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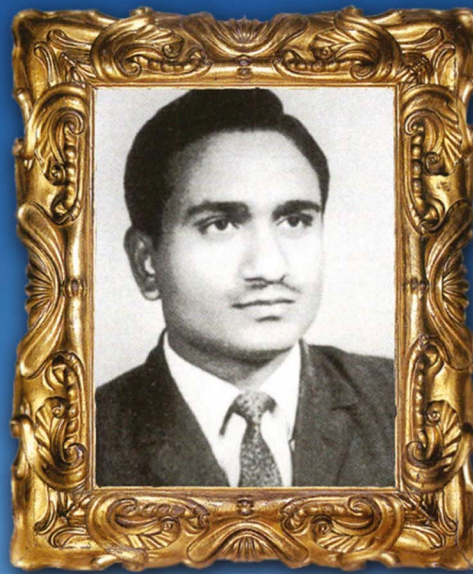
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◀ Book Review

A TRUE VISIONARY

*“You see things and you say **Why?** But I dream of things that never were and say **Why not?**”*

- George Bernard Shaw



Shri Jagannath Gupta
(1950 - 1980)

*Also a true visionary...who dared to dream!
He lives no more but his dreams live on....and on!*

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And more dreams to come!



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Editor's Desk

Reinventing The Workplace In The COVID Times: Skill Sets Hold The Key

"Coming together is a beginning, Keeping together is progress. Working together is success." – Henry Ford

With an economic slowdown hitting the industries, they are now fighting a battle for survival in the times of COVID-19. To deal with the crisis, the Government's have been actively involved in economic restoration across industries, but the challenge is in ensuring employment for a large workforce both in the organized and unorganized sector. The pandemic has changed the nature of work. Industries were pushed to shift operations to virtual systems. This caused a sudden rise in demand for certain sectors like logistics, food delivery, fin-tech platforms, BPOs, e-commerce and some more sectors. A large chunk of conventional types of jobs have become less attractive and it seems in the coming days they may even become redundant. Hence, it is required for these employees to up their skill sets to retain and grow in their existing roles. So the skill rubric of the nation is being evolved towards a common narrative across industries. This commonality may serve the purpose of providing newer employment avenues for the out-of-job workforce. Further, the requirement to fill an adequate skilled workforce for critical tasks and newer jobs in the economy shall be fulfilled with the help of academic fraternity who are responsible to provide relevant skill training and education to such aspirants. The key lies in reinventing the approach to skill development, training for the target workforce. Skill development should be seen as a parameter which is inextricably linked to social security. All academic institutions need to seriously work hand in hand with the Industry in strengthening the Skill development initiatives of the government.

Therefore, a changed mindset coupled with efficient implementation of skilling strategy is required to make use of India's demographic dividend so that there is a win-win situation for industries, workforce and the society at large. The following edition of this journal focuses on various researches ranging from the Entrepreneurial Skills Development and enhancing their efficiencies with an underlined learning for new entrepreneurs. A few studies have beautifully brought out the importance of flexibility in planning and innovation, which has been the underlying message by quickly shifting to online teaching, which involved plenty of ICT tools as an enabler to effective learning. Further, enhanced with a psychometric tool to understand how the employees could contribute to using employee's green discipline management for Green Performance Evaluation and relations among employees. Finally, the backbone of any economy i.e., it's banking system to continue work during such times has been presented with due credits.

I would like to congratulate all the contributors for their meticulous work.

(Ashok Sharma)

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PSYCHOMETRIC TESTING OF THE GREEN HUMAN RESOURCE MANAGEMENT (GHRM) SCALE USING INDIAN SAMPLE

S. C. Das* Rajkumar Singh**

Purpose: The main aim of this paper is to propose and validate an instrument to measure Green HRM and their dimensions, which play significant role towards environmental sustainability.

Design/ methodology/ approach – The study is descriptive in nature and for the purpose of data collection a semi- structured questionnaire adapted from Arulrajah et al (2015) have been used. Sample-size constitutes 408 group-C employees of Indian Railways determined with the help of published table of Zikmund (2011). The Exploratory and Confirmatory factor analysis was used to confirm the factor structure of the study.

Findings: The study identified 29 items for measuring GHRM grouped into five elements namely, green training, green performance evaluation, green employee discipline management and green employee relations which psychometric properties found valid.

Practical Implications: This study is the first and also the most comprehensive one to measure main Green HRM practices for environmental sustainability, which can provide broader focus for further research and policy makers.

Originality/value: The value of this paper is the identification, and validations of Green HRM practices, which influence environmental sustainability in Indian Railways. The presented measurement model offers useful insights on how organizations should strategically align their human resource functions with environmentally sustainable activities for competitive advantages.

Keywords Green HRM practices, Environmental sustainability, Psychometric Testing and Environmental performance.

JEL Classification: Q5, Q01, Q56, O18, Q52

Environmental sustainability has emerged as one of the most urgent societal priorities. Preserving and conserving the natural eco-system and its natural resources for future generations has thus become a major priority on the agenda of policy-maker of the business organizations (Howard – Grenville et al., 2014). Environmental sustainability is now a worldwide issue, and both developed and developing countries became more concerned about the importance of environmental issues (Sharma, 2016). Industrial revolution and globalization caused an increment in degradation of the natural environment, therefore these concerns created more pressure on business organizations to develop green management by adopting environmentally friendly practices (Marcus & Fremeth, 2009). In the background of environmental sustainability, human resource management practices play an important role in implementation of environmental protection policy (Daily & Huang, 2001). Integration of environmental management activities with human resource management function such as recruitment and selection, training with environmental management objective and reward and compensation management to achieve the green goal of the organization (Jabbour et al., 2013). Therefore, alignment of environmental initiatives in to human resource management function is needed for protection of natural environment (Mishra et al, 2014). In cutthroat

competition among the business, organizations are paying their attention towards the environmental sustainable issues for competitive advantage (Paille et al., 2014). Human resources are playing significant role in achieving environmental sustainable goal of the organization (Jackson et al., 2011). Green human resource management practices appreciate and motivate their employees towards active involvement and participation in the environmental sustainability practices, which can change their attitude and behaviour towards the environmental protection and helpful to make good reputation of their organization (Renwick et al., 2008). There is a growing awareness among the employee towards the green issue and create a sense of social responsibility toward the environment within organizations. In order to achieve goals, organization can use suitable human resource management practices to stimulate their employees towards achieving the green goal of the organization (Ones & Dilchert, 2012). Green human resource management playing important role towards achieving the environmental goal of

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the organization through employee green behaviour in the workplace (Renwick *et al.*, 2013). It also manifests organization induction towards environmental sustainability and encompasses a sequence of peculiar Human resource management practices (Mishra *et al.*, 2014). The main role of Green human resource management is to promote environmental sustainability through the alignment of environmental protection activities in HRM function of the organization (Renwick *et al.*, 2013).

I. Review of Literature

Conceptualization of Green Human Resource Management (GHRM)

The term of Green HRM, seem to be a novel concept it was originated in 1996 from the contribution of Wehrmeyer (1996) who edited book titled *Greening People: Human Resource and Environmental Management*. Environmental sustainability can be achieved through environmental training and teamwork of employee, performance appraisal of environmental objectives, providing non - financial rewards to their employees, and organizational work culture (Jabbour & Santos, 2008). The implementation of environmental policy in the human resource management function such as recruitment, performance evaluation, training , employee relations and compensation management are recognised as important tools for aligning employees with an organization environmental strategy to achieve green goal of the organization (Renwick *et al.*, 2008). In order to achieve environmental sustainability goal of the organization can include environmental objectives, training and development, evaluation of environmental performance, and rearwards in their Human resource management function (Cherian & Jacob, 2012). Zibbaras and Coan (2015) explored Green human resource management should include recruitment, selection, training and development, performance evaluation, reward and compensation management, and employee participation. Green HRM is manifestos which help to create green workforce in the organization that appreciate and promote green culture in the workplace, such green initiatives keep up its green objectives all over the procedure of recruitment, hiring, training and development, compensating, reward and performance evaluation (Dutta, 2012). Green recruitment and selection, Green training and development, Green performance evaluation, Green compensation and Green employee relations for the improvement of the environmental performance are considered as the constituent of Green HRM (Tang *et al.*, 2018).

Existing Measurement of Green HRM and Objective of the Study

Renwick *et al.*, (2013) and Jabbour *et al.*, (2008) revealed Green human resource management can be explored by

considering its multi-dimensional nature. Previous Indian studies on Green HRM are mainly focused at theoretical and quantitative in nature. There is necessary to develop and validate measurement scale of Green HRM in Indian sample, as it is a novel concept to the majority of Indian people in the field of human resource management. The concept of Green HRM evolved, researchers began to develop instruments aimed at measuring the construct (Arulrajah *et al.*, 2015). Tang *et al.*, (2018) proposed and validated scale to measure construct and sub-constructs through Exploratory factor analysis(EFA) and confirmatory factor analysis(CFA), study confirmed main construct i.e. Green HRM consists five sub-constructs: Green recruitment, Green selection, Green training and development, Green performance evaluation, Green pay and reward management, and Green participation and involvement are true and valid.

Dumont *et al.*, (2017) developed and validated measure for Green HRM, which includes Green goal, Green training, Green performance appraisal, Green reward and compensation. Although there is multiple opinion towards dimensions of Green human resource management, but most of the studies consider that Green HRM practices consist Green training, Green recruitment and selection, Green pay and reward systems, Green performance evaluation, and involvement (Jabbour *et al.*, 2010; Jackson *et al.* 2011; Renwick *et al.*, 2013; Zibbaras and Coan 2015). The (Table 2) reports the different instruments developed for measuring Green HRM. This study conducted a systematic review of six Green HRM instruments that were validated in largely in manufacturing industry (Jabbar and Abid, 2015; Pinzone *et al.*, 2016; Masri and Jaaron, 2017; Dumont *et al.*, 2017; Yusliza *et al.*, 2017 and Tang *et al.*, 2018). (Table 2) provides a brief synopsis of each instrument, followed by the scale factor and critical assessment focusing on the scope and utility of the scale. With this backdrop, the study is aimed to propose and validate an instrument to measure Green HRM through exploratory and Confirmatory factor analysis.

II. Research Design and Methods

Participants & Procedure: The participants included group C employee of North Eastern Railway. In this study, quantitative research design with a survey approach was conducted by collecting primary data in North Eastern Railway from September, 2016 to August, 2017. The survey was conducted using a close- ended questionnaire. Sample selected from the population by using proportionate stratified random sampling technique for this study. A total 450 questionnaire have been distributed personally by the researcher and out of them 408 questionnaires in their pre specified ration have been collected yielding the response rate of 90.66%. The researcher has also personally contacted to

divisional manager and senior officers to discuss the various green initiatives in North Eastern Railways.

Measures: Green HRM measures consisting of 35 items was adopted from the study of Arulrajah *et al.*, (2015). The study has used three levels of measurement scale namely nominal, ordinal and interval with 5-point Likert Scale ranging from 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, and 5 =Strongly Agree.

Data Analysis: The collected data were analysed using statistical analysis software SPSS (21th version) and AMOS (21th version). The study analysis was divided in two stages. In the first stage, the exploratory factor analysis (EFA) was conducted through principal component analysis (PCA) using varimax rotation method for assessing the factor structure of the scale. The Cronbach's alpha coefficients were calculated for determining the scale reliability. In the second stage, the confirmatory factor analysis (CFA) used to validate and confirm the construct of the scale followed by calculating the convergent and discriminant validity.

III. Results and Discussion

A. Exploratory Factor Analysis: An EFA was employed to inspect the components underlying the Green HRM scale. A total of 35 items representing seven original components were subjected to principal component analysis using varimax rotation to extract the factors of the scale. Before conducting the factor analysis, the Kaiser- Meyer – Olkin (KMO) value was confirmed, which was found to be, .934, thus surpassing the threshold value of 0.60 (Kaiser & Rice, 1974). Also, the Bartlett's Test of Sphericity (Bartlett, 1954) revealed significant ($P = .000$). Principal component analysis (with varimax rotation) resulted in a seven factors structure for Green HRM and explained 66.782 percent of the variance. Green Training and development (GTD) showed an eigen value of 13.297 and explained 15.681 percent of variance. Green Performance Evaluation (GPE) and exhibited an eigen value of 2.579 and explicated 27.095 percent of variance. Green Selection (GS) showed an eigenvalue of 1.893 and explained 37.458 percent of variance. Green Employee Discipline Management (GEDM) exhibited an eigen value of 1.691 and explicated 47.703 percent of variance. Green Employee Relations (GER) showed an eigen value of 1.469 and explained 56.672 percent of variance. Green Recruitment (GR) showed an eigen value of 1.355 and explained 61.877 percent of variance. Furthermore, Green Involvement (GI) exhibited an eigen value of 1.090 and explicated 66.782 percent of variance. Throughout the progression of EFA, items that did not load accurately on any factor (<0.40) were dropped and retaining only 32 items (Field, 2013). Results of the EFA shown in Table-3.

Scale Reliability: The reliability analysis of refined Green HRM scale with 32 items and 6 components was undertaken to verify how strongly the attributes are associated with each other (Hair *et al.*, 2010). The reliability values are delineated in (Table 3). The Cronbach's alpha values were evaluated to know the internal consistency reliability of (32 Items) found $\alpha = .951$. After that, the internal consistency of six components of the Green HRM scale found to be significant, representing Cronbach's alpha values: $\alpha = .920$ (GT), $\alpha = .888$ (GPE), $\alpha = .877$ (GS), $\alpha = .851$ (GEDM), $\alpha = .867$ (GER), $\alpha = .614$ (GR). The composite reliability estimates of the scale components exceed the threshold values of 0.70. $\alpha = .472$ (GI) has been removed due to very poor Cronbach's alpha and low factor loading and $\alpha = .614$ (GR) was questionable but retained as an important component for further analysis (George and Mallery, 2003).

B. Confirmatory Factor Analysis: A CFA was utilized to validate and confirm the model fitness of the Green HRM scale. Two factor models were tested: the first-order six-factor model comprising of 32 items, and second-order six-factor model of Green HRM. Four fit indices have been calculated to determine the best model fit of the data that is: Chi- Square (CMIN/df), goodness of fit index (GFI), comparative fit index (CFI), and root mean square error of approximation (RMSEA) (Hair *et al.*, 2010). First – order six factor model (Fig.1) comprises of all items achieved reliability and validity and showed good model fit with acceptable fit indices and except one construct that is Green recruitment (GR2, GR1 and GR4 items) were removed due to low composite reliability (Holmes *et al.*, 2006). Second order five-factor model Green HRM achieved discriminant and convergent validity as well as reliability and showed good model fit but in order to improve the χ^2 , error term was allowed to co-vary to improved model fit (Hu and Bentler, 1999). Thus, the second-order factor model (Fig.2) of Green HRM showed the good model fit with acceptable fit indices which fulfil minimum criteria recommended by (Hair *et al.*, 2006; Holmes *et al.*, 2006; Schrieber *et al.*, 2006).

Convergent Validity: Three standard criteria was used to evaluate the convergent validity that is standard factor loading of same construct of the measurement model will be more than 0.7, average variance extracted (AVE) will be greater than 0.5 and composite reliability (CR) will be more than 0.7, other than this CR should be more than AVE, convergent validity of a model is satisfied when all the above criteria are fulfilled, thus the Green HRM scale met the criteria for convergent validity (Hair *et al.*, 2010).

Discriminant Validity: The Square root of average variance extracted (AVE) will be greater than the maximum shared variance (MSV); therefore, the results indicated strong

evidence of discriminant validity of the Green HRM (Gefen *et al.*, 2005).

IV. Conclusion

Renwick *et al.*, (2012) stated the attributes and key contents of Green HRM, and their supposition has not been tested. The current study has developed a theoretically as well as validated scale to measure Green HRM in Indian context. It is proved that Green HRM includes five dimensions: GT, GPE, GS, GEDM and GER, which can be represented by 29 items (Table: 7). Indian Railways provides Green training and development, by integrated government online training program through massive online open course to reduce the use of paper work and encourage their employees towards the conservation of water, energy and plantation of trees. In Green selection, selecting the candidates who are most environmental concerned and possess the technical knowledge, granting them incentives for acquiring higher educational in Computer Science while Green performance evaluation, In Green employee discipline management, formulated a clear set of rules and regulations to ensure green employee behaviour. In Green employee relations, providing opportunities to their employee to involve and participate in green suggestion schemes to promote green practices. Green HRM model presented in this study intend to give a guide for implementation of best practices of Green HRM that affects the environmental sustainability in Indian Railways.

This study has several potential limitations that should be addressed in future research. First, the present study on construct validation of Green HRM is based on Indian Railway which engages in environmental sustainability practices. It is probable that other organizations which are not targeting environmental management activities may also practices Green HRM to promote environmental sustainability. Second, the study tested Green HRM scale on Indian respondents. This can give us an adequate understanding of Green HRM in Indian context, thus cross – cultural research is considered to be especially important for developing a more globally relevant measure for Green HRM. Third, the study explored several primary practices of Green HRM. The constructs proposed may have been only some of the environmental management activities adopted by the organization and the level of attention pay towards Green HRM practices also differs from organization to organization, so it would be useful to examine other measurement of Green HRM that are not identified in our study.

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Table 1: Green HRM: At a Glance

Year	Scholar	Definitions
2008	Renwick et al	Alignment process between human resource and environmental management practices is called Green Human Resource Management (GHRM)
2012	Mandip	Green HRM is the use of human resource management policies to promote the sustainable use of resources within business organizations and more generally, promotes the cause of environmental sustainability.
2014	Opatha & Arulrajah	Green HRM referred to all activities involve in development it refers to policies, practices and system that make employees of the organization is green for the benefit of individual, society, natural environment, and the organization
2015	Ahmad	GRHM concerns the alignment of several practices in human resource management (recruiting, selection, training, performance evaluation, rewards, etc.) to the organizational environmental management objectives

Table 2: Green HRM Measures Investigated in Various Contexts

S.N.	Scale Name	Authors	Sample	Factors (Items)	Techniques Used	Factors	Critical Assessment
1	Green Human Resource Management	Jabbar and Abid, (2015)	222	7(45)	Exploratory Factor Analysis, Correlation Analysis and Regression Analysis	Green recruitment, Employee involvement, Green reward and Compensation and Environmental training	The scale is useful to measure Green HRM practice However, the scale has no utilization for measuring more factors of Green HRM that may influence environmental performance
2	Green Human Resource Management	Pinzone <i>et al.</i> , (2016)	82	3(9)	Confirmatory Factor Analysis and Path Analysis	Green competency building practices, Green performance management practices and Green employee involvement practices	The scale is useful to measure Green HRM practice However, the response rate equal to 40% of sample so that further study needed with larger sample to confirm the findings
3	Green Human Resource Management	Yusliza <i>et al.</i> ,(2017)	87	6(15)	Partial Least Square Method	Green analysis and description of job position, Green performance assessment, Green recruitment, Green rewards, Green selection and Green Training	The scale is useful to measure only narrow set of specific Green HRM practice However, the scale has no utilization for measuring over all Green HRM system
3	Green Human Resource Management	Masri and Jaaron, (2017)	90	6(28)	Exploratory Factor Analysis and Correlation Analysis	Green management and organizational culture, Green performance management and appraisal, Green recruitment and selection, Green training and development, Green employee empowerment and participation and Reward and compensation	The scale is useful to measure Green HRM practice in manufacturing organization However, the further study needed with some other dimensions of Green HRM in other sector of organization in developing countries
4	Green Human Resource Management	Dumont <i>et al.</i> , (2017)	390	6	Exploratory Factor Analysis and Confirmatory Factor Analysis	Green goals, Green values, Green training, Performance appraisal, Rewards and compensation and workplace green behaviour	The scale is useful to measure Green HRM practice in manufacturing organization However, the Green HRM practices vary between organization to organization so that cross cultural research is specially important for developing a more global relevant measure for Green HRM
5	Green Human Resource Management	Guiyao Tang <i>et al.</i> ,(2018)	74 (Graduate)and 153(Workers)	5(19)	Exploratory Factor Analysis and Confirmatory Factor Analysis	Green recruitment and selection, Green training, Green performance management, Green pay and rewards and Green involvement	The scale is the widest application for measuring Green HRM and has been used with graduates and workers. However, the scale has no utilization for measuring Green HRM in eastern and western context

Table 3: Results of Exploratory Factor Analysis and Reliability of Green HRM.

S.N.	Name of Factors	Item Codes	Name of Variables	Loadings	Cronbach's Alpha
1	Green Training	GCM23	Team excellence award	.789	.920
		GCM22	Financially rewarding	.759	
		GCM21	Good/ Excellent and extraordinary	.726	
		GTD18	Imparting right knowledge and skills	.723	
		GCM25	Rewarding for green skill acquisition	.699	
		GCM24	Innovative environmental initiative	.699	
		GTD17	Training programme	.625	
		GTD16	Opportunity to everybody	.503	
2	Green Performance Evaluation	GPE14	Green target and responsibilities	.780	.888
		GPE12	Environmental objective with PE	.741	
		GPE15	Regular feedback to employee	.736	
		GPE13	Environmental performance standard	.705	
		GPE11	EMIS and environmental audit	.696	
3	Green Selection	GS8	Selecting candidate	.796	.887
		GS9	Selecting greening as consumer	.774	
		GS6	Considering candidate	.726	
		GR5	Preference given	.692	
		GS7	Ask environmental question	.606	
4	Green Employee Discipline Management	GEDM27	Setting penalties or dismissal	.884	.851
			Progressive disciplinary system	.792	
		GEDM28	Clear set of rule and regulation	.741	
		GEDM29	Penalties for non-compliance or targets	.696	
5	Green Employee Relations	GEDM30	Violated environmental rules	.592	.867
		GER34	Union is key stakeholder	.715	
		GER35	Opportunities to the unions	.676	
		GER31	Opportunity to the employee	.673	
		GER32	Training to the union representatives	.636	
6	Green Recruitment	GER33	Solving environmental issues	.481	.614
		GR2	Environmental criteria	.717	
		GR1	Socially and environmentally	.696	
7	Green Involvement	GR4	Online recruitment	.438	.472
		GS10	Online selection	.653	
		GTD20	Environmental training	.608	
		GR3	Environment policy	.596	

Table 4: The Fit Indices for Measurement Model.

Fit Indices	CMIN/DF (<2 or 3)	GFI (>.95)	CFI (>.95)	RMSEA (< .06 to .08)
First Order Model	2.946	.846	.909	.069
Second Order Model	2.923	.843	.909	.069

Table 5: Final and Second Order Model of Green HRM Practices.

Constructs	Sub-Constructs	Factor loadings	CR (>0.7)	AVE (> 0.5)	P-value*
Green HRM Practices	Green Training	.83	0.888	0.615	***
	Green Performance Evaluation	.79			
	Green Selection	.75			***
	Green Employee Discipline Management	.64			
	Green Employee Relation	.89			***
Sub-Constructs	Items	Factor Loadings	CR (>0.7)	AVE (> 0.5)	P-value*
Green Training			0.922	0.569	***
	GTD19	.59			***
	GTD16	.65			***
	GTD17	.72			***
	GCM24	.78			***
	GCM25	.70			***
	GTD18	.78			***

	GCM21	.79			***
	GCM22	.77			***
	GCM23	.81			
Green Performance Evaluation			0.888	0.615	***
	GPE11	.79			***
	GPE13	.82			***
	GPE15	.71			***
	GPE12	.83			***
	GPE14	.75			
Green Selection			0.889	0.618	***
	GS7	.72			***
	GR5	.70			***
	GS6	.81			***
	GS9	.81			***
	GS8	.88			
Green Employee Discipline Management			0.855	0.541	***
	GEDM30	.68			***
	GEDM26	.71			***
	GEDM29	.74			***
	GEDM28	.77			***
	GEDM27	.78			
Green Employee Relations			0.868	0.569	***
	GER33	.76			***
	GER32	.76			***
	GER31	.76			***
	GER35	.70			***
	GER34	.71			
Green Recruitment	GR2, GR1 and GR4	Construct removed due to low composite reliability			
P*-value <.001					

Table 6: Criteria for Reliability and Validity of the Construct.

S.N.	Validity	Criteria
1	Convergent Validity	CR is more than 0.7, AVE is more than 0.5, CR is greater than AVE
2	Discriminant Validity	AVE is must be greater than MSV

Table 7: Scale for Measuring Green Human Resource Management.

S.N.	Name of Factors	Statements
1	Green Training (GT)	Team excellence awards for better environmental performance.
		Financially rewarding for employee good environmental performance.
		Rewarding employee environmental performance (good/excellent and extraordinary).
		Imparting right knowledge and skills about greening (to each employee through a training program exclusively designed for greening).
		Rewarding for green skills acquisition.
		Introducing rewards for innovative environmental initiative/performance.
		Conducting a serious and systematic training program which is given to each employee for the purpose of giving needed knowledge, skills, and attitudes for good environmental management.
		Providing opportunities to everybody to be trained on environmental management aspects.
2	Green Performance Evaluation (GPE)	Providing environmental awareness training to create „environmental awareness“ among the workforce.
		Setting green targets, goals, and responsibilities.
		Incorporating corporate environmental management objectives and targets with the performance evaluation system of the organization.
		Providing regular feedback to the employees or teams to achieve environmental goals or improve their environmental performance.
		Installing corporate-wide environmental performance standards.

		Establishing environmental management information system (EMIS) and environmental audits.
3	Green Selection (GS)	Selecting applicants who are sufficiently aware of greening to fill job vacancies.
		Selecting applicants who have been engaging in greening as consumers under their private life domain.
		Considering candidates' environmental concern and interest as selection criteria.
		Expressing the preference of the organization to recruit candidates who have competency and attitudes to participate in corporate environmental management initiatives too in the recruitment message.
		When interviewing candidates or evaluating them for selection, to ask environment-related questions.
4	Green Employee Discipline Management (GEDM)	Setting penalties or dismissal for environmental management breaches.
		Developing a progressive disciplinary system to punish employees who violate the rules of green conduct.
		Establishing a clear set of rules and regulations, which imposes/regulates employees to be concerned with environmental protection.
		Setting penalties for noncompliance on targets in environmental management.
		If an employee violates environmental rules and regulations, take disciplinary actions (warning, fining, suspension, etc.) against him/her.
5	Green Employee Relations (GER)	Recognizing union as a key stakeholder in environmental friendly practices.
		Providing opportunities to the unions to negotiate with management about green workplace agreement.
		Providing opportunities to the employee to involve and participate in environment friendly practices suggestion schemes.
		Providing training to the union representatives in environmental management.
		Joint consultations in solving environmental issues of the organization.

Figure 1: First Order Measurement Model of Green HRM Practice.

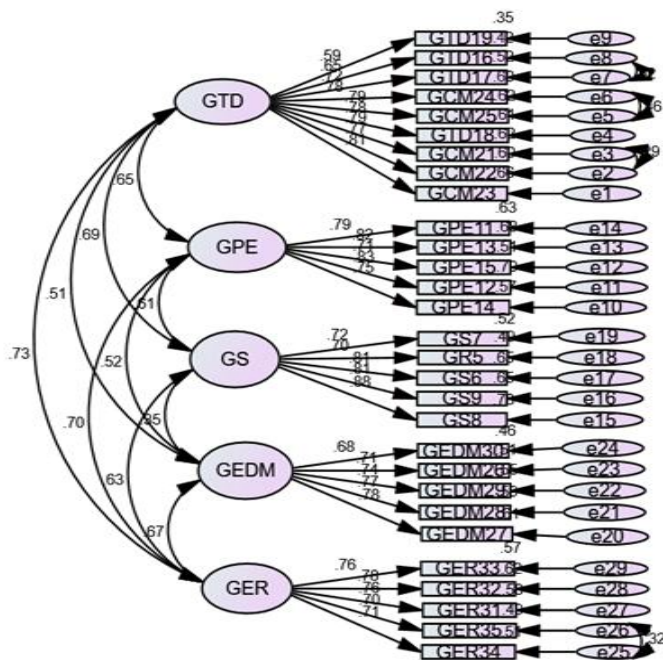
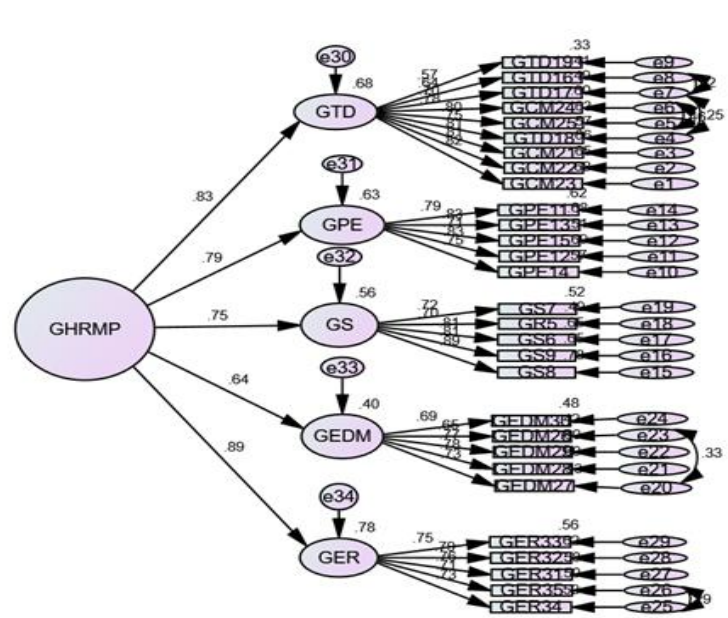


Figure 2: Second Order Measurement Model of Green HRM Practice.



LIMITED LIABILITY PARTNERSHIPS: A BUSINESS MODEL TO ACHIEVE ENTREPRENEURIAL EFFICIENCY

Devendra Jarwal*

The Limited Liability Partnerships (LLP) is a relatively new model of business organisation. The present research has been carried out to provide empirical-based handful information to the small-scale entrepreneurs and policymakers about the impact of the adoption of the LLP model and how it can be used as a strategy to make the venture successful. For this study sample data analysed to determine the correlation between the choice of business organisation and output level of firms by taking capital and labour as independent variables. Since LLP is considered more entrepreneurial friendly to small and medium-sized firms, entrepreneurial expertise to utilize capital and labour before and after the adoption of the LLP form has been specifically investigated. This Existing research supports the economic theory of limited liability and probability to choose limited liability while the present study is focused on determining the efficiency, if any, achieved by adoption of limited liability model by the small business firms. By using the Cobb-Douglas model, the article analyses the efficiency derived from the adoption of a limited liability model. The empirical results show that entrepreneurs have gained achieved efficiency through the adoption of LLP model. The entrepreneurs under the LLP model can pool and efficiently utilize capital as compared to labour employed. Thus for entrepreneurial growth and economic development business organisation models like LLP should be encouraged and must be adopted as a business strategy to minimize risk exposure.

Keywords: Entrepreneurship, Limited Liability Partnerships, Cobb-Douglas Model, Small Business, Strategy, Efficiency.

JEL Classification: M13, K22

Limited Liability Partnerships: A Business Model to Achieve Entrepreneurial Efficiency

The choice of a form of business organisations is apparently decisive in firm-level performance (Morris, Shirokova, & Shatalov, 2013). The empirical work on business strategies adopted by small firms approves the correlation between forms of business organisation and entrepreneurial output (Variyam & Kraybill, 1993). In broader terms, the success of any business depends upon internal as well as external environment (Philip, 2010). Under the internal factors, an entrepreneurial capability is the most determinant factor for the success of a business (Ahmed, 1985). Similarly, under the external factors, macro-economic phenomena like globalized era and vertical disintegration of business processes are beneficial for small and medium-sized business enterprises (Falemo, 1989). But fierce competition posed by dominant large scale business houses and complex legal environment is two major threats for the small-sized business houses (Van Witteloostuijn & Van Wegberg, 1992). Thus, for small business enterprises, a flexible business model with the least legal compliances is necessary. Small firms are mostly established as sole proprietorships and traditional partnerships. To minimize the threats posed by the external environments, as a form of strategy, entrepreneurs should explore new forms of business organisations suitable to the size of their business units. During the last two-three decades, we have seen the evolution of Limited Liability Partnerships

(LLP) as a new form of business organisation in many developing and underdeveloped countries. LLP was conceptualized to have a corporate form for small and medium-sized business enterprises. It offers organisational flexibility and structure of traditional partnership firms along with the feature of limited liability for its partners. Business partnerships enable the pooling of capital and entrepreneurial talent (Ferrary, 2010). The feature of limited liability enhances risk-taking capacity and secures personal wealth under increased litigious market environment. Looking towards the benefits of limited liability partnerships and their role in the economic growth of small and medium-size units, Larry Ribstein even argued the availability of limited liability for sole proprietorship (Ribstein, 1992). There are many opponents of the extensive use of limited liability as well (Karjala, 1979). The limited liability model shifts the risk taken by entrepreneurs to third parties like creditors and other businesses engaged in the supply chain. Thus, the irresponsible risks taken by entrepreneurs must not be shifted to third parties (Moran, 1998). Economic growth is getting emphasis nowadays and growth has to be achieved at the expense of factors such as a mechanism to protect third parties (Goode, 1983). However, third parties may utilize

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contractual instruments to cover their risk and simultaneously may use their business acumen to apprehend such threats. For growth momentum, there is much hype about the adoption of a limited liability model by the small and medium-sized enterprises. The unlimited liability enterprises are appropriate when business is a small-scale unit managed by the owner himself and not likely to achieve exponential growth. In the extreme litigious markets, a firm with the potential to grow needs cover of limited liability to encourage entrepreneurship (Freedman, Limited Liability: Large Company Theory and Small Firms, 2000). Looking towards the ease of doing business norms there is a push for fast track insolvency resolution plans and thus exposure of an entrepreneur's personal wealth is also required to be minimized. The purpose to launch Limited Liability Partnerships is three-dimensional. First is obviously to provide a boost to entrepreneurship by bridging the gap between traditional partnerships and high-cost compliance featured companies. To reap the benefits of the organized economy the second objective was set to enable existing unincorporated business enterprises to convert themselves into the Limited Liability Partnerships. The third is to let unemployed youth become entrepreneurs and instead of job seekers, they generate employment opportunities for others.

The pro and against arguments for the limited liability partnerships have posed a research question as to whether a limited liability partnership model should be adopted or not by the small scale enterprises. The arguments against the limited liability partnerships are more concerned about the third parties who will eventually bear the loss in the case of failure of LLPs. The Limited Liability Partnerships should be used as a strategy to get entrepreneurial success so that chances of failures may be minimized. Hence, the objective of this article is to analyse the enhancement of risk-taking capacity and its impact upon the success of the business in terms of utilization of labour and capital input variables. The present topic of research has been selected to provide a handful of information to the small-scale entrepreneurs and policymakers about the impact of the adoption of LLP model and how it can be used as a strategy to make a venture successful. For the balance of strategy, problems with the adoption of a LLP model have also been highlighted to assess the possible threats and work out possible solutions.

The present study analyses the correlation between the choice of business organisation and output level of firms by taking capital and labour as independent variables. Since LLP is considered as more entrepreneurial friendly to small and medium-sized firms, entrepreneurial expertise to utilize capital and labour before and after the adoption of the LLP form has been specifically investigated. By using the Cobb-Douglas model, the article analyses the efficiency derived

from the adoption of a limited liability model. If there is any efficiency then we need to consider the significance of providing limited liability broadly available to the small and medium sized establishments.

I. Literature Review

The present study analyzes the input of limited liability into small business enterprises to achieve entrepreneurial success. The advent of limited liability into the small business units has itself gone through massive support as well as huge protest. The arguments for and against limited liability has been comprehensively compiled by *Judith Freedman* in his research paper "Limited Liability: Large Company Theory and Small Firms". He critically examines the notion that limited liability for small firms should be easily available and discusses pro and against arguments at length. At the time of adopting limited liability for small firms in many developed countries through body corporate models, especially limited liability partnerships, there were strong arguments that encouraging small firms to adopt limited liability may prove a trap for unconscious business owners as well as for creditors. Feeling secure with the cloak of limited liability a business person may take a unwanted and irresponsible risk which will lead to the failure of the business. The irresponsible risk will lead to wastage of economic resources. Similarly, under the limited liability regime, there is a shifting of liability to the trade creditors who are not able to negotiate through contractual terms. In many economies, a limited liability partnership may be incorporated without investing any minimum capital which encourages the proliferation of undercapitalized firms and consequently the risk shifts onto the unorganized creditors (Ziegel, 1990). It lures a business person to undertake risky ventures for which he is not obliged to bear any cost as in case of failure, the cost will eventually shift on to the input creditors. More often than not, novices in the business community get trapped in the allurements of limited liability. Small firms are unable to reap the benefits of limited liability feature due to limitation of expansion and limited span of management. Limited liability vehicles are structured legal entities requiring timely compliance costs. So, why they need to bear a structured costs to form an incorporated body? (Halpern et. al., 1980). Limited liability is mainly useful where there is a separation of ownership and management; where complex monitoring of management is essential. Limited liability establishments function under agency laws and in small firms business owners are usually managers. To avoid the losses occurred due to the absence of close monitoring investors need limited liability but in the case of limited liability partnerships, there is no separation of ownership and management. Thus, limited liability partnerships are compliance costly and useless for close corporations (Fama & Jensen, 1983). The Limited Liability

Partnerships as envisaged for the small firms would try to mirror corporate characteristics as exactly as possible to manage tax obligations and may add-up dummy entities (Thompson, 1997).

The supporters of extension of limited liability to small firms including limited liability partnerships claim that this will narrow down the size of sole proprietorships and general partnerships leading to an enhanced organized sector (Ribstein, 1992). Though a small chunk may be attracted to devise tax avoidance mechanisms still its efficiency advantages, in general, will outweigh the disadvantages of limited liability entities for small businesses (Orsi, 1991). The majority of entrepreneurs having limited liability featured business organisations would not want to lose their capital investment just to know that risk will be eventually shifted to trade creditors in case of failure. If a business organisation fails investor loses his money before the third party. So entrepreneurs will not leave any stone unturned to keep business afloat (Easterbrook & Fischel, 1991). The institutional lenders like banks have specialized expertise and they will better contract around limited liability by asking personal guarantees or collateral to secure their money. Non-institutional lenders do not have any negotiation powers but still, they will not lose their money if they constitute crucial input supplier role and resultantly operational business cycle will ensure their payment (Bratton & McCahery, 1997). Even if voluntary creditors do not constitute crucial input suppliers, the available legal avenues will ensure their payment (Ribstein, 1992). The requirement of minimum capital for limited liability partnerships may be helpful in avoiding undercapitalization and also deter incorporation of dummy entities. But the idea of minimum capital is not pragmatic as there is a practical problem with setting the level of minimum capital and it also impedes the entry of new firms which will facilitate the existing firms to enjoy monopoly resulting in the greater economic loss (Hansmann & Kraakman, 1991). Both pro and against arguments for the limited liability for the small firms discussed above are theoretical in nature and lack empirical shreds of evidence to support their arguments.

Very few studies have been carried out to determine the practical implications of limited liability on small business. There is also little evidence that regulations promulgated to protect and promote small businesses to accomplish their stated objectives to minimize social hazard with encouragement to the entrepreneurship. In 1994, *Judith Freedman* in his work ‘*Small Business and the Corporate Form: Burden or Privilege?*’ provided some pieces of evidence on the incorporation by the small firms. He comprehensively discussed the advantages and disadvantages of a corporate form being adopted by the small businesses and concluded that a simplified legal framework should be made

available to small businesses instead of complex Companies Act. Accordingly, the present study assumes that Limited Liability Partnerships is the best-suited model for the small business firms and its impact on the efficiency of entrepreneurs needs to be studied.

In 2011, Brian Broughman in his work ‘Entrepreneur Wealth and the Value of Limited Liability’ explores the causes of variation in the entrepreneur’s wealth due to the adoption of limited liability as a form of business organisation. In a common economic theory perspective, wealthy entrepreneurs would embrace limited liability to protect their personal wealth against the losses incurred in the business ventures and new entrants will seek limited liability protection to minimize their risk exposure. With every addition of \$1,00,000 to the personal wealth of entrepreneur, there are two percent more chances that he will opt for a limited liability business model. This study supports the economic theory of limited liability and probability to choose limited liability while the present study is focused on determining the efficiency, if any, achieved by adoption of limited liability model by the small business firms. If any efficiency is derived from the LLP model then it will naturally minimize the social hazards of limited liability like an undue burden on creditors, irresponsible risk-taking behaviour and tendency of tax avoidance, etc. Therefore, the present study will provide empirical evidence of efficiency achieved through the adoption of a Limited Liability Partnership model.

II. Research Design & Methods

The area chosen for this study is India as after liberalisation of the Indian economy coupled with vertical disintegration there is a spurt in small and medium scale establishments. India is also emphasizing on entrepreneurship development among youths to expand its economy. There were 145186 Limited Liability Partnerships registered in India as on 31st March 2019. Purposive sampling method was used to select the LLPs for the statistical analysis with a focus on LLPs which had incorporated after conversion from sole proprietorships and traditional partnerships and has existed for at least three years. Finally, 439 Limited Liability Partnerships were sorted out which had responded to our interview call and their post-incorporation financial firm-level data was extracted from the Ministry of Corporate Affairs’ website. All the selected firms had got incorporated between the period of 2011 to 2014 calendar years. The pre-incorporation data was collected through personal interviews. The extracted data set contains details of annual turnover, capital employed (invested and borrowed) number of employees, profit and loss details, and other financial characteristics. For this study, the financial information was restricted up to three-year pre-incorporation and three-year post incorporation period. The objective is to

test whether a Limited Liability partnership model can be used as strategic adoption by the small firms to achieve efficiency. Small firm chosen here means a firm which has a maximum of three years average of Rupees one million Capital employed (invested plus borrowed) except two firms which had paid-up capital which have Rupees 10,10,000/- and 10,76,000/- respectively. The base of estimation of efficiency in this paper is the modified Cobb-Douglas Production function, where capital and number of employees employed are productive input and the output variable is turnover. The estimation equation is as follows:

$$\text{Log}(x) = \alpha + \beta_1 \text{capemp} + \beta_2 \text{emphired}$$

Regression Equation

$$\text{In}(Q) = \text{In}(A) + \beta_1(K) + \beta_2(L)$$

where

$$\text{In}(Q) = Y/x \text{ 'Y given x'}$$

$$\text{In}(A) = \beta_0 \text{ (Intercept parameter)}$$

$$\text{In}(K) = x_1$$

$$\text{In}(L) = x_2$$

The values of α , β_1 , and β_2 for pre and post-incorporation periods have been estimated through the ordinary least square method and the regression model has been used (Cobb & Douglas, 1928). The value of α show the efficiency level achieved. β_1 is co-efficient of capital employed and this input variable is inserted as 'CAPEM'. β_2 is co-efficient of the number of employees hired and this input variable is inserted as 'EMPHIRED'. In the estimation of the above equation natural logarithm of each of firms capital employed, numbers of employees and turnover amounts have been measured. The capital employed includes invested capital and a borrowed amount, which determines the risk-taking ability of entrepreneurs. The number of employees represents the managerial ability of the entrepreneurs. The collected data were analyzed using Microsoft Excel utility software.

For this paper 'Theory of Production' has been applied by assuming that there exists a relationship between capital employed, labour hired and turnover (Cobb & Douglas, 1928). Further turnover is the regression of capital employed and labour hired. The efficient use of capital and labour will lead to changes in turnover outcome. The level of management is also different in respect of capital and labour, some may efficiently use capital and some may efficiently use labour. The marginal productivity of labour and capital are also determined with the help of partial differentiation methods.

Since only two input variables have been used for estimation strategy, there is no ample scope to test the robustness of the empirical results and there is minimum scope to test input complexity. In the present study, turnover is regressed with

capital and labour. However, one should be careful in interpreting the results given the fact that sometimes turnover may lead to determining the amount of capital and labour required if we assume economic growth leads to capital accumulation and employment generation. In that case, capital and labour are functions of turnover. Therefore the present result may be subject to reverse causality if we assume in that way instead of production theory or technological progress.

III. Results and Discussion

The first input variable has been taken as capital employed which consists of capital invested and borrowed money. Table 1 summarizes descriptive statistics of capital employed: The capital employed has been calculated on the basis of three years average for each firm relating to pre and post incorporation period. Prior to incorporation as LLP the average capital employed was Rupees 1,47,900/- which after incorporation increased to Rupees 3,11,800/-. The average capital employed is increased twice. The minimum capital employed increased by nine times while the maximum capital employed increased by two times. Increment in minimum capital invested shows that incorporation has enabled entrepreneurs to increase the capitalisation of firm but the range of capital employed has also been increased twice which shows that some firms become more capitalised resultantly capitalisation process is not uniform.

The second variable has been taken as employees hired. (Table 2) below summarizes descriptive statistics of employees hired:

The number of employees hired has been calculated on the basis of three years average for each firm relating to pre and post incorporation period. Prior to incorporation as LLP the average employees employed were 1.98 persons which after incorporation increased to 3.25 persons. The minimum persons employed remains the same in the pre and post incorporation period while the maximum persons employed have increased by 3.33 persons. Thus incorporation has led to employment generation. But capital employed enhanced twice while employed persons increment rate is less than twice so these small firms are more capital intensive in nature in comparison with labour hired. Before incorporation kurtosis stood at 5.08 which signifies *leptokurtic* tendency resulting in very few firms generating employment while after incorporation it comes down to 2.01 which signifies *platykurtic* resulting in the generation of employment by all the firms as there are no extreme values in the frequency distribution.

Turnover of the firms has been considered as a dependent variable and output of the product of capital and labour. Table

3 summarizes descriptive statistics of turnover: The turnover is calculated on the basis of three years average for each firm relating to pre and post incorporation period. Prior to incorporation as LLP the average turnover was Rupees 15,72,800/- which after incorporation increased to Rupees 42,14,800/-. The average turnover of firms has increased by around 167% from the pre-incorporation period.

The distribution of turnover among firms is also nearly normally distributed as it shows a *platykurtic* tendency with no extreme values. The overall turnover has also enhanced by three times. Turnover is regressed on capital employed and employees hired for both pre and post incorporation period. The results of regression have been used to fit production function as developed by Cobb-Douglas. The calculation has been done by converting numerical values into natural logarithm values. This research is theoretically based on the assumption that management of capital and labour has an impact upon turnover (Alternative Hypothesis $\rho \neq 0$). If there is no impact of capital and labour upon turnover then $\rho = 0$ i.e. Null Hypothesis). Turnover is regressed on capital and labour taking pre incorporation data and results of regression analysis are as follows:

‘Goodness of fit’ measure has been explained by the multiple R, R-Square, and standard error of the regression. Multiple R is a relative measure and at 0.96 it is indicating a strong positive relationship between the dependent and independent variables. The coefficient of determination (r^2) is 0.93 signifying that 93 percent of the variation y-values around mean has explained by the x-values, alternatively 93% values fit the model. The standard error regression explains the absolute measure of the distance of data points fall from the regression line and 0.18 shows that there is 18% of the distance between data points and regression line. (Table 5) summarizes the Analysis of Variance (ANOVA) explaining the level of variability within a regression model and also provides a basis for a test of significance.

The results given in (Table 5) describe statistics for the test of hypothesis confirming the alternative hypothesis ($\rho \neq 0$) that there is a significant impact of management of capital and labour upon turnover. As per F distribution if SSM is larger than SSE then the ratio is more than one and the null hypothesis gets rejected. Also, the p-value for the F test is less than 0.001 indicating strong evidence of rejection of the null hypothesis. (Table 6) the values for line of best fit calculated after taking logarithm values of the dependent and independent variables. The linear equation for the Cobb-Douglas model shall be $Y = 16.70K^{0.81}L^{0.07}$. Since the p-value is less than the significance level i.e. $\alpha = 0.05$ thus the null hypothesis gets rejected and the correlation coefficient proved to be significant. In (table 7) turnover is regress on capital and

labour taking post-incorporation data and results of regression analysis are as follows:

The absolute measure Multiple R is at 0.98, indicating strong positive relationship between the dependent and independent variables and the relationship has become more correlated in the post-incorporation period. The co-efficient of determination (r^2) is 0.96 signifying that 96 percent of the variation y-values around mean has explained by the x-values, alternatively 96% values fit the model. The standard error regression explains the absolute measure of the distance of data points falls from the regression line and 0.08 shows that there is an 8% of the distance between data points and the regression line. Thus after incorporation as LLP, the results have become more normally distributed eliminating the irregular behaviour in terms of regression analysis.

(Table 8) summarizes the Analysis of Variance (ANOVA) of post incorporation period explaining the level of variability within a regression model and also provides basis for the test of significance. The results given in Table 8 above describe statistics for test of hypothesis confirming the alternative hypothesis ($\rho \neq 0$) that there remains significant impact of management of capital and labour upon turnover even after incorporation as LLP. As per F distribution if SSM is larger than SSE then ratio is more than one and null hypothesis gets rejected. Also the p-value for the F test is less than 0.001 indicating strong evidence of rejection of null hypothesis.

The (table 9) shows the values for the ‘line of best fit’ calculated after taking logarithm values of dependent and independent variables. The linear equation for Cobb-Douglas model shall be $Y = 14.12K^{0.94}L^{0.01}$. Since p-value is less than the significance level i.e. $\alpha = 0.05$ thus the null hypothesis gets rejected and the correlation coefficient proved to be significant.

According to the Table 6, the output equation for pre incorporation period is $Y = 16.7K^{0.81}L^{0.07}$, if we consider input variable of capital as 2 and labour as 3 the total output will be $16.7(2)^{0.81}(3)^{0.07} = 31.61$

$$\text{Average product of capital: } AP_K = \frac{16.7K^{0.81}L^{0.07}}{K} = 16.7K^{-0.19}L^{0.07} \dots\dots\dots(1)$$

$$\text{Average product of labour } AP_L = \frac{16.7K^{0.81}L^{0.07}}{L} = 16.7K^{0.81}L^{-0.93} \dots\dots\dots(2)$$

Evaluating when $K = 2$ and $L = 3$, we obtain $AP_K = 15.8$ and $AP_L = 10.53$

$$AP_K = 16.7(2)^{-0.19}(3)^{0.07} = 15.8 \dots\dots\dots(3)$$

$$AP_L = 16.7(2)^{0.81}(3)^{-0.93} = 10.53$$

Thus, if $K = 2$ and $L = 3$ then by holding $L = 3$ the output per unit of capital is 15.80 units, but if K is held at 2, the output

per unit of labour is 10.53 units (Here Rupee has been denoted as unit). Now

Evaluating when $K = 2$ and $L = 3$ the marginal output is as follows:

$$\text{Marginal product of capital } MP_K = \frac{\partial P}{\partial K} = 13.527K^{-0.19}L^{0.07} = 13.527(2)^{-0.19}(3)^{0.07} = 12.805 \text{ units}$$

$$\text{Marginal product of labour } MP_L = \frac{\partial P}{\partial L} = 1.169K^{0.81}L^{-0.93} = 1.169(2)^{0.81}(3)^{-0.93} = 0.737 \text{ units}$$

Similarly, the output equation for post incorporation period is $Y = 26.83K^{0.78}L^{0.05}$, if we consider input variable of capital as 2 and labour as 3 the total output will be $26.83(2)^{0.78}(3)^{0.05} = 48.67$

$$\text{Average product of capital: } AP_K = \frac{26.83K^{0.78}L^{0.05}}{K} = 26.83K^{-0.22}L^{0.05} \dots\dots\dots(4)$$

$$\text{Average product of labour } AP_L = \frac{26.83K^{0.78}L^{0.05}}{L} = 26.83K^{0.78}L^{-0.95} \dots\dots\dots(5)$$

Evaluating when $K = 2$ and $L = 3$, we obtain $AP_K = 24.33$ and $AP_L = 16.22$

$$AP_K = 26.83(2)^{-0.22}(3)^{0.05} = 24.33 \dots\dots\dots(6)$$

$$AP_L = 26.83(2)^{0.78}(3)^{-0.95} = 16.22 \dots\dots\dots(7)$$

Thus, if $K = 2$ and $L = 3$ then by holding $L = 3$ the output per unit of capital is 24.33 units, but if K is held at 2, the output per unit of labour is 16.22 units. Now

Evaluating when $K = 2$ and $L = 3$ the marginal output is as follows:

$$\text{Marginal product of capital } MP_K = \frac{\partial P}{\partial K} = 20.927K^{-0.22}L^{0.05} = 20.927(2)^{-0.22}(3)^{0.05} = 18.98 \text{ units}$$

$$\text{Marginal product of labour } MP_L = \frac{\partial P}{\partial L} = 1.3415K^{0.78}L^{-0.95} = 1.3415(2)^{0.78}(3)^{-0.95} = 0.811 \text{ units}$$

IV. Conclusion

The total productivity of sample firms was 31.61 units which increased to 48.67 units after the adoption of the LLP model therefore, 53.97 % efficiency has been recorded. Average turnover based on capital was 15.80 units before incorporation which has increased to 24.33 units therefore, 53.98 % efficiency has been recorded in terms of average utilization of capital input. Average turnover based on labour was 10.53 units before incorporation which has increased to 16.22 units therefore, 54.03 % efficiency has been recorded in terms of average utilization of labour input. Marginal output in terms of turnover based on capital was 12.80 units before incorporation which has increased to 18.98 units thus, 48.22% efficiency has been recorded in the marginal productivity of capital. Marginal output in terms of turnover based on labour was 0.73 units before incorporation which has increased to

0.81 units thus, 10.04% efficiency has been recorded in the marginal productivity of labour.

The empirical results show that entrepreneurs have gained achieved efficiency through adoption of LLP model. The results show that entrepreneurs under LLP model are able to pool and efficiently utilize capital as compared to labour employed. The comparative low outcome of utilization of labour may be attributed to an overemphasis upon the proliferation of self-employment through government policy framework charged with vertical disintegration where entrepreneurs instead of getting the in-house process done themselves, they prefer to get business process outsourced (Chen, 2005). The flexible model of LLP provides efficiency and optimizes risk taking behaviour. Yet the ability to manage a firm depends upon entrepreneurial development (Ogbo & Nwachukwu, 2012). There are business units in every model where some businesses succeed and some get failed and so is true with the LLP model also. As per national data available on the Ministry of Corporate Affairs of India's website, there is a number of LLPs that became inactive and some of them even applied for dissolution. Entry and exit are part of the business cycle (Ilmakunnas & Topi, 1999). The emphasis of this study is on the form of business organisation as a key factor affecting entrepreneurial abilities to manage capital and labour and results are found to have a positive impact on achieved efficiency level. As the firm grows it needs to adopt a new form of business organisation and this study suggests that for a small-sized unincorporated body the LLP is the best suited model as compared to one-person company and private company. It provides organisation flexibility with the least compliance cost that is not available in a company form. Though compliance cost is least yet there is an element of the extra burden of fixed cost in terms of maintenance of books of accounts cum other statutory registers which have not existed before the adoption of the LLP model as earlier firms belonged to the unorganised sector and not mandatorily required to have such record keeping. However, the pecuniary benefits derived from the record-keeping in management decisions are more than such fixed cost incurred if we consider the comparative efficiency achieved and moreover such information may also be used in implementing strategic decisions. Recorded transactions are also helpful for Government agencies in taxation and formulating economic policies. LLP model may be used to get advantage of self-employment where self-employed persons come together to pool finance and skills while enjoying liability protection. However, there may be chances that LLP may be used for non-entrepreneurial activities to enjoy tax benefits or to take the advantage of the corporate veil but such activities should be addressed by administrative policy frameworks by the State and genuine entrepreneurs must not be restrained from adopting LLP model. Thus for entrepreneurial growth and

economic development business organisation models like LLP should be encouraged and must be adopted as business strategy to minimize risk exposure.

Limitations of the Study and Scope for further research

No study is complete in itself and all the research questions of a particular subject cannot be covered in a single research, so is true with the present study. In this study, only two input variables have been taken while some other variables like debt-equity ratio, number of partners, and entrepreneurial background of partners need also be tested to assess the impact on the dependent variables. Net profit may be taken instead of turnover to evaluate the operational efficiency level.x

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Table 1: Descriptive statistics of capital employed.

Particulars	Before LLP	After Incorporated as LLP	Particulars	Before LLP	After Incorporated as LLP
Mean*	14.79	31.18	Kurtosis	2.36	0.124
Standard Error	0.53	0.89	Skewness	1.46	1.22
Median*	11.95	25.30	Range*	58.86	97.60
Mode*	5.47	13.10	Minimum*	1.04	10.00
Standard Deviation	11.21	18.73	Maximum*	59.9	107.60
Sample Variance	125.71	350.93	Sum*	6493.79	13690.53

*Figures denoting Rupees in ten thousand

Table 2: Descriptive statistics of Employees hired.

Particulars	Before LLP	After Incorporated as LLP	Particulars	Before LLP	After Incorporated as LLP
Mean	1.98	3.25	Kurtosis	5.08	2.01
Standard Error	0.04	0.08	Skewness	2.12	1.41
Median	1.67	2.67	Range	6.00	9.33
Mode	1.33	2.33	Minimum	1.00	1.00
Standard Deviation	0.99	1.67	Maximum	7.00	10.33
Sample Variance	0.98	2.77	Sum	872.63	1427.21

Table 3: Descriptive statistics of Turnover.

Particulars	Before LLP	After Incorporated as LLP	Particulars	Before LLP	After Incorporated as LLP
Mean*	157.28	421.48	Kurtosis	1.82	1.65
Standard Error	5.07	10.38	Skewness	1.32	1.28
Median*	134.25	348.12	Range*	563.36	1242.54
Mode*	53.21	261.18	Minimum*	18.15	120.31
Standard Deviation	106.36	217.63	Maximum*	581.51	1362.85
Sample Variance	11313.78	47364.94	Sum*	69047.66	185032.00

*Figures denoting Rupees in ten thousands

Table 4: Regression Statistics of Firms before incorporation as LLP (up to two digits).

Multiple R	R Square	Adjusted R Square	Standard Error	Observations
0.96	0.93	0.93	0.18	439

Table 5: ANOVA (Before incorporation as LLP).

Source of Variation	Degree of Freedom (d.f.)	Sum of Squares (SS)	Mean Square MS = SS/d.f.	F - distribution SSM/SSE	Significance F (p-value)
Regression	2	203.18	101.59 (SSM)	2987.94	0.00
Residual	436	14.89	0.034 (SSE)		
Total	438	218.07			

Table 6: Linear model of capital and labour to turnover (Before LLP).

Y on X	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	2.81*	0.029	96.03	0.00	2.75	2.87
X Variable 1	0.81	0.016	50.18	0.00	0.78	0.85
X Variable 2	0.07	0.033	2.34	0.019	0.012	0.142

*Using exponential function value will convert to $e^{2.81} = 16.70$ **Table 7: Regression Statistics of Firms after incorporation as LLP (up to two digits).**

Multiple R	R Square	Adjusted R Square	Standard Error	Observations
0.98	0.96	0.96	0.08	439

Table 8: ANOVA (After incorporation as LLP).

Source of Variation	Degree of Freedom (d.f.)	Sum of Squares (SS)	Mean Square MS = SS/d.f.	F - distribution SSM/SSE	Significance F (p-value)
Regression	2	96.14	48.08 (SSM)	6010.00	0.00
Residual	436	3.49	0.008 (SSE)		
Total	438	99.67			

Table 9: Linear model of capital and labour to turnover (After LLP).

Y on X	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	3.28*	0.038	85.32	0.00	3.21	3.36
X Variable 1	0.78	0.017	44.75	0.00	0.75	0.82
X Variable 2	0.05	0.021	2.68	0.007	0.015	0.099

*Using exponential function value will convert to $e^{3.28} = 26.83$

A STRUCTURAL EQUATION MODEL OF FINANCIAL ACCOUNTING PRACTICES AND USE OF IT IMPACTING MSMEs PERFORMANCE: MODERATION BY ENTREPRENEURIAL SKILLS

Anupriya Pandey* Rekha Gupta**

In order to remain creditworthy and investable, the entrepreneurs should be able to produce high quality and standardised financial information on a regular basis. This information can be fed further into formal business plans in order to optimise management decisions and improve business processes. The critical question that needs to be answered is: Do the entrepreneurs possess adequate financial literacy competencies, to gather and utilize the financial information, to achieve their business objectives? Does their level of financial literacy significantly explain their use of information technology for gaining competitive advantage? With the introduction of GST, there has been a change in the accounting environment of business through increased usage of computerised accounting systems (CAS) and heavy reliance on accountants for this purpose. This paper specifically aims to assess the financial literacy skills of MSME entrepreneurs in creation and utilisation of financial information using CAS and digital skills, to achieve better financial management and control over business activities. The structural model developed in this paper confirmed the positive association of financial accounting practices and use of IT with the business performance of MSMEs. Since entrepreneurial skills are intended to complement the financial literacy competencies of entrepreneurs, the paper also examined and confirmed the moderating effect of entrepreneurial skills on financial accounting practices and business performance relationship.

Keywords: Financial Literacy, Financial Accounting, Business Performance, Entrepreneurial Skills

JEL Classification: G53

The entrepreneurs are constantly involved in the decision-making process regarding acquisition, allocation and utilization of resources for business purpose. These decisions have financial implications and in order to be effective, the entrepreneurs need to be financially literate. According to the Working Group on Access to Finance for Agribusiness (2015), the key building blocks of SME financial literacy include (i) basic management competencies; (ii) knowledge and effective use of financial services and products; (iii) efficient management of different types of funding; (iv) understanding of basic accounting principles and formal financial record keeping; (v) Separation of personal and firm assets and liabilities; and (vi) financial risk management skills. Thus, an important aspect of financial literacy of an entrepreneur is the ability to keep a track of financial transactions of business through formal record keeping and understanding the measurements in the form of financial statements. Dahmen & Rodriguez (2014) defined small-business financial literacy as, “the ability to understand and use business financial statements to generate key financial ratios to evaluate and manage a business” (p. 2). The OECD International Network on Financial Education (OECD/INFE), 2018 provided a core competencies framework of financial literacy of MSMEs and potential entrepreneurs, wherein

‘keeping records and accounting’ has been identified as a core competency for financial and business management and planning. Accountants and bookkeepers can compensate for a lack of record keeping knowledge on the part of the entrepreneur but only up to a point. At the end of the day, it is the knowledge that entrepreneurs themselves have that remains important when it comes to making financial decisions (Lentz and Others, 2016). On similar lines, Brown and Others (2006) cited that “financial literacy for small business owners must contemplate the ability to read and understand fundamental financial statements, as well as, the ability with numbers, in order to make informed judgments and to make effective decisions regarding the use and management of money”. Accounting is the language of business and an aid to management. Entrepreneurs who do not keep proper financial records, and fail to provide transparent and standard financial statements and information, make it

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difficult for lenders to assess the intrinsic risk of their firm, irrespective of size (Global Entrepreneurship Monitor, 2010). Proper financial analysis and appropriate reporting capabilities will improve the ways in which MSMEs describe their financial profile to their creditors during the loan application process, improving their chances of success (Atkinson, 2017). In a nutshell; financial accounting practices can assist in creation of wealth and maintenance, by producing information useful for others.

The Indian MSMEs have a significant role in expansion of entrepreneurial endeavours through its visionary reforms like Make in India, Start-Up India, Digital India, Skill India and Ease of Doing Business. Use of information technology is the key to growth for MSME industry in India. Information Technology has enabled the businesses to record financial transactions using computerised systems. The transition to cashless economy after demonetization exposed the vulnerability of cash-run businesses and the importance of going digital. But unfortunately, our MSME entrepreneurs face an assortment of challenges, caused by both demand side and supply side factors. These include lack of access to finance, financial exclusion due to lack of awareness, lack of digital skills, technological obsolescence, lack of management skills and business acumen, lack of access to infrastructure and logistics, lack of financial literacy and inadequate links to domestic and global market (OECD/INFE Progress Report on Financial Education for MSMEs and Potential Entrepreneurs, 2015). This paper specifically seeks to address the challenge of lack of financial literacy with respect to financial accounting practices and use of information technology by MSME entrepreneurs, which hinders their ability to maximise their business potential.

Since entrepreneurial skills are considered vital for the growth and survival of MSMEs and financial literacy competencies are intended to complement and deepen broader entrepreneurial skills (OECD, 2018, p.3), so in this paper, we examine if entrepreneurial skills change the strength of (moderates) the relationship between financial accounting practices and use of IT by MSME entrepreneur (independent variable) and his business performance (dependent variable). Introducing moderators into bivariate relationships helps reduce the potential for misleading inferences and permits a more precise and specific understanding of contingency relationships (Sabana, 2014).

I. Review of Literature

The studies providing some empirical evidence of direct causal link between financial accounting practices and use of IT by entrepreneurs and their business performance are presented here. Some studies linking entrepreneurial skills with the business performance were also reviewed.

Smith (1999) conducted a study on 150 new small firms on their use of information technology and reported that greater the use of IT, the higher was the firm's performance due to the competitive advantages gained through superior information systems. Also, most of the firms were using IT for record keeping purposes rather than using them for analysing business performance.

Soudani (2012) observed the usefulness of accounting information system (AIS) for effective organizational performance of 236 listed companies of Dubai Financial Market. A correlation matrix revealed the highest correlation between AIS and financial performance and ANOVA and regression results indicated that AIS cause better financial performance.

Padachi (2012) examined the importance of accounting services among 141 SMEs in manufacturing sector in Mauritius using variables like size of firm, age, legal structure, family involvement and owners' education level. Majority respondents in very small/small category and firms below 5 years age kept only minimum records to comply with external reporting requirements; mainly organised as sole proprietorship with greater family involvement. Important variables which discriminated between firms having accounting systems and firms with minimal accounting systems were the education level of owner manager, outside influence in the decision making process, market conditions and the presence of accounting department.

Ikem, Chidi & Titus (2012) examined the adequacy of accounting practices of 348 SMEs in Nigeria and the extent to which their access to finance depended upon their accounting practices and collateral facility. Group logit model and ordinary least square techniques were used for data analysis. The results indicated that SMEs faced financial challenges due to poor quality accounting information, which further hampered their accessibility to finance.

Rao (2013) made an attempt to explore the relationship between adoption of proper accounting practices and the profitability of 66 manufacturing and 126 service-based MSMEs in Visakhapatnam. Pearson Chi-Square, continuity correlation, Likelihood Ratio and Linear-by-Linear Association tests revealed an increasing trend in the profits of MSMEs who adopted proper accounting system.

Dahmen & Rodríguez (2014) conducted a case study to examine the financial literacy skills of fourteen small business entrepreneurs. Financial literacy was considered equivalent to understanding of primary financial statements and use of financial ratios for managing the business. The study found a direct connection between financial illiteracy and financial difficulties faced by the small business owners.

Heenkenda & Chandrakumara (2016) conducted a study among the banana farmers of Sri-Lanka and using factor analysis and a canonical correlation analysis, it concluded that entrepreneurial skills (measured through five variables namely confidence and risk taking behaviour, collective action and cooperation, readiness to change and innovativeness, drive and administrative skills and visionary and profit oriented nature) were positively associated with the performance variables (profitability, financial performance, marketing orientation and productivity).

Research Gap

Despite the growing recognition of importance and need of financial literacy for MSME entrepreneurs in India, there is a dearth of empirical research in this area. Most of the studies conducted so far mainly focused on personal finance issues involving the general public. India does not currently measure financial literacy levels of MSMEs and potential entrepreneurs nor does the National Strategy address the financial education needs of this group directly. This study aims to fill the gap and provides empirical evidence on financial accounting practices, use of IT and business performance of MSMEs.

Research Objectives

1. To examine the financial accounting practices and use of IT by MSME entrepreneurs according to type of business.
2. To assess the impact of financial accounting practices and use of IT by MSME entrepreneurs on the business performance.
3. To examine the impact of entrepreneurial skills on the business performance.
4. To examine the impact of entrepreneurial skills in moderating the influence of entrepreneur financial accounting practices and use of IT on the business performance.

II. Research Design & Methods

The population of the study comprised of a representative sample of 448 entrepreneurs of micro, small and medium enterprises, operating in Delhi. Primary data was collected through a self-structured questionnaire. Delhi has been divided into 12 zones as per MCD classification. A two-stage probability sampling design was adopted and from each zone, an equal representation of micro, small and medium enterprises was taken using stratified random sampling method. Descriptive statistics was provided using SPSS version 19. Structural Equation Modelling (SEM) was adopted for data analysis; using Smart PLS 3.2.8. It has the ability to handle both formative and reflective indicators in contrast to other SEM techniques. The advantage of using PLS is that it does not make the assumption of multivariate normality and

has ability to handle multicollinearity among the independents unlike the SEM techniques of LISREL and AMOS. Further, PLS has no limitation on sample size than the other SEM techniques (Chin, 1998).

(A) Financial Accounting Practices and Use of IT:

Accounting is a very important element of financial literacy in the context of business owners. The businesses lacking comprehensive accounting records to be used for proper project evaluation and budgeting tends to compound their financial challenges. Sometimes, they are not able to estimate their profits with certainty, leading to excessive drawings and erosion of their capital (Ikem, Chidi and Titus, 2012). Brown, Saunders and Beresford (2006) cited that financial literacy for small business owners must contemplate the ability to read and understand fundamental financial statements, as well as, the ability with numbers, in order to make informed judgments and to make effective decisions regarding the use and management of money. Since the introduction of GST, there is a great level of demand for CAS. Current flagship programmes, such as Digital India and Skill India, are focused on making Indian MSMEs acquire digital literacy and develop the required digital skills. The transition to cashless economy after demonetization exposed the vulnerability of cash-run businesses and the importance of going digital.

Through survey, the study investigated the financial record keeping behaviour of business owners or managers of MSMEs, keeping of financial records in formal or informal manner, the role of accountants in that process, use of accounting information for decision making purpose (Dawuda & Azeko, 2015) and the use of information technology for gaining competitive advantage.

(B) Entrepreneurial Skills: The entrepreneurial skills are the qualities or attributes required for an entrepreneur to start and successfully manage a business in a competitive environment (Akande, 2011). The OECD Studies on SMEs and Entrepreneurship (2010) defined entrepreneurship skills as the specific skills which involve assessment of risk and warranting, strategic thinking, self-confidence, the ability to make the best of personal networks, motivating others to achieve a common goal, and the ability to deal with other challenges and requirements. Some entrepreneurial skills and knowledge may be associated with some personality traits, but at the same time, they can be learnt and practiced to improve the performance and growth of business.

Based on the literature reviewed, the five most commonly cited entrepreneurial skills chosen for the purpose of this

paper are hard work and energy; internal focus and need to achieve; business experience and financial success; integrity and determination; and adaptability to change. To assess each of these five entrepreneurial skills, various statements were formulated on a five point Likert-type scale (Heenkenda & Chandrakumara, 2016).

(C) Business Performance: Measuring the performance provides the basis for an organisation to assess how well it is progressing towards its predetermined objectives, helps to identify areas of strengths and weakness, and decides on future initiatives, with the goal of improving organisational performance (Amaratunga & Baldry, 2002). In case of MSMEs, firm's actual financial performance data was not available as the firms engage in data manipulation to avoid taxes or they were reluctant to share their financial data with the researchers. Due to these limitations in obtaining objective performance data, the subjective measures (perception-based evaluation) are employed to evaluate MSMEs performance. Subjective measures of performance are widely used in research and are interpreted as equivalent to objective measures (Wall, et al., 2004).

This study presents the business performance of MSME entrepreneurs, where the respondents were asked to rate their organisation's performance relative to their competitors over the last five years on a 5-point Likert scale, using 4-item measure i.e. marketing, growth in sales, profitability and market share (Deshpandé, Farley & Webster, 1993; Dess & Robinson, 1984). Also, the owner's level of satisfaction with their business was measured using five statements on a 5-point Likert scale (Sabana, et al., 2014).

III. Results & Discussion

(A) Business Characteristics

(B) Demographic Characteristics

(C) Financial Accounting Practices and Use of IT

(i) Responsibility of Keeping Financial Records: (Table 3) reports the financial record keeping behaviour of respondents, where majority (66.5%) of the firms were utilising the services of accountants. Few (11.8%) firms had outsourced the work and were using the services of accounting consultants. Entrepreneurs of 8 firms (1.8%) were maintaining the financial records on their own, using computer software and 89 (19.9%) firm owners were maintaining the records on their own manually. In effect, 80.1% (66.5%+11.8%+1.8%) firms had computerized financial records, either self-maintained or through outside agencies.

An analysis of financial record keeping behaviour of micro, small and medium enterprises revealed that among the 89 firms maintaining the records manually, the majority (76) were micro enterprises. Majority of small firms (129 out of 150) were maintaining records through accountants. Further, medium firms were mostly using accountants or accounting consultants for this purpose. Accounting consultants do more than basic book-keeping; by providing accounting services like financial forecasting, analysing financial statements and making business owners understand the significance of reports in order to make sound financial decisions about the firm's future. Chi-square statistic test (significance value less than 0.01) clearly indicated that the financial record keeping behaviour was significantly different in micro, small and medium enterprises under study.

(ii) Registration under GST: (Table 4) reports the financial record keeping behaviour of firms and registration under GST. It was observed that 80.1% firms had GST registration whereas 19.9% were operating without GST registration. Further, 89 firms not registered under GST, were maintaining their accounts on manual basis. All other firms having GST registration (359) were maintaining their accounts in computerised form, either on their own or through accountants or consultants. This observation is supported by the fact that that computerised accounting is a pre-requisite for GST compliance.

Chi-square test ($p < 0.01$) indicated significant difference in the responsibility of keeping financial records by firms, with and without registration. Also, 89 firms maintaining the records manually reported informal record keeping by their firms. This is probably due to lack of record keeping skills or lack of need to prepare them.

(iii) Purpose of Keeping Financial Records: The entrepreneurs gain value from the accounting information when they have skills to understand and use them for taking rational decisions (Halabi, Barrett & Dyt, 2010).

(Table 5) reports that the highest (376) number of respondents (83.9%) prepared financial records to manage debtors and creditors. The next stated purpose by 344 (76.8%) respondents was to pay taxes. About 321 (71.7%) respondents stated using financial figures to determine the financial performance of their business. Just 127 out of 448 respondents (28.3%) used financial records in exercising control over expenses whereas 105 (23.4%) respondents for accessing credit facilities. Very few respondents used accounting reports for planning and decision-making purpose or income distribution purpose.

The clearest and most startling distinctions between successful and discontinued small businesses lie in their approach to the uses, which can be made of accounting information (McMahon and Holmes, 1991). The cross tabulation of purpose of keeping the financial records with the type of business revealed that a significant number of medium and small firms were equipped to use the financial records effectively whereas in case of most of micro firms, the use of this information was very limited. Chi-square test ($p < 0.01$) indicated significant difference in the purposes of utilisation of financial records by MSME enterprises under study.

(iv) Use of Digital Means of Money Transfer: A digital payment occurs through the use of various electronic mediums with no use of cash or cheque. Thus, it provides the flexibility to make payments from anywhere and at any time.

(Table 6) reports that the highest 64.5% and 62.5% respondents were using debit cards and credit cards respectively, followed by 45.8% respondents using E-wallets for transfer of money. About 42% respondents were using net banking (online payment mode) for this purpose. All medium firms, 26.1% small firms and just 5.1% micro firms reported using debit cards. Almost similar response was received for use of credit cards which indicates that the banking cards are the most widely used payment methods with benefits of security, convenience and useful to make other type of digital payments. E-wallet reportedly used in maximum by 19.9% small firms, 15.2% micro firms and 10.7% medium firms. This is probably due to the swift increase in the smartphone users across India Net banking was reported to be adopted by 21.4% medium and 20.1% small firms, whereas just 2 micro firms reported using this mode of payment. The probable reason for low adoption of NET banking is that it requires basic computer literacy skills and infrastructure in the form of a computer and internet connection. Chi-square test ($p < 0.01$) indicated significant difference in the use of digital modes of payment by MSME enterprises under study.

(D) Entrepreneurial Skills: Entrepreneurial skills require competence in the process of opportunity identification, the ability to capitalise on identified opportunities and skills associated with developing and implementing business plans to enable such opportunities to be realised (Johnson, Fletcher, Sumona, Snowden & Williams, 2015). The average agreement score (mean) for all the statements was found to be more than three which shows that the majority respondents agreed to the stated

entrepreneurial skills. T-test was conducted to test the null hypothesis ($H_0: \mu \leq 3$) against alternative hypothesis ($H_a: \mu > 3$) and the average agreement score for the stated entrepreneurial skills was found to be significant ($p < 0.01$).

(E) Business Performance

(i) Comparison of Business Performance with the competitors over the last five years: The parameters of comparing business performance with the competitors were marketing skills, growth in sales, profitability and market share, on a 5-point Likert scale.

As per (Table 8), the average score of marketing skills and profitability was found to be more than three indicating that majority respondents reported their marketing skills and profitability better than their competitors. T-test was conducted to test the null hypothesis ($H_0: \mu \leq 3$) against alternative hypothesis ($H_a: \mu > 3$) and the average score for marketing skills and profitability was found to be significant ($p < 0.01$). On the other hand, the average score for 'Growth in sales' and 'Market share' was found to be less than three and not significant ($p > 0.01$), indicating that majority respondents found their sales growth and market share worse than their competitors.

(ii) Overall Satisfaction with the Business: (Table 9) reports the overall satisfaction derived by the respondents from their business on a 5-point Likert scale. The average agreement score for four statements S_i, S_{ii}, S_{iv} and S_v was found to be more than three which indicates that the majority respondents were satisfied with their business. From t-test, the average agreement score was found to be significant ($p < 0.01$). The average agreement score for one statement S_{iii} was found to be less than three and not significant ($p > 0.01$) which indicates that the majority respondents felt that their business has not enabled them to achieve their life goals.

Data Analysis Using Structural Equation Modelling

The study used Partial Least Squares (PLS) regression/path analysis as SEM tool, based on canonical correlation for analysis of systems of endogenous and exogenous variables developed by Herman Wold (Wold, 1985). This model examined the impact of financial accounting practices with use of information technology (FAPIT) by the respondents on their business performance (BP), with the moderating effect of 'Entrepreneurial Skills' (ES). The relationship is indicated as Figure 1.

(i) Convergent Validity: The convergent validity of the scale items was assessed using three criteria. First, the factor

loadings should be greater than 0.50 (Hair, Money, Page and Samouel, 2007). Secondly, the composite reliability (CR) for each construct should exceed 0.70. Lastly, the average variance extracted (AVE) for each construct should be above the recommended cut-off 0.50 (Fornell and Larcker, 1981). In this study, the factor loadings of all the indicators revealed support for convergent validity as most loadings were greater than 0.50. (Table 10) shows that the AVE for all the constructs exceeded the 0.50 cut-off, with the exception of AVE of FAPIT (AVE=0.448). However, the FAPIT along with other dimensions were found to have adequate convergent validity based on its high CR (>0.70) (Anderson & Gerbing, 1988).

- (ii) Discriminant Validity: Henseler, Ringle & Sarstedt (2015) presented the Heterotrait-Monotrait ratio of correlations (HTMT) as a new approach to assess discriminant validity in variance-based SEM. HTMT less than one establishes the discriminant validity. In (Table 11), since the HTMT ratio for all the constructs is less than one, it can be concluded that the measures have discriminant validity.
- (iii) Path Analysis: The model was assessed using two criteria: 1) path coefficients (β) and 2) path significance (p-value). (Table 12) shows the summary of path coefficients of the model.

Hypothesis H1 states that there is a positive relationship between Financial Accounting Practices & Use of IT and Business Performance. (Figure 1) shows that the hypothesised path for H1 was positive and significant ($\beta = 0.114$, $p < 0.01$). Thus hypothesis H1 was supported.

Hypothesis H2 states that there is a positive relationship between Entrepreneurial Skills and Business Performance. The hypothesised path for H2 was positive and significant ($\beta = 0.871$, $p < 0.01$). Thus, hypothesis H2 was supported.

Hypothesis H3 states that Entrepreneurial Skills act as a moderating variable between Financial Accounting Practices & Use of IT and Business Performance. The hypothesised path for H3 was positive and significant ($\beta = 0.025$, $p < 0.01$). Thus hypothesis H3 was supported.

IV. Conclusion

The major findings of the study revealed that the majority (78.3%) firms were utilizing the accountants' or consultants services for maintaining the financial records of their business. About 80.1% firms were GST registered and had computerized financial records, either self-maintained or through outside agencies. It is evident that CAS users tended to utilise accountants services more than non-CAS users

(Breen, Sciulli, & Calvert, 2004). Micro firms pioneered in keeping records manually whereas medium firms focused more on using accounting consultants who provide services like financial analysis and forecasting and making business owners understand the significance of reports to make sound financial decisions about the firm's future. The accounting systems were adopted significantly by the firms but the use of that information was very limited (Sian and Roberts, 2009). Their accounting needs were driven by regulation where they reported financial profits or losses for tax compliance purpose (Halabi, Barrett & Dyt, 2010; Prajapati, 2013). Majority of survey respondents were poorly equipped to use the financial statements effectively. Although the firms have started embracing digital payments, but majority of these businesses were still a prey to challenges that come with traditional practices and lack of digital influence (KPMG, 2017). The empirical results indicated that financial accounting practices and use of IT by the MSME firms had a direct and positive impact on their business performance (Harash, Al-Timimi & Radhi, 2014; Smith, 1999). Further, entrepreneurial skills had a direct positive impact on business performance (Lumpkin And Dess, 1996; Heenkenda & Chandrakumara, 2016) alongside a significant moderating effect on accounting practices and business performance relationship.

It can be concluded that imparting financial education to improve the financial accounting skills and IT skills of MSME entrepreneurs can play a major role in encouraging sustainable entrepreneurship, through better financial management of their resources. The entrepreneurs should be trained to use their accounting system for budgeting, debt management and more strategic purposes. A dedicated research on the financial education needs of MSME sector will help the policy makers understand and develop overall strategies to support MSMEs.

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Figure 1: SEM Path Diagram.

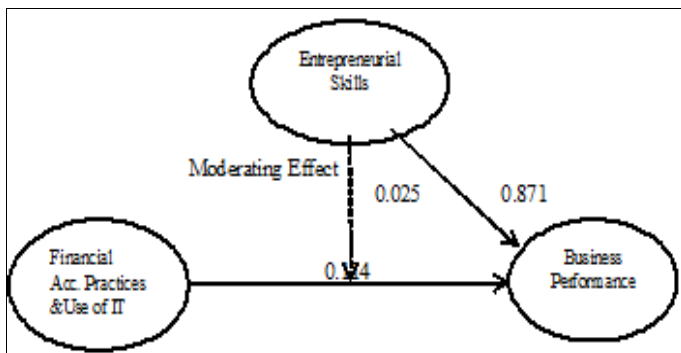


Table 1: Business Characteristics.

Legal Ownership of Business	Frequency	Percentage (%)
Sole Proprietor	247	55.1
Partnership	108	24.1
Limited Liability Partnership (LLP)	15	3.3
Private Limited Company	78	17.4
Total	448	100
Nature of Business		
Retail	173	38.6
Wholesale	129	28.8
Services/ Consulting	55	12.3
Manufacturing	91	20.3
Total	448	100
Age of Business		
1-5 years	45	10.0
5-10 years	180	40.2
10-15 years	101	22.5
Over 15 years	122	27.2
Total	448	100

Source: 'The Author'

Table 2: Demographic Characteristics.

Gender	Frequency	Percentage (%)
Male	423	94.4
Female	25	5.6

Total	448	100
Age Distribution		
Less than 25 years	18	4.0
25-35 years	163	36.4
35-45 years	162	36.2
Above 45 years	105	23.4
Total	448	100
Highest Level of Education		
Up to Class X	58	12.9
Class XII	150	33.5
Graduate	211	47.1
Post Graduate	18	4.0
Professional Degree	11	2.5
Total	448	100

Source: 'The Author'

Table 3: Responsibility of Keeping Financial Records Vs Type of Business.

Responsibility of keeping financial records		Micro	Small	Medium	Total
Myself (Manual)	Count (%)	76 (17)	13 (2.9)	00 (0)	89 (19.9)
Myself (Using Computer Software)	Count (%)	01 (0.2)	06 (1.4)	01 (0.2)	08 (1.8)
Accountant	Count (%)	72 (16)	129 (28.8)	97 (21.7)	298 (66.5)
Consultant Services/ Outsourcing	Count (%)	00 (0)	02 (0.4)	51 (11.4)	53 (11.8)
Total	Count (%)	149 (33.3)	150 (33.5)	149 (33.3)	448 (100)

Source: 'The Author'

χ^2 Statistic =228.79, df = 6, Sig. = .00 (p<0.01)

Table 4: Responsibility of Keeping Financial Records Vs Registration under GST.

Responsibility of keeping financial records		Registration under GST		Total
		Yes	No	
Myself (Manual)	Count (%)	0 (0)	89 (19.9)	89 (19.9)
Myself (Using Computer Software)	Count (%)	8 (1.8)	0 (0)	8 (1.8)
Accountant	Count	298	0 (0)	298

	(%)	(66.5)		(66.5)
Consultant Services/ Outsourcing	Count (%)	53 (11.8)	0 (0)	53 (11.8)
Total	Count (%)	359 (80.1)	89 (19.9)	448 (100)

Source: 'The Author'

χ^2 Statistic = 448.00, df = 3, Sig. = .00 (p<0.01)

Table 5: Purpose of Keeping Financial Records Vs Type of Business.

Purpose of keeping financial records		Micro	Small	Medium	Total	Rank	χ^2 Statistic	p-value
To determine the financial performance of business	Count (%)	42 (9.4)	136 (30.4)	143 (31.9)	321 (71.7)	3	59.46	.00
To have access to credit facilities	Count (%)	00 (0.0)	29 (6.5)	76 (17.0)	105 (23.4)	5	84.06	.00
To be able to pay appropriate tax / legal compliance	Count (%)	70 (15.6)	131 (29.2)	143 (31.9)	344 (76.8)	2	26.73	.00
For planning and decision making purpose	Count (%)	01 (0.2)	13 (2.9)	78 (17.4)	92 (20.5)	6	111.93	.00
To facilitate management of creditors/debtors	Count (%)	102 (22.8)	139 (31.0)	135 (30.1)	376 (83.9)	1	6.58	.00
Income distribution purpose	Count (%)	8 (1.8)	15 (3.3)	53 (11.8)	76 (17.0)	7	46.29	.00
Financial control / control over expenses	Count (%)	0 (0.0)	37 (8.3)	90 (20.1)	127 (28.3)	4	96.68	.00

Source: 'The Author'

Table 6: Use of Digital Means of Money Transfer Vs Type of Business.

Use of Digital Means of Money Transfer		Micro	Small	Medium	Total	Rank	χ^2	p-value
Net banking/ Online payment	Count (%)	2 (0.4)	90 (20.1)	96 (21.4)	188 (42.0)	4	88.38	.00
Debit cards	Count (%)	23 (5.1)	117 (26.1)	149 (33.3)	289 (64.5)	1	89.05	.00
Credit cards	Count (%)	23 (5.1)	112 (25.0)	145 (32.4)	280 (62.5)	2	85.34	.00
E-Wallet (Pay-tm, Airtel Money)	Count (%)	68 (15.2)	89 (19.9)	48 (10.7)	205 (45.8)	3	12.30	.00

Source: 'The Author'

Table 7: Respondents' Score on Entrepreneurial Skills.

Entrepreneurial Skills Statements	Count	Mean	Std. Error of Mean	Sig.(1-tailed) H1: Avg.>3	Frequency (%)				
					SD	D	N	A	SA
a. I am willing to work any number of hours as per the work requirement.	448	4.199	0.023	0.000	0.0	1.1	0.2	76.3	22.3
b. I have a strong desire to achieve positive results even when it requires a great deal of additional effort.	448	3.759	0.035	0.000	0.0	0.0	42.4	39.3	18.3
c. I enjoy controlling my own work assignments & making all decisions affecting my work.	448	3.839	0.040	0.000	0.0	10.7	12.5	58.9	17.9

d. I am willing to accept both financial and career risks when necessary.	448	3.362	0.051	0.000	0.0	28.1	26.3	26.8	18.8
e. I always try to complete every project I start, regardless of obstacles and difficulties.	448	4.033	0.023	0.000	0.0	0.0	10.0	76.6	13.4
f. I have a good network of friends, professionals, and business acquaintances.	448	3.998	0.038	0.000	0.0	8.0	7.6	60.9	23.4
g. I can function in ambiguous situations.	448	3.134	0.052	0.005	0.0	37.9	27.5	17.9	16.7

*SD-Strongly Disagree, D-Disagree, N-Neutral, A-Agree, SA-Strongly Agree

Source: 'The Author'

Table 8: Comparison of Business Performance with their Competitors over the last five years.

Basis of comparison	Count	Mean	Std. Error of Mean	Sig.(1-tailed) H1: Avg.>3	Frequency (%)				
					MW	W	C	B	MB
Marketing Skills	448	3.100	0.040	0.006	0.0	23.0	52.0	17.0	8.0
Growth in Sales	448	2.763	0.042	0.500	0.0	50.9	25.4	20.1	3.6
Profitability	448	3.147	0.032	0.000	0.0	12.1	65.4	18.3	4.2
Market Share	448	2.491	0.035	0.500	0.0	64.3	23.2	11.6	0.9

*MW-Much Worse, W-Worse, C-Comparable, B-Better, MB-Much Better

Source: 'The Author'

Table 9: Overall Satisfaction with the Business.

Statements	Count	Mean	Std. Error of Mean	Sig.(1-tailed) H1: Avg.>3	Frequency (%)				
					SD	D	N	A	SA
S _i . I am satisfied with the income derived from my business.	448	3.991	0.037	0.000	0.0	5.8	13.4	56.7	24.1
S _{ii} . My business has enabled me to improve my standard of living.	448	3.846	0.029	0.000	0.0	0.2	26.8	61.2	11.8
S _{iii} . My business has enabled me to meet my life goals.	448	2.980	0.040	0.810	0.0	33.0	40.4	22.1	4.5
S _{iv} . I derive a lot of psychological satisfaction because of my business.	448	3.723	0.045	0.000	0.0	13.2	24.1	40.0	22.8
S _v . I prefer self-employment than formal employment.	448	3.277	0.032	0.000	0.0	8.3	60.7	26.1	4.9

*SD-Strongly Disagree, D-Disagree, N-Neutral, A-Agree, SA-Strongly Agree

Source: 'The Author'

Table 10: Composite Reliability and Validity.

Variables	CR	AVE
BP	0.943	0.650
ES	0.950	0.579
FAPIT	0.919	0.448

Table 11: Discriminant Validity.

Variables	HTMT Ratio	
	BP	ES
ES	0.978	
FAPIT	0.784	0.764

Table 12: Path Coefficients for Structural Model.

	Path Coefficients	T Statistics (O/STDEV)	P-Values
ES ->BP	0.871	22.288	0.000
Moderating Effect of ES	0.025	3.237	0.001
FAPIT->BP	0.114	6.905	0.000

ASSESSING THE RELATIONSHIP BETWEEN FORMAL STRATEGIC PLANNING AND FIRM'S FINANCIAL PERFORMANCE: AN EMPHASIS ON FLEXIBLE PLANNING AND INNOVATION

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Improving the firm performance, especially its financial aspect, has always been at the core of the attention of both researchers and stakeholders during history. The formal strategic planning process is an element that has shown its impact, whether positive, negative, or neutral on firm financial performance in the literature. Besides, some variables, such as innovation and flexibility in planning, can affect this relationship as moderating factors. Therefore, this study strives to evaluate the association between formal strategic planning and firm financial performance while supposing innovation and flexibility in planning as moderating variables. The statistical population of this paper involves 300 top and middle managers of Refah bank, one of the biggest banks in Iran, and the variables are measured by a questionnaire that is based on the five-point Likert scale. The findings of this research have two main achievements. Firstly, results demonstrate that all three studied variables, meaning that formal strategic planning, innovation, and flexibility in planning have positive impacts on firm financial performance. Secondly, and according to the first conclusion, integrating innovation and flexibility into the formal strategic planning process is a necessity leading to a better firm financial performance.

Keywords: Formal strategic planning, Innovation, Flexibility in planning, Firm performance, Firm financial performance.

JEL Classification : L10, L210, L250

Improving Organizational performance, especially financial performance, has always been a cardinal issue for both stakeholders and researchers. One concept that its impact on the performance of an organization has continuously been investigated by the researchers is formal strategic planning that can be defined as the process of clarifying the primary targets, missions, strategies along with policies which control the ways that resources are obtained and allocated in order to acquire organizational goals (Pearce et al. 1987). Appraising the relationship between these two terms has regularly been a thrilling subject for scholars so that Pearce et al. (1987) called this relationship as "controversial, problematic and unresolved issue." Although some studies have proved a positive relationship, others have demonstrated negative or even no relationship. For instance, Boyd (1991) believed that after a substantial amount of research, this relationship is still obscure. On the other hand, researchers have been fascinated by investigating the impacts of moderating variables on the relationship between company performance and formal strategic planning. For example, Effendi & Kusmantini (2015) studied the effects of environmental turbulence, organization structure, and culture as well as firm size on this association. In another study conducted by Tatoglu et al. (2006), variables such as organization size, environmental turbulence, and industry were assumed as contingent variables. However, it is an undeniable fact that the environment of today's businesses is complicated, dynamic,

and ever-changing (O'Regan & Ghobadian, 2002). According to Christopher & Holweg (2011), the features of a turbulent business environment are more worldwide competition, more willing customers, and more changing markets. It has been proved by the previous researchers that the unstable environment can affect the performance-planning relationship (Andersen, 2004; Pearce et al. 1987) so that this relationship is more important in a turbulent situation than in a stable one (Armstrong, 1982; Miller & Friesen, 1983). Therefore, in order to deal with the situation mentioned above, it is imprudent to consider the variable "flexible planning" when investigating the strategic planning-performance connection. Also, over the last thirty years, innovation-related efforts of firms have played a pivotal role through ascertaining the level of competitiveness (Kirzner, 1973; Miller & Friesen, 1982; Dibrell, Craig, & Neubaum, 2014) and the prosperity is based on the ability of a firm to employ its resources innovatively and creatively (Dibrell et al. 2014). Besides, some research findings in the literature depict the relationship between the

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innovations and profits accompanied by formal strategic planning as well as flexible planning in a determined framework, since these factors have positive and direct impact on innovations (Titus, Covin, & Slevin, 2011; Dibrell et al., 2011; Wiltbank, Dew, Read, & Sarasvathy, 2006; Dibrell et al. 2014). Accordingly, it seems that formal strategic planning is a flexible decision-making process depending on the environmental conditions and innovation that ultimately results in the improvement of organizational performance. However, investigating the association between formal strategic planning and firm financial performance by considering innovation and flexibility in planning as moderating variables has not been studied profoundly by the previous researchers. Hence, in this study, the formal strategic planning, innovation, and flexibility in planning will be reviewed simultaneously, and finally, we aim to find the answer to the following question: how do innovation, formal strategic planning, and flexibility affect financial performance improvement of an organization?

The rest of the paper is set out in the following manner. In section 2, previous research regarding the relations between formal strategic planning, innovation, flexibility in planning, and firm financial performance are investigated, and then relevant hypotheses are developed. Section 3 describes the research method, and consequently, discussions and conclusions are illustrated in section 4.

I. Review of Literature

Formal strategic planning

The strategy is a term that nearly each business person has an idea about it (O'Regan & Ghobadian, 2002). Although a substantial number of studies have been done in the scope of the strategy, yet there is no generally accepted definition for this term (Quinn, 1980). For many strategists, practitioners, and scholars, the strategy is a procedure with the following features: deliberate, perfectly organized, and formally documented (Ali, 2018). Besides, there are several definitions of strategic planning in the literature. For instance, Zandi et al. (2013) explain strategic planning as a process of determining targets, investigating the current condition, and subsequently creating concepts to cope with the conditions along with acquiring and executing determined targets. Some researchers with a formal perspective described it as the process of formulating, implementing, and controlling strategy as well as formally documenting organizational expectations by applying systematic criteria and meticulous investigations (Mintzberg, 1994; B. Robinson and Pearce, 1983). Also, Armstrong (1982) defined formal strategic planning as "a process for determining the firm's long-range objectives and generating as well as evaluating alternative strategies, as well as a system for monitoring the outcomes of the plan when

executed." Mintzberg and Lampel, (1998) pinpointed that when the term "formal" is added to "strategic planning" the intention is to depict the fact that a firm has utilized strategic planning involving distinct systematic procedures in order to secure the participation and commitment of principal stakeholders impacted by the plan. Finally, according to E. Hopkins and A. Hopkins (1997) strategic planning process has three essential components: 1-Formulation (which subsumes generating a mission, setting significant goals, evaluating the internal and external environments as well as looking for alternative strategies) 2-Implementation 3-Control.

Formal Strategic Planning and firm financial performance

There is a plethora of research in the literature investigating the relationship between formal strategic planning and firm performance. Thune and House, (1970) were the first researchers (Tatoglu et al., 2006) who studied this relationship and concluded that formal planners gained better economic performance in comparison with non-formal ones. In the following years, a stream of contrasting results was revealed by other researchers. After reviewing 29 related empirical studies in the field of strategic planning in order to determine whether there is a relationship between these two terms or not, Greenley (1994) classified these studies into three categories. The first group belongs to studies which concluded that there is no relationship between business performance and strategic planning, such as Rhenman, (1973); Grinyer and Norburn, (1975); Kallman and Shapiro, (1978); Kudla, (1980); Fredrickson and Mitchell, (1984).

In the second group, studies which advocate the association between company performance and strategic planning are located, namely Ansoff et al. (1970); N. Burt, (1978); Welch, (1984); Robinson and Pearce, (1988) and the third group, including nine studies demonstrated that the performance of companies which are equipped with strategic planning outweigh the performance of companies which are not equipped, such as Gershefski, (1970); Karger and Malik, (1975); Ackelsberg and Arlow, (1985). However, in this study, we adopt the optimistic view of strategic planning and performance (which implies that there is a positive relationship between strategic planning and business performance) and provide the relevant studies according to this view.

In a study conducted by Welch (1984), the goal was to find the effect of strategic planning on the share price that finally, he came into this conclusion that strategic planning brings about extended-lasting financial benefits. Pearce et al. (1987) carried out an empirical study of 97 manufacturing companies in order to investigate this relationship. Their study revealed that there is a strong positive association between these two terms so that strategic planning can improve the

financial performance of a firm. The results of the Orpen,(1994) study provided this fact that small firms that applied formalized planning performed better from the financial point of view than those which did not apply. Furthermore, they also gained more information from themselves and their environment in comparison with non-planning companies and utilized this information through better strategic decision making. E. Hopkins and A. Hopkins (1997) investigated the banking industry. They tested an integrative model that consisted of managerial, environmental, and organizational factors, strategic planning intensity, and financial performance as variables based on a set of data gathered from 112 banks. The results of their study suggested that the more the banks engaged in the intensity of the strategic planning process, the better financial performance they experience. That is, strategic planning-financial performance is a direct and positive relationship. Contrary to the findings of E. Hopkins and A. Hopkins, (1997), Robinson and Pearce, (1983) reached nearly opposite results regarding the deployment of strategic planning in banks. They deduced that the performance of small banks which did not employ formal strategic planning was equal with small, formal planners. Inconsistent with studies as mentioned earlier which found a positive strategic planning-financial performance association, Baker and Leidecker, (2001) aimed to review the planning-performance relationship in the industry of California processing tomato that results demonstrated the correlation between strategic planning and financial performance becomes stronger when the firm emphasizes more on strategic planning. Based on the optimistic view, it is (Fig.1) hypothesis.

H₁: The Formal strategic planning process has a positive impact on firm financial performance

Formal Strategic Planning, Innovation, and Flexibility in Planning

Formal Strategic Planning and Innovation

The word innovation originates from the Latin word 'innovare' which means to renew, to make new or to alter (Kamaruddeen et al. 2010). According to one of the latest definitions of innovation, Knowles et al. (2008) defined it as "the introduction of new products, processes, or business systems." In the technical-economic literature, innovation is defined as the transformation of potential technical-scientific development into a tangible thing in the form of new products or technologies (Țițu et al. 2015). On the other hand, nowadays, due to the unprecedented competition from domestic and overseas counterparts, companies are operating in a dramatic competitive market. Simultaneously, companies need to cope with the ever-increasing customer requirements, along with a considerable decrease in product life-cycles, which is caused by technical innovations. In this highly

competitive environment, organizations must take the issue of innovation into high consideration since it is a pathway for achieving success (Kanter, 1983; Peters and Jr, 2006). Innovation provides a chance for organizations to adapt and develop in order to confront the variable market conditions and customer requirements (Kamaruddeen et al., 2010). Besides, one of the most important aspects of each formal strategic planning process is investigating and analyzing the external environment in detail. This analysis is about searching for and collecting data pertained to the external environment. The gathered information involves the proof of current customer requirements, revealing new technologies, conditions of future markets, and technological trends that can impact on planning decisions and are the significant inputs of the innovation process (Dibrell et al. 2011; Zahra et al. 2002). Accordingly, the formal strategic planning process of a firm should be amalgamated with innovation (innovativeness), and a positive association must be considered between these two terms (Salomo et al. 2008). Hence, the second hypothesis is as the following:

H₂: The Formal strategic planning process has a positive impact on innovation

Formal Strategic Planning and Flexibility in Planning

While some studies have proved the positive relationship between the formal strategic planning and firm performance (Brews and Hunt, 1999; Schwenk & Shrader, 1993), evidence suggest that the effectiveness of strategic planning and environmental uncertainty are negatively associated with each other (Dibrell et al., 2014). Accordingly, a dramatic series of discussions considering more adaptive styles of strategic planning in order to have more effective results (Ansoff, 1991; Gibbons and O'Connor, 2005; Mintzberg, 1991, 1994). Intrinsically, the process of formal strategic planning generates a grade of inflexibility and intransigence, meaning that it would be arduous to alter it based on the external environment changes, specifically when business owners are dependent on their strategic plans (Mintzberg, 1994). However, managers are expressing that regarding their firms, it is required to change their strategic plans in order to deal with external environmental alterations (Grant, 2003; Wiltbank et al., 2006). Hence, employing flexibility in planning, accompanied by the ability to run formal strategic planning, efficaciously is an excellent way of acquiring competitive advantages (Dibrell et al., 2014). So far, multiple studies have reviewed the importance of creating flexible planning in uncertain and volatile environments. Barringer and Bluedorn (1999) defined planning flexibility as "the capacity of a firm's strategic plan to change as environmental opportunities/threats emerge." According to the results of Dibrell et al. (2014) study, formal strategic planning and planning flexibility are positively associated.

Also, they confirmed that in order to maximize the advantages of innovativeness, organizations should consider flexibility when planning their strategies. Kukalis (1989) conclusion is that flexible planning enables companies to benefit from unrehearsed opportunities arising from the changes in the environment by modifying their strategic plans rapidly. To sum up, flexibility in planning can ameliorate agility and help the firm to utilize its essential resources more efficiently. Based on the merits above of taking flexibility into account when planning firms' strategies and this fact that formal strategic planning itself is not an exclusive and the best way of planning, the third hypothesis is as the following:

H₃: The Formal strategic planning process has a positive impact on flexibility in planning

Flexibility in planning, Innovation, and firm financial performance

To date, a substantial number of studies have noted the positive relationship between innovation and firm performance. However, the amount of research concentrating solely on the association between innovation and financial performance is negligible in the literature. Moretti and Biancardi (2018) examined the influence of open innovation on the financial performance of some European firms, and they concluded that the effects (both internal development and external acquisition) are significant and positive.

In another study carried out by (Gunday et al., 2011) the impacts of various types of innovation, namely product, marketing, process and organizational on the different aspects of firm performance (including innovative, production, market and financial performances) according to data gathered from 184 manufacturing companies in Turkey were assessed. Repeatedly, in this study, results revealed the positive impacts of innovations on firm performance. Other papers, which studied the effects of green technology innovation (Xie et al., 2019), SMEs innovation (Bigliardi, 2013) service innovation (Aas and Pedersen, 2011) on financial performance, all reported positive effects. Thus:

H₄: Innovation has a positive impact on firm financial performance

Moreover, the last hypothesis of this research is related to the relationship between flexibility in planning and firm financial performance. In the literature, various aspects of flexibility, including volume flexibility (Jack and Raturi, 2002), strategic flexibility (Chan et al., 2017) and manufacturing flexibility (Weeks et al., 2018) have been explored, and all of them have shown positive effects on firm performance. Therefore:

H₅: Planning in flexibility has a positive impact on firm financial performance

II. Research Design & Methods

Sample and procedure

The statistical population of this study consists of the top and middle managers of the Refah bank, which is one of the biggest banks in Iran. This bank has many branches in Iran. The focus of this study is on branches located in Tehran, the capital of Iran. In this study, the branches of Refah bank are distributed into five branches called central, Northern, Southern, Eastern, and Western, and from each branch, the top and middle managers were studied accidentally. In general, the sample in this study subsumes 300 managers from 30 branches, meaning that from each branch, ten managers were selected roughly.

Measurement

The variables in this study are measured using a questionnaire that is based on the five-point Likert scale. "Formal Strategic Planning" variable is measured based on the study of (Armstrong, 1982) and four questions. In addition, the "innovation" variable is measured according to four questions and the study of (Davis et al., 2002) that is mostly pertained to the innovation strategies and the methods of generating innovation. "Flexibility in planning" variable has been measured based on various approaches in the literature, however in this research by relying on the study of (Zahra et al., 2008) and according to the environmental changes, opportunities and threats it is measured according to four questions. Besides, the "Firm Financial performance" variable is analyzed based on the financial performance improvement approach that is mentioned in the research (Wiklund, 1999).

Measurement model

In this section, by using the conformity factor analysis (CFA) which its results are demonstrated in (Table 1), we have analyzed the measurement model. Since the values of Analysis of Variance Extracted (AVE) and Composite Reliability (CR) are larger than 0.5 and 0.7 respectively, the convergent validity of the measurement model is admitted. Moreover, discriminant validity is evaluated in this research. The results of discriminant validity are gathered. (Table 2) shows that the square root of the AVE for each construct is larger than the correlation level involving the constructs, that confirms the discriminant validity. Finally, and according to the findings, the measurement model fit is in the standard range.

Structural model and Results

In this section, having trusted the measurement model of the study, we start analyzing the research hypotheses using the SEM method. Results obtained from the analysis of research data that are gathered (Table 3) demonstrate that all research hypotheses are accepted. In other words, results show that the

"Formal Strategic Planning process" has a positive impact on "Firm Financial Performance" ($P > 0.05$); hence the first hypothesis is accepted. Besides, the "Formal Strategic Planning process" has a positive impact on "Innovation" that, thus, the second research hypothesis is admitted. Moreover, findings depict that the "Formal Strategic Planning Process" has a positive impact on "Flexibility in Planning"; therefore, the third hypothesis is accepted either. The outcomes show that the impacts of the Formal Strategic Planning Process on the variables "Firm Financial Performance," "Innovation," and "Flexibility in Planning" are all positive. On the other hand, we have found out that "Innovation" and "Flexibility in Planning" impact the "Firm Financial Performance" positively. Then, the fourth and fifth hypotheses are accepted too ($P > 0.05$).

IV. Conclusion

As mentioned in the results section, all hypotheses of this research are accepted. According to the findings, formal strategic planning has a positive impact on firm financial performance which this result is consistent with the previous research, such as (Ackelsberg & Arlow, 1985; Gershefski, 1970; Karger & Malik, 1975; Pearce et al., 1987; Welch, 1984). Also, similar to the findings of (Salomo et al., 2008) and (Dibrell et al., 2014), we have found that there are positive relationships between the formal strategic planning process and two variables "innovation" and "flexibility in planning" respectively. Besides, parallel to previous research, namely (Chan et al., 2017; Gunday et al., 2011; Moretti & Biancardi, 2018), we have concluded that both "Flexibility in planning" and "Innovation" have positive effects on firm financial performance.

As mentioned before, the formal strategic planning process consists of generating missions and important goals as well as assessing the environmental conditions (both internal and external) in order to seek for alternative strategies and subsequently to implement and control these strategies. Strategists must notice some fundamental points when they intend to plan for the required strategies. First of all, since nowadays companies are operating in a highly competitive environment, innovation and being innovativeness should be an inevitable and inseparable part of planning for strategies as it prepares a chance for enterprises to adapt to unstable and ever-changing market conditions and customers' requirements. Also, the existence of volatility and uncertainty in the environment forces the corporations to add another critical element to their strategic planning processes called flexibility. In fact, flexible planning empowers the companies to make the most out of unplanned and sudden opportunities arising from the environmental changes by altering their strategic plans quickly. In other words, flexibility in planning

provides agility for the firms and assists them to employ their essential resources efficiently. It is worth noticing that based on the results of some studies, such as (Dibrell et al., 2014), in order to benefit highly from the advantages of innovativeness, flexibility must be a priority in the process of strategic planning. Generally speaking, when the strategic planning process is accompanied by "innovation" and "flexibility in planning" elements, the positive impact of strategic planning on firm financial performance is expected since according to the results of this study both "Innovation" and "flexibility in planning" have positive impacts on firm financial performance either.

Moreover, the conclusions of this study are entirely applicable for the banks since this paper investigated the financial performance which is the first performance of the banks and they know that if they want to survive in the competitive environment should provide innovative services and answer to the environmental changes rapidly by considering flexibility in the strategic planning. In this study, we faced some limitations. On the one hand, since the financial statements of the Refah bank were not accessible, the financial performance was evaluated using a questionnaire relying on the five-point Likert scale. Although this type of measurement is prevalent in the management science articles, financial performance could be measured through financial information in future studies. On the other hand, through the process of conducting this study, we figured out that some managers in the Refah bank mostly follow the cost-benefit approach and rarely consider developing the innovation issue and its related concepts among the employees. Some of the managers believed that the concept of innovation is not that viable for the bank employees since, currently, almost all of the financial processes are done using the computers and through a determined procedure. Accordingly, studying the issue of innovation development in bank-related processes among the employees could be an exciting subject for future research.

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Fig. 1: Hypothesis.

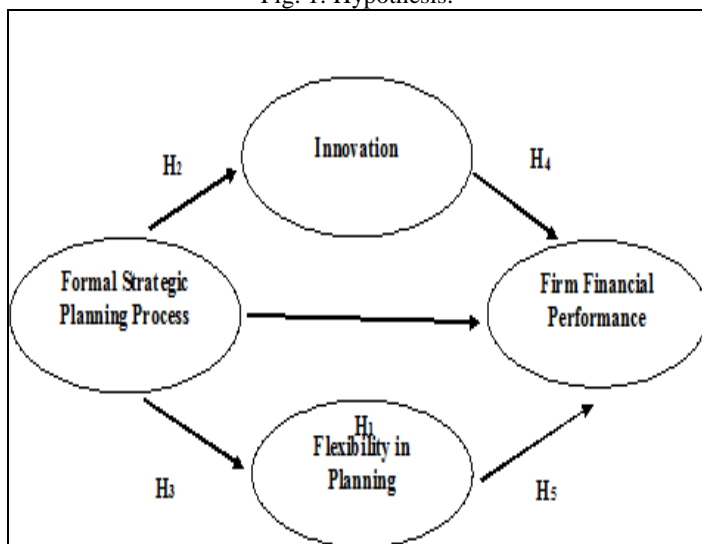


Table 1. Measurement items.

Concepts	Items	Factor	CR	AVE	Alpha
Formal Strategic Planning Process	ST1	0.7814	0.866019	0.618118	0.791321
	ST2	0.7532			
	ST3	0.7696			
	ST4	0.8381			
Innovation	IN1	0.7688	0.818058	0.53278	0.707686
	IN2	0.7348			
	IN3	0.8135			
	IN4	0.5817			

Flexibility in Planning	FL1	0.7726	0.8427	0.572913	0.752142
	FL2	0.7042			
	FL3	0.7756			
	FL4	0.7728			
Firm Financial Performance	PR1	0.8514	0.849848	0.588337	0.765135
	PR2	0.7707			
	PR3	0.7894			
	PR4	0.6413			

Table 2: Correlation matrix.

	ST	IN	FL	AVE
ST	1			0.618118
IN	0.331	1		0.53278
FL	0.45	0.355	1	0.572913
PR	0.043	0.252	0.419	0.588337

Table 3: Structural model outputs.

	Entire Sample estimate	Mean of subsamples	Standard error	T-Statistic	Results
ST->IN	0.331	0.3465	0.0485	6.8296	support
IN->PR	0.161	0.1657	0.055	2.9258	support
ST->FL	0.45	0.4433	0.0446	10.0808	support
FL->PR	0.46	0.4633	0.0483	9.5279	support
ST->PR	0.218	0.2266	0.0535	4.0755	support

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) AND TRADE IN SERVICES IN INDIA

Anurag Maurya* Madan Lal**

In recent decades, trade in services has recorded impressive growth that surpassed the growth in merchandise trade. The globalisation and development of technology shrink the world that helps in the growth of service trade. Traditionally, services were considered as non-tradable item due to its intangible nature. Unlike merchandise trade, services cannot be stored and it requires direct interaction of service provider and service receiver for delivery. In cross border supply of services, it may not be possible all the times that service provider and service receiver would available at the same point of time. Such a time gap between the service provider and receiver can be filled with the help of Information and Communication Technology (ICT). The growth and developments in ICT across the globe open new dimensions of service trade. The ICT is also the backbone for trade in a large number of services such as computer services, banking and insurance, consultancy etc. The study has attempted to analyse the role of ICT use in international trade in services. The study reveals that ICT has a positive impact on service export in India but it is found insignificant for non-IT based service export.

Keywords: ICT, Merchandise trade, service export.

JEL Classification: F14, O13

Traditionally, services were considered as a non-tradable item as it requires direct interaction of service provider and receiver or it cannot be stored. Therefore, no trade theory talks about trade in services. All the trade theories are focussed on goods only. But presently services have emerged as key components of international trade worldwide. The globalisation and recent development of technology shrink the world and bringing the countries closer in terms of trade that helps in the growth of service trade. In 2017, the world trade in services recorded as 12.95 per cent of world GDP. The export of commercial service has grown at 7.4 per cent in comparison to merchandise that recorded at 13.2 per cent for 2017. The developing nations including India accounted for 30.6 per cent and 38.1 percent share in world export and import of services respectively. In India, trade in services has been increasing over the years since 1975. But the rise in trade in services after liberalization in India has been transformational. The post-GATS environment for services trade has been doubted and cautioned initially by developing countries along with India. One may say India had to accept the clauses and fulfil the GATS obligations as per its commitments. Perhaps the services revolution in India is the consequence of GATS and the reforms since 1991. Hence, there is no doubt that exports and imports of services rose significantly since 1991. Further, besides the barriers to trade in services, structural changes in India's trade in services have been prominent and positioning India as services facilitator in the world. Recently, trade in services has emerged as a crucial economic activity for India. Trade-in services not only increases employment in the country but also affect positively foreign trade. During the last three decades, India has

witnessed a gradual shift from the primary sector to the service sector in GDP contribution by surpassing the manufacturing sector. In 2017, India's service sector contribution in GDP was 48.45%. The data on international trade and economic growth reflects that India is also moving towards service-led growth. In 1991, India trade-in service was accounted for half of the world figure i.e. 4%. During the last two and half decades, India's service trade surpasses the world trade in services. Presently it is accounted at 14.43%. Since 2004, trade in services is positively contributing to the country's balance of payment. The (figure 1) shows that both service export and import has increased simultaneously in the last few years. After 2010, we can notice the significant gap between service export and import. Presently, the service trade balance accounts at \$32.7283 billion. The positive figures of service trade balance are a good signal of India's Balance of Payment.

Information and Communication Technology (ICT) in India

To measure the impact of ICT development on service export, the ICT index is developed by taking the four different indicators from the ICT index of ITU. The composite ICT index represents the use of ICT i.e. Percentage of Individuals using the Internet, Fixed Broadband subscription, Fixed

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Telephone lines and mobile cellular. Over the period 2000 to 2017, it can be observed that there is an upward movement in all the indicators except the fixed telephone line. With the growth in mobile cellular and internet the fixed telephone lines growth declines simultaneously. The (Figure 2) shows the trend in ICT indicators included in the study over the study period.

I. Review of Literature

(Vemuri and Siddiqi, 2009) analysed the data of 64 countries and found that ICT infrastructure and availability of the internet for commercial transactions have a significant impact on their volume of trade. (Choi, 2010) suggested that service trade can be increased by 2 to 4 per cent by doubling the usage of internet in the country. By using US bilateral trade data with 31 countries, (Freund & Weinhold, 2002) also confirmed that the internet has a positive impact on trade in services. (Mattes et al, 2012) found that ICT has no significant impact on bilateral trade of EU countries but bilateral trade between countries can be increased by ICT if both the trading partners are an advanced user of ICT. (Chung et al, 2013) analysed the impact of ICT on fruit and vegetable trade among the Asia-Pacific Economic Cooperation countries. The study found a significant positive impact of ICT on the export of fruits and vegetables of APEC countries. Contrary, no such relationship has been found in the case of import of fruit and vegetables. (Salmani et Al, 2013) examined the impact of the internet on trade-in service in developing countries by using the gravity model. The results suggested that the internet has a positive and significant impact on trade-in service. The similar positive and significant relationship between the internet and trade in services is found by (Salmani, 2015) by using panel data of members of the Organization of Islamic Countries (OIC). (Nath & Liu, 2017) included the four indicators of ICT i.e. growth in telecom investment, internet bandwidth, Internet subscriptions per 100 people and the number of Internet hosts per 100 people to analyse the impact of ICT on trade ten different categories of services in emerging economies. The study indicates all factors of ICT except growth in telecom investment have significant and positive impacts on export share while all four ICT components have significant positive impacts on import in emerging economies. The impact of ICT on export is found significant only for financial, transportation and other business services. (Ozcan, 2017) examine the impact of ICT on bilateral trade of Turkey with its 35 trading partners by using the ICT development index. The study found a positive impact of ICT on export as well as imports of Turkey. (Wang & Li, 2017) found the cross-country difference in ICT development can be a source of comparative advantage for bilateral trade. The empirical results indicated that ICT development index and R&D intensity of industry both have a

positive impact on trade. (Wang and Choi, 2019) has analysed the impact of ICT on the trade of BRICS countries. The study indicates that ICT has a more positive impact on export than import and this relationship is found positive and stronger for labour-intensive countries in comparison to capital extensive countries. Based on the review of previous studies on trade in service it is found that service sector performance critically depends on World demand, Exchange rate, Trade Openness and ICT. Now we will discuss these factors in brief.

World GDP: The demand of service export is influenced by the conditions prevailing in the international market. The demand for service export increases in response to the income of the rest of the world. Generally, three methods are used to measure income in the literature – GDP or GNP, industrial production and world demand for real imports of services. In this study, we have considered the world GDP to measure world demand. The income elasticity of service export is expected to be positive. (Eichengreen & Gupta, 2012) & (Kimura & Lee, 2006).

India's GDP: The domestic market size also has a significant impact on international trade of a country. The excess output of the country leads to export their surplus to other countries. Some findings suggest that the domestic market size has a higher influence on trade in services than the market size of the destination country (Lejour & Verheijden, 2004).

Exchange Rate: It is the second major factor that affects the export of services. The exchange rate appreciation decreased the demand for export in the overseas market. A stable exchange rate is conducive to export expansion. Hence, it is expected that there is a negative link between exchange rate appreciation and service export demand and vice-versa. (Pattichis, 2012), (Thomas P, 2015) & (Nho & Houn, 2014).

Trade Openness: Trade openness is an important factor that directly affects the exports of a country. If there is a significant barrier in the country, it will discourage trade interaction of the country with the rest of the world. Hence, it is expected that there is a positive effect of trade openness on the export of services (Tay 2014).

The most of the previous studies use or users as the key indicator of ICT development (Freund and Weinhold 2002; Choi 2010) whereas the four different indicators which are Percentage of Individuals using the Internet, Fixed Broadband subscription, Fixed Telephone lines and mobile cellular are used in the present studies to measure the development of different aspects of ICT over the time and their impact on trade. In the last few years, the contribution of service in India's trade has been increased significantly. On the other side, the cost of internet services has substantially gone down

and internet services and access become inexpensive that result in the development and adoption of ICT in the economy. The growth in both ICT use and service trade in recent years raises a question that is there any linkages between these variables. But no comprehensive work has been done in the context of India to analyse the relationship between ICT development and trade in services. The previous studies mainly based on ICT and their impact on overall trade in goods and services. Therefore, the study attempts to fill this gap in the literature by analysing the relationship between ICT and trade in services in India.

Purpose of the study

Unlike merchandise trade, services cannot be stored and it requires direct interaction of service provider and service receiver for delivery. In cross border supply of services, it may not be possible all the times that service provider and service receiver would available at the same point of time. There may be some time gap between the supply and delivery of services. Such a time gap can be filled between the service provider and receiver with the help of Information and Communication Technology (ICT). The growth and developments in ICT across the globe open new dimensions of service trade. The ICT is a backbone for trade-in a large number of services such as computer services, banking and insurance, consultancy etc.

The study has attempted to analyse the role of ICT use in international trade in services. It also examined the impact of ICT on various categories of services i.e. IT-based services and non-IT based. Further, the study highlighted the policy implications to improve the present scenario.

Objectives of the study

The primary objective of the study is to examine the effect of ICT on trade in services in India. Further, the impact of ICT is examined for various categories of services. Lastly, the study provides policy implications.

II. Research Design and Methods

The proposed model of the study is estimated by using annual time series data for the period 2000 to 2017. The data on GDP and indicators of ICT are collected from the World Bank Database. The data on service trade and the exchange rate is taken from Reserve Bank of India Database on Indian Economy.

ICT Index

International Telecommunication Union provides an index to measure development in ICT across the countries. The ICT index includes 11 indicators to measure changes at different levels i.e. use, access and impact of ICT in the country. The

overall ICT development Index is developed with three sub-indices which includes various indicators selected by statistical tools such as PCA. In the present study, to measure the level of use ICT over the study period, ICT index is developed on basis ITU- ICT development index methodology by taking four indicators four indicators i.e. Percentage of Individuals using the Internet, Fixed Broadband subscription, Fixed Telephone lines and mobile cellular which represents the use aspect of ITU-ICT development index. There are different statistical approaches are available to determine weights of factors such as factor analysis and regression analysis. In multiple regression analysis, the weights are estimated that best fit the data under least square criteria. But for multiple regression analysis, there must be a dependent variable which is very difficult to find out (Decancq and Lugo 2008). Therefore, the factor analysis method is followed in the study to develop the ICT index. Each indicator of ICT use is weighted based on its contribution to the overall variance of data (Nicolletti et. al. 2000). The four indicators for ICT use are taken from ITU-ICT development index are Percentage of Individuals using the Internet, Fixed Broadband subscription, Fixed Telephone lines and mobile cellular.

Before the development of Index, it is required that all the indicators are measured in the same unit. All the four indicators are normalised and standardised to an interval scale of 1 to 10 by the following method of featuring scale:

$$X' = a + \frac{(X - X_{min})(b - a)}{(X_{max} - X_{min})}$$

Where, b = higher value of scale and a = lower value of scale.

For factor analysis, all indicators must be correlated with each other. Bartlett's test of sphericity to test the correlation of the basic indicators. The Bartlett's test has the null hypothesis that the correlation matrix is an identity matrix. After that weights of each factor are constructed according to the proportion of its variation (i.e. the normalised squared loading) (Nicolletti et. al. 2000).

Gravity Model of Trade

Timbergen (1962) and Poyhonen (1963) has explained the gravity equation of trade as the volume of trade between two countries is proportional to their masses i.e. GDPs and inversely related to their distance. Kimura and Lee (2006) have explained bilateral service trade as a function of the GDP of both countries, their geographical distance and relative distances. To analyse the impact of ICT on service trade, the modified version of the gravity model of trade is used by dropping the variable distance. At the dependent variables side with GDP and ICT, the exchange rate and trade

openness also included in the model. The proposed model is explained as follows:

$$SER = F(GDPW, GDPIND, EXR, TO, ICT)$$

SER = service trade
 GDPW = world GDP
 GDPIND = India GDP
 EXR = Exchange rate
 TO = Trade openness
 ICT = ICT Index

To estimate the model, multiple regression method is used. The log-log model includes world GDP, India GDP, exchange rate, trade openness and ICT as explanatory variables while service trade as explained variables.

$$LSER = \alpha + \beta_1 LGDPW + \beta_2 LGDPIND + \beta_3 LEXR + \beta_4 LTO + \beta_5 LICT$$

III. Results and Discussion

The analysis of the study has been divided into two parts. In the first part, the ICT index has been developed with the factor analysis technique to measure variable ICT development. Further, the relationship between ICT development and service export has been analysed with the regression method.

Factor Analysis – ICT Index

Before the development of Index, the correlation between various indicators of index and adequacy of the sample is determined. For this KMO and Bartlett's test is used which indicates (Table 1) that the KMO value as 0.805 which shows the suitability of data for factor analysis. (Kaiser, 1974) has suggested that KMO value between 0.80 to 0.89 as meritorious. The Bartlett's test null hypothesis is also rejected at a 5 per cent significance level that indicates the correlation matrix is identity matrix or all four indicators of ICT are correlated.

The eigenvalue measures how much variance of the observed variables is explained by a factor or component. Any factor or component with an eigenvalue ≥ 1 explains more variance than a single observed variable. The following (Table 2) shows that component 1 is explaining 92.608 per cent variation and it also has eigenvalue higher than 1 so there can only one factor or component be constructed from factor analysis.

The (Table 3) shows the factor loading of each indicator, which is the correlation between each indicator with the component. Since we have only one component, the following table shows factor loading or correlation of all four indicators with component 1. The ICT index variable is constructed by aggregating the four indicators i.e. Percentage of Individuals

using the Internet, Fixed Broadband subscription, Fixed Telephone lines and mobile cellular using weights estimated through factor analysis. The weights of each respective indicator are determined by squaring and normalising factor loadings. The squared factor loadings represent the proportion of the total unit variance of the indicator which is explained by the factor.

Regression Analysis

Before estimating the final model, the unit root test is performed to check whether data is stationary or not. The ADF test is performed for unit root and all the variables are found stationary at first difference. After applying the diagnostic tests, no serial correlation and heteroscedasticity are found in the model. The null hypothesis of normality assumption is also accepted at 5 percent significance level.

The regression results that ICT index has a positive and significant impact on total service export. The coefficient of ICT index is estimated at 0.34 which implies that a 1 per cent change in the use of ICT will result in 0.34 per cent change in total service export of India. For IT-based service, the relationship with ICT use is found positive and significant but for Non-IT based service export, it is found insignificant. The results show that a 1 per cent increase in the use of ICT in the country will lead to 0.32 per cent increase in IT-based service export. The impact of the use of ICT on total service export and IT-based service export is almost found similar i.e. 0.34 and 0.32 per cent respectively. Here it can also be stated that an increase in ICT use has a positive role in the growth of service export excluding non-IT based service export.

Among explanatory variables, the world GDP is found positive and significant for all three categories of services which is consistent with the finding of (Banga and Kumar, 2011) and (Nho et al, 2014). The 1 per cent change in world GDP will lead to 1.47, 2.51 and 0.98 per cent change in total service export, IT-based service export and non-IT based service export respectively. Similarly, the relationship between India GDP and service export is found positive and significant. It indicates GDP has a higher impact on IT-based service as compared to total service export and Non-IT based service export.

The impact of the exchange rate is also found negative and significant similar to (Thomas P, 2015) except for IT-based service export. The coefficient of exchange rate indicates 1 per cent change will result in (-) 0.40 and (-) 1.05 per cent change in total service export and Non-IT based service export. The trade openness is found positive and significant at the 10 per cent significance level. It is also found trade openness has a higher impact on non-it based service export as compare to total service export and its based service export.

It shows a 1 per cent change in trade openness will lead to 1.69 per cent change in Non-IT based service export while 0.65 and 0.59 per cent change in total service export and IT-based service export respectively.

Policy Implications

The results of the study suggest that trade can be increased with the development of ICT in the country. Traditionally, services are considered as non-tradable item due to its intangible nature. The classical approach argued that services cannot be stored and it requires direct interaction of service provider and receiver. But the development of technology has open new doors for service trade all over the world. The ICT development in the economy plays an important role in the economy. There are certain services such as banking, consultancies, computer software can be provided or stored with the help of ICT tools. For developing countries like India where service holds a significant share in the GDP and trade, growth in the use of ICT provides the new avenues to tap the international market. The recent data of ICT indicators show an upward trend due to the decrease in the cost of ICT and encouraging digitization in the economy by the government under the Digital India campaign. Such growth in ICT in the country can be linked with economic activities with appropriate policies that will result in positive contribution towards international trade in services. At the micro-level, the managerial decision of investment in ICT and digitisation of their business process will increase their export of services. The ICT development also leads to an increase in firm efficiency.

IV. Conclusion

In the study, the ICT index is developed for measuring the impact of ICT use in the export of services. The findings of the study confirm the positive role of ICT use in the promotion of service export in India. The study further indicates that ICT use has a significant impact on the export of IT-based services but not in the case of non-IT based services. The other factors such as GDP, exchange rate and trade openness are also found significant for different categories of services except exchange rate which is found insignificant in case of non-IT based services. The overall results of the study suggest that encouraging the use of ICT across the sector of economies will boost the export of services. The growth in internet penetration and user of mobile and telephone services positively relates to growth in export of services.

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Figure 1: India's Service Trade Balance.

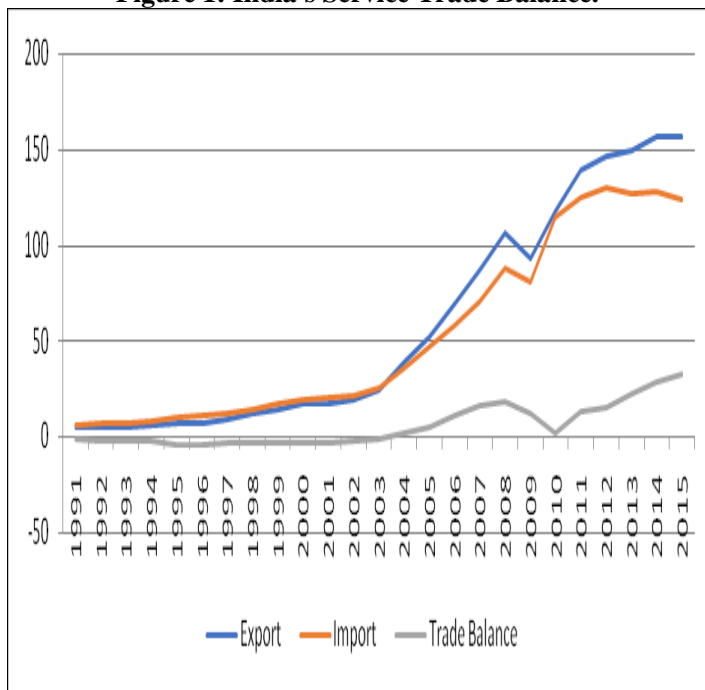


Figure 2: ICT Indicators.

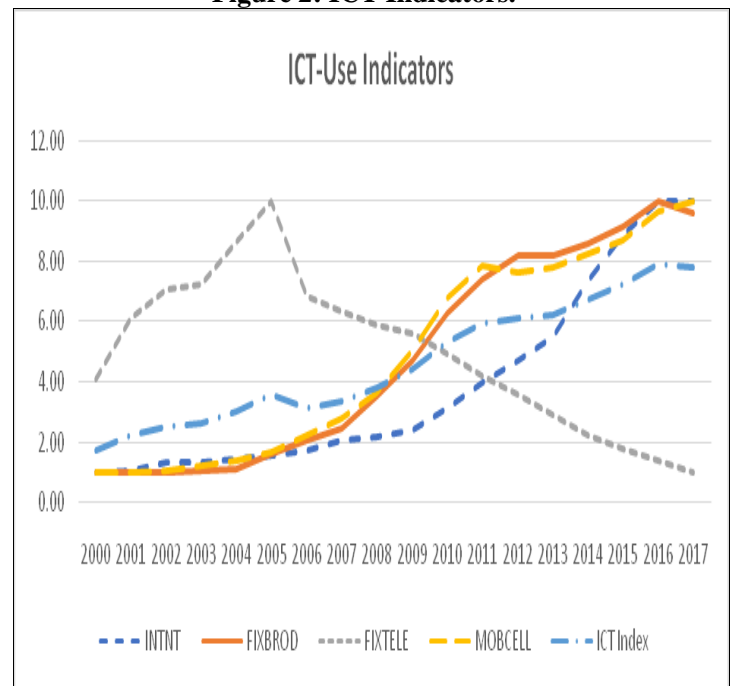


Table 1: KMO and Bartlett's Test.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.805
Bartlett's Test of Sphericity	Approx. Chi-Square	122.622
	Df	6
	Sig.	.000

(Source: Author's Calculation)

Table 2: Eigen Value and Total Variance Explained.

Component	Eigen Values	% of Variance	Cumulative %
1	3.704	92.608	92.608
2	.182	4.550	97.158
3	.110	2.756	99.914
4	.003	.086	100.000

(Source: Author's Calculation)

Table 3: Factor Loadings and Weights.

Indicators	Factor Loadings	Square	Weights
Fixed Broadband	0.983	0.9662	0.26
Mobile Cellular	0.978	0.9566	0.26
Internet	0.958	0.9170	0.25
Fix Telephone line	-0.930	0.8645	0.23

(Source: Author's Calculation)

Table 4: Regression Output.

Dependent Variables	Independent Variables		
	Total Service Export	IT-Based Service Export	Non-IT based Service Export
Constant	-0.032663	0.070419	0.148289
Log World Demand	1.474007*	2.513700*	0.976290**
Log GDP India	0.508452*	0.857596*	0.600215*
Log ICT	0.338392*	0.324549*	0.280034
Log Exchange Rate	-0.403062*	-0.147920	-1.045117*
Log Trade Openness	0.650136**	0.568580**	1.633965**
Adjusted R²	0.68	0.402970	0.181967
No. of observations	19	19	19

*significant at 5 per cent level & **significant at 10 per cent level
(Source: Author's Calculation)

Table 5: KMO and Bartlett's Test.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.805
Bartlett's Test of Sphericity	Approx. Chi-Square	122.622
	Df	6
	Sig.	.000

(Source: Author's Calculation)

Table 6: Eigen Value and Total Variance Explained.

Component	Eigen Values	% of Variance	Cumulative %
1	3.704	92.608	92.608
2	.182	4.550	97.158
3	.110	2.756	99.914
4	.003	.086	100.000

(Source: Author's Calculation)

Table 7: Factor Loadings and Weights.

Indicators	Factor Loadings	Square	Weights
Fixed Broadband	0.983	0.9662	0.26
Mobile Cellular	0.978	0.9566	0.26
Internet	0.958	0.9170	0.25
Fix Telephone line	-0.930	0.8645	0.23

(Source: Author's Calculation)

Table 8: Regression Output.

Dependent Variables	Independent Variables		
	Total Service Export	IT-Based Service Export	Non-IT based Service Export
Constant	-0.032663	0.070419	0.148289
Log World Demand	1.474007*	2.513700*	0.976290**
Log GDP India	0.508452*	0.857596*	0.600215*
Log ICT	0.338392*	0.324549*	0.280034
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*significant at 5 per cent level & **significant at 10 per cent level
(Source: Author's Calculation)

ONLINE TEACHING PERCEPTIONS AMIDST COVID-19

Nandita Mishra* Deepak Tandon Neelam Tandon*** Isha Gupta******

The world is facing one of the worst situations, battling with COVID 19 and education sector is not an exception. COVID-19 has resulted in a countrywide lockdown in India, which led to closure of schools and colleges. University Grant Commission (UGC), an apex educational body has come up with several guidelines for Higher Education Institution (HEI). This study is an attempt to understand the perception of respondents towards the online teaching, which is the new way of teaching adopted by each educational institute after the pandemic. The study shows that overall, the respondents are satisfied by the online teaching. From the study it may be concluded that the online classes favour the impact on the students and diversification in teaching methodology is imperative apart with the regular lecture teaching.

Keywords: COVID-19; Online Teaching; Factor Analysis; Education Sector; Asynchronous learning.

JEL Classification: I21, I23, F6, O3

Post COVID-19 work from home (WFH) and social distancing has become the new normal. Following the government instructions, India went into total lockdown on 25th March 2020. Academic institution being the hub of students and social gatherings are at utmost risk and therefore opening of educational institutions will not be a priority for government. Government has already given indications that educational institutions will not be allowed to reopen in near future. With total lock down, educational institutions faced the problem of interrupted studies which they solved by providing online classes. Post COVID -19 the biggest impact on education institute was adoption of online learning. E- Learning was always part of education in higher education institutions (HEI) which can also be used to complement teaching (Hazemi & Hailes, 2002; Clegg et al., 2000). E learning is learning through digital media, such as computers, web sites, video conferencing or virtual classrooms (Husu 2000). It was predicted by Wheeler (2001) that e-learning will promote collaborative learning. Also, e-learning has become important in education because it gives better efficiency by providing education at lower cost, better accessibility and overcome the problem of lack of classrooms and shortage of faculty. But, the E-learning practiced earlier was different than the online teaching been practiced now in the lockdown and therefore a study on satisfaction level of online learning was important for us. This study will define the impact of outbreak of COVID-19 on the education sector. But the current situation, after the outbreak of covid-19 cannot be compared with the normal mode of asynchronous learning and therefore we cannot conclude that the student's perception will be positive towards post covid online learning. This is the main point of discussion and assessment in this paper.

Effect of COVID- 19 on Education Sector

The biggest impact, which the world is witnessing post-covid, is the shutdown of colleges, schools and universities across the

world. It is estimated that globally over 1.20 billion students are out of the classroom. As a result, education sector must change drastically and depend on e-learning on digital platforms. Different countries are at different point of their curve of Covid-19 infection rates. Few countries like Denmark are starting their education in schools after initial closing on 12 March 2020 but many other countries continue with their online classes. While many believe that the inadvertent move towards the online learning with no training and diminutive ground work will result in poor experience, other believe that it is a new model of learning and is here to stay. According to OECD, worldwide there are many students who do not have reliable internet access or technology which can support online learning. Countries like Switzerland, Austria and Norway have 95% students who have laptop but in countries like Indonesia and India where the percentage is as low as 35%. Not only this the developing countries also face the problem of internet access. The study conducted by OECD, Pisa-2012, clearly stated that the internet access at home has increased from 2009 to 2012, but still countries like Mexico, Turkey and India have 42%, 29% and 32% students who have access to internet at home. These challenges are more threatening post covid as now online classes are not an option but a compulsion. Figure below shows the change in internet access of different countries from 2009 to 2012. But challenges are also accompanied by the

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opportunities. Post-covid we have also observed an immense increase in the online courses. Zhejaing University started 5000 online courses in just two weeks. The Imperial College London started an online course on science of coronavirus, which is the most enrolled class in 2020 on Coursera. Many online course providers like Unacademy, Udemy, and Coursera etc have acknowledged that there is a steep hike in the number of enrolments after the lockdown started across the world. The pandemic has disrupted the education system in many ways. In this paper, we would focus on assessing the impact and overall effect of COVID-19 on the education system. Also, this paper will focus on the perception of students in urban and rural area, as the area will define the availability of internet and computer. The paper dwells over important questions like will the move to online learning be a catalyst to new era and will be defined as “new normal” or will be online learning prove to be eyewash for the Indian education system.

I. Review of Literature

The literature on the impact of online education is very limited. In addition, the turmoil created by COVID-19 in the education sector and its impact has been explored by researchers since the beginning of the new era, with COVID 19 leading to the closure of educational institutions and the start of online education. Therefore, this study has focused on studying the impact of COVID 19 on online education system. The perception of teachers, students and parents has also been studied. Azis and Susanti (2019) identified that the experience of learners in e-learning has a major impact on the efficacy of the learning process and on the achievement of indirect learning outcomes through the learning process. The (Rodrigues et al., 2019) reviewed existing literature from 2010 to 2018 with keywords: education and e-learning. The results emphasize four dominant themes, namely education structures and learning problems, which in turn promote student attitudes and the use of online learning instruments. The study (Mohalik and Sahoo, 2020) evaluates the student teachers' e-readiness and understanding of online learning. They have concluded that a large percentage of student teachers are found to have lack of faith in the online learning environment and do not believe that curriculum can be transacted effectively by online mode. But most student teachers accepted online learning as a better choice for learning during this pandemic, but did not accept it as an alternative to traditional learning approach. The similar study (Lall and Singh, 2020) conducted to understand the perspective, attitude, and readiness of the student about online classes being conducted at university level. They conclude that most of college students are in favor of online education but they feel that the online mode of education lacks c-curricular activity. The (Mcdermott and Smith, 2019) concluded that many a learner preferred the online learning forms compared to other forms of learning as it provides more learning versatility, time management, and more courses across the globe. The study

(Nagar, 2020) classified key determinants that can assess student perception towards online teaching are quality of digital devices, internet connectivity and user friendliness and they also found that the rapid change to online learning mode significantly affects students comprehension as most of students were first user. The (Almuraqab, 2020) studied the perception of universities students and recognize their reference on distance learning and they concluded that 26% want to study only online whereas majority of 49% students are in favour of blended education system. The case study by (Girik, 2020) conclude that E-learning was viewed by learners as a successful approach to teaching learning that tackles the severe pandemic situation. But without teacher's voice note, students did not find the instruction and instructional material much useful. Ali (2020) addressed some key areas in this pandemic situation which should be focused on continuing online and distance learning. In addition to digital tools, the technology structures, technical skills of learners and teaching staff, encouragement, trust, engagement, positive attitude to embrace a sudden shift are the key factors to focus on to ensure continuous teaching and learning. The study (Jena, 2020) observed the actions undertaken by India's government to provide smooth education in the country. He concluded that Indian policies must include different individuals from various backgrounds, including remote regions, marginalized groups, and minority groups, in order to deliver education effectively. The majority of studies in above-mentioned literature reviewed the efficacy of e-learning & online learning, factors affecting e-learning, and to assess the attitude of school and college students towards online learning during this pandemic time. However, the researcher could rarely find any study that was conducted to resolve the readiness, perception, and concerns of student teachers towards online learning. In such a critical situation, the researcher wanted to perform a study on e-readiness and student teachers' understanding of online learning.

Objectives of the Study

The pandemic has in many ways been undermining the education system. This paper has focused on evaluating covid-19 's impact on the education system. The paper deals with critical topics such as to find out the whether student teachers e-readiness for online learning and to study the perception of student teachers towards online learning. This study is important and will help make better decisions for the education sector and policy-makers:

1. To study readiness of respondent towards online education.
2. To study perception of respondent towards online education.

II. Research Design and Methods

Using survey methodology, this research applied descriptive design for understanding the perception of respondents towards the online teaching, which is the new way of teaching adopted

by each educational institute after the pandemic. The paper concentrates on finding the factors which leads to the satisfaction or dis-satisfaction of the respondents towards online teaching. For data collection, people associated with education sector are targeted as respondents, which includes students, parents and faculty. The respondents are invited to participate in study through internet viz. emails, WhatsApp groups and other social media platform where they found a link to the questionnaire. The data has been collected randomly from respondents majorly from geographically area of Delhi-NCR and Haryana. A pilot study was carried out to assess the effectiveness of the survey questions. Surveys were distributed to 10 participants that fit the description of the study's target participants. This pilot group gave the researcher feedback about the wording and procedures for the survey. The pilot group's responses provided general features of a potential sample. The total of 250 filled questionnaires were taken as the base of the Survey. The data only reflects expectations of the students and state wishes. There was no face-to-face contact or observation at this study with the participants. Since the selection of the students participating was random. The questionnaire has six demographic questions and then there fifteen statements dealing with perception of online teaching. Each question is framed on the 5-Likert scale, with 1 taken as "strongly disagree" and 5 taken as "strongly agree". The collected data was analysed in relation to the research questions and based on data analysis, the research concluded the three major factors that contributes the most towards their satisfaction.

The drawbacks of conducting Internet surveys include: the response rate may be small, and it is difficult to monitor the survey environment and prevent sample bias even though the survey is distributed randomly. For this analysis the surveys are self-reported that may have the following validity problems: 1) research is reliant on participants' honesty; 2) although they may be truthful, they may lack introspective capacity; 3) respondents may vary in their interpretation of specific questions; 4) respondents can perceive and use scales differently; 5) the responses from the participants does not reflect the actual actions of the participants; and 6) the reaction bias may occur, that is, the inclination of the person to respond in a certain way.

IV. Results and Discussion

The number of respondents who participated in the study were 250 belonging to Delhi NCR and Haryana in India. The result is divided into various subsections, which are response rate, descriptive statistics, reliability analysis, and polychoric factor analysis. From (Table 1), it can be inferred that females are the most respondents in the survey. Then the survey includes the most graduate students in the survey as they are most exposed

community to online teaching in current scenario. This is good as it will give more reliable results that will help in generalization. Though, the most respondents are students the age group between 15-25 has the highest response rate. The table results the most respondents are from the urban geographically area. The high response rate has been received from students as compare to other categories of the questionnaire. After the demographic study reliability test was applied to the data, and the result of Cronbach's Alpha came as 0.608. Since Cronbach's alpha is $0.608 > 0.5$, it shows a good result of the factorability of the items.

The questionnaire used for the study is based on 5-Likert scale, and therefore the variables were all ordinal in nature. Generally, we use Pearson Correlation matrix, but it would be worth mentioning that here the ordinal variables do not have a metric scale and tend to be weakened due to the restrictions on range. An ordinal variable x can be thought of as a crude representation of the unobserved continuous variable x^* . The correlation between two ordinal variables $|x^*.sub.1~$ and $|x^*.sub.2~$ is known as Polychoric correlation coefficient, and it is an estimation of unobserved relationship between the two variables. Jorekog & Sorbom (1986) and Muthenv & Kaplan (1985) have suggested polychoric correlations as a choice when dealing with ordinal data. The results are shown in (figure 2).

The computed correlation matrices are shown above. Negative values are shown in red and positive values are shaded in blue, and the greater the absolute value of the correlation, the deeper the colour. For fulfilling the objective of finding out the factors that impact the satisfaction level of the students towards online teaching post COVID, responses were collected by questionnaire with multiple questions. As we know there are too many factors or variables in a study, factor analysis is the best tool which can be used to analyse data exploration and represent it by extracting a small number of independent factors. This can be used to convert a high-dimensional observed dataset with complex structure to a simple interpretable factor. For an observed data matrix $Y_{n \times p}$ with p variables, conventional factor analysis theory states that, it can be restructured as a linear combination of d continuous latent factors z_1, z_2, \dots, z_d plus a noise term ϵ .

$$Y = WZ + \epsilon, Z \sim N(0, Id), \epsilon \sim N(0, \sigma I_p)$$

But ordinal data variables violate the continuity assumption of the classical factor analysis and therefore, it is important to determine a scale distance measurement to linearize ordinal data. The nonlinear FA approach is one of the assumption-free technique and the same has been applied here to get the results. (Figure 3) shows the multiple correspondence analysis (MCA),

which is an extension of a simple correspondence analysis containing more than two categorical variables to summarize and visualize a data table. It can also be regarded as a generalization of principal component analysis if the variables to be evaluated are categorical rather than quantitative. MCA is usually used to analyse a survey data set. Its objective is to identify:

1. A group of people with similar profiles in their responses to the questions
2. Associations between Types of Variable

The loading plot graphs every variable's rotated factor loadings for the first factor versus the second factors rotated factor loadings. Using the loading plot (Figure 4) to decide which variables, influence factors most. Loadings can range between -1 and 1. Loadings close -1 or 1 suggest the factor is strongly affected by the variable. Loadings near 0 suggest that the factor is having a poor effect on the variable. In terms of the variables, evaluating the loadings can also help characterize each factor. A factor analysis of 3 latent factors is performed with the maximum likelihood estimation. Polychoric factor analysis is an optimal approach with minimum assumptions and better effectiveness in recognizing hidden structure in an ordinal data. Polychoric correlation gives an overall overview of association between the variables and polychoric factor analysis gives straightforward reference beforehand and validation afterwards on the choice of the number of factors and better result of latent structure.

IV. Conclusion

It may thus be concluded that post lockdown all education institution moved towards the online teaching system, it was obvious that this shift will deeply impact the learning process. The pandemic has significantly disrupted the education sector. This will not only have a short-term impact on continuity of learning but will also have a long term impact on overall education of the students and their choice of higher studies. India is having second largest (after China) students enrolled in universities abroad. In long run, we will see a decline in the demand for the international higher education. After COVID-19 outbreak, online teaching was the only option for the education institution to continue the learning process. This paper concentrates on finding the effectiveness of the online teaching. A survey method through questionnaire was adopted to get the inputs from the respondents. The questionnaire mainly focused on question, which show respondent's perception towards online teaching. The study illustrates that the online teaching process satisfies overall respondents. Polychoric factor analysis was performed on the data collected and the results identifies three major factors, which define their satisfaction. First factor was identified and given the name "better efficiency and connectivity" which majorly captures the

satisfaction of the respondents towards online teaching on the base of better efficiency of the online teaching, Students feel that through online teaching the classes are conducted efficiently and they are very well connected with their faculty members. The second factor was named as "better interaction and evaluation" as it covered the variables which exemplified that the students feel that in online teaching the evaluation process of student is not compromised neither the one to one interaction is compromised. Majority students feel that they can interact their faculty in the same way as they use to connect in class. Third factor, which was identified in the study, was "efficient coverage of remote area" which elucidate that online teaching is helpful for covering students in remote areas also. Respondents agree to the statement that because of COVID-19 there is an increase in the number of online classes. The respondents feel that these online courses will help them to gain more knowledge and optimise their time in the lockdown period. It is not enough just to make content available to the students. Teachers and parents need to be able to understand how they can access and use it easily. Ideally, there is need to provide written instructions to families and teachers on how to access content, what relevant expectations are and where to find additional material. this information can be communicated via the virtual help desk or advertise it via newspaper.

Overall, the paper concludes that the respondents are aware of the changes brought down over because of COVID-19 and they are satisfied by the overall shift towards the online teaching. Also, the respondents do not feel that online teaching has led to any compromise in their learning process. There is boundless drive and we can count on untapped resources to restore not only the essential services of education but also its fundamental aspirations. It is the responsibility of governments and the international community to remain true to principles and carry out reforms so that not only children and young people will regain their promised future, but all educational stakeholders will find their way back in making it happen. Furthermore, need for a systematic, well-organised approach of online learning might empower the overall learning process.

Suggestions

As the entire world is struggling the fight to win over Corona and wants to overcome the perils of education, livelihood and economy, there is dire need to overhaul the education sector. More rules and guidelines should be given by the Education departments, regulators and the government when Online teaching is compulsory and overrides the regular teaching. It is advisable to commit to optimize online learning opportunities for low bandwidth and poor latency conditions. Likewise, encouraging the availability of downloadable resources and solutions can be very helpful, particularly when schools have the means to translate educational content into digital formats and load it to devices. In this era of technological upgradations,

there is a dire need to study the interaction and growth of a learning community in a virtual environment in real world.

Limitations of Study

Our study has some limitations, which can be used in future to make study more reliable and generalize. The first limitation of study is sample used, as it is only from Delhi NCR, which does not represent entire population of India. This might not be very effective in reflecting the perception of the students and their expectations about distance learning during the COVID-19 pandemic, so there is future scope to study more regions of India, to discern more understanding on distance learning during this crisis. In addition, the attributes related to performance of student (GPA/CGPA) are not included in this study. This may be used in future to evaluate the efficacy of the program by evaluating pre- and post-distance learning performance of the students.

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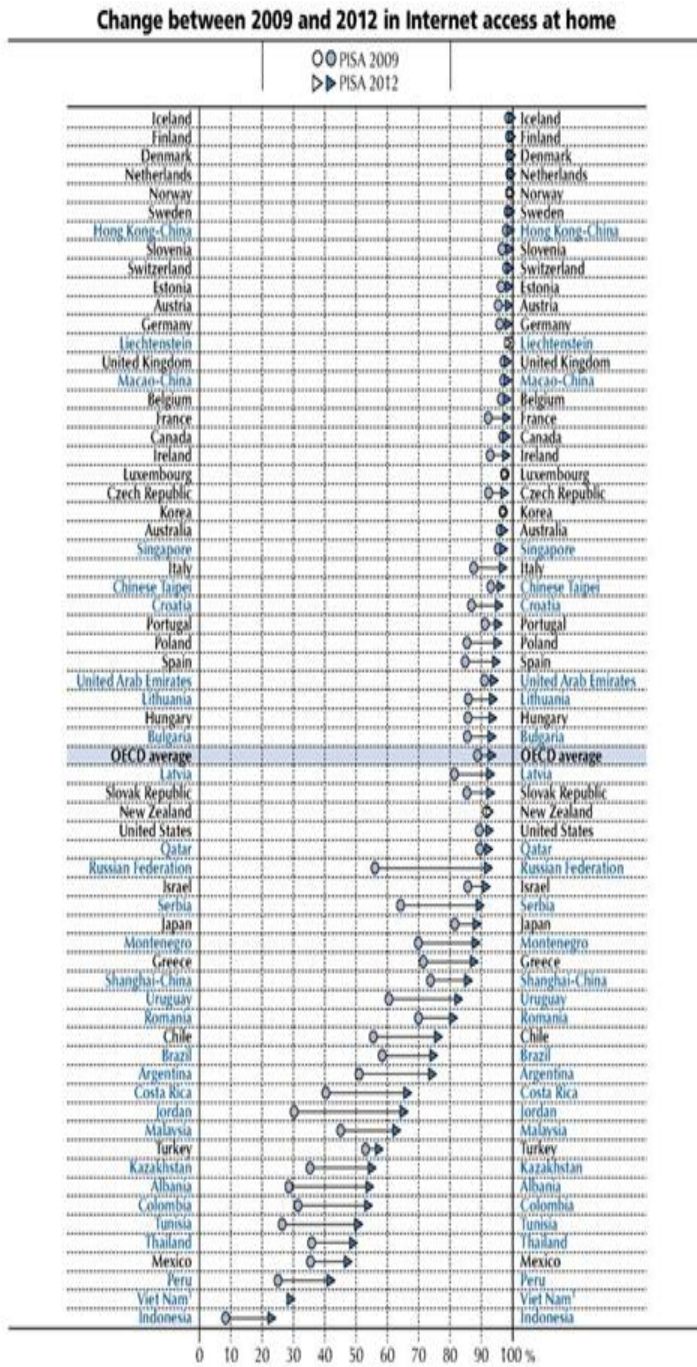
Table 1: Demographics of Respondents.

	F	%
a. Gender		
Female	170	68
Male	79	31.6
Prefer not to say	1	0.4
Total	250	100
b. Education		
10 th	0	0
12 th	89	35.6
Graduate	133	53.2
Doctorate	17	6.8
Others	11	4.4
Total	250	100
c. Gross Income per annum		
0-50,000	129	51.6
50,000-1,00,000	19	7.6
1,00,000-2,00,000	32	12.8
2,00,000-5,00,000	49	19.6
And Above 5,00,000	21	8.4

Total	250	100
d. Age		
15-25	195	78
25-35	29	11.6
35-45	15	6
45 & Above	11	4.4
Total	250	100
e. City		
Metro	49	19.6
Urban	184	73.6
Rural	17	6.8
Other	0	0
Total	250	100
f. Suitable Category		
Student	206	82.4
Parents	1	0.4
Faculty	32	12.8
Others	11	4.4
Total	250	100

Source: Author's Estimation, 2020

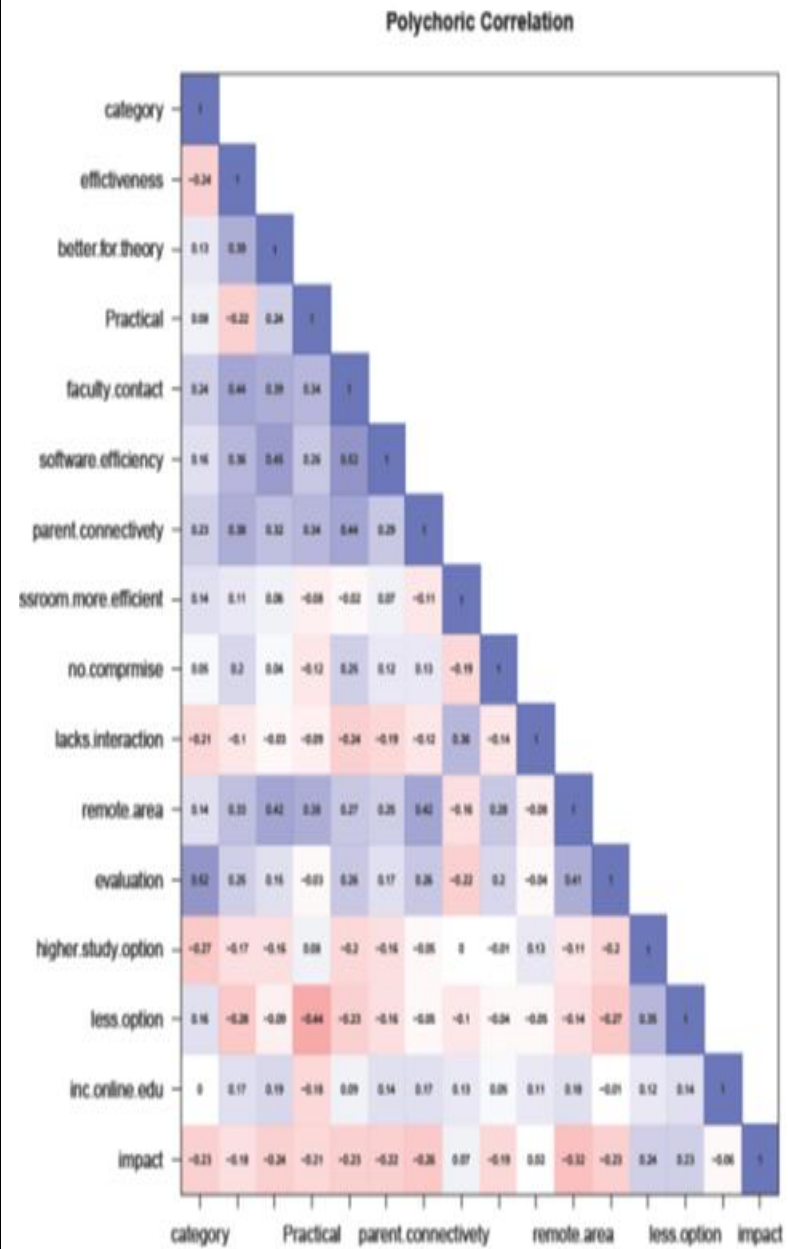
Figure 1: Change between 2009 and 2012 in Internet access at home.



1. PISA 2009 data are missing for Viet Nam.
 Note: White symbols indicate differences between PISA 2009 and PISA 2012 that are not statistically significant.
 Countries and economies are ranked in descending order of the percentage of students accessing the Internet at home in 2012.

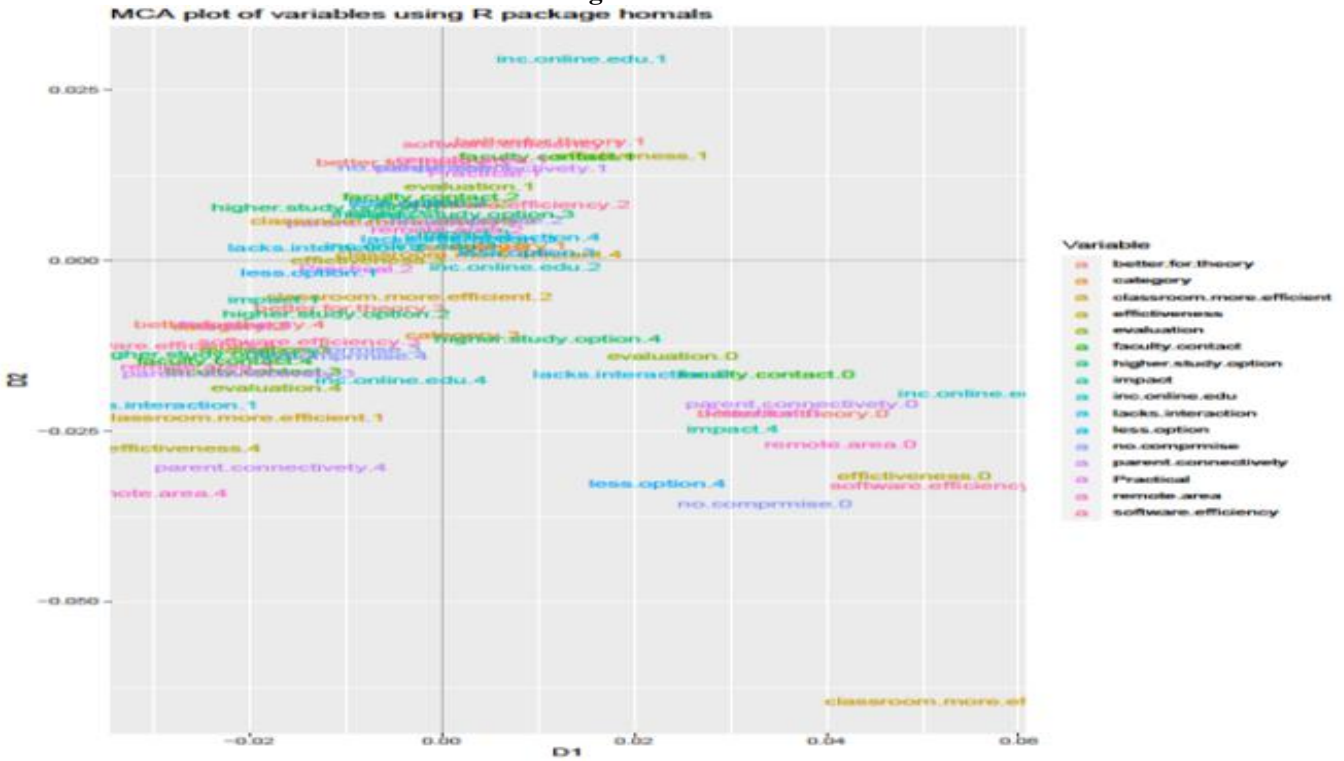
Source – OECD, Pisa-2012

Figure 2: Polychoric Correlation.



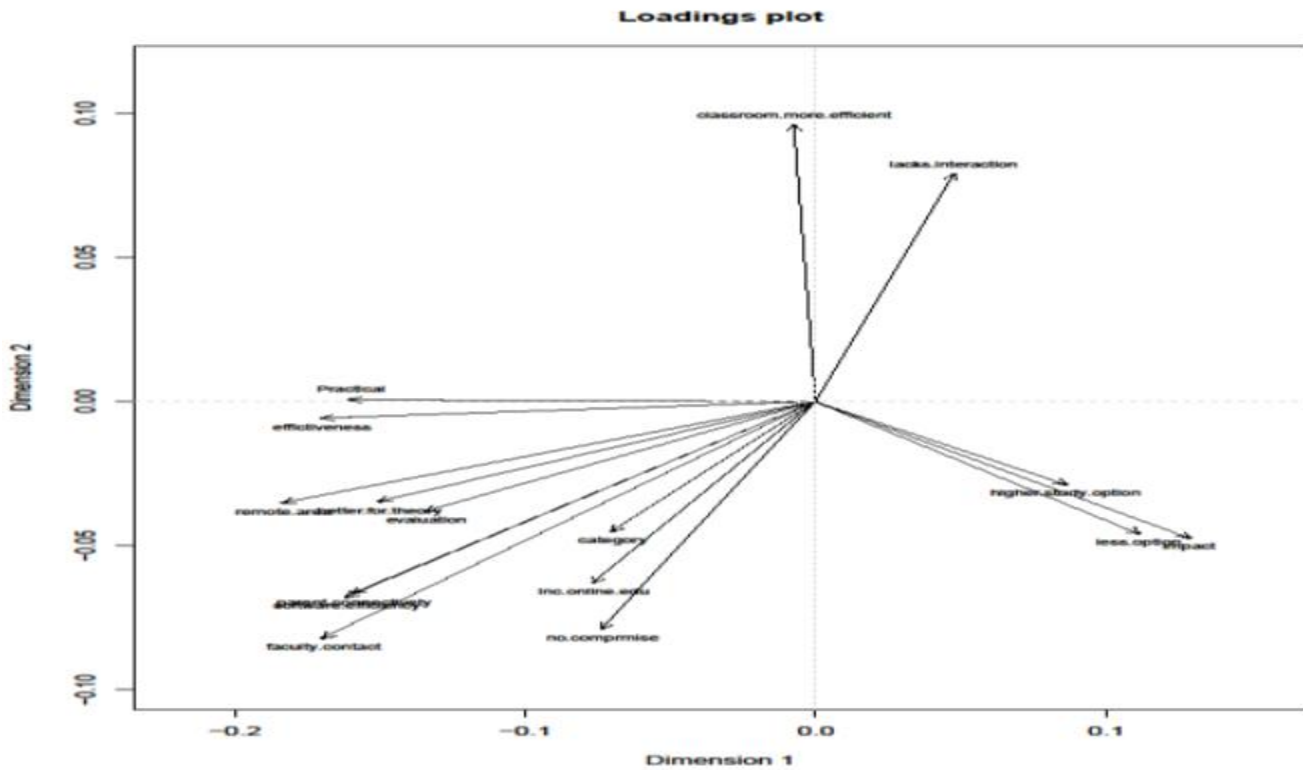
Source: Author's Estimation, 2020

Figure 3: MCAPlot.



Source: Author's Estimation, 2020

Figure 4: Loading Plot.



Source: Author's Calculation 2020

A THEMATIC EXAMINATION OF BANKING OPERATIONS DURING PANDEMIC IN INDIA

Veronica Madan* Shilpi Khandelwal**

The current study aims at examining the different themes that were relevant at the times of spread of pandemics in India. A pandemic by definition is any disease, which is infectious in nature and has an uncontrollable widespread leading to massive social, economic and political destruction. Thus, pandemic can be considered synonymous to huge destruction to any geographical area in all terms. This study being descriptive in nature describes in detail the several pandemics that had spread in India followed by a thematic analysis regarding the operations in the banking sector in the country during the time of that pandemic spread. Secondary data has been utilized in order to select relevant themes and mentioning the sub-themes that were found to be common during the pandemics time in the country as far as the banking operations were concerned. This study is quite insightful with respect to comprehending the approaches adopted by the Indian banking sector at such challenging times in order to comply the directions given by the Government of India and the banking authority.

Keywords: Pandemic, Social, Economic, Destruction, Banking Sector, Thematic Analysis.

JEL Classification: G2, G21

Pandemics can be referred to as the large-scale outbreaks of any infectious disease that can critically increase morbidity as well as mortality over a very huge geographic area. Any pandemic causes significant amount of economic, social and also, political disruption (Jamison, DT., et al., 2017). There have been several evidences suggesting that the likelihood of pandemics has been seen increasing over the past century due to the upsurge in global travel and immense integration apart from spreading urbanization, changes in the pattern of land use involving greater exploitation of mother nature (Jones, et al, 2008). It is even forecasted by several studies that such trends would likely to continue and intensify in the future. Therefore, greater efforts are being taken to focussignificant policy attention towards the need of identifying and limitingthe emerging outbreaks of such infectious diseases that might result in pandemics. Another objective of such planning should be towards expanding and sustaining investment in order to build preparedness as well as the health capacity (Smolinsky, et al., 2003). Referring to the 1918 influenza spread, it is to be noted that places which observed lesser number of days of social distancing than given average had the banking sector struggling the hardest that anywhere else. Due to unstoppable spread leading to economic slowdown, the bank loans also suffered (Dizikes, P., 2020). Realizing the mistakes from history and with the advent of newer and better technological advancements, the operations of the banking sector have changed and got more refined during these pandemics across the world. It has been reported by the American Banker that the use of mobile phones and online banking by consumers has skyrocketed with an unprecedent growth during the coronavirus pandemic globally. This is due to the fact that banks have limited in-

person visits related to stipulated appointments or completely closed branches (Crossman, P. ,2020). The banks have been following the guidelines issued by the governing authority of the banking sector of their respective countries. There have been several changes adopted by banks in these challenging times in order to serve their clients properly and ensuring effective complaints management. It has been reported by Times on the condition of anonymity that half a dozen of the bank employees and executives who participated in the survey described how big clients being provided 'concierge treatment' as their loan applications were pushed to the front of the line (Megan, 2020).

I. Review of Literature

This section deals with reviewing the published studies regarding the various kinds of pandemics that had affected leading to a great social and economic upheaval in the past 100 years. It has been documented by several studies that India witnessed the largest number of deaths in any single country (10-20 million) as well as highest percentage of excess deaths (4.39%) in the world (Chandra, S. & Kassens, N.E., 2014) in 1918. This death toll was driven by the spread of influenza pandemic. Even, in 2018, the situation is unlikely to be any different. However, we can and should stop the history repeating itself (Kant, L. & Guleria, R., 2018). Then, in 2003, a pandemic popularly known as SARS (Severe Acute

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Respiratory Syndrome) was witnessed in India with an infection rate (per infected person) as 3 and fatality rate of 10%. Further, in 2012, the country faced the outbreak of Middle East Respiratory Syndrome (MERS) with a fatality rate of 34.3%. The fatality as well as infection rate of a seasonal flu is quite lower than these two pandemics. The current outbreak of the most devastating virus till now is referred as coronavirus or Covid-19 which has its origin from animals but is communicable from humans. It has been witnessed to bring the highest infection rate and mortality rate as shown in (Table 1).

Encountering the severity of the problems caused by the Covid-19 outbreak, the Government of India had no option but to announce a national lockdown from 24 March 2020. This impacted various sectors including the banks spread across the country. In the banking sector alone, for example, Barclays, Deutsche Bank, and JP Morgan together employs around 60,000 people from India to service their institutions' global technology (Rao, R., 2020). Banking sector is seldomly asleep due to which it has been highly operational during this lockdown period with the technology availability. Information technology helps the banks work round the clock virtually. Before the lockdown was announced, UBS Group AG, Deutsche Bank AG and various other global giants were working with the industry trade group NASSCOM in order to ensure that the Indian states classify the banking work as a part of essential services so that the staff could continue providing those services from the office, if required. Undoubtedly, comparing the bad loans ratios among the world's top-10 economies during the period of Covid-19 outbreak leading to lockdowns and other strict regimes being followed, India has one of the most stressful banking situations (Figure 1). In spite of the challenges posed, the banking sector has adopted all means to ensure the safety of its major stakeholders including the clients and the employees.

In fact, the way the banking domain is handling the whole problem prior to the announcement of absolute lockdown in the country and during the lockdown has shown its commendable leadership position. Considering the gravity of the whole situation, Indian Banks' Association (IBA) which is an umbrella body which instructs or give notifications with respect to the working of all banks in India. It notified timely that banks would serve essential financial services that included cash deposits, withdrawals, clearing of cheques, remittances and government transactions with effect from March 23, 2020. It even notified that non-essential services would be provided by the banks. Apart from that, banks encouraged their customers to use digital medium or mobile banking for banking transactions in order to curtail the risks posed by the current pandemic spread (ETBFSI, 2020).

Another factor that was documented to be values by the banks in our country was client safety. Thus, though the banks were providing essential services and were even working with selective staff depending upon the situation in the region, yet, the banks clearly advised its clients that unless there was an emergency, they should use mobile and net banking services and only go out if the cash was needed. In urban and semi-urban areas where Fintech is the new buzzword, not much problem was found to be faced by the customers yet; customers availing rural banking services had to bear the limitations of this change. Another aspect being the concern for employee safety in the light of the spreading disease, 'COVID-19' and also the widespread strict government orders, the banks across the country had been working at reduced capacities with the objective of providing only essential services. It was found that most banks were working with their key staff only, as per the state-imposed curbs. Complaints management being another important aspect was of concern for banks during the time. Essential banking services were made available to the public in the form of deposits, withdrawals, clearing of cheques, remittance facilities and government transactions (ET Online, 2020). Concierge treatment was even provided to the clients.

II. Research Design and Methods

This research follows descriptive research design. Qualitative analysis has been performed by examining the published reports and data in various research journals; medical, banking and business journals as well as newspaper reports documenting reports by various research agencies. Thematic analysis has been used as the research technique to formulate major themes that includes Leadership in Banking, Employee Safety, Client Safety and Complaints Management during the period of pandemic spread in India, especially at the time of outbreak of Coronavirus-19. All the identified themes have been further explained through various sub-themes that have been mentioned and briefly explained for each relevant category.

Thematic analysis for the major themes has been clearly depicted in (Table 2), which states Theme1 as Leadership in Banking, Theme 2 as Client safety and Theme 3 as Employee safety and Theme 4 as Complaints Management. For each of the given major theme, sub themes have been created. Theme 1 comprised of 3 sub-themes; role of Indian Banking Association, online banking and timely integration. Theme 2 comprised of 3 sub-themes; social distancing, curtailed physical visits and mobile banking. Further, Theme 3 included 3 sub-themes; limited key staff, work from home and economic security. Last but not the least; Theme 4 consisted of 3 sub themes which were concierge treatment, essential services and complaints redressal.

III. Results and Discussion

From this extensive qualitative analysis, it has been found that the Indian banking sector had operated very responsibly during the challenging situation of the Covid-19 pandemic outbreak, which is impacting the whole world. It is clearly indicated by the thematic analysis that this study has categorized the role performed by the banks across the nations under the leadership of strong banking system and its adaptability to technology. Indian Banking Association appeared as an agent of robust notifications for the banking sector and emerged as an authority of strong leadership at the time of crisis. It leadership quality was visible from the clarity with respect to the essential functions and widespread usage of online banking. Yet, few limitations were also encountered dependent upon the geographical locations and the level of development in those areas. Further, the study revealed the level of significance laid on client as well as employee safety. The banks cooperated to follow all the safety norms laid down by the government. During the lockdown, which was, state driven after a certain period, hygiene facilities were maintained in the banks and clients were discouraged to visit banks in various phases of lockdown for their safety. Even, employees were allowed for work from home and in the most needed phase, only very limited staff was called to the bank. Further, referring to the complaints management domain, facilities like concierge portals or facility, complaints redressal system or feedback management systems and essential services were operational during this crisis.

IV. Conclusion

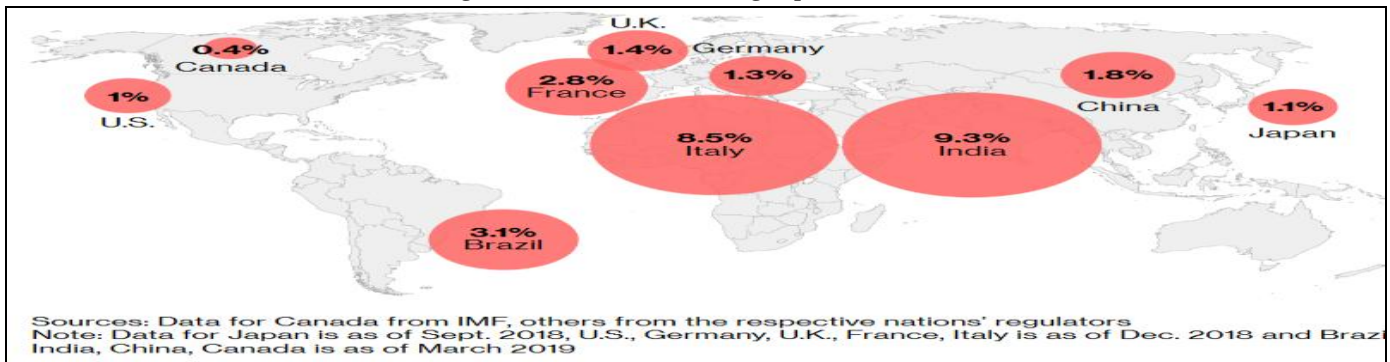
It can be concluded from the given study that the operations of banks in India during the challenging times of the pandemic outbreak and periodic lockdowns have depicted their strength towards technological adaptation and prioritizing employee as well as client safety. It documents the responsible and ethical dimension of the banking sector by examining and working for the safety of public. Even in this time, there were several changes that were to be adapted by the banking system from time to time. And, the banks proved to have emerged victorious with regard to such adaptations. Complaints management was undertaken extremely seriously through various feasible and viable measures being functional in this period.

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Figure 1: Bad loans ratios among Top 10 Economies.



(Source: <https://www.bloomberg.com/news/articles/2020-04-21/india-s-path-out-of-pandemic-slump-hobbled-by-shadow-bank-crisis>)

Table 1: Fatality and infection rates of Covid-19 and other Pandemics in India.

	Fatality rate (deaths/cases)	Infection rate (per infected person)
Ebola	50%	1.5–2.5
MERS	34.30%	0.42–0.92
SARS	10%	3
COVID-19	1%–3.4%	1.5–3.5
Seasonal flu	0.05%	1.3

MERS = Middle East Respiratory Syndrome, SARS = Severe Acute Respiratory Syndrome.

Sources: World Health Organization; Centers for Disease Control and Prevention; Althus, C. 2014. Estimating the Reproduction Number of Ebola Virus (EBOV) During the 2014 Outbreak in West Africa. <https://doi.org/10.1371/currents.outbreaks.91afb5e0f279e7f29e7056095255b288>; Choi, S., E. Jung, B.Y. Choi, Y.J. Hur, and M. Ki. 2018. High Reproduction Number of Middle East Respiratory Syndrome Coronavirus in Nosocomial Outbreaks: Mathematical Modelling in Saudi Arabia and South Korea. *Journal Hospital Infection*. 99. pp.162–168; Heymann, D. L. and N. Shindo. 2020. COVID-19: What is Next for Public Health?. *Lancet*. [https://doi.org/10.1016/S0140-6736\(20\)30374-3](https://doi.org/10.1016/S0140-6736(20)30374-3); and Wu, Z. and J. McGoogan. 2020. Characteristics of and Important Lessons from the Coronavirus Disease 2019 (COVID-19) Outbreak in China: Summary of a Report of 72,314 Cases from the Chinese Center for Disease Control and Prevention *JAMA*. <https://doi.org/10.1001/jama.2020.2648>.

(Source: <https://www.adb.org/sites/default/files/publication/571536/adb-brief-128-economic-impact-covid19-developing-asia.pdf>)

Table 2: Thematic Analysis of Banking during Lockdown.

Theme 1: Leadership in Banking	Theme 2: Client Safety	Theme 3: Employee Safety	Theme 4: Complaints Management
<p>Sub Theme: Role of IBA</p> <ul style="list-style-type: none"> • Clear notifications by Indian Banking Association • Adherence to norms of GoI • Universal working and safety instructions to banks • Essential functions only operational • Concern for human safety; clients as well as employees (public at large) <p>Sub Theme: Online Banking</p> <ul style="list-style-type: none"> • Encouraging banking through digital means • Role of Fintech like Paytm, GooglePay, NEFT etc. • Notifications to banks <p>Sub Theme: Timely Integration</p> <ul style="list-style-type: none"> • Ensuring timely technological integration by banks • Initial loopholes combatted • Pre-lockdown and lockdown situation handling notifications 	<p>Sub Theme: Social Distancing</p> <ul style="list-style-type: none"> • Strict implementation • No proximity between employees and customers • Sanitizers being installed in banks • Notices for Awareness displayed in banks <p>Sub Theme: Curtailed Physical Visits</p> <ul style="list-style-type: none"> • Discouraging customer visits • Providing cashless banking solutions • Executing online transactions <p>Sub Theme: Mobile Banking</p> <ul style="list-style-type: none"> • Fully-operational online banking • Banking apps are mobile adapted • User-friendly banking apps • Convenience 	<p>Sub Theme: Limited Key staff</p> <ul style="list-style-type: none"> • Lesser staff • Only called when presence is quintessential • Safety measures followed • Provided gloves and sanitizers at workplace <p>Sub Theme: Work from home</p> <ul style="list-style-type: none"> • Encouraging work from home • Handling technological glitches • Only essential functions performance online • Stay Home, Stay Safe Implementation <p>Sub Theme: Economic Security</p> <ul style="list-style-type: none"> • Salary payment on time • No layoffs • Genuine problems being understood • Guide Technological usage 	<p>Sub Theme: Concierge treatment</p> <ul style="list-style-type: none"> • Specialised services • Focused attention • Higher customer satisfaction • Dedicated efforts <p>Sub Theme: Essential services</p> <ul style="list-style-type: none"> • Deposits • Withdrawals • Clearing of cheques • Remittance facilities • Government transactions <p>Sub Theme: Complaints Redressal</p> <ul style="list-style-type: none"> • Customer care services • Online banking operations • Active Banking portals • Mobile friendly • Banking website and App

AN EMPIRICAL STUDY ON HERD MENTALITY IN INDIAN INVESTORS

Moid U. Ahmad* Athar Mahmood**

Behavioral finance is one field of study, which tries to explain the financial anomalies in markets, which are formed because of irrational behavior and personal biases of investors. It is because of this irrational behavior, people have their personal biases which leads to different behavior and a collection of similar biases create financial anomalies. Herd mentality or imitation phenomenon is one such bias where investor tends to follow other market participants and this phenomenon has not much been studied in Indian context. The objective of the current research is to study 'Herd mentality' and its interaction with other behavioral traits under the influence of demographic variables. The research uses a sample of 186 Indian investors and their 22 behavioral traits and analyzes them. The research generates a better understanding of herd mentality and related traits and it is expected that the findings would be useful for market participants for business development and product development. Three behavioral traits (preference for short-term gains; double mind mentality; Ignoring counter information) were found to be closely associated with herd mentality. The analysis also uses demographic variables as a moderator of behavioral traits. Techniques like regressions and moderating effects have been used in analysis.

Keywords: Herd mentality, behavioral finance, India, demographics, financial anomalies, survey

JEL Classification: G40,G41,J10,A12,C21,C83,G10

Traditionally, all decisions related to financial investment were considered exclusive to the area of finance. There has been a recent paradigm shift, which emerged in the form of Behavioral Finance, a field of study which believes that investors suffer from many cognitive biases and are not able to process available information in a logical manner. Brav & Heaton (2002:576) state “...investors suffer from many cognitive biases and cannot process available information rationally”. Biases in beliefs and preferring the unconventional gives rise to these anomalies or irrational behavior (Tversky & Kahnman, 1992). Behavioral finance derives its inferences from the psyche of investors and the part played by it in financial decision-making (Kapoor & Prosad, 2017). Herd mentality is closely linked to market anomalies such as momentum and financial bubbles (Prechter,2002). Herd mentality, mental accounting and regret aversion are common behavior types affecting investing decisions (Beach and Rose,2006). Camara (2017) focused on the herd behavior in taking financial decisions. Sias (2004) defines ‘Herding’ as a group of investors following each other in or out over a period of time. Herd mentality or the ‘imitation phenomenon’ is a behavioral trait found in individual as well as institutional investors (Nofsinger & Sias, 1999). According to Steven and Clarence (2006), the three common issues affecting investments are herd mentality, regret aversion and mental accounting. Herd behavior is one of the offshoots of behavioral economics which has been widely studied in other markets (see De Almeida et al., 2012) but not much studied in Indian context (see Mahmood & Ahmad, 2020). This research is an attempt in this direction,

which focusses on herd mentality and the variables affecting it.

I. Review of Literature

In the past various researches have been conducted focused on the study of individual and group behavior related to finance, economics and business. Some relevant references are, comparisons of condominiums for sale (Salminen & Wallenius,1993); international relations (Berejikian,2002), airlines (Nicolau, 2011), supply chain (Stevens,2011) and business-to-business (Marshall et al., 2011). One of the seminal research on herd behavior was conducted by Kraus and Stoll (1972) which explained ‘parallel trading’ as the behavior of investors to tend to be predominantly on the same side of the market at a given time and thus indicating a herd behavior. Cote & Goodstein (1999) explain the herd behavior as the phenomenon when managers ignore their private opinions and public information and imitate the predictions made by other managers. Herd mentality or imitation phenomenon was explained by Prechter (2002) as a phenomenon where investor tends to follow other market participants. Raafat et al. (2009) reported herd mentality as the behavior when individuals tend to fall in line with the

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behaviour of a group. On the contrary, De Bondt et al. (2013) do not consider herd mentality as a negative trait and propose that such a behavior is humane and has a rationale. One application of this behavior was found with institutional investors and in fund management, (Mishra, 2013). Herd Mentality has been examined in detail for stock markets (Dang & Lin, 2016), investors in property (Waweru et al., 2014), all individual investments (Muhammad, 2009) and analysts (Graham, 1999). Almedia et al. (2012) studied herd behaviour in stock markets of Latin American economies and found that Chile followed herd behavior and was indifferent to exogenous variables like subprime crisis. In Indian context (Prosad et al., 2015) studied demographics and behavioral biases of Indian investors and found overconfidence as one of the significant biases while (Mahmood & Ahmad, 2020) found risk averseness as an important trait of Indian investors.

II. Research Design & Methods

The objective of the current research is to study 'Herd mentality' and its interaction with other behavioral traits to draw conclusions which will be helpful in decision making. The data for the study was collected from primary sources and judgmental sampling was done as non-earning and non-investing respondents had to be avoided. Face validity of the research instrument was done for content validity by discussing it with an expert from related domain. Online and offline questionnaire were used for data collection. The geographical market covered was primarily Indian National Capital Region (NCR), Lucknow city and nearby cities. The geographical spread is one limitation of the study which can be taken care in any further research. All behavioral questions were rated on a Likert scale of 1 to 5 where 1 indicated 'Strongly Disagree' and 5 as 'Strongly Agree'. Herd Mentality was measured based on the question '*I invest if many people are investing*' measuring the level of following a herd, ignoring rationale and probabilities of outcomes. The final questionnaire was sent to about 500 respondents and finally 186 usable questionnaires (37%) were found and used for further analysis. The reliability of questionnaire was found to be good (0.742) using Cronbach's Alpha measure (Cronbach, 1951). Herd mentality has been taken as a dependent variable which is regressed with other behavioral traits of investors. This relationship is further studied by analyzing the moderating effect of demographics. The demographic variables used are age, income, educational qualification, employment type and gender. A regression based moderation technique has been used in the research with an objective of understanding the moderating effect of demographics on the relationship between herd mentality and selected behavioral traits (top three correlated). A Simple analytical techniques like correlations, regressions, cross tabulations and moderating analysis are used in the research. SPSS 20.0 software was used for data analysis. The research

also tests the following four hypotheses to understand herd mentality better.

H01: Investors with Herd mentality are not satisfied with their investments.

H02: Investors with Herd mentality do not maintain separate accounts.

H03: Investors with Herd mentality do not get convinced easily.

H04: Investors with Herd mentality are not emotional with their investments.

III. Results and Discussions

Initially, hypothesis testing, analysis of basic statistics and correlations is done followed by regression analysis and concluded by moderation analysis. Analyzing the imperative findings from demographics, it was found that 72% respondents were salaried, 61% were male, 32% were in the age group of 30-40 years, 61% were post graduates and 32% were earning INR 1 Million and above annually.

H01: Investors with Herd mentality are not satisfied with their investments. The null hypothesis (H01) was tested by regressing herd mentality on 'satisfaction of investors' and the regression was found to be significant. Thus, H01 was not accepted indicating that people who follow herd mentality are satisfied with their investments. This validated the prospect theory (R-squared= 5%).

H02: Investors with Herd mentality do not maintain separate accounts. The null hypothesis (H02) was tested by regressing herd mentality on 'maintain separate accounts' and the regression was found to be insignificant. Thus, H02 could not be rejected indicating a violation of utility theory (R-squared = 1%).

H03: Investors with Herd mentality do not get convinced easily. The null hypothesis (H03) was tested by regressing herd mentality on 'ease of investors being convinced' and the regression was found to be significant. Thus, H03 was not accepted indicating that investors who follow herd mentality get convinced easily (R-squared= 4%).

H04: Investors with Herd mentality are not emotional with their investments. The null hypothesis (H04) was tested by regressing herd mentality of investors on 'emotional attachment to investments' and the regression was found to be significant. Thus, H04 was not accepted indicating that investors who follow herd mentality are emotionally attached to their investments (R-squared = 5%).

It was found that 28% of respondents agree that they follow herd mentality and about 45% disagree and indicate that they do not follow herd mentality. It was also found that the Indian

investors agree most on long term as an investment horizon (CV =0.22) and most disagree on impact of weather and seasons on investment decisions (CV =0.46). The correlation analysis was done for the all the 22 variables to study the relationship between herd mentality and its related behavioral traits. The correlations were found to be low for all the pair of variables (IV) with herd mentality (DV) and top three correlations (preference for short term gains, double mind mentality, ignoring counter information, (Table 1) were probed further for robustness. All the three correlation coefficients (Table 1) were found to be statistically significant. One of the highest correlation (0.4) was found between herd mentality and preference for short term gain, indicating that investors who prefer short term gains are more likely to be influenced by herd mentality. Also it is logical and was validated (correlation of 0.24) that if an investor is being in double minds or is in doubt, he/she will follow the crowd (herd) and consequently creating a herd movement. This finding also relates to the third variables of 'ignoring counter information' (correlation of 0.29) which further leads to increased herd mentality amongst investors. A multivariate regression analysis was conducted with herd mentality as the dependent variable and the three most correlated variable as independent variables (Table 2) which resulted in an R-squared value of 20.2%. 'Preference for short term gain' and 'Having double minds' were found to be statistically significant and positive with herd mentality. Also, univariate regression analysis was conducted individually with the three independent variables and all the three regressions were found to be statistically significant. Thus, separately (univariate regression) the three independent variables had a better beta coefficient rather than when all three were included together (multivariate regression). This also indicates that preference for short term gains will create more herd movement and explain it better (higher R-squared value) if the investors are ignorant to counter information and are keeping double minds. Subsequently, the effect of five demographic variables (Employment type, Gender, Age, Education level and income) was analyzed on the three relationships. Here, moderation analysis is done to understand the moderating effect of five demographic variables on the relationship of three behavioral traits (preference for short-term gains, double mind mentality, and ignoring counter information) with the herd mentality trait present in investors. Initially the regression analysis was done with herd mentality as the dependent variable and all five demographic variables (separately) as the independent variables (Table 3). Only Income level as an independent variable was found to be significant with herd mentality. Thus, three interaction variables (interaction 1, interaction 2 and interaction 3) were generated as a product of Income variable with three top correlated behavioral traits (preference for short term gains; double mind mentality; and ignoring counter information).

Subsequently, the moderation and interaction effect of the three interaction variables was calculated and analyzed (see Table 4). Analyzing (Table 4), it is found that the interaction 1, interaction 2, interaction 3 do moderate the relationship between herd mentality and respective independent variables as R-squared values for the all three interactions improved when the interaction variables were added to the respective regressions. Also, the three regressions with added interaction terms were found to be statistically significant at 5% level of confidence.

IV. Conclusion

Income as a demographic variable was found to influence herd mentality most and was found to be statistically significant also indicating the influence of income levels on herd mentality but this influence was found to be isolation only (univariate regression). Preference for short term gains; double mind mentality and ignoring counter information were the three top correlated variables with herd mentality and were also found to be statistically significant with herd mentality in univariate regressions. 'Preference for short term gain' and 'Having double minds' were found to be statistically significant and positive with herd mentality in multivariate regression also. Taken together, these three independent variables explained 20% variance in herd mentality. This indicates and validates that herd mentality is influenced by these variables in isolation and in combination and this is an imperative conclusion of the research. Income was found to moderate the relationship between herd mentality and the three independent variables (Preference for short term gains; double mind mentality and ignoring counter information), respectively. This indicates that herd mentality of investors should be leveraged considering the influence of income level of investors. The tests for null hypothesis indicated that the people who follow herd mentality are satisfied with their investment decisions, get convinced easily and are emotionally attached to their investments.

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Table 1: Correlations.

	Prefer short term gain	Have double minds	Ignore counter analysis
Herd Mentality	0.4	0.24	0.29

Table 2: Multivariate regression (Dependent Variable: Herd Mentality).

	Unstandardized Coefficients	Standardized Coefficients	p-value
	Beta	Beta	
(Constant)	1.149		0
Preference for short term gain	0.343	0.346	0
Ignore counter analysis	0.083	0.078	0.3
Have double minds	0.155	0.155	0.03

Table 3: Regression results (Dependent variable: Herd Mentality)

Variable	R-squared (%)	Significance at 5% confidence
Employment type	1.6	No
Gender	0.3	No

Age	1.6	No
Education Level	0.1	No
Income level	3.4	Yes

Table 4: Moderation Analysis (Dependent variable is Herd Mentality)

Independent Variables	R-squared (%)	Significance at 5% confidence
Short term gain, Income	18.7	Yes
Short term gain, Income, Interaction 1	19.4	Yes
Double minded, Income	9.6	Yes
Double minded, Income, Interaction 2	11.2	Yes
Ignoring counter information, Income	10	Yes
Ignoring counter information, Income, Interaction 3	10.9	Yes

KFC'S PROMOTIONAL STRATEGIES AND IT'S IMPACT ON BRAND EQUITY

Harsha Vardhan G. *

This study is based on the deep insights of marketing and promotional strategies adopted by KFC that have enhanced its brand equity in Indian market. The study stretches its understanding on how KFC's promotional methods impact the target audience to buy its products. Hence, promotional activities that leads to develop a brand image in the minds of target audience. It focuses on the key elements of promotional mix: namely Advertising, Sales Promotion, Personal Selling and Word of Mouth which KFC uses to communicate with present and potential customers. Though KFC's integrated marketing communication (IMC) involves several channels to convey the message, this study has indicated the most effective promotional component is Word of Mouth, through which the brand equity among customers is created at minimal cost. The main objective of this study is to examine the relationship between the promotional strategies and brand equity and find out to what extent the promotional strategy impacts on brand equity of KFC in Mysore district. Therefore, it explicates how KFC formulates promotional strategies with ongoing trends as it is essential to use the appropriate techniques that can help to stay connected with all kinds of customers in competitive markets.

Keywords: KFC, promotional strategies, brand equity

JEL Classification: M3

The world is flooded with a variety of businesses. Businesses often have a notion that the growth and profit depends completely on the products and services that a company offers to its customers. But this is not the only factor that determines a company's success. It is the way that a company presents its product or services to the target audience by distinguishing itself from the competitors, which can be done through creating brand equity. Promotion being an important element of marketing mix defines the tactics that companies use to communicate with customers through various channels. Among those, advertisement is one of the major promotional tactics, which KFC uses as well to communicate with their customers by means of television, radio, print media and online media. Followed by sales promotions where KFC uses to draw more customers to its retail outlets through contests, programmes and free coupons, which help to attract more customers. KFC also uses its sales force to sell their product after meeting the customers face-to-face where they aim to inform and encourage the customer to try/buy various products available at outlets. In contrast, by localising their menu list such as Popcorn Rice Bowl, Chicken and Veg Rice Bowl, KFC has developed an extraordinarily successful word of mouth strategy not only in the city but throughout India. Ultimately, due to the immense competition in Indian fast food market, KFC is making the best possible way to combine and use the elements of promotional mix to reach out large volume of customers and to increase its brand equity.

Fast Food Restaurants

India has observed a tremendous growth in Fast Food Restaurants (FFR) in the past 10-15 years. The entire fast food

market is approximately to be around 95,000 crore rupees. Therefore, fast food restaurants are contributing to the food service market in India significantly. The concept of quick serving restaurants has been doing well in the nation because of shorter lead-time and snappier food utilization choices for the purchasers. Indian and international chains both have the allocation in this sector. While known Indian fast food restaurants like Bikanerwala, Haldiram's, etc. have a skew towards vegetarian food whereas the global players like KFC, McDonald's, Domino's Pizza, Pizza Hut, Subway etc. provide a combination of both vegetarian and non-vegetarian offerings.

Market Dominate by International Brands in India

In early 90's when Liberalization Privatization Globalization (LPG) was introduced in the Indian economy, that was the point in time when McDonald's entered Indian market and was followed by other worldwide brands such as Kentucky Fried Chicken, Pizza Hut and Domino's Pizza. Most of the international brands function all the way through the franchise model, which helps these companies to expand quickly with minimum principal amount of investment. These international brands have established themselves vigorously with good reputation. These international brands at present lead the Indian fast food market with an aggregate share of 63 percent.

The History of KFC

KFC was founded by "Colonel" Harland Sanders in Kentucky

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in 1930. The first Kentucky Fried Chicken franchise was opened in Salt Lake City, Utah in 1952 by Pete Harman, who introduced the "Bucket O'Chicken" in 1957. KFC Corp. is based in Louisville, Kentucky and is a subsidiary of Yum! brand. It went public in 1966, was listed on the New York Stock Exchange in 1969 and eventually was acquired by PepsiCo, Inc. in 1986. In 1997, PepsiCo, Inc. Today they have more than 24,000 KFC restaurants in over 145 countries and territories around the world. Renowned worldwide for its finger licking good food, KFC offers its signature products in India too. Its signature dishes include the "crispy outside, juicy inside" Hot and Crispy Chicken, flavourful and juicy Original Recipe chicken, the spicy, juicy & crunchy Zinger Burger, Toasted Twister, Chicken Bucket and a host of beverages and desserts. For the vegetarians in India, KFC also has great tasting vegetarian offerings that include the Veg Zinger and Veggie Snacker. Today there are 335 KFC's in more than 100 cities in India. According to company figures, the KFC system serves more than 12 million customers daily. KFC engages in extensive marketing to keep the brand in consumers' minds. KFC claims an average of more than 185 million people see a KFC commercial at least once a week. KFC is also a pioneer in the use of social media to attract and engage customers. KFC franchisees receive ongoing support through The Yum! Value Network, which offers programs and support that include brand recognition, customer attraction, competitive advantage, franchise value system, multi-unit growth, economic stability, giving back to the community, development expertise, access to financing, solid business support, quality on-boarding and training, a reliable supply chain and return on investment.

KFC's Promotional Elements and its Impact on Brand Equity

A descriptive method was taken up for the purpose of conducting and investigating KFC's promotional strategies and data was gathered from customers from various KFC outlets located in Mysore city. The communality test was conducted to find out to what extent an element correlates with other elements of promotional mix. Advertising, Personal Selling, Sales Promotion, Word of Mouth and Combination of all were considered for the study, where all variables resulted more than 0.5 and hence all five elements were considered for further examination. Variables from the highest value of 0.947 i.e., Personal Selling to Word of Mouth with the lowest value of 0.524 were extracted which relatively shows a positive impact of promotional tactics on KFC's brand equity. The components of promotional mix elements were extracted by principal component analysis. The factor analysis revealed that Sales Promotion is the major component extracted with an Eigen value 0.70, followed by Advertising with an Eigen value 0.640. The component of Personal selling is found to be of the least priority among the promotional mix elements.

Conclusion

Thus, the Communality Value shows that all the elements of promotional mix i.e., advertising, sales promotion, personal selling, word of mouth and combination of all play a significant role in building the brand equity. Marketing team must utilise the brand image of KFC's and execute the right promotional - mix strategies so that the products can be positioned stronger in the customers' mind. Therefore, it is understandable from the study that focusing on all promotional elements will increase the brand equity, which will push its sales and help to be counterintuitive in this competitive world.

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A Book Review On “Leadership: Enhancing the Lessons of Experience”

Author: Richard L. Hughes, Robert C. Ginnett, Gordon J. Curphy

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Price: 18,383/- INR

Vaishali Puri *

“Leadership is a Process and not a position”

“Leadership Is Both a Science and an Art”

Often the only difference between chaos and smooth functioning operation is Leadership; this book beautifully captures the difference. The authors believe that leadership development involves reflecting on one’s own experiences. This book is scholarly, stimulating, entertaining and relevant for anyone who wishes to better understand the dynamics of leadership and to improve their own personal performance. This book describes leadership as an interaction between the leader, the followers, and the situation; it asserts that leadership develops through experience and can be assessed and studied. The book uses the leader-follower-situation interaction model as a framework for organizing and discussing various theories and research findings related to leadership. This book is divided into 4 parts: Part 1 is all about Understanding Leadership; Part 2 is all about Leader; Part 3 focuses on the Followers and the Part 4 put focus on the Situation.

The book is a work of excellent research put together by 3 great authors cum psychologists namely Richard L. **Hughes**, Robert C. **Ginnett** and Gordon J. **Curphy**.

Critical Review

The book describes only one aspect of leadership i.e. situational leadership from various viewpoints. It covers the relationship that leader has with the followers. The book also debunks some of the famous Myths related to Leadership with relevant examples and anecdotes like “Good leadership is all about common sense”, “Leaders are born not made”, “and The only school you learn leadership from is the school of Hard Knock”. The art of leadership explained through various case studies and profiles is exemplary in understanding how leadership can make or break a brand. Leader development through real life based case studies including that of Oprah Winfrey and Steve Jobs helps the readers develop faith and trust.

As a reviewer, I admired the conceptual clarity and explanation with examples to inspire and caricatures and charts to keep the reader glued into reading. The power of coaching is necessary read. Further, the book explores the existing research, that states

there are “fatal flaws” in leadership that include counterproductive leadership behaviors such as arrogance, insensitivity, or untrustworthiness. On further reading; the reader gets to understand the four well-known contingency theories of leadership—the normative decision model, the situational leadership model, the contingency model, and the path-goal theory. All four models similarly state that leadership effectiveness is maximized when leaders adapt their behaviors to certain situational and follower characteristics.

This book is beneficial for the readers in following ways:

1. It explains that leadership is a process, not a position, and that leadership involves something that happens because of the interaction between leaders, followers, and situations.
2. One of the great concepts that can be learned from this book is emotional intelligence (EQ)—the ability to recognize one’s and others’ feelings, to be motivated, and to effectively manage one’s emotions.
3. The book helps readers uncover the creativity-related components: synthetic ability, analytic intelligence, practical intelligence, thinking style, personality factors, intrinsic motivation, and environmental factors. It also talks about “people who have more complex or challenging jobs, who have supportive, non-controlling leaders, and are given ample time seem to be more creative than people in uninteresting jobs who are under tight deadlines and also have highly controlling supervisors.

This book is recommended to anyone beginning a career in to HR and to anyone looking for Leadership development, self enhancement and gaining insights into creativity. Other books such as Employee Training and Development (by Raymond A. Noe. & Amitabh Deo Kodwani), Leading Change (by John P Kotter) and The Heart of a Leader (By Ken Blanchard) should also be read to understand the concept of Leadership.

*** Founder & CEO at Vinci and Valeo Trainers and Consultants, South Delhi, Delhi, India.**



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JIMS 8M: The Journal of Indian Management and Strategy

Call for Papers: Special Issue

on

“Covid-19 – Work -Life Balance and Sustainability”

This special issue of 8M Journal invites papers to address issues pertaining to pandemic and its outcome. It seeks to contribute to the knowledge in order to develop the idea of sustainability of economy, environment and society in the wake of the pandemic, which has affected millions across the world in terms of both physical existence and livelihood. One of the significant impacts of this pandemic and its spread across the globe has been on businesses as mobility has been restricted across borders, countries and sectors. The outbreak has implications on the operational mechanism of businesses, how costs need to be managed and the workforce to be restructured. Globe has witnessed slowing of businesses, disrupted supply chains and anxious workforce. The initial reaction to the pandemic was halting operations as far as possible, keeping employees in the safety of their homes and many companies across the globe have started rethinking strategies about long-term impact and mitigation. At the same time, employees are also dealing with multiple issues while working from home. Thus, this arrangement has proved to be isolating for some and workers often find themselves juggling with the entire set up, this pandemic has proven to be a uniting force for a sentiment of struggling to balance work and personal responsibilities together. A pertinent question is whether this outcome of Covid-19 will represent a permanent shift in attitude for both the employers and employees and sustainability of an organization. Covid-19 has brought this need to devise means to sustain and bring harmony between economic progress, society and planet earth. It is now primarily an urgent need to bring a healthy balance between people, businesses and environment.

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Dr. Ashok Sharma

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