phenomenon, the ageing process is more advanced in some regions than in others, having begun more than a century ago in countries that developed earlier, and getting underway only recently in many countries where the development process has occurred later, including the decline of fertility. In 2015, one in eight people worldwide was aged 60 years or over. By 2030, older persons are projected to account for one in six people globally. By the middle of the twenty-first century, one in every five people will be aged 60 years or over. By 2030, older persons will outnumber children aged 0-9 years (1.4 billion versus 1.3 billion); by 2050, there will be more people aged 60 years or over than adolescents and youth aged 10-24 years (2.1 billion versus 2.0 billion). The ageing process is most advanced in high-income countries. Japan is home to the world’s most aged population: 33 per cent were aged 60 years or over in 2015. Japan is followed by Germany (28 per cent aged 60 years or over), Italy (28 per cent) and Finland (27 per cent). The pace of world population ageing is accelerating. Projections indicate that the proportion aged 60 years or over globally will increase more than 4 percentage points over the next 15 years, from 12.3 per cent in 2015 to 16.5 per cent in 2030, compared to the 2.3 percentage point increase in the share of older persons that occurred between 2000 and 2015. By 2030, older persons are expected to account for more than 25 per cent of the populations in Europe and in Northern America, 20 per cent in Oceania, 17 per cent in Asia and in Latin America and the Caribbean, and 6 per cent in Africa. In 2050, 44 per cent of the world’s population will live in relatively aged countries, with at least 20 per cent of the population aged 60 years or over, and one in four people will live in a country where more than 30 per cent of people are above age 60. The pace of population ageing in many developing countries today is substantially faster than occurred in developed countries in the past. Consequently, today’s developing countries must adapt much more quickly to ageing populations and often at much lower levels of national income compared to the experience of countries that developed much earlier.

Demographic Drivers of Population Ageing

Population ageing is in many ways a demographic success story, driven by changes in fertility and

mortality that are associated with economic and social development. Progress in reducing child mortality, improving access to education and employment opportunities, advancing gender equality, and

promoting reproductive health and access to family planning have all contributed to reductions in birth rates. Moreover, advancements in public health and medical technologies, along with improvements in living conditions, mean that people are living longer and, in many cases, healthier lives than ever before, particularly at advanced ages. Together, these declines in fertility and increases in longevity are producing substantial shifts in the population age structure, such that the share of children is shrinking while that of older persons continues to grow. The growth rate of the population of older persons today is a function of the levels of fertility prevailing some 60 years ago when today's new cohorts of older persons were born, together with changes in the likelihood that members of those birth cohorts survived to older ages. Because fertility rates in the mid-twentieth century were higher in many parts of Africa, Asia and Latin America and the Caribbean—above five children per woman, on average—the growth rates of the older populations in those regions today are significantly faster than in Europe, where fertility in 1950-1955 had already fallen below three children per woman in many countries. Trends in the growth rate of the population of older persons reveal the powerful influence of major historical events in shaping the age composition of the population. The cohorts that entered their 80's during the late-1990's are those who were born during World War I, a time of depressed fertility in many countries that resulted in smaller birth cohorts. As a result, growth of the global population aged 80 years or over during 1995-2000 was slow relative to previous decades and has accelerated more recently as the cohorts born during the post-war fertility rebound reached their 80s. The fertility impact of World War II is evident in population ageing patterns as well. The growth rate of the global population aged 60 years or over has peaked in 2010-2015 and the rate of growth of the population aged 80 years or over is projected to peak in 2030-2035, marking the periods during which those born during the post-war baby boom reach older ages. Past and current regional levels of fertility predict the present and future rates of growth of their older populations. In Asia, the growth rate of the population of older persons is projected to decline precipitously after 2025, reflecting the rapid decline in fertility that began in the mid-1960s in that region. In Africa, the pace of growth of the population aged 60 years or over is projected to accelerate from just over 3 per cent per year in 2010-2015, reaching nearly 3.9 per cent per year in 2040-2045, reflecting the relatively high fertility rates of the region during the second half of the twentieth century. The pace of growth of the older population of Africa projected for the 2040s is faster than any region has experienced

since 1950, when the data series begins. The immediate cause of population ageing is fertility decline. However, improved longevity contributes as well, first by eliminating the demographic necessity of high fertility and second by increasing the number of survivors to older ages. By 2050, life expectancy at birth is projected to surpass 80 years in Europe, Latin America and the Caribbean, Northern America and Oceania; and it will approach 80 years in Asia and 70 years in Africa. Improvements in survival at age 60 years or over have accounted for half of the total improvement in life expectancy in Europe, Northern America and Oceania over the past two decades. Reduced mortality at younger ages was more influential in improving the life expectancy at birth in Africa, Asia and Latin America and the Caribbean. In 2010-2015, 60-year-old persons globally could expect to live an additional 20.2 years, on average. Across the six regions, life expectancy at age 60 years was highest in Oceania and Northern America, at 23.7 years and 23.5 years, respectively, and lowest in Africa, at 16.7 years. Among today's young people, survival to age 80 is expected to be the norm everywhere but in Africa. Worldwide, 60 per cent of women and 52 per cent of men born in 2000-2005 are expected to survive to their eightieth birthdays, compared to less than 40 per cent of the women and men born in 1950-1955. While declining fertility and increasing longevity are the key drivers of population ageing globally, international migration has also contributed to changing population age structures in some countries and regions. However, in most countries, international migration is projected to have only small effects on the pace of population ageing. Between 2015 and 2030, net migration is projected to slow population ageing by at least 1 percentage point in 24 countries or areas, and to accelerate population ageing by at least 1 percentage point in 14 countries or areas.

Challenges

Ageing comes with many challenges. The loss of independence is one potential part of the process, as are diminished physical ability and age discrimination. The term senescence refers to the aging process, including biological, emotional, intellectual, social, and spiritual changes. This section discusses some of the challenges we encounter during this process. As already observed, many older adults remain highly self-sufficient. Others require more care. Because the elderly typically no longer hold jobs, finances can be a challenge. Due to cultural misconceptions, older people can be targets of ridicule and stereotypes. The elderly face many challenges in later life, but they do not have to enter old age without dignity. Mistreatment and abuse of the elderly is a

major social problem. As expected, with the biology of aging, the elderly sometimes become physically frail. This frailty renders them dependent on others for care—sometimes for small needs like household tasks, and sometimes for assistance with basic functions like eating and toileting. Unlike a child, who also is dependent on another for care, an elder is an adult with a lifetime of experience, knowledge, and opinions—a more fully developed person. This makes the care providing situation more complex.

Population Ageing and Sustainable Development

Preparing for an ageing population is integral to the achievement of many of the sustainable development goals. Growth in the numbers and proportions of older persons can be expected to have far reaching economic, social and political implications. In many countries the number of older persons is growing faster than the number of people in the traditional working ages, leading many governments to consider increasing the statutory ages at retirement in an effort to prolong the labour force participation of older persons and improve the financial sustainability of pension systems. At the same time, population ageing and growth in the number of persons at very advanced ages, in particular, puts pressure on health systems, increasing the demand for care, services and technologies to prevent and treat non-communicable diseases and chronic conditions associated with old age. Countries can address these and other challenges by anticipating the coming demographic shifts and enacting policies proactively to adapt to an ageing population.

Ageing, Poverty and Economic Growth

In general, poverty rates among older persons tend to mirror fairly closely those of the population overall, although disparities are evident in some countries and regions. In many countries where pension systems are not in place or fail to provide adequate income, including several in sub-Saharan Africa and in Asia, older persons are more likely to live in poverty than people at younger ages. Conversely, in countries with adequate pension systems with broad coverage, including several in Latin America and in Europe, poverty rates among older persons are essentially the same as or lower than those of the general population. Age patterns of consumption behaviour provide an additional indication of the level of welfare among older persons. In low-income and middle-income countries, levels of consumption tend to decline at older ages, indicating that older persons are faring less well than adults in other age groups in these countries. In contrast, in many high-income countries, the average levels of consumption among older

persons are higher than among adults in other age groups—by as much as one third or more in some countries—indicating that older persons are comparatively well off in these countries. Public transfers, particularly for health care, play an important redistributive role to bolster the levels of consumption among older persons in many high-income countries. Conversely, in low-income and lower-middle-income countries, older persons finance most of their health care consumption through out-of-pocket expenditures. The low levels of public health expenditure in these countries contribute to a lack of health security and inferior care for older persons. Older persons' welfare is related to the share of consumption financed by public transfers. In many low-income countries where older persons are less well off than adults in other age groups, public transfers finance less than 15 per cent of total old-age consumption, compared to the 30 per cent or more of older persons' consumption that is financed by public transfers in many high-income countries, where older persons tend to be better off than adults in other age groups. Population ageing need not impede continued economic growth. Countries with increasing economic support ratios—thus, a rise in the ratio of producers to consumers in the population—benefit from a “first demographic dividend”. In societies where investments in human capital and savings accompany low fertility and increasing longevity motivates people to accumulate assets for old age, the increased volume of savings can further enhance economic growth, leading to a “second demographic dividend.” The second dividend is likely to be more significant in societies that do not rely solely on public or familial transfers to finance older persons' consumption, but also promote retirement savings.

Ensuring Social Protection for Older Persons and the Sustainability of Pension Systems

In response to recent trends in population ageing, many low-income and middle income countries have expanded the coverage of their contributory pension schemes and established non-contributory social pensions. Many high-income countries have undertaken fiscal consolidation reforms to their pension systems by raising the statutory pensionable age, reducing benefits or increasing contribution rates. At the global level, nearly half of all people who have reached statutory pensionable ages do not receive a pension, and for many of those who do receive a pension, the levels of support may be inadequate. Pension coverage is typically lower among women than among men owing to their lower rates of attachment to the labour market, their over-representation in the informal sector, or their work as

self-employed or unpaid family workers. In many countries, the survivor's benefits paid through a husband's contributory pension benefits are the sole sources of income for older women.

Promoting Health and Well-Being at Older Ages

Changes are needed around the globe to continue to adapt health systems to serve a growing number and proportion of older persons and to maximize health and well-being at all ages. The World Health Organization emphasizes that these changes need not imply exorbitant increases in national health budgets, even in countries with rapidly ageing populations. Indeed, technology-related changes in health care, growth in personal incomes and cultural norms and attitudes surrounding end-of-life care are far more influential than shifts in population age structure in driving increases in health care expenditures. Older persons are tremendously diverse with respect to their health and wellbeing. Understanding levels and trends in the prevalence and severity of disability is key to assessing the implications of ageing for population health. For the world as a whole in 2013, people lost an average of approximately nine years of healthy life due to disability. In general, the number of healthy life years lost due to disability tends to be greater in countries with a higher life expectancy at birth. However, people living in countries with longer average lifespans tend to spend a smaller proportion of their lives with disability compared to countries where life expectancy is shorter. In Europe, the average nine years of healthy life lost due to disability in 2013 accounted for just under 12 per cent of the average 76-year lifespan, whereas in Africa the average eight years of healthy life lost due to disability accounted for nearly 14 per cent of the average 58-year lifespan. Whether the growing numbers of older persons are living their later years in good health is a crucial consideration for policy development. If the added years of life expectancy are spent with disability, then demographic trends could portend substantially increased demand for health care. If the onset or severity of ill health is instead postponed as life expectancy increases, then the pressures exerted on the health system by a growing population of older persons may be attenuated. So far, evidence of trends in the health status of older persons is mostly limited to high-income countries and points to different conclusions depending on the study or context, making it difficult to draw clear conclusions about the fundamental questions. Given the projected growth of the older population, which will occur in virtually every country of the world over the coming decades, health systems should prepare now to address the specific health concerns of older persons.

Unipolar depressive disorders are the leading cause of disability among women aged 60 years or over, followed by hearing loss, back and neck pain, Alzheimer's disease and other dementias, and osteoarthritis. Among older men, hearing loss is the leading cause of disability, followed by back and neck pain, falls, chronic obstructive pulmonary disease and diabetes mellitus. As populations continue to grow older during the post-2015 era, it is imperative that governments design innovative policies specifically targeted to the needs of older persons, including those addressing housing, employment, health care, social protection and other forms of intergenerational support. Because the coming demographic shifts are foreseeable with much clarity over the next few decades, governments are afforded the opportunity to adopt a proactive approach to align their policies to the evolving needs of an ageing population.

Gender Equality and Population Ageing

Population ageing is particularly relevant for the goals on poverty eradication, ensuring healthy lives and well-being at all ages, promoting gender equality and full and productive employment and decent work for all, reducing inequalities between and within countries, and making cities and human settlements inclusive, safe, resilient and sustainable. There is urgent need to consider older persons in development planning, emphasizing that older persons should be able to participate in and benefit equitably from the fruits of development to advance their health and well-being, and that societies should provide enabling environments for them to do so. As populations become increasingly aged, it is more important than ever that governments design innovative policies and public services specifically targeted to older persons, including those addressing, inter alia, housing, employment, health care, infrastructure and social protection. In many rural settings, old age women are still being seen as the care-taker of the family – responsible for child minding, facing harsh challenges, especially with the effects of climate change and culture making it difficult to access clean drinking/cooking water; all these factors along with customary laws prevent the women population from fully participating and contributing ideas to the betterment of their communities. Gender focused Community-based Development Plans will lead to better social security protection from all population of the communities. Gender-responsive pension systems reduce gender gaps and protect women's income security in old age. Ageing has a female face. Women not only live longer than men but are also less likely to enjoy income security and economic independence in old age. Because of a lifetime of economic

disadvantage, older women end up with lower incomes and less access to land, housing and other assets that would help them maintain an adequate standard of living. In addition, pension systems grossly fail to produce equal outcomes for women. In most countries, women are less likely than men to receive a pension at all, or they have lower benefits. Gendered labour market and life course patterns lie at the roots of women's disadvantage in old age, but their impact can be magnified or mitigated by specific features of pension system design. This brief takes a closer look at these features and shows how pension systems can be transformed to reduce gender gaps and protect women's income security in old age. Older women often live in poverty. They have no one to care for them, after spending their lives providing unpaid care for friends and family. Ageing is inevitable of course, but its gendered injustices shouldn't be. It's time to make ending pensioner poverty a priority and providing decent elderly care services for all. Ageing has a female face, so why have policies been slow to respond to the rights of older women? Not only are women over-represented among the elderly, since they live longer than men, but they also have to face greater financial hardship. Because of a lifetime of discrimination, women usually end up with fewer savings and assets that could assist them to maintain an adequate standard of living in old age. Additionally, pension systems grossly fail to protect them from poverty. Globally, only around half of people above retirement age have access to a pension. In the majority of countries, women are less likely than men to receive one and, where they do benefit, they are usually paid less. In China, poverty rates among older women are about four times higher than among older men. And in the EU, older women are 37% more likely than men to live in poverty. Gender inequality in old age is as much about cash as it is care. Prevalent gender norms and the fact that women tend to outlive their spouses, means that they provide the bulk of unpaid care for their ageing partners. Often, they also play an important role in caring for grandchildren, which enables their parents to keep employment. Or they take their place as primary caregivers when children are orphaned or left behind, in the context of migration. Whilst many older women take pride in this work, there is next to no social recognition or reward and the costs to their own emotional and physical well-being can be high. It's ironic that women who spend a lifetime caring for others end up poor, because of pension systems that fail to recognize their contribution, and have no one to rely on when they themselves grow old and need help. UN Women's flagship report Progress of the World's Women 2015-2016 is evidence that putting in place the right policies

can make a huge difference. Universal social pensions establish the right to an old age pension for all elderly – women and men – regardless of their employment histories and family status. They can be a powerful tool for providing basic income security and closing gender gaps in pension coverage. And providing these benefits is affordable even in low-income countries. Mauritius, Bolivia and Botswana have proven this and studies estimate that in most sub-Saharan African countries such schemes would cost only around 1 per cent of GDP. The benefits are enormous and can transcend generations. In South Africa, widely available social pensions have not only reduced poverty among older people, but also led to improvements in long-term nutrition and school attendance among the children they live with. Affordable care services for the elderly are just as important as pensions. Yet, these services are still rudimentary even in affluent countries, which reflects the fact that women's unpaid elderly care work is still taken for granted. It's essential that we assume collective responsibility for the care of our elderly by expanding support mechanisms and public services. This will ensure the rights of both the carers and the cared-for, with options ranging from home-based care to day care, residential and nursing homes. Political commitment will be required to put these measures in place as well as a significant investment of resources. But relying on women's unpaid care work whilst relegating them to poverty in old age is no longer an acceptable alternative and never should have been.

Conclusion

Population ageing is especially relevant for development goals related to poverty eradication, ensuring healthy lives and promoting social protection and well-being at all ages, gender equality, and full and productive employment and decent work for all, reducing inequalities between and within countries, and making cities and human settlements inclusive, safe, resilient and sustainable. As populations grow increasingly aged, it is more important than ever that governments design innovative policies and public services specifically targeted to older persons, including those addressing, inter alia, housing, employment, health care, infrastructure and social protection. Such policies will be essential to the success of efforts to achieve the goals laid out in the 2030 Agenda for Sustainable Development. Planning for growing numbers and proportions of older persons is essential to ensure the sustainability of pension systems. In some countries, large majorities of older people are covered by existing pay-as-you go or unfunded pension programmes, but

declining old-age support ratios imply that such programmes may struggle to maintain adequate income support into the future. In response, some countries are pursuing pension system reforms, such as increasing the statutory ages at retirement and encouraging private savings. In many developing countries, existing pension systems cover only a minority of older persons. There, governments should prioritize enhancing system coverage and taking other measures to properly finance pensions for the ever-expanding population of retirees. Countries, where appropriate, should expand their pension systems to guarantee basic income security in old age for all, at the same time ensuring the sustainability and solvency of pension schemes. Health care systems must adapt to meet the needs of growing numbers of older persons. In countries where health systems are already well-equipped to diagnose and treat conditions associated with old age, public policies are needed to mitigate the upward pressure on national health care budgets exerted by the rising costs of health care services, and the longer lifespans and increasing numbers of older persons. In places where existing health systems are weak or ill-equipped to address the needs of an ageing population, countries should work to expand and evolve those systems in preparation for a growing burden of non-communicable diseases. As life expectancies increase, it is more important than ever to enact policies that promote lifelong health and emphasize preventive care—such as those that support good nutrition and physical activity, and discourage tobacco use and the harmful use of alcohol and drugs—to prevent or postpone the onset of age-related disability. In addition, countries should prepare for a growing need for long-term care, both home-based and facility-based, to ensure the well-being of those at advanced ages. Population ageing underscores the urgency of eliminating age-related discrimination, promoting and protecting the rights and dignity of older persons and facilitating their full participation in society. Ensuring that older persons who want to work have access to employment opportunities is a key policy priority. Policies are needed to eliminate age barriers in the formal labour market and promote the recruitment of and flexible employment opportunities for older workers, as well as facilitate access to microcredit and, where applicable, provide subsidies and other incentives for self-employment. In addition, countries should ensure that older persons are included in public policy and decision-making processes, including by utilising information and communications technologies to facilitate their engagement in public governance processes. Governments should act to improve older persons'

access to public services in both urban and rural settings. Governments should ensure that infrastructure and services are accessible to persons with limited mobility, or visual, hearing and other impairments, the prevalence of which tends to increase with age. The proliferation of technologies, such as mobile devices, offers a variety of new channels for reaching older persons, for example, by delivering messages related to health, security or environmental hazards via short message service (SMS). Governments should help to bridge the digital divide by addressing differences in educational background and information and communications technology (ICT) skills of older persons through technology training courses, programmes and learning hubs tailored to their needs. Recent population trends indicate that virtually every country should anticipate significant growth in the number of older persons over the coming decades, necessitating multisectoral policies to ensure that older persons are able to participate actively in the economic, social, cultural and political life of their societies. By understanding their specific population trends, governments can assess present needs and anticipate future needs with respect to their older population. In doing so, they can proactively implement the policies and programmes that ensure the well-being and full socio-economic integration of older persons while maintaining the fiscal solvency of pension and health care systems and promoting economic growth. Population ageing is particularly relevant for the goals on poverty eradication, ensuring healthy lives and well-being at all ages, promoting gender equality and full and productive employment and decent work for all, reducing inequalities between and within countries, and making cities and human settlements inclusive, safe, resilient and sustainable. There is urgent need to consider older persons in development planning, emphasizing that older persons should be able to participate in and benefit equitably from the fruits of development to advance their health and well-being, and that societies should provide enabling environments for them to do so. As populations become increasingly aged, it is more important than ever that governments design innovative policies and public services specifically targeted to older persons, including those addressing, inter alia, housing, employment, health care, infrastructure and social protection. In many rural settings, old age women are still being seen as the caretaker of the family – responsible for child minding, facing harsh challenges, especially with the effects of climate change and culture making it difficult to access clean drinking/cooking water; all these factors along with customary laws prevent the women population

from fully participating and contributing ideas to the betterment of their communities. Gender focused Community-based Development Plans will lead to better social security protection from all population of the communities.

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Skill Development in India : Future Prospects, Challenges and Ways Forward

Dr. Masroor Ahmad Beg

Principal, Zakir Husain Delhi College (Evening),
University of Delhi, Delhi

Abstract

Globalization, knowledge and competition have intensified the need for highly skilled workforce in both the developing and developed nations as it enables them to accelerate their growth rate towards higher trajectory. For India, skill development is critical from both socio-economic and demographic point of view. Therefore, the present paper attempts to study the present skill capacity, challenges in front of skill development initiatives in India along with their solutions. The skill capacity has been assessed in the form of general education and vocational training level of the Indian workforce in the age group of 15-59 and which was found to extremely low i.e. around 38% of the workforce are not even literate, 25% are having below primary or up-to primary level of education and remaining 36% has an education level of middle and higher level whereas only 10% of the workforce is vocationally trained (with 2% formal and 8% informal training). The study also found that both the Government and its partner agencies have undertaken various measures/initiatives for the effective implementation of the skill development system in the economy, but still faces a number of unresolved issues/challenges that need immediate attention of the policy makers. Hence, skill development initiatives of the government should focus on these obstacles and develop the programs accordingly to resolve these hurdles for the complete success of the skill development initiatives.

Key Words: Skills Capacity; Challenges; Ways Forward; India

Introduction

Globalization, knowledge and competition have intensified the need for highly skilled workforce in both the developing and developed nations as it enables them to accelerate the growth rate of their economy towards higher trajectory. Today all economies need skilled workforce so as to meet global standards of quality, to increase their foreign trade, to bring advanced technologies to their domestic industries and to boost their industrial and economic development. Thus, skills and knowledge becomes the major driving force of socio-economic growth and development for any country. As it has been observed that countries with highly skilled human capital tend to have higher GDP and per capita income levels and they adjust more effectively to the challenges and opportunities of the world of work. For India, skill development is also critical from both socio-economic and demographic point of view. For the economy to grow at 8% to 9%, with the targeted growth rate of 10% for secondary, 11% for tertiary and 4% for agriculture sectors, a multi-faceted and highly efficient skill development system is imperative. Further, India is destined to be a contributor to the global workforce pool on account of demographic bonus, with the growth rate of higher working age population as compared to its total population and home to the second largest population (with a headcount of around 1.4 billion by 2025) in the world with distinct advantage of having the youngest population with an average age of 29 years as against the average age of 37 years in China and the US and 45 years in Western Europe (FICCI, 2014). The increasing globalization and digital presence provide India a unique position to increase its share further in global market from current share of around 37% in the global outsourcing market. Hence such a scenario necessitates skill development for the workforce. But before going in for any sort of skill development program, it is important to determine the current skill capacity, the major obstacles in the way of the skill development programs along with their possible solutions.

Thus, the broad objectives of the present paper are to study the present skill capacity, the various challenges in the development of effective skill system along with their ways forward for the success of skill development initiatives in Indian context. In order to this, the study is divided into the following sections: Section-II discuss the data and methodological issues; Section-III depicts the findings pertaining to present skill capacity, challenges and ways forward for the success of effective skill development programs in India and Section-IV conclude the study.

Objectives of the Study

1. To study the present skill capacity of India.
2. To study the challenges faced by skill development system in India.
3. To suggest possible solutions or ways forward.

Data and Methodology

The proposed study mainly is descriptive in nature. It solemnly based on secondary data and information which is collected from the concerned sources as per need of the research. The relevant books, documents of various ministries/departments and organizations, articles, papers and web-sites are used in this study.

Findings / Results

India's transition to one of the largest and fastest growing global economies during the last decade has been a remarkable phenomenon. In order to sustain its growth trajectory, an efficient and continuous system of skill development for its workforce is critically imperative for India. Therefore, this section is devoted to portray the current skill capacity of India; the major challenges in the successful implementation of skill development initiatives along with their way outs or suggestions. Present Scenario of Skill Capacity of India In order to capitalize the demographic dividend, India will need to empower its workers with the right type of skills. Thus this section depicts the present skill levels of the Indian workforce in the age group of 15-59 years in the form of their general educational levels and vocational training levels:

- The drop-out rates of educational institution was estimated to be 50% in the age group of 5-14 years and 86% after 15 years of age and in contrast to this the participation rate of the workforce rises rapidly after 14 years of age and it results in a semi-literate workforce which finds it difficult to absorb higher form of skills.
- 38% of Indian workforce is illiterate, 25% has education below primary or up to primary level and remaining 36% has an education level of middle and higher level.
- 80% of Indian workforce does not possess any marketable skills.
- Only about 2% have received formal vocational training and 8% non-formal vocational training, thereby implying that very few new entrants to the work force have any marketable skills as compared to developed economies such as Korea (96%), Germany (75%), Japan (80%) and United Kingdom (68%).

In-nutshell, it can be said that despite making considerable progress in terms of literacy, high incidence of illiteracy cripples the Indian workforce even today. The above facts are a stark reminder that India's demographic dividend can rapidly convert into a demographic nightmare if skills are not provided to both new and existing workforce. Thus, there is a need for increasing capacity and capability of skill development programs. In this direction, both the Government and its partner agencies have undertaken various measures/ initiatives for the effective implementation of the skill development system in the economy. But still India faces a number of unresolved issues and challenges that need immediate attention of the policy makers. Hence, the next section deals with some of these bottlenecks along with their way outs.

Challenges before Skill Development Initiatives in India & Ways Forward:

Despite various concentrated efforts, there is still a long way to bring the skill development mission to completion due to the presence of certain serious key challenges in the path of the mission. Some of these hindrances along with their possible solutions are outlined below: Demand & Supply Mismatch:

The demand made by the industries and supply of labour-force mismatch leads to aggravate all types of skill development initiatives of the Government and its partner agencies as:

- The number of people formally trained in a year is only 1,100,000 by Ministry of Labour and Employment and approximately 3,200,000 trained by 17 other central government ministries.
- According to the Manpower Group (USA), in Germany, USA, France, and Japan, the percentage of employers who find it difficult to fill jobs is 40%, 57%, 20% and 80% respectively as compared to Indian employers (67%).

Way Forward: 1

Thus an ideal scenario is one in which supply of labour can be transformed into skilled workforce which is easily absorbed by the industrial-sectors. However, in India a small portion of labour force is actually undergoing for formal training. It has been observed that there are more people than the available jobs at the low skills level, while there are more jobs at the high skills level than those available for such jobs. This demand and supply mismatch indicates that there is a serious mismatch between the education and skills that the youth attain and what the labor market

demands. Therefore, in order to create a people-centric approach for skill development, it is required that the skill development initiatives needs to be coordinated with demand and supply scenarios across geographies, industries and labour markets so that new skills required by industry or changes in supply of labour are speedily adjusted with adequate and efficient training programs.

Geographical Problem:

It is another serious problem plaguing the labor market and has a more serious impact in larger economies like India as the geographical set-up or outreach of the people for skills in India are uneven and in dismal share:

- The states with much higher economic growth rates have more new jobs with lower rate of labour-force while on the other hand; the states with slower economic growth rates have higher population growth rates with fewer new jobs. Thus laggard states need to rely on migrant workers so as to cope with this challenge.
- Majority of formal institutions are located in urban areas as compared to rural areas and even private sector institutions are also reluctant to operate in rural areas. Hence, large proportions of rural population do not have any formal vocational training institutions.
- Districts notified as backward have serious paucity of formal skill training as majority of skill development institutions in these locations emphasized only on basic livelihood skills and that is generally provided by NGOs or provided by other agencies as a part of social development programs. Therefore, these types of skills are often not formally assessed and as a result are not recognized for employment by industrial sectors.
- There is lack of block level mapping of employment demand, local economy activities, youth population profile, social demographic profile etc. This leads to sub-optimal planning of skill development initiatives resulting in a gap between skill development and local employment demand.

Way Forward: 2

In order to combat the problem of large geographical and socio-economic conditions of the economy, the Government along with its partner agencies should set-up more standardized skillbased institutions or skill development centers across the country,

particularly in laggard/backward states with a view to provide equal access to all segments and sections of the society, so that the whole society gets the benefits of the skill initiatives and strategies.

Low Educational Attainment:

Though the country has made progress on educational attainment as reflected below:

- There are about 1.5 million schools in India with a total enrolment of 250 million students (from pre-primary to high/senior secondary levels) i.e. schools constitute the maximum number of enrolments.
- Higher education sector comprises around 20.7 million. The total number of students enrolling for open universities and other diploma courses constitute 24.3% of the total students.
- Vocational training in India is primarily imparted through the government and private industrial training institutes (ITIs). There are total 9,447 (in 2012), with a total seating capacity of 1.3 million. The total number of ITIs has increased at a CAGR (2007–2012) of 11.5%, while the total number of seats has increased at a CAGR (2007–2012) of 12.2%.
- Current annual training capacity of India is 4.3 million, which is 20% less than the industrial requirement of 22 million skilled workers a year.

But the reality is that some regions are still lags behind as compared to other regions in terms of accessibility of education and skills in India are:

- Higher drop-out rates of educational institutions mostly after the age of 15 years and above and especially in female students.
- Accessibility for the disadvantaged and rural section of the society is difficult due to high costs and other social impediments like transportation problems especially for a girl student travelling away from home.
- Poor quality of education which result in lack of literacy and numeracy skills on the part of students. These students find it extremely difficult to absorb even basic skills.
- Many skills taught in curriculum are obsolete and their end result is that workers are unable to find jobs according to their aspirations.
- Increase in educational institutions further lead to multiplicity of curriculums for the

same skill resulting in uneven competency levels.

- There is lack of platforms where industrial and governmental agencies can meet regularly for systematic up-gradation of curriculum for new skills. Ultimately it results in lack of coordination between the job aspirants and employers.
- Inflexibility in curriculum framework of vocational training and education made it difficult for the individual to imbibe the proper skills as who enters the vocational training will find it extremely difficult to enter general education field due to lack of equality between the two
- Hence, a low proportion of the workforce has higher education or any form of skills training. In spite of massive effort to expand the capacity of providing high-quality formal education or skills training, the workforce is still unable to gain any kind of benefit from the high economic growth.

Way Forward: 3

The need of the hour is to provide quality educational curriculum at all levels with targeting skills development programs. Hence, the instructional material or syllabus must be prepared jointly by the industry and the educational planners. It should be regularly updated and must include more of practical learning than theoretical. So that students should imbibe the necessary job skills as demanded by the industrial sectors.

Vocational Training:

India is progressively moving towards knowledge economy, where skills are widely recognized as the important lever of economic growth, but the perception about vocational education is still doubtful i.e. it is generally meant for those who fail to get admission in the formal system. Thus, it still need time to be considered as a viable alternative to formal education

- As it was observed in India, around 90% of the jobs are skill-based i.e. they require some sort of vocational training whereas in reality only 2% of the population (in 15-25 years age group) enrolled for vocational training in India as compared to 80% in Europe and 60% in East Asian countries.
- The current capacity of vocational training is 31 lakh against an estimated annual capacity of 128 lakh workers whereas the overall

national target of skilling is 50 corer of workers by 2022 i.e. India needs to impart vocational training to at least 300–350 million people by 2022 which is significantly lower than the government target of 500 million.

- Moreover, the private sector provide skill training as required by service sector mainly to educated youth (especially 12th pass) and largely in urban regions. Ultimately, hundreds of workers in unorganized sector do not get any kind of skill training which results in low productivity levels and employability gaps among majority of workforce.
- Due to lack of awareness about industrial requirements and the availability of matching vocational courses, most of the prospective students in the country do not go for vocational education.
- Despite of various efforts on the part of Government and its partner agencies, the credibility of vocational courses in India is still questionable. Moreover, the low reputation linked with vocational courses (or blue collar jobs) and also low compensation levels among people with such skills, prevents the students from taking vocational education as they are not aware on how vocational courses can improve their career prospects.

Way Forward: 4

Hence, a scalable, efficient and comprehensive vocational training system with proper awareness generation programs is the need of the hour. As these programs help in spreading information about existing skill development courses and market requirements which lead to increase the student enrolment as well as enhance the credibility of vocational institutes. As education and vocational training are the important contributors to overall skill capital pool of an economy. Education provides a base in the form of ability in literacy, numeracy and cognitive abilities and vocational training equips an individual with specific skills. Vocational training is practical/manual in nature in contrast to education which is purely theoretical in nature. Thus linkages of both serve simultaneously the hand and the mind, the practical and the abstract aspects.

Skill Development for Women

In India, women also form an integral and substantial part of the workforce; but the working percentage of women in total labor force is declining.

- The share of women workforce (between 25-54 years of age) is about 30% in 2010 as against 39% in 2000, which is quite below as compared to 82% in China and 72% in Brazil. All it depict the under-representation of women in the workforce and results in the wastage of the demographic dividend to India.
- Moreover, women in India are mainly concentrated in the informal sector and are engaged in low paid jobs with no security benefits. This represents lack of employment opportunities and skills for women workforce.
- Currently, a majority of the female workforce in India is unskilled, i.e. a very low percentage of women have any kind of formal education. In India, around 65% of women in rural areas and over 30% of women in urban areas lacked basic primary school education.

Way Forward: 5

In order to unlock the full potential of women workforce in India, the need of the hour is to bring about an employment revolution along with a skill development revolution. The planners should focus on women specific policies for their effective participation in the employment market. As it would help India to meet its skilling target and reap benefits of having the largest workforce by 2025.

Private Sector Participation

The current situation in respect to the participation of the private sector is as follows:

- The private sector is not involved adequately in curriculum development and policy formulation related to educational and vocational training.
- Mostly private sector institutes are located in urban areas therefore rural population remains lags behind. Furthermore, due to high cost of these institutes the weaker or disadvantaged section also unable to get proper skill training?

Way Forward: 6

Hence, a strong policy measures and operational linkages are needed to bring together the public and private sector to improve the quality and relevance of training.

Placement-Linked Challenge

A major problem of India's existing skill (or education) development system is lack of linkages between

education and placement of that trained workforce.

- In India, the vocational training is offered nearly in 120 courses and mostly of long duration (i.e. of 1 to 2 years duration). Whereas in China, there exist approximately 4,000 short duration modular courses, which provide skills more closely aligned to employment requirements.
- In India, as compared to large firms, the micro, small and medium enterprises (MSME) find it difficult to invest in skill development institutions and this result in deployment of semiskilled workforce in many MSME firms.
- Majority of ITI/ITC do not offer job placement services i.e. they struggle for appropriate employment except in areas with high economic activity. Lack of correlation between demands of local economy and provisioning of skills by local institutions create an employment gap and lead to job related migration. It also gives rise to social tensions due to the skilled unemployed phenomenon.
- Majority of the current government schemes of India like Swarnjayanti Gram Swarozgar Yojana (SGSY), Roshini and Himayat aimed at providing employment to around 75% people at above minimum wages; while in reality significant number of trainees are still not able to get jobs or some dropped due to inadequate wages or poor working conditions etc. For instance, in case of Himayat scheme which was launched as a training-cum-placement program for the unemployed youth of J & K in 2011, with a view to train 100,000 youth in 5 years and to provide jobs to at least 75% of them results in the following: Only 1,904 youths applied for various courses in the first year of the scheme. Only 37% participants have been placed within two years of the scheme.

Way Forward: 7

In this era of knowledge highly skilled workers who are flexible and analytical in nature are recognized as the driving force for innovation and growth. To achieve this India needs a flexible education system with multi-faceted and highly efficient skill development system. This system must provide linkages between each of its constituents and provide a seamless integration between skill development and employment.

Multiplicity of Institutional Framework:

Over the past few decades, India has witnessed significant progress in the skill development landscape as various types of organizations have been set up both at national and at state level.

- Around 17 ministries, 2 national-level agencies, several sector skill councils, 35 state skill development missions and several trade and industry bodies comes forward with a view to push the national skill development agenda.
- Given this mind-bogglingly complex institutional setup with overlapping and conflicting priorities and little co-ordination and standardization ultimately resulted in fragmented outcomes with limited impact.

Way Forward: 8

The diversity and lack of coordination among government, non-government and private providers lead to create obstacles in the effective integration of the system and focusing on national development objectives. Hence, it is necessary to introduced integrated reforms in the form of establishing some nodal authority or bodies ranging from advisory to executive in nature with a view to coordinate and governs various skills development and policy making initiatives.

Informal & Formal Sector Skill-Gap

As the Government of India has set a target to impart the necessary skills to 500 million people by 2022 in the Twelfth Five Year Plan, whereas in reality the country is facing a significant skilled manpower challenge over the next decade.

- In India, around 12 million people are expected to join the workforce every year whereas the current total training capacity of the country is around 4.3 million, thereby depriving around 64% entrants of the opportunity of formal skill development every year.
- Furthermore, out of approximately 0.4 million engineering students graduating every year in India, only 20% are readily employable.
- Around 93% of the Indian workforce is employed in the unorganized or informal sector, which lacks any kind of formal skill development training.
- Barely 2.5% of the unorganized workforce reportedly undergoes formal skill

development in comparison to 11% of organized sector.

- In addition, only around 12.5% and 10.4% of the workforce in the unorganized and organized sectors, respectively, undergoes informal skill development. This indicates that around 85% of the work force in the unorganized sector does not imbibe any form of skill development — formal or informal.

Way Forward: 9

The dire need of the hour is to focus more on the labour force of the unorganized sector. Though the better and superior skills are essential requirements of the competitive market but practically the unorganized sector do not have the affordability to hire expensive labour of high quality. Thus this conflicting objective can be resolved with an integrated approach that gradually enhances labour quality while maintaining a purposeful balance with the demand and affordability of labour markets. Advancement in the skills over time in association with industrial support leads towards progressive improvement in the overall economic scenario. On one hand availability of workforce with higher skill levels would increase competitiveness of unorganized sector and on the other hand it would benefit the organized sector too as some of the workforce with higher competency may get absorbed there despite having low education levels.

Infrastructure Challenge

One of the important requirements for the proper implementation of the skill and training development programs is the availability of the basic infrastructure for the same. It has been noticed that many skill development institutions suffer from lack of proper infrastructure.

- Apart from a detailed evaluation while sanctioning approval for establishing a new institute, the assessment of the fitness evaluation of the institutes is not conducted regularly.
- The situation is more severe in case of institutions located in semi-urban and rural areas. These institutes need rapid expansion and up-gradation in order to provide efficient training capabilities to prospective aspirants.
- Hard infrastructure including equipments, machines and tools etc. are not available in majority of the institutions. As a result, workers get trained on outdated machines and find themselves deficient in skills when employed. Further, the lack of industry

linkages which would otherwise provide some help in addressing several infrastructure-related challenges including trainers, machines etc. also woefully inadequate.

Way Forward: 10

Hence, the policy-makers must focus on providing the required infrastructure and equipment/s namely computers, software's, tools, machines etc. and qualified instructors so that they provide high-quality skills as required by industrial sectors and relevant practical exposure to the students. Secondly, appraisal of institutes against standard norms and guidelines need to be conducted regularly and ratings should be based on outcomes assigned to every institution.

Training of Trainers

Training of trainer is one of the important key of the skill development framework. And absence or inefficiency of the same would result in serious bottleneck in the implementation of skill development projects.

- In India, the gross requirement of trainers is approximately 79,000. Furthermore, the annual incremental requirement of trainers is approximately 20,000, whereas at present the current annual capacity of the trainers is only 2,000.
- It is estimated that various publicly funded organizations produce 3.5 million trained personnel per annum against the 12.8 million new entrants into the workforce each year.
- However, to address this issue, NCVT approved a proposal to upgrade Model Industrial Training Institutes (MITIs) for conducting instructors training and in addition to this the council also allow various types of organizations (like private/public limited companies registered under the Companies Act, societies and trusts registered as per the Act) to set up ITIs/ITCs, as well as undertake instructors training programs.

Way Forward: 11

Therefore, the Government and its participating agencies should focus on the provision of more effective training centers of the trainers, otherwise this mismatch between demand and supply of trainers could impede the success rate of the whole skill and training framework. Further, the educators/trainers must be chosen on the basis of academic qualification.

Their level of competence should be measured in terms of their theoretical knowledge, technical and

pedagogical skills as well as being abreast with new technologies in the workplace. Lack of Labor market information system (LMIS):

The absence of proper Labour Management Information System (LMIS) impedes the very objective of the skill initiative in India as it results in poor linkage between skill development and employment.

- At present, there is no proper system available in the job market where the industrial, job seekers and government come forward and share the relevant information among them and derive collective benefit from it. As a result, on one hand the Government lacks reliable data that would otherwise help it in making effective policy decisions and on the other hand, the inadequacy of such a system disappoints both employers and employees as it result in job mismatch and inferior quality output.
- However, in order to deal with this problem the NSDC, through its SSCs, has initiated the process of developing sector-specific labor market information systems (LMISs), which will pave the way for a shared platform that would provide quantitative and qualitative information to all the stakeholders, but the major challenge in this regard is that each such SSC-specific LMIS will work in isolation and will not be integrated with the master LMIS and end result is the wastage of efforts and resources.

Way Forward: 12

Hence, a well-integrated or consistent LMIS is required which will ensure timely provision of all types of relevant information to all the stakeholders which ultimately help in systemic planning for skill development initiatives which incorporates local employment demand and skill requirements. Thus, it is imperative for the success of skill development system that market institutions work efficiently and well connected with educational and vocational training institutions. As the main objective of education and vocational training is employment. Therefore educational and vocational system has to be linked to the job market in such a way that it must be competent to provide relevant information about the growing employment opportunities, types of skills required by different jobs, and where and how the skills can be acquired. And this will ultimately lead to enhance the socioeconomic relevance of education and vocational training along with strengthening the performance of the market institutions in the economy.

Conclusion

To make India internationally competitive and to boost its economic growth further, a skilled workforce is essential. As more and more India moves towards the Knowledge economy, it becomes increasingly important for it to focus on advancement of the skills and these skills have to be relevant to the emerging economic environment. For transforming its demographic dividend, an efficient skill development system is the need of the hour. Therefore to achieve its ambitious skilling target, it is imperative to have holistic solutions of the challenges instead of piecemeal interventions.

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Job Satisfaction Among the Employees of TCS : An Empirical Study

Dr. Suneel Kumar

Assistant professor, Department of Commerce,
Shaheed Bhagat Singh College, University of Delhi, Sheikh Sarai Phase II, New Delhi

Abstract

The present paper deals with the assessment of employee's level of satisfaction, the perception of employees towards the organization and to examine the role of management in the restoration of a healthy environment of job satisfaction. The pro-social behaviour, employee morale, absenteeism and turnover can be influenced by the job satisfaction, this can be vital for success of an organization. The organization and employee are however interdependent and both impact the ability of each other to achieve positive results. The Tata Consultancy Services Limited (a public limited company) is a share of the Tata Group and is headquartered in Mumbai, enlisted with the Bombay Stock Exchange (BSE) and National Stock Exchange (NSE). The organization has approx. 276,196 representatives of whom 220,835 are situated in India and 44,748 in the remainder of the world. It is one of the biggest private-organization in India, and the second-biggest firm among recorded Indian organizations after Coal India Limited. The data for the present study is collected with the help of questionnaires by a sample of 50 employees working in TCS covering different aspects of job satisfaction and testify with support of simple percentage method, charts and Chi - Square method.

Key Words: Bombay Stock Exchange, National Stock Exchange, Tata Consultation Services,

Introduction and Literature Review

Industrial psychology and behavioural management have many crucial and controversial issues and Job satisfaction is among them. Job satisfaction directly affects the persuasive degree of representative and it decides and determines the organizational climate. Judge & Watanabe's suggested a positive relationship between job and life satisfaction. Employees are a key partner in the association and their responsibility towards association decides the accomplishment of association in the globalized world. The association and representatives, albeit free, impact the performance of each other. Different components are in charge of job satisfaction a representative. Motivational theories such as Vroom's Expectancy Model, Herzberg's Motivation-Hygiene Theory and Maslow's Need Hierarchy Theory, have been stretched out to portray the components in charge of the activity fulfilment of the workers in any association.. Job satisfaction is controlled by a progression of factors which are close to home to workers, for example, age, instructive capabilities, instructive and monetary foundation, size of the family, the sexual orientation of the representative, and authoritative factors, for example, the size of the association, hierarchical atmosphere, and so forth.

Locke (1976) recommends that few employment measurements, for example, work, pay, normality in advancements, working conditions, acknowledgment assume an essential job in deciding the activity demeanour. Kerego and Mthupha (1997) viewed that affliction in working conditions like the nonattendance of clear staffing arrangement, absence of clear channels of correspondence, nonappearance of staff cooperation in basic leadership and absence of security and great administration effectively affects work fulfilment. Coster (1992) likewise bolsters the way that the nature of work importantly affects the all-out personal satisfaction of the worker. Occupation fulfilment may likewise effect on worker conduct like non-attendance, protests and complaints, visit work agitation and end of business. "A satisfied worker is a productive worker" as said by Cornell. Lawrence and Porter have built up a model proposing that "productivity leads to job satisfaction". C.Rost and Alwin F.Aander clarifies that satisfied worker will stay in the same job for longer duration and can minimize the absenteeism and work turnover.

1.3 Data Base and Research Methods

For attaining the objectives of the study, both secondary and primary data has been utilized. The secondary information has been collected from various international and national publications. The study is largely based on primary data. The data is collected with the help of sample questionnaires interviewing 50 employees working in TCS covering different aspects of job satisfaction, working condition, their pay, over-time allowances, stress level, proud to be a part of this organization etc. are considered. To know the views of employees in a better way, personal interviews have been undertaken to discuss questions.

1.4 Analysis and Interpretation of Data

The collected data has helped tremendously to achieve the objectives of the study and aforesaid analysis and interpretations of job satisfaction among the employees of TCS. An effort has been made to analyze the results with the help of tables and figures in the succeeding paragraphs.

Table 1.4.1 Stay duration of employees in the organization

Years of Experience	Number of Respondents and their percentage
< 5 years	14 (28%)
5 – 10 years	12 (24%)
10 -15 years	15 (30%)
15 -20 years	5 (10%)
> 20 years	4 (8%)
Total	50

Source:-Primary Probe
 X^2 value = 10.6 $P < 0.05 = 9.488$

It depicts that 30% employees having an experience of 10-15 years in the organization while a major chunk i.e.28% have less than five years of experience (Table 1.4.1) and 24% having 5-10 years of experience. It is also seen that a very low proportion of the employees (10 %), having of a experience more than 20 years in the organization. The calculated chi-square value

shows that respondents’ opinion regarding their experience and stay in the organization is not equally distributed. There is a significant difference in the employees’ perception about their experience and stay so alternative hypothesis is accepted.

It is evident (table1.4.2) that most employees are contented and highly satisfied (74%) in working atmosphere the TCS, however very a low proportion of employees gives negative comments on this statement. The mean value also supports the respondents’ belief distributed towards greater side of the mean standard score. Chi-square analysis at 5% level of significance revealed calculated value as 27.4 compared to the table value. Hence, null’s hypothesis is rejected, suggesting the perception of employees is uniformly spread over the working conditions and their satisfaction level.

Table 1.4.2 Satisfaction level of employees with the working conditions

Responses	Number of Respondents and their percentage
Highly Satisfied	20 (40%)
Satisfied	17 (34%)
No Comments	0
Dissatisfied	6 (12%)
Highly Dissatisfied	7 (4%)
Total	50

Source: - Primary Probe
 t^2 Value=27.4 $P < 0.05 = 9.488$

The data signifies that 60% of respondents (table1.4.3) underwent technical training, 14 % with soft skill, 10% with on job training, and 14% underwent other types of training. The mean value also supports that, the technical type of training is necessary to all the newly appointed employees because the estimation of respondents is distributed on te higher side of the mean standard score. The difference in opinion of the employees regarding the training-type needed is also observed. Hence an alternative hypothesis at 5% level of significance is accepted.

Table 1.4.3 Training and induction program at the time of joining of the organization

Training and Induction Programme	Number of Respondents and their percentage
Technical	30 (60%)
Soft Skill	7 (14%)
On job	5 (10%)
Any other	7 (14%)
No Comments	1 (2%)
Total	50

Source: - Primary Probe
 t^2 Value=52.4 $P<0.05$ =9.488

The satisfaction level of the employees with their current job is considered in table 1.4.4 and it reveals that majority respondents i.e. 40 % are satisfied, 24% are highly satisfied, but 32% are dissatisfied and 4 % are highly dissatisfied with their current job. The mean value for respondent type represents, opinion of the respondents is distributed towards the higher side of the mean standard score. The chi-square value presented a significant difference in view of employee concerning satisfaction level with their current job at 5 % level of significance.

Table 1.4.4 Satisfaction level of employees with their current job

Responses	Number of Respondents and their percentage
Highly Satisfied	12 (24%)
Satisfied	20 (40%)
No Comments	0
Dissatisfied	16 (32%)
Highly Dissatisfied	2 (4%)
Total	50

Source: - Primary Probe
 t^2 Value=30.4 $P<0.05$ =9.488

It is apparent (Table 1.4.5) that 36 % of respondents admitted their job challenging, 20% find a high degree of challenges in their job. However, 26 % find their job is not challenging and 3 % did not reveal their opinion over this issue. The mean value of the opinion of respondents is distributed near the mean standard score's higher side. The chi-square value also signifies that there is a significant difference in opinion of the employees regarding the level of challenge they feel in their job hence at 5%level of significance and alternate hypothesis is accepted.

Table 1.4.5 Responses towards the nature of the job

Responses	Number of Respondents and their percentage
Highly Challenging	10(20%)
Challenging	18(36%)
No Comments	3 (6%)
Not Challenging	6 (12%)
Average	13 (26%)
Total	50

Source: - Primary Probe
 t^2 Value=13.8 $P<0.05$ =9.488

It is apparent from the Ttable 1.4.6, most of respondents i.e. 66% are dissatisfied with the present motivational and promotional policies of TCS. However limited proportions (26 %) of respondents are happy with the promotional policies of the organization. The mean value of respondent's opinion is distributed towards the mean standard score lower side. The chi-square depicted a significant difference in employees' opinion regarding satisfaction level with the promotion policies in the organization which means that the employees are not satisfied with the present promotional policies of the organization.

Table 1.4.6 Satisfaction level with promotional policies

Responses	Number of Respondents and their percentage
Highly Satisfied	2 (4%)
Satisfied	11 (22%)
No Comments	4 (8%)
Dissatisfied	20 (40%)
Highly Dissatisfied	13 (26%)
Total	50

Source: - Primary Probe
 t^2 Value=21 $P<0.05 =9.488$

The table 1.4.7 shows that 74% of employees are satisfied with the motivational theories of TCS. However, with the motivation policies of organization, few employees are not satisfied. It is also braced from mean value of the respondent's opinion which is distributed towards the higher side of the mean standard score. The chi-square reveals a significant difference in the employees' opinion regarding the motivation received in the organization. Hence, at 5% level of significance, the alternate hypothesis is accepted.

Table 1.4.7 Responses towards the level of motivation in organization

Responses	Number of Respondents and their percentage
Highly Satisfied	20 (40%)
Satisfied	17 (34%)
No Comments	0
Dissatisfied	6 (12%)
Highly Dissatisfied	7 (14%)
Total	50

Source: - Primary Probe
 t^2 Value=19.4 $P<0.05 =9.488$

It is observed from Table 1.4.8 that, comparatively low proportion i.e. (38%) of respondents are satisfied with the training program conducted by the organization standard score lower side which means that the employees are dissatisfied with the training conducted in the organization. The chi-square value states employees' opinion is uniformly distributed hence there is insignificant difference in the opinion of employees so the null hypothesis at 5% level of significance is accepted.

Table 1.4.8 Satisfaction level with the training and induction program

Responses	Number of Respondents and their Percentage
Highly Satisfied	11 (22%)
Satisfied	8 (16%)
No Comments	6 (12%)
Dissatisfied	15 (30%)
Highly Dissatisfied	10 (20%)
Total	50

Source: - Primary Probe
 t^2 Value=4.6 $P<0.05 =9.488$

1.5 Conclusion of the Study

The job satisfaction in any organization is an important aspect of organizational efficiency and ultimately relates to the organizational success which affects employee's morale, turnover, absenteeism, productivity, organizational cohesiveness and pro-social behaviour. About 75% of employees of TCS are quite satisfied and rate TCS with a healthy working atmosphere Representatives are happy with the present working conditions and have a sense of security about their job. The working conditions include the work culture, office infrastructure, canteen facilities, cleanliness, comfortable furniture etc. It is also determined that most employees are dissatisfied with the training provided to them which certainly help employees to improve in the areas where they feel uncomfortable and thereby paves a way to grow professionally. More than 50% of respondents feel that their job is enough challenging which helps them to

develop and grow in their career. A challenging job always keeps the interest of an employee and does not let them get bored. Therefore they don't feel frustrated and keeps growing in their career. About 56% of employees are not happy with the promotional policies in TCS. They feel that it takes a lot of years to get promoted to the next level. TCS should, therefore, develop more means to identify the employees who deserve to get promoted to the next level. Only if the promotion policies of the organization are good, the employees feel that their talent is recognized and they are motivated to work more which indeed help in the growth of the company. Approximately 74% of the employees are satisfied with the motivation they receive from their supervisors which helps them to work more diligently and effectively. With good motivation, the employees feel more confident and work hard to achieve their goals. However a small segment of the employees is not satisfied with the motivation policies of organization. Hence we may find with the help of this study that by improvising in some sectors especially training and promotional structure may lead to enhance not only the job satisfaction but also reflects its positive impact on the productivity of the company in multiple times.

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Case Study

A Case Study of Macro Economical Factors Contribution and Their Inter Linkages in Indian Economy Development

Dr. P.S. Vohra & Mr. B.S. Biradar

M.M. University Mullana, Ambala, Haryana

Abstract

The Indian economy's stature has changed from developing country to fastest developing country in the last two decades. One foundation and a key impetus for this were received in the form of the financial reforms of early 1990s. The chief strand in these overarching reforms was a reasonably novel direction to the economy known as Liberalization. It introduced privatization & globalization in Indian economy. In the ensuing years various macroeconomic measures came into picture and boosted economic expansion and development.

This case covers the role and scope of various Indian macroeconomic variables in these economic expansion and development as well as to undertake a treatment of their mutual and dynamic association in the long run, especially in the Indian context.

This study brings to fore certain important findings, and the understanding of behavior of select variables should also stand us in good stead as regards devising new policies for the future especially with the aim of attaining inclusive and sustainable growth

Key Words –*Financial reform; Macroeconomic variables; Privatization; Globalization; Liberalization; Economy.*

Introduction

Brief History – *One leading financial research company was closely following the development trends of Indian economy since financial reforms to estimate global rank for India. The company established the unequivocal contributions of the 90s reforms to development in Indian economy but also anticipated & advocated another wave of reforms for speedier economic progress in the ensuing times. For instance, the last decade recorded a mixed trend of steady and fluctuating growth for Indian economy; thus, while at times the economy witnessed growth and so optimism was exuded, while at other times the trend witnessed was negative and as a result the feeling was not sanguine but one of apprehension and doubt. It was not an easy task for the Company to take a definitive stance on the matter, because of difficulty in identifying a principled and steady pattern in economic trends. For instance, although scrupulous and competing banking protected the nation's economy against global recession, in the last few years the sector itself has not witnessed continuation of the same, even after the severity of the recession showed abatement. Given the cloudy nature of the scheme of things, the company sought to undertake impact assessment of financial liberalizations at various levels.*

Main issues – *After arrival of new government in 2014, investor sentiments witnessed a progressive shift which holds potential for a sound growth rate in the years to come. Capital market growth touched new highs, but market volatility still persisted and posed a thorny challenge to continual growth. While on one hand such factors as high consumption played their part in sustaining the Indian economy, struggle for domestic capital investment remained a perennial issue. Thanks to a hazy, nebulous and a constant flux in the giant boiling pot of Indian economy, it was an exceedingly tricky task for the company to reach a principled, definitive and lasting conclusion. It was thus suggestive as well as instructional to dig deeper and explore into dynamic relationships between various macroeconomic factors in order for the company to arrive at some reasonable and conclusive set of ideas about progress in Indian economy.*

Main Body:**Indian Economy – Before and After Reforms of the 1990s**

If we cast a detailed glance on the annals of Indian economy in the second of 29th century, we see that it unfolded with two massive economic waves – one that started in 1950 and continued for over four decades, and another that took off the ground in the early 1990s. In the second phase, India recorded fastest growth rates that lasted for more than a decade. At the risk of assigning lofty valuations to this growth but nevertheless not exaggerating in the slightest, it would be reasonable to remark here that the kind of growth Indian witnessed created some positive ripples in global markets worldwide and led India to be recognized as a large and fertile market for global investors across the globe.

Numerous parameters of growth saw upsurge in this phase including per capita income, life style and industrial development, rapid expansion of service sector, capital market and intellectual human capital.

If we collate the overarching pictures of the first and second wave one aspect that clearly stands out is that the factors that contributed to giving immense boost to the economy post 1990s reforms were missing from the era before that. This indicates that only a limited number of variables pushed the economy till the 1990s. Whereas coming onto the scene of other discrete and forward-looking factors (exemplified above by economic liberalization) changed the ballgame and took Indian economy into a new era of progress. This allows us to ask a rather difficult question: Why the Indian economy is stagnant in the past one decade (or, to put it moderately – has not seen the kind of growth it should have) despite the presence of all the factors that led to unprecedented progress in post 1990s reforms. We delve into this aspect in the present study.

Observing the economy in the present scenario, it is argued that the missing factors are sustainability, inclusive growth and financial inclusion; and these gaps can be filled with the second stage of reforms. What will the second stage of reforms propose is a question of further research? Particularly, the involvement of all compositions calls for critical valuations and a policy design is required accordingly.

Undoubtedly, the Indian economy requires eradicating the sluggishness again to accelerate with

a high pace, but there is no single parameter or component which forms the essence base and can lead to substantial contribution.

Role of Various Macroeconomic Factors in Indian Development –

In the broader sense it is evidently clear that macroeconomic variables have made unparalleled contribution in transformational growth of Indian economy in last two decades. But still, it is unclear how the different permutations and combinations of their summed up effects yielded positive and negative growth patterns. Thus, the project of extracting a meaningful explanation about their role in Indian economy posed a good opportunity to the author.

The author used his statistical experience gained as a professional economist to realize that the best way to measure the risk of any instrument is to work out the standard deviation or variance of its returns over a defined period.

The author used the data on annual returns of select twelve variables to work out these measures.

Exhibit 1 presents the mean return and standard deviation of all selected variables between years 1990-91 to 2011-12.

Paramjeet also thought that a graphical description (shows at Exhibit 2) of data may help him to gain insights about the contribution of various variables into economies expansion. It is revealed that the every single factor has made *ceteris paribus* steady contribution to growth seen in the last twenty one years. Although it is tricky to figure out a definitive and principled relationship between the factors across different situations, what we *can* be sure of is their unquestionable role in the nation's economic expansion. Furthermore, a detailed analysis is called for if we are to draw patterns in contributions of these factors for their long term performance and across different situations.

Followings are the outcome of last 21 years (shows in Exhibit 3) –

- I. GDP – the major index of growth – recorded steady increase (shown in exhibit 1) with highest growth rate of 18% recorded in 2010–11, when it was below 10% from 2000 through 2003. Export volume has demonstrated a mixed trend: Twice it recorded a growth as high as 35% first in

1991-92 and 2010-11. This is especially significant because of the difference in volume in these two time periods. The lowlight of downward trend was hit in 2008-09 when it recorded a meager 1% growth for which the reason could be placed squarely on the ripples of global recession. Further in duration of 2 decades total volume was increased by 4403%.

- II. Volume of import has recorded positive figures every year except year 2009-10 with a negative rate of 1% compare to previous year. This was again due chiefly to global recession.

The highest rate of 39% was recorded in 2011-12. Increase rate of 5330% in volume was recorded in total study period.

- III. Data on inflation brings to fore a varying trend: inflation was at its peak in 1990-91 with the figure standing at 13.68%, and in 2000-01 it stood at 3.68%. Also, the maximum positive difference with 66.2% was recorded in the year 1997-98 compare to previous year, while in consequent year 1998-99 it was recorded with highest negative changes. Moreover, inflation rate ranged from 3 to 5% between 1998-99 and 2004-05.

- IV. Government expenditure figure put the increased volume of 11.27% between the years 1990-91 to 2011-12. This is certainly a stout indicator of economic expansion.

However, the highest growth rate of 25% was recorded in the year 2008-09 compared to preceding year.

- V. Volume of FDI has evidenced extraordinary trend. Overall it was increased tremendously by 33957%. In addition the highest increase of 236% received in 1991-92 as volume was very less in 1990-91. Whereas in the year 2009-10 volume was 40.8% less received, which was also the highest negative growth compare to previous year in the study period.

Whereas in the year 2009-10 volume was 40.8% less received, which was also the

highest negative growth compared to previous year in the study period.

- VI. Sensex, the prominent index of Indian capital market BSE, has also put up a remarkable growth in last year 21 years. Previously it was below 2000 points, and then scaled up by 10 times of growth by reaching 20000 in the year 2009-10.

Here fluctuation was related to various factors as sensex is composite of top 30 stock performances only. But till 2004-05 it recorded a constant growth trend and in next two years Sensex showed the excessive speedy growth with consistent 50% yearly changes. Following year faced the hit of global recession which had lessened it by 52% and took to 9647 point. Following year was hit by global recession and the figure came down by 52% and settled at 9647 points. Highest growth of 81% was recorded in the year 2008-09 based mainly on stock recovery and overall economy being in healthy shape.

- VII. It should be noted that the major foreign institutional investors and stakeholders of Indian capital market also made sound contributions to the nation's economic expansion, although their negative aspect was their selling of investment either to equity or to debt. Highest volume was received in the year 2010-11.

Closing Section

Inter-Linkages Between Macroeconomic Variables-

Is it contentious to advocate interrelationship within the macroeconomic variables? And is the summed up contribution of such variables to economy tantamount to implicitly alluding to an inherent functional relationship between them? In light of these crucial questions, it is imperative to understand whether or not functional relationship exists within these variables—and if so, how we might develop a framework for the same, so that their overall contribution to economy can be rendered intelligible and reasonably predictive. Thus, here, it would be interesting to propose a twofold framework of macroeconomic variables and their relationship with economy as follows: I] At the fine-grained level the

framework addresses the issue of inherent and intrinsic interrelationship among within the variables;

- II) The next gross level could deal with the issue of two ways the variables could be understood as contributing to the economy: IIa) A macroeconomic variable's contribution in and of itself; and IIb) A macroeconomic variables contribution conjointly with other variables.

It would be interesting to see how I] affects IIb)

A principled account that caters to all these aspects of macroeconomic variables and economy is strongly in order if our goal is no less than to construct a robust economic model.

Some aspects of these undertaken here has allowed the author to derive conclusions as regards economic expansions of the last two decades.

For this purpose Paramjeet thought to use econometric model Granger causality for this. Before applying he checked stationarity of all time series data through the Augmented Dickey-Fuller test and after conformity of stationarity of time series data, he checked pair wise analysis through Granger model between the variables.

The Granger approach allows us to address the question of whether x causes y allows to examine how much of the current y can be explained by past values of y, and then to see whether adding lagged values of x improve the explanation.

Here y is said to be Granger-caused by x if x helps in the prediction of y, or equivalently if the coefficients on the lagged x's are statistically significant. It is relevant to note that two-way causation is normally the case; x Granger causes y and y Granger causes x. It has to be noted that "x Granger causes y" does not mean that y is an effect or a result of x. Granger causality measures preferences and information content, but does not by itself indicate causality in the more common use of the term. This model works on two assumptions –

- 1) Past can cause the present and future
- 2) Every cause carries few consideration and issues of association.

Here Paramjeet used the Eviews software to calculate the values at lag 2 and for statistical interpretation of

Null hypothesis was adopted that "X does not granger cause Y". Accordingly all twelve variables in pairs were tested. The analysis part was based on received p value. If p value is more than 5% a null hypothesis was accepted, which implied no impact of one variable on other variable in pair. And in case of less than 5%, impact of one variable on other variable has is confirmed. Finally he observed fourteen pairs from one hundred thirty two pairs of twelve variables (shows at Exhibit 4) which mutually impacted and showed a long run association together. They were named -

- 1) GDP & Export
- 2) Export & Import
- 3) Total trade & Export
- 4) FDI & Government expenditure
- 5) Sensex & FDI
- 6) Trade openness & FDI
- 7) FIIs & GDP
- 8) Trade openness & FIIs
- 9) Inflation & GDP
- 10) Total trade & GDP
- 11) Sensex & Import
- 12) Total trade & Import
- 13) Total trade & Sensex
- 14) Trade openness & Sensex.

Assignment questions –

1. Give a brief account of your understanding of the case and the prominent learning outcomes therein.
2. Write a brief note about foreign institutional investors & foreign direct investment contributions into economic development.
3. Does capital market growth contribute to economies expansion?
4. Explain how an understanding of interrelationship among the macroeconomic issues will stand us in good stead as regards envisioning and readying ourselves for future economic growth.

Addendum of Exhibits

Exhibit 1: Descriptive Statistics of all Selected Variables -

	GDP	Export	Import	Total Trade	Trade Openness	Inflation Rate	Exchange Rate	FDI	FIIs	Sensex	GOV. Expen	Interest Rate
Mean	3019625.	408818.0	597478.5	1006297.	27.23003	7.332685	41.71090	12917.51	31423.85	7870.279	483984.9	9.890000
Median	2234594.	232077.5	271203.0	503280.5	22.92690	6.767125	44.60250	5553.654	9348.000	4488.970	379747.5	9.250000
Maximum	8276665.	1465959.	2345463.	3811422.	46.05021	13.23084	48.39530	47138.73	146438.0	20509.09	1288763.	12.00000
Minimum	692078.0	53688.00	63375.00	117063.0	16.91471	3.684807	30.64880	532.0000	-45811	2615.370	125927.0	8.000000
Std. Dev.	2203916.	395964.0	642665.0	1038080.	9.249802	3.024264	6.138186	14220.52	48489.48	6175.723	345503.9	1.904261
Skewness	1.042895	1.314647	1.351790	1.337285	0.628776	0.320417	-0.735163	1.079093	1.196265	1.028136	1.085465	0.138609
Kurtosis	3.033420	3.808951	3.872329	3.845190	1.957144	1.882345	2.012632	2.861733	3.866722	2.544179	3.054607	1.134242
Jarque-Bera	3.626362	6.306324	6.725251	6.556393	2.224155	1.383184	2.613960	3.897406	5.396172	3.696692	3.929933	2.964918
Probability	0.163134	0.042717	0.034644	0.037696	0.328875	0.500778	0.270636	0.142459	0.067334	0.157497	0.140161	0.227079
Observations	20	20	20	20	20	20	20	20	20	20	20	20

Exhibit 2: Common Line Graph for Twelve Variables -

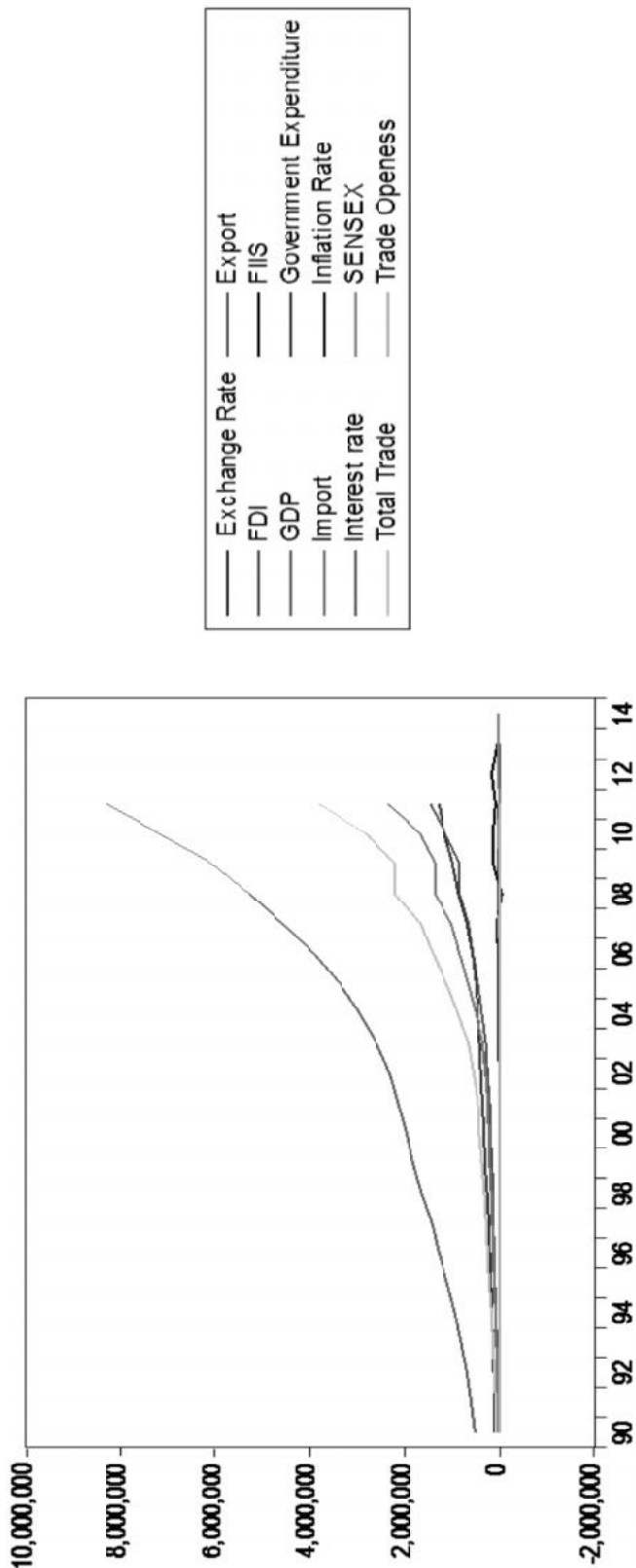


Exhibit 3: Performance of Selected Macroeconomic Variables -

Year	GDP	Exchange rate	Export	Import	Total Trade	Trade openness	Inflation	Govt. Exp	FDI In USD	Sensex	FII's	Interest rate
1990-91	524268	17.94	32553	43198	75751	14.45	13.87	104973	75	1908.85	13	12
1991-92	603451	24.47	44041	47851	91892	15.23	11.79	112731	252	2615.37	5127	12
1992-93	692078	30.64	53688	63375	117063	16.91	6.36	125927	532	3346.06	4796	12
1993-94	805881	31.36	69751	73301	143052	17.73	10.21	145788	974	3926.9	6942	12
1994-95	942302	31.39	82674	89971	172645	18.32	10.22	166998	2151	3110.49	8575	12
1995-96	1105102	33.44	106353	122678	229031	20.72	8.98	185233	2525	3085.2	5958	12
1996-97	1288706	35.49	118817	138920	257737	20	7.96	211260	3619	3658.98	-1584	12
1997-98	1434408	37.16	130100	154176	284276	19.82	13.23	224866	2633	3055.41	10122	12
1998-99	1653771	42.07	139752	178332	318084	19.23	4.67	263755	2168	5005.82	9933	12
1999-00	1831842	43.33	159561	215236	374797	20.46	4.01	307509	3587.99	3972.12	8763	12
2000-01	1969249	45.68	203571	230873	434444	22.06	3.68	328265	5477.64	3262.33	2689	11
2001-02	2147677	47.69	209018	245200	454218	21.15	4.39	360616	5629.67	3377.28	45765	9.5
2002-03	2321510	48.39	255137	297206	552343	23.79	3.81	398889	4321.08	5838.96	45881	9
2003-04	2601508	45.95	293367	359108	652475	25.08	3.77	426132	5777.81	6602.69	41467	8
2004-05	2949089	44.93	375340	501065	876405	29.72	4.25	463831	7621.77	9397.93	30840	8
2005-06	3364387	44.27	456418	660409	1116827	33.2	6.15	501083	20327.76	13786.91	66179	8
2006-07	3920042	45.28	571779	840506	1412285	36.03	6.37	570185	25349.79	20286.99	-45811	8
2007-08	4561574	40.241	655864	1012312	1668176	36.57	8.35	688909	47138.73	9647.31	142658	8
2008-09	5270644	45.91	840755	1374436	2215191	42.03	10.88	864530	35657.25	17464.81	146438	8
2009-10	6070903	47.42	845534	1363736	2209270	36.39	11.99	992442	21125.45	20509.09	93726	8
2010-11	7185159	45.57	1142922	1683467	2826389	39.34	8.86	1164728	36190.4	15454.92	168367	8
2011-12	8227665	47.92	1465959	2345463	3811422	46.05	9.31	1288763	25542.84	19426.71	51649	8.3

(Source: All respective authentic disclosure)

Exhibit 4: Pair wise Granger Casualty -

Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
EXPORT does not Granger Cause EXCHANGE RATE	20	0.23238	0.7954
<i>EXCHANGE RATE does not Granger Cause EXPORT</i>		3.75447	0.0476
FDI does not Granger Cause EXCHANGE RATE	20	1.36943	0.2843
EXCHANGE RATE does not Granger Cause FDI		0.88286	0.4340
FIIS does not Granger Cause EXCHANGE RATE	20	0.39265	0.6830
<i>EXCHANGE RATE does not Granger Cause FIIS</i>		6.81773	0.0094
GDP does not Granger Cause EXCHANGE RATE	20	0.72441	0.5008
EXCHANGE RATE does not Granger Cause GDP		2.96814	0.0820
GOVERNMENT EXPENDITURE does not Granger Cause EXCHANGE RATE	20	0.79477	0.4698
EXCHANGE RATE does not Granger Cause GOVERNMENT EXPENDITURE		0.56151	0.5819
IMPORT does not Granger Cause EXCHANGE RATE	20	0.27941	0.7601
<i>EXCHANGE RATE does not Granger Cause IMPORT</i>		6.44818	0.0095
INFLATION RATE does not Granger Cause EXCHANGE RATE	20	0.35497	0.7069
EXCHANGE RATE does not Granger Cause INFLATION RATE		0.36739	0.6986
INTEREST RATE does not Granger Cause EXCHANGE RATE	20	0.75484	0.4883
<i>EXCHANGE RATE does not Granger Cause INTEREST RATE</i>		4.20723	0.0371
SENSEX does not Granger Cause EXCHANGE RATE	20	1.18900	0.3335
EXCHANGE RATE does not Granger Cause SENSEX		3.46459	0.0599
TOTALTRADE does not Granger Cause EXCHANGE RATE	20	0.26765	0.7688
<i>EXCHANGE RATE does not Granger Cause TOTALTRADE</i>		5.98529	0.0123
TRADEOPENESS does not Granger Cause EXCHANGE RATE	20	0.04552	0.9556
<i>EXCHANGE RATE does not Granger Cause TRADE OPENESS</i>		7.18639	0.0065
FDI does not Granger Cause EXPORT	20	40.6359	9.E-07
EXPORT does not Granger Cause FDI		2.27591	0.1370
FIIS does not Granger Cause EXPORT	20	97.3497	2.E-08
<i>EXPORT does not Granger Cause FIIS</i>		10.5111	0.0019
<i>GDP does not Granger Cause EXPORT</i>	20	5.85295	0.0132
<i>EXPORT does not Granger Cause GDP</i>		13.5336	0.0004
GOVERNMENTEXPENDITURE does not Granger Cause EXPORT	20	2.42337	0.1225
EXPORT does not Granger Cause GOVERNMENT EXPENDITURE		24.8759	2.E-05
<i>IMPORT does not Granger Cause EXPORT</i>	20	9.36982	0.0023
<i>EXPORT does not Granger Cause IMPORT</i>		9.08171	0.0026
INFLATION RATE does not Granger Cause EXPORT	20	0.57986	0.5720
EXPORT does not Granger Cause INFLATION RATE		0.87568	0.4368
INTEREST RATE does not Granger Cause EXPORT	20	0.08828	0.9160

EXPORT does not Granger Cause INTEREST RATE		0.00107	0.9989
SENSEX does not Granger Cause EXPORT	20	23.0200	4.E-05
<i>EXPORT does not Granger Cause SENSEX</i>		3.77132	0.0490
<i>TOTALTRADE does not Granger Cause EXPORT</i>	20	9.36982	0.0023
<i>EXPORT does not Granger Cause TOTAL TRADE</i>		8.44787	0.0035
TRADE OPENESS does not Granger Cause EXPORT	20	3.67996	0.0501
EXPORT does not Granger Cause TRADE OPENESS		0.90505	0.4255
FIIS does not Granger Cause FDI	20	1.72405	0.2167
FDI does not Granger Cause FIIS		50.7447	7.E-07
GDP does not Granger Cause FDI	20	0.74670	0.4907
FDI does not Granger Cause GDP		1.50483	0.2537
<i>GOVERNMENTEXPENDITURE does not Granger Cause FDI</i>	20	7.24057	0.0063
<i>FDI does not Granger Cause GOVERNMENT EXPENDITURE</i>		12.5810	0.0006
IMPORT does not Granger Cause FDI	20	1.11930	0.3523
FDI does not Granger Cause IMPORT		77.6770	1.E-08
INFLATION RATE does not Granger Cause FDI	20	0.44383	0.6497
FDI does not Granger Cause INFLATION RATE		1.87438	0.1877
<i>INTERESTRATE does not Granger Cause FDI</i>	20	4.47021	0.0315
FDI does not Granger Cause INTEREST RATE		0.02505	0.9753
<i>SENSEX does not Granger Cause FDI</i>	20	5.58719	0.0165
<i>FDI does not Granger Cause SENSEX</i>		3.74914	0.0497
TOTAL TRADE does not Granger Cause FDI	20	1.51962	0.2506
FDI does not Granger Cause TOTAL TRADE		81.5039	9.E-09
<i>TRADE OPENESS does not Granger Cause FDI</i>	20	6.88261	0.0076
<i>FDI does not Granger Cause TRADE OPENESS</i>		13.7178	0.0004
<i>GDP does not Granger Cause FIIS</i>	20	7.14174	0.0081
<i>FIIS does not Granger Cause GDP</i>		5.13721	0.0227
<i>GOVERNMENT EXPENDITURE does not Granger Cause FIIS</i>	20	10.9312	0.0016
FIIS does not Granger Cause GOVERNMENT EXPENDITURE		1.96282	0.1799
<i>IMPORT does not Granger Cause FIIS</i>	20	7.43945	0.0070
FIIS does not Granger Cause IMPORT		56.9362	4.E-07
INFLATIONRATE does not Granger Cause FIIS	20	0.41332	0.6698
FIIS does not Granger Cause INFLATION RATE		0.62480	0.5507
INTERESTRATE does not Granger Cause FIIS	20	1.80063	0.1991
FIIS does not Granger Cause INTEREST RATE		0.15974	0.8538
<i>SENSEX does not Granger Cause FIIS</i>	20	7.96443	0.0044
FIIS does not Granger Cause SENSEX		0.40697	0.6728
<i>TOTALTRADE does not Granger Cause FIIS</i>	20	7.40871	0.0071

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FIIS does not Granger Cause TOTAL TRADE		68.4766	1.E-07
<i>TRADEOPENESS does not Granger Cause FIIS</i>	20	3.85839	0.0484
<i>FIIS does not Granger Cause TRADE OPENESS</i>		12.4621	0.0009
GOVERNMENTEXPENDITURE does not Granger Cause GDP	20	0.48033	0.6278
<i>GDP does not Granger Cause GOVERNMENT EXPENDITURE</i>		6.26025	0.0106
<i>IMPORT does not Granger Cause GDP</i>	20	6.87822	0.0076
GDP does not Granger Cause IMPORT		18.5595	9.E-05
<i>INFLATIONRATE does not Granger Cause GDP</i>	20	4.22288	0.0351
<i>GDP does not Granger Cause INFLATION RATE</i>		3.40388	0.0604
INTERESTRATE does not Granger Cause GDP	20	2.42978	0.1242
<i>GDP does not Granger Cause INTEREST RATE</i>		9.35719	0.0026
SENSEX does not Granger Cause GDP	20	0.95901	0.4071
<i>GDP does not Granger Cause SENSEX</i>		2.30152	0.1367
<i>TOTALTRADE does not Granger Cause GDP</i>	20	9.06700	0.0026
<i>GDP does not Granger Cause TOTALTRADE</i>		13.2330	0.0005
<i>TRADEOPENESS does not Granger Cause GDP</i>	20	4.74573	0.0253
GDP does not Granger Cause TRADE OPENESS		1.75816	0.2061
<i>IMPORT does not Granger Cause GOVERNMENT EXPENDITURE</i>	20	7.07612	0.0068
GOVERNMENTEXPENDITURE does not Granger Cause IMPORT		1.78566	0.2015
INFLATIONRATE does not Granger Cause GOVERNMENT EXPENDITURE	20	0.75193	0.4884
GOVERNMENTEXPENDITURE does not Granger Cause INFLATION RATE		2.53386	0.1127
INTERESTRATE does not Granger Cause GOVERNMENT EXPENDITURE	20	0.96142	0.4062
GOVERNMENTEXPENDITURE does not Granger Cause INTEREST RATE		0.04471	0.9564
<i>SENSEX does not Granger Cause GOVERNMENT EXPENDITURE</i>	20	8.09179	0.0046
GOVERNMENTEXPENDITURE does not Granger Cause SENSEX		1.78651	0.2037
<i>TOTALTRADE does not Granger Cause GOVERNMENT EXPENDITURE</i>	20	11.1712	0.0011
GOVERNMENTEXPENDITURE does not Granger Cause TOTAL TRADE		2.12470	0.1540
TRADEOPENESS does not Granger Cause GOVERNMENT EXPENDITURE	20	20.7616	5.E-05
GOVERNMENTEXPENDITURE does not Granger Cause TRADE OPENESS		3.41190	0.0601
INFLATIONRATE does not Granger Cause IMPORT	20	0.53287	0.5976
IMPORT does not Granger Cause INFLATIONRATE		1.43516	0.2690
INTERESTRATE does not Granger Cause IMPORT	20	0.11018	0.8964
IMPORT does not Granger Cause INTEREST RATE		0.00621	0.9938
<i>SENSEX does not Granger Cause IMPORT</i>	20	9.85129	0.0021
<i>IMPORT does not Granger Cause SENSEX</i>		5.45462	0.0177
<i>TOTALTRADE does not Granger Cause IMPORT</i>	20	9.08171	0.0026
<i>IMPORT does not Granger Cause TOTAL TRADE</i>		8.44787	0.0035
TRADEOPENESS does not Granger Cause IMPORT	20	0.52591	0.6015

IMPORT does not Granger Cause TRADE OPENESS		0.31082	0.7375
INTERESTRATE does not Granger Cause INFLATION RATE	20	0.98014	0.3996
INFLATIONRATE does not Granger Cause INTEREST RATE		2.85840	0.0910
SENSEX does not Granger Cause INFLATION RATE	20	1.00117	0.3923
INFLATIONRATE does not Granger Cause SENSEX		0.04599	0.9552
TOTALTRADE does not Granger Cause INFLATION RATE	20	1.20737	0.3264
INFLATIONRATE does not Granger Cause TOTAL TRADE		0.52528	0.6019
TRADEOPENESS does not Granger Cause INFLATION RATE	20	1.39470	0.2783
INFLATIONRATE does not Granger Cause TRADE OPENESS		0.97301	0.4006
SENSEX does not Granger Cause INTEREST RATE	20	0.05468	0.9470
<i>INTERESTRATE does not Granger Cause SENSEX</i>		4.85565	0.0225
TOTALTRADE does not Granger Cause INTEREST RATE	20	0.00374	0.9963
INTERESTRATE does not Granger Cause TOTAL TRADE		0.02269	0.9776
TRADEOPENESS does not Granger Cause INTEREST RATE	20	0.39009	0.6841
INTERESTRATE does not Granger Cause TRADE OPENESS		3.35211	0.0646
<i>TOTALTRADE does not Granger Cause SENSEX</i>	20	3.96350	0.0433
<i>SENSEX does not Granger Cause TOTAL TRADE</i>		16.5417	0.0002
<i>TRADEOPENESS does not Granger Cause SENSEX</i>	20	13.6682	0.0005
<i>SENSEX does not Granger Cause TRADE OPENESS</i>		11.2210	0.0012
TRADEOPENESS does not Granger Cause TOTAL TRADE	20	1.17674	0.3352
TOTALTRADE does not Granger Cause TRADE OPENESS		0.40719	0.6727

(All bold and italic values P value less than .05)

Case Study**Power Sector Reforms : A Case Study of
United Kingdom****Atul Agrawal***Department of Power & Infrastructure Management
University of Petroleum & Energy Studies, Uttrakhand***Dr. Anil Kumar***Department of Power & Infrastructure Management
University of Petroleum & Energy Studies, Dehradun, Uttrakhand***Dr. T Joji Rao***Department of Accounts & Finance Management, University of
Petroleum & Energy Studies, Dehradun, Uttarakhand***Abstract**

Design and regulatory structure of the power sector is a complicated one. Power sector may have participation of different type of enterprises like government controlled public utilities, private utilities or utilities with the public and private partnership. Decision making is usually affected in such utilities which are regulated and controlled by the government. Deregulation is needed to some extent to ensure the competition in the sector and hence governments come up with the various liberalization policies to reform the sector. Such liberalization policies incorporate next generation reforms in the sector with the combination of restructuring, unbundling and privatization. This paper analyses the reform experience of the power sector of United Kingdom. This paper also outlines the certain regulations of Utilities Act 2000, which helped the sector to adopt the ownership unbundling of supply and distribution.

Key Words: *Utilities Act 2000, Supply, Distribution, Reforms, United Kingdom*

Introduction**Era of Pre Privatization**

In this era, power utilities in the United Kingdom were vertically integrated. During 1940s, There were 560 electricity suppliers in the United Kingdom. Amongst them approximately one third suppliers were from the side of private players. In 1947, the Electricity Act 1947 came into force with the establishment of British Electricity Authority (BEA). The Electricity Act 1947 nationalized and reorganized the electricity industry of UK. British Electricity Authority which was a public corporation, made responsible to make policies and to manage financial schemes, transmission and generation. By further restructuring, 14 area boards (12 in E&W, 2 in South Scotland) were created which were responsible for both the distribution and retail in the respective regions. Thereafter, a South of Scotland Electricity Board (SSEB) was created through Electricity Reorganization (Scotland) Act 1954. SSEB was made responsible for all function of power i.e Generation, Distribution & Transmission. In the meantime Central Electricity Authority (CEA) replaced the British Electricity Authority (BEA).

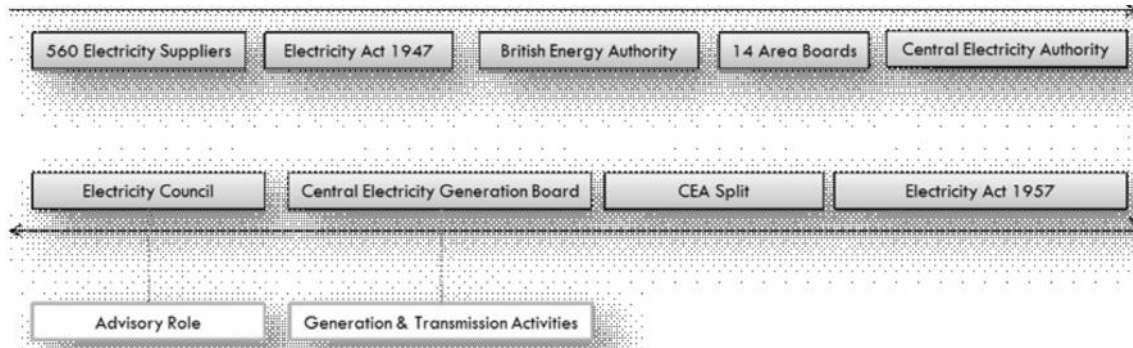


Figure 1: Flow of Reforms [Era of Pre Privatization]

Further, Electricity Act 1957 was introduced in the country with the objective of fresh reforms. In line with the Electricity Act 1957, Central Electricity Authority was segregated into the Electricity Council (EC) and the Central Electricity Generating Board (CEGB). Central Electricity Generating Board owned and operated all the generating stations and transmission system of England & Wales. Central Electricity Generating Board was also made responsible to plan new generation, to identify and to install new transmission capacity and to provide bulk supply of power to all area boards. Thus, Central Electricity Generating Board had the monopoly in generation and transmission. The Electricity Council (EC) played the advisory role with the duty to coordinate with the industry and government.

Era of Privatization

Next cycle of power sector reforms in United Kingdom started in 1989 with the introduction of Electricity Act 1989. The Electricity Act 1989 laid down the next phase

of reforms and restructuring in United Kingdom. Various changes in the ownership of power utilities to have competitive market were initiated. The Electricity Act 1989 had the provision to introduce an independent regulatory body. As per the result of this act, a new industry structure was introduced in March 1990. Central Electricity Generating Board was split into three generation companies and one transmission company. Area boards were replaced by Regional Electricity Companies (RECs) and consequently authorized supply and distribution areas were defined for those RECs. National Grid Company which was responsible for the transmission, was jointly owned by the Regional Electricity Companies. Electricity Council was abolished and Electricity Pool to facilitate the Electricity Trading was established. An independent regulatory system also came into force with the support of Office of Electricity Regulation. The regulatory system² was chaired by the director general of electricity supply.

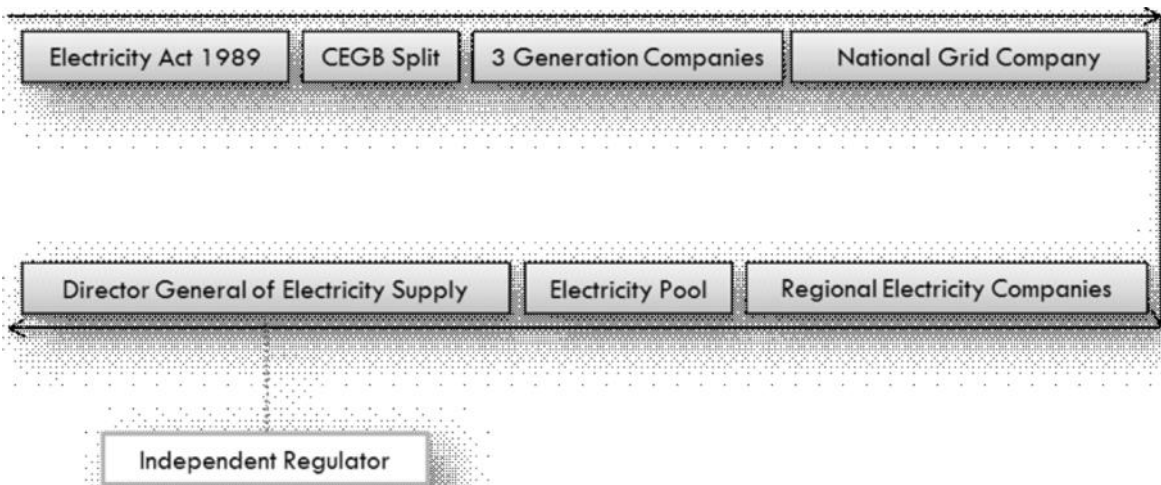


Figure 2: Flow of Reforms [Era of Privatization]

These reforms unbundled the vertically integrated structure of the power sector of United Kingdom, However distribution and supply both remained as the combined function of Regional Electricity Companies. These Regional Electricity Companies were allowed to do limited investment in Generation which was up to 15% of the sales volume of respective company.

Power Generation

In 1990, 6 electricity generation companies had the highest ration in the production of electricity in Great Britain. During 1990 – 1991, all the power generation companies (not nuclear power bodies³) and Regional Electricity Companies (RECs) were sold through the public flotation on stock exchange.

In 1996, Government came up with a holding company which was named as the “British Energy”. Scottish Nuclear and Nuclear Electric were made the wholly owned subsidiaries of the British Energy. However, operations and processes of Scottish Nuclear and Nuclear Electric were continued to be separate as before.

All the introduced Combined Cycle Gas Turbine Power Plants⁴ were supported by the regional electricity companies (RECs). CCGTs were the joint ventures of Regional Electricity Companies and at the same time RECs had long term power purchase agreements with them. RECs were prohibited to meet only 15% of the supply demand through CCGTs. However, one REC, Eastern Group⁵ get the relaxation in the said limit to 100%.

At this point of time, entry of new players in the generation segment was also seen. Players like Enron, Entergy, NRG, AES and Edison Mission Energy made their entry. Enforced Divestment⁶ in some already established generation companies was happened which opened up new door for competition as the

sameaction created opportunities to change in ownership.

Power Transmission

Power Transmission is the natural monopoly. In United Kingdom, National Grid Company (NGC) is the owner and operator of Transmission System. To maintain and develop an efficient and economical transmission network is the statutory duty of NGC. The National Grid Company was initially jointly owned by the Regional Electricity Companies. Later on, in December 1995, it was also floated on the national stock exchange as an autonomous company. NGC is regulated under the provisions of Grid Code and the Electricity Act 1989. Technical aspects are governed by the Grid code while the regulatory aspects are governed by the Electricity Act 1989.

Power Supply

Supply industry choose to open up the “supplier choose” for consumers in three phases. In April 1990, consumers with the connected load of 1 MW and above were given freedom to choose the supplier. From April 1994 onwards, suppliers choose was opened up for the consumers with connected load of 100 KW and above and from September 1998 onwards, all consumer groups were given freedom to choose their supplier.

“Suppliers choose” introduced competition in the segment. During 1999-2000; 80% of the consumers who had load 1 MW and above, choose to take power from competitive market (Supplier other than the local PES). 67% consumers in the segment of 100 KW – 1 MW also choose to take power from such suppliers which were not the local PES. In lower segment of consumers (load<100 KW), 38% power consumers switched their suppliers. This supplier switch happened either one or more time. By this phenomenon of competition, PESs lost nearly 30% of their consumers in the respective area.

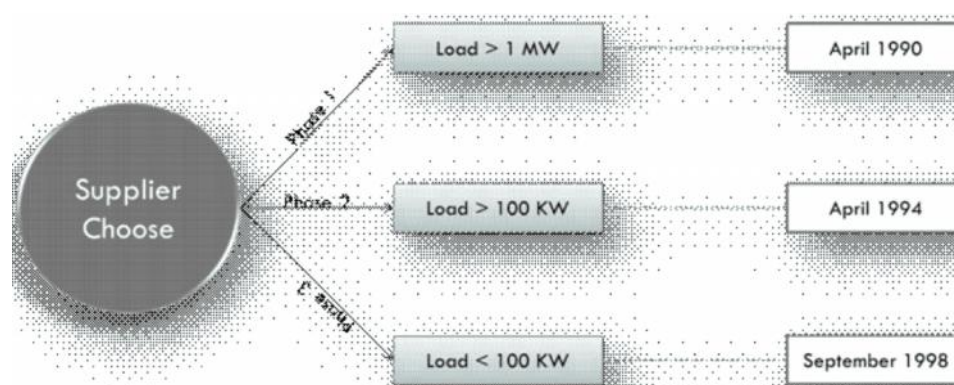


Figure 3: Introduction of Supplier Choose

Initially, number of licensed suppliers got increased in an area. But later on the business of PES suppliers was acquired by major suppliers and hence such mergers and acquisition reduced the quantity to seven suppliers. On the other hand, Investment from the side of generation companies into supply side was also seen in the segment as many generation houses expanded their business to supply side companies by investing in them.

Power Distribution

By the Utilities Act 2000, power distribution business had been separated out from the power supply business. Distributors in United Kingdom now hold the separate license to distribute the electricity. To connect a consumer and to maintain the connection is under the constitutional duty of a distributor. PES distribution companies have the regional monopoly in United Kingdom. As per the guidelines of Office of Gas & Electricity Market, potentially competitive activities like metering and billing are being separated out from the work of traditional distribution companies.

Metering and Billing

Services related to the meter involve meter operation and meter provision. Metering services in United Kingdom are provided by meter operators while the services related to the metering point administration are supposed to be provided by distribution company. The area of metering services is not the monopoly and any authorized company may provide meter related services in line with the provisions of Electricity Act 1989. For half hour meter points, metering services are fully competitive as there are enough service providers which include third parties and ex PES distribution companies also. For non-half hour meter points, only ex PES distribution companies provide their services.

Ex PES distributors are the default metering service providers. They have obligation to provide their services whenever they get request from supplier. They also have obligation to define the statement of charges for metering services. Such charges should be published to ensure the competition in the sector.

Supplier has the freedom to choose the company to provide metering services under the agent commission scheme. Whereas, the metering company needs to provide its services for the particulars related to the data collection, data aggregation and meter operation.

Regulatory Reforms

UK got its first powerful act "Utilities Act 2000" for the most needed regulatory reforms on March 28,

2000. By the effect of this act, regulatory board of Gas and Electricity Markets Authority was constituted to replace the individual regulator Director General of Electricity Supply. Regulatory Offices of gas and electricity sector were merged to become the OFGEM i.e Office of Gas and Electricity Markets. Energy watch was established as an independent consumer council to replace existing consumer committees. Secretary of state and regulatory authorities were awarded with new powers.

In the supply side regulations; the act abolished public electricity suppliers and introduced the concept of single license. A mandate to separate PES power supply and distribution business was provisioned with the requirement to take separate license for distribution. These provisions provided new directions to redefine the ownership structure of power industry in United Kingdom.

NETA, New Electricity Trading Arrangement was established by this act to replace already operationalized electricity pool. Purpose was to eliminate manipulation of pool prices and to have updated mechanics in price setting. NETA was introduced to solve number of existing problems and to remove hurdles which were identified during last decade.

Utilities Act 2000

The Utilities Act 2000 was enacted on March 28, 2000. The act amended the legislation pertaining to the gas and electricity industry. Provisions which impacted the sector most are being described here.

Provision Related to The new Regulatory Arrangements

Gas and Electricity Market Authority [GEMA] was established to carry out the functions of Director General of Electricity Supply as well as of Director General of Gas Supply. Act abolished the offices of Director General of Electricity Supply and Director General of Gas Supply. A body corporate **Gas & Electricity Consumer Council** was also established to perform the task as defined in the act.

As per the act, before the commencement of a financial year, the authority and the council both are required to publish "Forward Work Programme" to give the description of planned future projects. On the other hand, annual reports as defined in the act are also needed to be submitted both by the authority and by the competition commission.

Protection of consumer interest is the principal objective of both the authority and the secretary of state. Interest of end consumer must be protected by the promotion of competition amongst different

players in Generation, Transmission, Distribution and Supply segment. These bodies should also have the regard of persons who are either belong to disable, pensionable age or low income group or resides in rural area.

The council has the work to gather the consumer related information which affects the consumer in regard to electricity services. Also the information can be related to the view or experience of consumer for the particulars related to the power industry. The council may form committees to get the information and advice for the matter related to the consumer concern. Consumers may also get the information from council; if they need any. Council also has the duty to publish the statistical information as per the provision of this act. Council has the power to investigate the consumer complain related matters. If the Authority asks to supply any information, council has the duty to submit it within the specified time frame or as the case may be, the council may submit the notice with the reason to not to supply the asked information.

Provisions Related to the Licenses

Utilities Act 2000 defines both the distribution and supply. Distribution means the distribution system which conveys the power to any premise through the network of low voltage lines and electric substation. Supply means the supply of electricity with the use of distribution system to such premise which is not used by the license holder.

A license is required to generate, to transmit, to distribute and to supply the electricity. Same person cannot have licenses for both supply and distribution of electricity. Both distribution licensee and supply licensee can authorize a holder to distribute or supply the electricity respectively as per the area defined in the contract. The distribution or supply area can be redefined by the authority in consultation with the respective holder.

A part or the whole of license is transferrable by the holder of the license as per the terms specified in the act. Transfer must have the approval of the authority. Transfer may include assignment, assignation or any other form of transfer as specified.

Distributor has a duty to connect the requested premise from distribution system within the specified time whenever he gets the connection request either from consumer or from authorized supplier. Distributor must maintain and develop the power distribution system in an efficient and economical manner.

The authority in coordination with Secretary of State may prescribe standard of performance regulations

pertaining to the work of power distribution. If distributor fails to fulfil the prescribed standard then he needs to fill compensation for the same.

The Electricity Code

Supplier is not supposed to charge any amount whenever he alters the position of a meter or replaces the specially adapted meter, in case such work relates to disabled person.

Supplier has the power to install a prepaid meter or to disconnect the electricity connection in case consumer does not pay the due billing amount in specified time period. Supplier is supposed to have a deemed contract to supply the power with the occupier of premise wherever he supplies the electricity. In such cases, where electricity is supplied illegally, distributor is authorized to recover the value against the amount of supplied electricity. If any premise has been disconnected, then before restoring the connection, consent of the supplier or distributor as the case may be, is required. Both distributor and supplier have the power to disconnect the electricity connection. Also they both i.e. distributor and supplier may enter into any premise for the purpose of investigation of particulars. Supplier has the power to install or re install the meter at the consumer premise and to manage the same. However, a prior notice of two working days must be given from supplier's side before removing or installing a meter. Removal/Installation of a meter is the duty of supplier while connecting/disconnecting of the premise is the duty of electricity distributor.

Supplier is supposed to give power through an appropriate electricity meter only. Provision of service through a pre-paid meter is also there but such pre-paid meter can only be used by supplier to recover the amount which pertains to his services only.

Separation of Electricity Supply and Distribution

Before going further, we need to understand the term "associate". A company is taken as an associate of the supplier if the supplier or the company is a wholly owned subsidiary of a company or a supplier as the case may be. Both supplier and the company can also be the wholly owned subsidiary of another company.

This part applies to such license holder who had licenses both for supply of electricity and distribution of electricity before passing of this act. By the provisions of the act, such type of licenses needs to be granted to different persons. Licenses for supply and distribution may be separated amongst 2 associates nominated by the holder or one license can be given to associate and the other one may be kept by the same holder only, as the case may be.

Before the enactment of this act, if any holder of supply license generates or transmits electricity with the valid license, such license will have the effect if it was granted to the associate nominated by the supplier.

Provision of Transfer Scheme

Under the transfer scheme, secretary of state will direct the supply licensee to make a nomination to divide assets, liabilities and rights between the licensee and the associate. In such cases where licenses are to be divided amongst the 2 associates, 2 nomination need to be done for the stated division as above. The transfer scheme should be carried out by the respective supplier as per the direction of secretary of state.

A transfer scheme must define all the assets, liabilities and rights which are supposed to be assigned to nominated associate. The transfer scheme and its particulars may be defined through questions, referring, undertaking and in other appropriate ways. Division of these assets, liabilities and rights shall be enforceable amongst such persons to whom the supplier nominates. Obligation to have a written agreement between such persons must be there. Incidental, consequential and supplemental provision should be made as the supplier thinks appropriate.

All the transactions and transfers should be happened in pre stated order. Nominated person or the nominated associate must be considered equivalent to supplier in law. The transactions and transfers are also enforceable by the civil proceedings for any remedy or relief; in case it feels necessary.

A transfer scheme must have the approval of secretary of state. Before approving it, secretary of state may make the appropriate modifications to ensure that the transfer scheme is aligned with the law. A transfer scheme is drafted keeping in mind the interest of public as the same should not be violated. The supplier needs to assist the Secretary of State for all the information required regarding the drafted transfer scheme.

Effective date of transfer from which transfer is supposed to take place, needs to be defined by the transfer scheme or it may be day for which the supplier is entitled as per the act. Secretary of the state may also direct the effective date for the purpose of this transfer scheme. Any asset, liability or the right which is retained by the supplier is believed to be shifted to supplier under the transfer scheme only.

Shares issued in line with any transfer scheme, should be of nominal value. They may be allocated or issued under the specified terms in the act. Issued shares are

supposed to be fully paid and must fulfil the provision of Companies Act 1985.

If any statutory account is set up by the transferee in line with the provisions of Companies Act 1985, then the supplier needs to assign an amount or a value against the assets and liabilities to define the corresponding statements for that account. In such cases, where no value is assigned or the value seems to be inappropriate; such value under the transfer scheme may be produced on the basis of the last year's accounting records of supplier.

On the other hand, the account which represents the accumulated profits of the transferee may include an amount or the proportion of any profit which is retained and realized by the supplier. The said amount may also be defined to realize under the drafted transfer scheme.

If the existing supply licensee has made the transfer scheme as per the date specified by the directions of secretary of state then the secretary of state will formulate another scheme to provide effect to the existing license of supplier to supply the electricity. Earlier⁷ granted generation and transmission licenses will also have the effect if the associates were nominated by the supplier for the purpose of having license for either generation or transmission. In such case, where transfer scheme of a supplier does not take place, the described particulars and actions will not have any effect.

Further, Secretary of state is responsible to make a scheme after the enactment of this act which will define the particulars of the treatment of existing licenses. Standard conditions of the licenses should be defined and at the same time secretary of the state may do the necessary amendments. These amendments may also include the amendments in the terms of revocation and exemption of license. Scheme made by the Secretary of state may have the transitional provisions and other such provisions which depend on the category of cases. After making the scheme, an authoritative text is supposed to be published from the office of Secretary of the state.

Deemed contract to Supply

Areas where the public electricity supplier is supplying the power before the commencement date, in such cases successor of the supplier is believed to have deemed contract for those areas to supply the electricity just after the commencement date. Terms and conditions of the supply and contract may be submitted by the earlier supplier. Secretary of state may also direct the supplier to make the scheme to describe such terms and conditions. Different

provisions as per the category of cases and nature of place may be drafted. The draft of terms and conditions must have approval of the authority and the authority may modify it before granting the approval.

If supplier finds it difficult to submit the draft of the scheme to authority within the specified time line or if the authority does not find the submitted scheme suitable; in such case, the scheme may be drafted by the Authority itself. Supplier is supposed to assist the authority with all desired information. Before the commencement date, such scheme shall be published in London and Edinburgh Gazettes to get operationalized on the publication date.

Concluding Remarks

In many OECD countries, retail competition and unbundling of supply from distribution inspired the process of reforms. Countries like Germany, Norway, Finland, Sweden, New Zealand, Australia and USA opened up their electricity market to all class of consumers. United Kingdom also opted the same in phased manner and gave the freedom to end consumer to choose its' supplier. In United Kingdom, reforms had been mainly linked to privatization and unbundling. UK replaced the Electricity Pool with New Electricity Trading Arrangements and it made the participation in trading of the electricity voluntary. By the Utilities Act 2000, country made the separation of supply from distribution mandatory and hence UK entered into next generation of power sector reforms.

Reform is a process of continuation and it happens in the form of a chain. Uncertainty and risk always remain there for certain works but it is necessary to face it to go further. Today, many developing countries like India are having serious problems in their power sector. Their power sector is facing with huge technical and commercial losses, low efficiency, low customer satisfaction, frequent power cuts and high burden of debt on power sector utilities. Such countries may adopt the UK model of restructuring to make their power sector effective one.

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Endnotes

1. Corresponding Author, Telephone : +91 7895227215, +91 9950606596 E Mail address : india_atulagrawal@live.com (Atul Agrawal)
2. System was to regulate the newly privatized industry.
3. Nuclear Bodies remained in the public ownership at that time.
4. CCGTs were the First independent power projects of UK.
5. Now TXU Europe
6. Later the divestment had become the voluntary one.
7. Before Utilities Act 2000