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"A UGC CARE Approved Journal"

Annual Journal of Institute of Innovation in Technology & Management

Contents

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"AN EMPIRICAL STUDY OF LINKING BETWEEN TALENT AND KNOWLEDGE MANAGEMENT WITH RESPECT TO IT INDUSTRIES IN PUNE, MAHARASHTRA (INDIA)."

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ABSTRACT

This paper aims to explain systematic applied study of Talent Management (TM) and Knowledge Management (KM) assembly in an Information Technology (IT) industry in Pune, Maharashtra (India). Scope of research study compacts IT organizations in Pune, Maharashtra (India). This article kindles talent management and knowledge management connecting variables and its effectiveness in performance of 93 IT based firms situated at Pune. The employees who are working in organizations and creates their own creations with own talents are called as "Knowledge workers" also termed as "Talents" for an organization. These creation is shared, transformed , captured in organizational process for organizational strategies termed as "Knowledge" Catherine L Wang et.al (2003).The objectives of this research study is to study the concept of talent management and knowledge management and examines different aspects of its connecting variables and its performance efficiency in IT organizations. Findings of the study will help IT organizations to improve their Talent Management and Knowledge Management connecting process and factors to enhancing overall performance and effectiveness. Researcher provide Talent Management (TM) and Knowledge Management (KM) linking model on the basis of empirical analytical study.

Keywords: Talent, Talent Management(TM), Knowledge, Knowledge Management (KM), Information Technology (IT) firms

INTRODUCTION

Preliminary aspect in business areas of most IT firms is 'Knowledge Management' (KM) and 'Talent Management' (TM). Knowledge Management process deals with creating, capturing, storing and dissemination of the knowledge in an organization with technology and people. Therefore both Knowledge and Talent Management concepts carries same

essence of linking (Danijela Jelenic 2011). (Thi Nguyet Que Nguyen, 2010) describes in their research as KM capability is a multi-viewed concept. It can be viewed from different angle as social, infrastructure, process, technical and infrastructure capability. These factors are acting as linking factor between KM and TM. Hugh Scullion et.al (2007) Meyer (2006) identifies benefits of collaboration of knowledge, ideas, knowledge and its value in MNC throughout geographical boundaries. It indicate that organizational knowledge management (KM) System and Talent Management (TM) are very important aspects of IT organization's overall performance.

REVIEW OF LITERATURE AND LINKING OF BOTH TALENT MANAGEMENT AND KNOWLEDGE MANAGEMENT CONCEPTS

There are causes to study these concepts simultaneous and finding out variables as Cindy et.al (2012) states need of examining these concepts from empirical perspectives. Vlad et.al (2012) illustrates talent management importance in knowledge based economy. Elizabeth A.Smith, (2001) proposed work centered talent aspect in crating knowledge. Frank M. Horwitz et.al (2006) states for effective and efficient knowledge strategies similar human resource strategies can be used. Zartaj Kasmi (2011) states all organizations should align HR strategies and talents to boost knowledge system in an organization.

Literature that shows Knowledge and Talent management common variables as 'strategy' by N. Venkateswaran (2012), 'People ' by Rocha et.al (2008), HR process by Nick Bontis et.al

(2002), 'Talent management process' by Eoin Whelan, David G. Collings and Brian Donnellan (2010), culture and structure by Ying-Jung Yeh et.al (2006). Nada K. et.al (2001) Focused institutional and organizational dimensions as talents and learnings for knowledge creation and knowledge conversion. Nieto et.al (2013) have proposed framework provides a procedural executiveness of Business Process Modelling and Service Oriented Architecture (Structure) with talent aspect. From all these literature reviews researcher has find out linking variables as- People, Process, Technology, Strategy, Culture, Organizational value, Learning and Development from knowledge and talent management and tested its relationship on empirical basis.

OBJECTIVES OF RESEARCH

1. To study the basic theory of Talent Management (TM) and Knowledge Management (KM).
2. Investigate various linking or connecting aspects of Talent Management and Knowledge Management and its related variables.
3. Evaluating Talent Management and Knowledge Management linking with respect to performance of IT organizations in Pune and suggest ways to improve talent and knowledge management linking strategies.

HYPOTHESIS

H1 IT Organizations indicating better performance in organizational Talent Management (TM)which are also using organizational Knowledge Management (KM).
H2 Relationship between performance of organizational Talent Management and

Knowledge Management efficiency is strong. There is strong association among reliant variables of knowledge and talent management as process, people, organizations strategies, technology, values, organizational learning, organization culture, and organizational development.

RESEARCH METHODOLOGY GRAPHICAL

Researcher has collected Data of 93 IT organizations by stratified sampling method from the various stratum of IT organizations like IT Consulting , Network admin and data security provider, IT software and QA testing, IT telecom and CRM , IT hardware's and electronics ,IT embedded, KPO, BPO, E- Commerce and IT software and financial management[1]. Primary data is collected with nominal, ordinal and interval scale with the help of 3 structured schedules. Data is collected from HR heads, IT heads and Strategic Business Unit (S.B.U) heads. Analyzed data is presented with the help of tabulation method. Secondary data of the research study include concepts related to talent management and knowledge management, linking variables, competency mapping and learning organization. Secondary data is collected with the help of research journals, books and authentic research related websites. Reliability and validity of the data is checked by Cronbach's Alfa and Split-half method. Values as per both methods are 0.8 and 0.6 respectively.

SIGNIFICANCE OF RESEARCH

As present research deals with study of knowledge management and talent management linking variables and finding its association. An anticipated model which shows association between knowledge and talent management will help organization to formulate future strategies according to talent aspect, to compete successfully in future environment, use of peoples talents to organizational knowledge sharing and in this way integrate knowledge based talent management system and organizations competencies to expand organizations development, values, organizational learning, culture and all human resource context.

This research will help IT organizations and IT professionals in judging key areas of connecting factors, its special effects and effectiveness of talent and knowledge management organizational process.

SCOPE OF RESEARCH

The geographical scope of research is restricted to Information Technology (IT) industry in Pune, Maharashtra state of India. Conceptual scope include knowledge management, organizational talent management with respect to linking factors like people, process, technology, organizational strategy, organizational culture, values, learning and development and organizational learning. Analytical scope include tabulation, percentage, weighted average, ranking, descriptive statistical analysis as co-relation and inferential analysis as one- way Anova and spearman's co-relation method. Normality of data is checked with Cronbach's Alfa and Split-half method.

ANALYSIS OF PRIMARY DATA AND HYPOTHESES TESTING

Figure 1: Percentage of largely protected intellectual assets in existing organizations systems
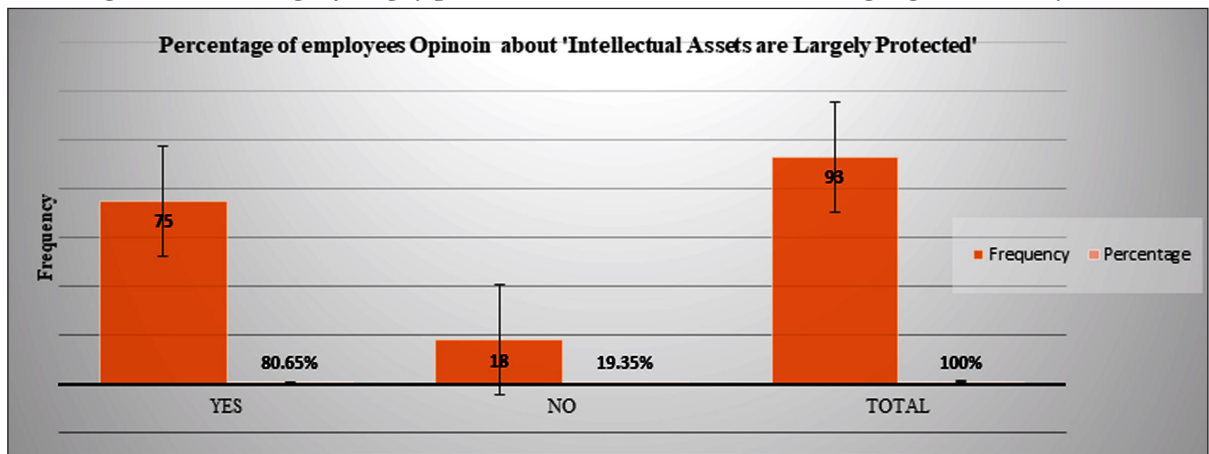
Source: (Field Data)

Above Figure1: indicates that 80.65 % of IT organizations shows presence of Systems to convert intellectual knowledge into organizational knowledge.

Figure2: Scenario of IT organizations using metrics to measure value added and / or effectiveness of the Knowledge Management (KM) programs
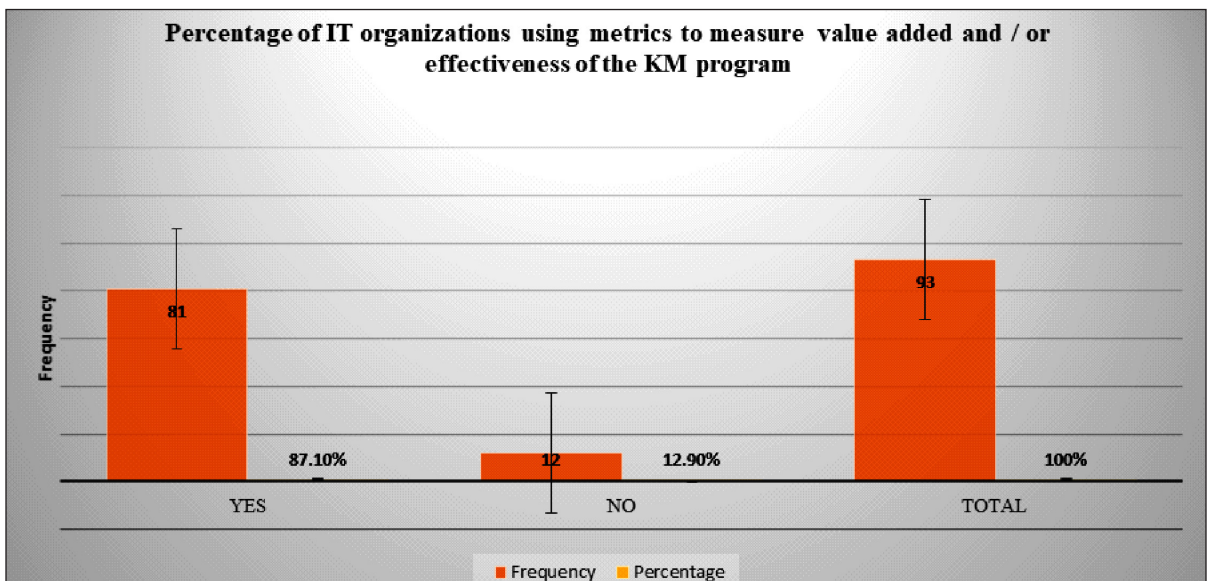
Source: (Field Data)

Above Figure 2: indicates that majority i.e. 87.10 % of IT organizations are implementing metrics to measure value added and / or effectiveness of knowledge management (KM) programs.

Figure 3: *Recent status of respondent IT organizations with respect to the following performance criteria*
Source: (Field Data)

Above Figure 3: shows that out of total 93 sample IT organizations, majority i.e. 83.87 % of IT organizations shows current significance on innovations applications, 78.49 % of organizations gaining advantage of competitiveness and 79.57 % shows better performance in revenue growth. It indicates overall good current significance of status of IT organizations.

Figure 4: *Percentage of IT organizations actively generate and maintain "Communities of Practices (CoP's)*
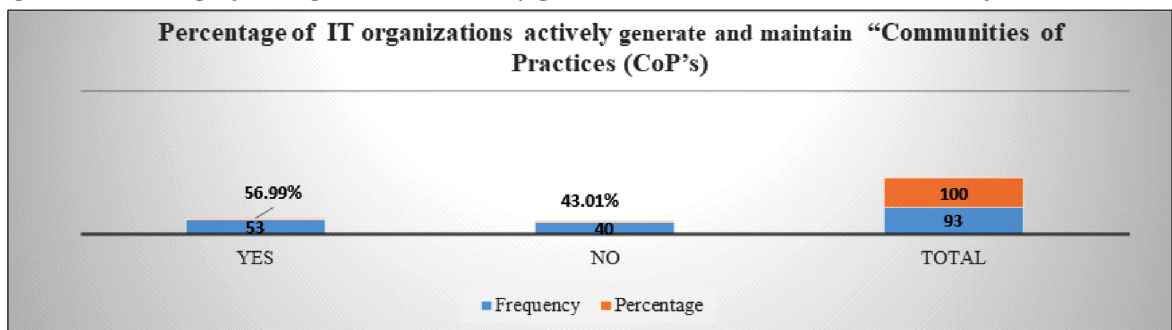
Source: (Field Data)
Above Figure 4: shows that majority i.e. 56.99 % of IT organizations actively generate and maintain "Communities of Practice (CoP's) in their own system.

Figure 5: Rank wise satisfaction level of IT respondents about creativity and innovative application in an organizations
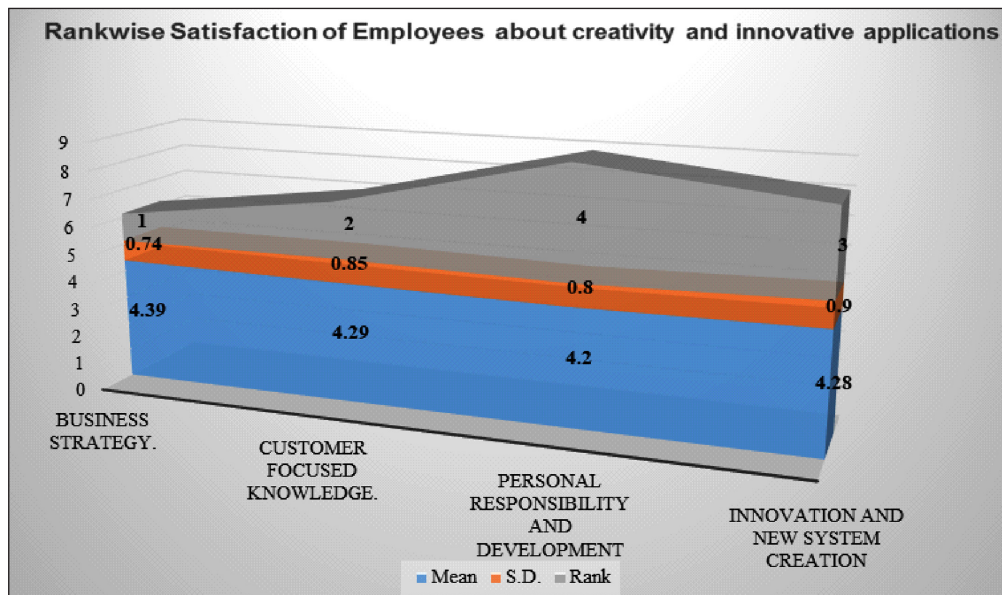
Source: (Field Data)

Above Figure No. 8.5 states that majority of respondent IT organizations are applying business strategy (Mean 4.39), customer focused knowledge (Mean 4.29) and innovations and new systems creation (Mean 4.28) aspect for application of creativity in knowledge management as rank first, second and third respectively. Standard Deviation (S.D.) rages from 0.74 to 0.90.

Figure 6: Technologies applied in an IT organizations for Knowledge creation, sharing and transformation
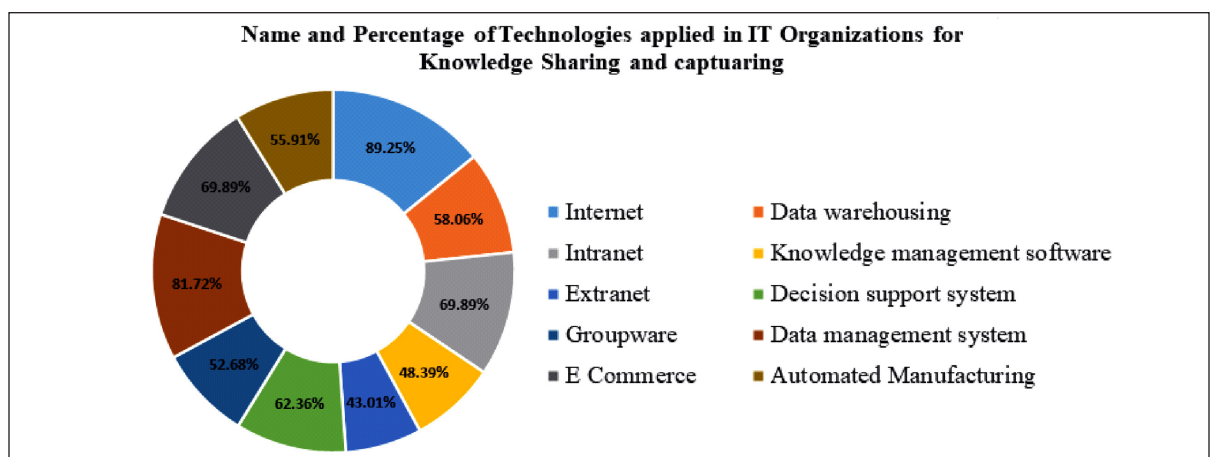
Source: (Field Data)

Above Figure 6: indicates types of technologies and integration of technologies present in an IT organization to knowledge creation, sharing and transformation. It indicates that maximum respondent organizations i.e. 89.25 % are using internet, 58.06 % are implementing Data warehousing system technology, 69.89 % IT organizations having Intranet, 48.39 % are using Knowledge Management Software (KMS), 43.01 % of showing Extranet facilities, 62.36 % has been using Decision Support System (DSS), 52.68 % organizations shows Groupware's , 81.72 % are implementing Data Management System (DMS) , 69.89 % of an organization are having E-Commerce and 55.91 % of IT organizations having their own automated manufacturing systems. It reveals that maximum i.e. 89.25 % of IT organizations having internet technology, 81.72 % are using Data Management System (DMS) and 69.89 % organizations have intranet and E- commerce as satisfactory technologies for knowledge creation, capture and sharing.

Hypotheses Testing

H1- Organizations indicating better performance in organizational Talent Management (TM) which are also using organizational Knowledge Management (KM).

Table 1: Normality Test of Kurtosis and Skewness about better performance in talent management of IT organizations

Sr. No.	Test Variables	Total Samples	Normality Test	Statistics	Standard Error	'Z' Value
1.	Mean of all variables of Talent management performance	93	Skewness	-0.20	0.25	0.8
			Kurtosis	-0.59	0.49	1.2

Source: (Compiled by researcher)

Above table:1 shows that both Skewness and kurtosis values of 'Z' for talent management variables for performance mean are less than standard 'Z' value as +1.96 to -1.96. Therefore Skewness and kurtosis values are significant. Therefore it statistically shows evidence that data distribution is normal.

Table 2: One –way ANOVA test for organizations showing better performance in Talent management and also using of Knowledge management

ANOVA					
Mean of Talent Management Performance variables					
	Sum of Squares	**d.f.**	**Mean Square**	**F**	**Sig.**
Between Groups	8.97	4	2.24	15.8	0.000
Within Groups	12.53	88	.142		
Total	21.50	92			

Source: (Compiled by researcher)

Above table 2: shows that the value of 'P' is significant. It shows that organizations indicating better performance in organizational Talent Management (TM) which are also using organizational Knowledge Management (KM) has scope for further interpretation.

H2 - Relationship between performance of organizational Talent Management and Knowledge Management efficiency is strong. There is strong association among reliant variables of knowledge and talent management as process, people, organizations strategies, technology, values, organizational learning, organization culture, and organizational development. To test this hypothesis Spearman's rank co-relation is used as a nonparametric test.

Table 3: Spearman's Rank Correlation Analysis Between Talent Management (TM) and Knowledge Management (KM) Variables

Sr. No.	Correlation variables of Talent Management performance and Knowledge Management efficiency	Co-relation of coefficient Value (R)	Significance Conclusion
1.	Aggregate Talent Management (TM) performance and Knowledge Management (KM) efficiency	0.7	Significant moderate positive co-relation with this variable
2.	Talent Management Performance and Knowledge Management efficiency with 'Process' as linking factor	0.5	Significant low positive co-relation with this variable
3.	Talent Management Performance and Knowledge Management efficiency with 'People' as linking factor	0.3	Significant low positive co-relation with this variable
4.	Talent Management Performance and Knowledge Management efficiency with 'Strategy' as linking factor	0.5	Significant low positive co-relation with this variable
5.	Talent Management Performance and Knowledge Management efficiency with 'Technology' as linking factor	0.4	Significant low positive co-relation with this variable
6.	Talent Management Performance and Knowledge Management efficiency with ' Organizational value' as linking factor	0.1	Significant low positive co-relation with this variable
7.	Talent Management Performance and Knowledge Management efficiency with 'Organizational Learning ' as linking factor	0.3	Significant low positive co-relation with this variable
8.	Talent Management Performance and Knowledge Management efficiency with 'Culture ' as linking factor	0.5	Significant low positive co-relation with this variable
9.	Talent Management Performance and Knowledge Management efficiency with 'Development' as linking factor	0.6	Significant moderate positive co-relation with this variable

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

Above Table 3: shows correlation between overall Average Talent Management (TM) Performance and Average Knowledge Management(KM) Efficiency with respect to process, People, Strategy, technology, organizational Value, organizational learning, Culture and Development. It indicates that there is significant moderate positive co-relation between overall talent and knowledge management efficiency as co-relation coefficient value is 0.7 which is nearest to standard perfectly positive value +1.00. Whereas it shows moderate positive co-relation between organizational development variable as value is 0.6 which is also nearest to standard perfectly positive value +1.00.

FINDINGS

1. Majority i.e. 80.65 % of IT organizations shows presence of system which convert intellectual knowledge to organizational knowledge, it shows there is existence of positive coordination between use of human talents and application of it to organizational knowledge.

2. Majority i.e. 87.10 % of IT organizations shows knowledge management system in which are using metrics to gauge the value added and / or effectiveness of the Knowledge management program. It also reveals that these organizations have some definite process for measuring performance of knowledge management. It indicates coordination between performance of knowledge management and talent management with respect to process.

3. Majority of IT organizations current status is satisfactory i.e. 83.87 % of organizations have significant benefits on innovations, 79.57 % on revenue growth and 78.49 % are improving against competitive advantage.

4. Majority i.e. 56.99 % respondent IT organizations have actively generate and maintain "Communities of Practice (Cop's).

5. Majority of IT organizations are applying business strategy, customer focused knowledge and innovations and new systems creation for applying creativity in knowledge management as ranks first, second and third respectively. It shows linking of knowledge management performance with respect to strategy.

6. Majority of IT organizations i.e. 89.25 % are using internet technology, 81.72 % are conducting their process through Data Management System (DMS), and 69.89 % has intranet facilities and E- commerce technologies for knowledge management. It shows better utilization of technological resources for talent and Knowledge capturing, sharing and transformation.

SUGGESTIONS

Empirical evidences and analytical study of knowledge and talent management concepts shows positive co-relationship with respect to linking variables as process, people, technology, organizational culture, strategy, values, organizational learning and organizational development.

1) To improve organizational talent strategy and organizational learning IT organizations have to set organization standards according to its objectives, Analyze competency gap, organize training and upgrade linking of collection, dissemination of individual 'talent' procedures and retaining of talents with organization.

2) Organizations talent management procedures can be effectively improved with technology so IT organizations should develop mechanism for

integrating individual efforts and technology for strategic advantage.

3) IT organizations should develop some metrics of scales to gauge continuous performance of an organization with respect to customer focus, inventory, cost, revenue, Return on Investment (ROI) as well as people, quality, competitive advantage, technological enhancement, customer service and process.

4) Organizational knowledge Management system effectively utilized by only organizational talents therefore organizations should find way of acquiring individual talents and retain it to organizational systems knowledge by using organizational learning, cultures, participative leadership and effective talent management practices.

5) IT organizations should focus on developing their own models to connect various dimensions between human talents and organizational knowledge management system. The possible suitable model based on the research is as follows

Figure 7: Linking factors and correlation values between Knowledge and Talent Management

Management

Talent Management(TM)		Knowledge Management (KM)
Organizational Planning and Strategy Succession Planning Competency Management Recruiting Learning and Knowledge Development Performance Management	**R=0.45** <---------->	Knowledge Creation Knowledge Validation Knowledge Formatting Knowledge Distribution Knowledge Application

Linking Variables between Knowledge Management and Talent Management	Correlation Coefficient (Overall Analysis)	Correlation Significance
Organizations Process	0.5	Significant and Low Positive
Organizations People	0.3	Significant and Low Positive
Organizational Strategy	0.5	Significant and Low Positive
Organizations Technology	0.4	Significant and Low Positive
Organizational values	0.1	Significant and Low Positive
Organizational Learning	0.3	Significant and Low Positive
Organizational Culture	0.5	Significant and Low Positive
Organizational Development	0.6	Significant and Moderate Positive
Overall Average Talent Management Performance and Knowledge Management Efficiency Correlation (R)= 0.459**		

Source: (Compiled by researcher)

CONCLUSION

Knowledge based culture and efficient 'talents' performance are acting as a primary wheels to compete IT organizations in current scenario. In the current research researcher has studied knowledge and talent management connecting variables and conceptual analysis of linking with respect to IT organizations in Pune, Maharashtra, India. From the research analysis it can be concluded that if organizations would conduct good coordination between organizational talent and knowledge management then it can face challenges of competitive environment. This will leads to competent employees, learning organizations and knowledge based organizational culture.

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A STUDY ON DEPLOYMENT OF DIFFERENTLY-ABLED PERSONS IN INDIAN HOSPITALITY INDUSTRY IN PURVIEW OF SERVQUAL MODEL

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ABSTRACT

The consumer is a crucial factor in the promotion of any business. This paper is about consumers' perception and intention on the deployment of differently-abled persons (DAP) in the Indian hospitality industry. The modified SERVQUAL model was used to study the consumers' concern about accepting the services of DAP in the hospitality sector. Data was collected through a structured questionnaire in Google form among consumers all over the country, which was measured on a five-point Likert scale to find out their choice of the inclusive Indian hospitality industry. A quantitative analysis reveals that consumers all over India have a positive attitude towards DAP staff, but neither they assuring of return business nor are they empathetic towards them. This work identified that the management of such organizations needs to be more strategic and adaptable. This paper represents original research that encourages hospitality businesses to employ DAP.

INTRODUCTION

Hospitality industries in most developed countries employ differently-abled persons (DAP) in various industry sectors. DAP is regarded as an alternate workforce resource to handle the problem of employee retention. Many hospitality players also use it as a sustainable or social service to create a brand image for marketing. (Kalargyrou & Volis, 2014) The employment of DAP in the hospitality industry is booming, and the same is evident in many research papers from around the world. (Gröschl, 2013)(Groschl, 2011) Though the employment depends on deformities and their severity. The hospitality industry is particular about the physical appearance of their employees, which restricts DAP to specific departments only. (Boman et al., 2015) Employers' lack of knowledge about DAP as an employee also plays a significant part in their employment in the industry. (Bonaccio et al., 2020);(Kalargyrou, Kalargiros, et al., 2020)

Consumer satisfaction is the key to generating revenue in the hospitality industry. The same

service quality factor can be assessed differently by different consumers regarding satisfaction and importance. (Grujičić et al., 2014)

After the introduction of the RPWD Act 2016 in India, the employment scenario of the DAP has changed as more private players, as in the hospitality industry, are coming forward in employing them. (Sarkar, 2018) Though there is a change in the thought process of the employers, creating an inclusive environment in the workplace is still hindered by many factors, including consumer satisfaction level, support of top management, and the workforce of skilled DAP. (Vohra et al., 2015)

The SERVQUAL model has been extensively used to study service quality, consumer expectations, and satisfaction in the hospitality industry. (Stefano et al., 2015) Many researchers have studied consumer perceptions of DAP from different perspectives, but no study has previously been documented in the Indian context, which instigates this research. (Madera et al., 2020); (Akbaba, 2006);(Kalargyrou et al., 2018)

REVIEW OF LITERATURE

DAP in the foodservice industry (Challenges, Issues, Concerns, Positivity)

According to studies, online customer reviews of restaurants that hire differently-abled frontline staff are positive. As a result, the differently-abled staff appears to be essential to base their opinions on service quality. This frontline personnel may even act as a buffer against poor client feedback and service failures. This study has used the 'DINESERV' scale. (Rosenbaum et al., 2017)

Consumers are more comfortable with physically disabled staff than mentally challenged ones. They also prefer to visit restaurants with differently-abled staff for family programs only and not romantic occasions or corporate meetings. (Kuo & Kalargyrou, 2014)

A study on the impact of consumer characteristics like gender, educational qualification, ethnicity, age group, and presence of differently-abled friends or family on the opinion of the quality of service by the type of differently-abled staff in the hospitality industry shows no significant differences except for staff with visual deformity. (Kalargyrou et al., 2018)

Research confirms that service disappointment does not matter much for the consumer when served by differently-abled persons in the hospitality sector. (Kalargyrou, Trivellas, et al., 2020)

In the American hospitality sector, consumers assess services of DAP lower than other employees. Consumers did not accept DAPs with different visions in the service sector. The researcher has used SERVQUAL and LODGSERV models to identify consumers' perception of DAPs service quality approval and establish that consumers react negatively in the case of service failure only. (Madera et al., 2020)

Studying the above literature, we can conclude that consumers are optimistic about DAPs as an employee in the hospitality industry but are still reluctant to accept certain deformities or occasions.

Importance of service quality (Consumer Expectations /Acceptability towards staff in general & DAP)

Akbaba discovered it to be a remarkable tool as a concept in his research on service quality expectations of consumers in business hotels' using the SERVQUAL scale, but it needs to be tailored for the specific service environments and

cultural context. This study confirms that the magnitude of service quality, such as "tangibles," "adequacy in service supply," "understanding and caring," "assurance," and "convenience" are essential variables in hotel business performance. (Akbaba, 2006)

Research reveals the value of service quality in a hotel, considering consumer perception versus expectation, is critical for a successful business. To maintain a competitive edge, hospitality facilities should monitor the quality of service in meeting the demands and expectations of their clients at regular intervals. (Stefano et al., 2015) Saraswati's study emphasized the significance of service quality in the foodservice sector; it is essential to satisfy customers since satisfied customers may promote positive word of mouth, acting as free brand advocates. (Saraswati, 2015) Service quality is an essential tool in the hospitality industry for their success in the business. Many researchers have used the SERVQUAL scale to assess service quality in the hospitality industry.

Acceptability towards DAP in the hospitality industry

A case study of a café in Budapest, Hungary, reveals a close connection between workers with disabilities and general workers. DAP in the hotel business gives them confidence and provides an alternate workforce option. DAP can be used successfully in the hotel industry. (Sharma & Dunay, 2017)

In their research about the suitability of employing DAP in the hospitality industry, Bengisu and Balta stresses employing them regarding their merit, aptness, and competence of the contender, not considering the presence or degree of disability. This paper express that DAPs can perform any task in the hospitality industry if they are professionally skilled and the type of work does not stress their deformities. (Bengisu & Balta, 2011)

According to a study conducted in the American hospitality industry, employers' opinion incentives or tax benefits, training hospitality managers about DAP and professionally trained DAPs can change the stereotyped attitude of the employers. These changes will increase the employment possibilities of the DAP. (Houtenville & Kalargyrou, 2012)

In her studies about hospitality managers' attitudes, Paez found that they are positive about the training and working with DAP but have limited knowledge on the abilities of DAP. (Paez & Arendt, 2014)

A qualitative study on the acceptability of DAP with loss of hearing as workers by the managers with hearing ability in a restaurant found that they are compatible. Though the managers lack knowledge of sign language, with time, they learned it and found these workers very hard-working and hospitable. (Stokar & Orwat, 2018)

Case studies of two firms based in Australia employing DAP for many services, including hospitality, found that managers are supportive as moral agents in these agencies. This paper argued that HRM policies should be adjusted to consider DAP strategies to facilitate a work environment that encourages inclusion. (Bartram et al., 2019)

According to the researcher, in Asian countries, the employment of DAP is still in its nascent stage. A study on employees' perception of DAP as an employee in the hospitality industry gives intrinsic results. Managers were more apprehensive about the benefits of employing

DAP and the establishment's quality, whereas workers were worried about their work pressure and remuneration equality in the inclusive environment. (Hui et al., 2020)

Major players in the hospitality industry were studied for their inclusivity practices to find out the positive and negative aspects of employing DAP. The researcher cites the inability to sustain extended working hours in the hospitality industry, professionally trained workforce, and the cost of creating a barrier-free workspace as barriers to employing DAPs. (Kalargyrou & Volis, 2014)

Hospitality industries worldwide accept DAP as an employee, but there are still barriers in stereotype thought processes and reluctance to certain deformities.

The above empirical findings are essential to conduct additional research on consumer satisfaction in increasing DAP participation in the Indian hotel industry and propose recommendations.

RESEARCH OBJECTIVE

1. This research aims to determine how consumers feel about using DAP's services in the Indian hospitality industry.

2. Regional impact of consumers' perception and intention on DAP employees in the hospitality industry.

RESEARCH ISSUES AND HYPOTHESES

A theoretical backdrop of the relationship between consumers' satisfaction with the constructs of the modified SERVQUAL model and the accompanying hypotheses are as follows:

H1: Consumers have mixed opinions on accepting DAP employees in the Indian hospitality industry.

H2: Service quality is essential for consumers in the hospitality industry around India.

H3: Hospitality industry consumers are willing to support establishments employing DAP.

RESEARCH METHODOLOGY

Study design– This study has scrutinized the consumer perspective of hospitality establishments employing DAP as a workforce. We are trying to explore the regional influence on the nature of consumers and their perceptions on employing DAP and how the quality of service influences these factors [H2]. The willingness of the consumer to support the hospitality establishments in the purview of the modified SERVQUAL model will be examined [H1 and H3]. A questionnaire was designed using Google form with the factors of the modified SERVQUAL model, and data was collected from 261 respondents from all over India. Research has evidence that the short questionnaire has more responses during an online survey, so only 18 questions were designed to assess. (Eubanks et al., 2021)

Measurement– Consumers' perceptions and intentions were measured using the modified SERVQUAL model (Akbaba 2006) in his study. The five components of the scale, namely Tangible, Reliability, Assurance, Responsiveness, and Empathy, were used to measure the consumer's response.

Data collection– Data was collected from India through an online survey. The questionnaire was designed in Google form based on the modified SERVQUAL model in a five-point

Likert scale distributed throughout the country. A snowball sampling technique was used for the distribution of the questionnaire. Data collected were based upon service quality attributes, such as reliability, responsiveness, empathy, assurance, and tangibles (Parasuraman et al., 1994).

Data analysis– Initially, t-test analysis was conducted to check the specific mean of the population. All the constructs of the modified SERVQUAL model are independent, and there are few differences; only a small variation has been observed among the demographic origin of the consumers'. So for H1alternate hypothesis is accepted. Factor analysis was performed using principal components analysis to explore the dimensions of Indian hospitality industry consumers' perception and intention on DAP deployment. The results were subjected to varimax rotation. Initially, the factorability

of the 14 SERVQUAL items was examined, with eigenvalues greater than one extracted and criteria for the factorability used. For the SERVQUAL construct, the Kaiser-Meyer-Olkin measure of sampling adequacy was 0.874, above the commonly recommended value of 0.6, and Bartlett's test of sphericity was significant (x2 (66) = 1170.50, p < 0.01) as shown in Table – I. The data collected is reliable as the Cronbach's Alpha value is 0.899, as displayed in Table – II. The general pattern of loadings is shown in Table – III for each construct. None of the factors failed to meet the minimum criteria for a primary factor loading of 0.4 or above. So all the factors are considered. The p-value (Sig) of .000 < 0.05. Therefore the Factor Analysis is valid. Therefore, as $p < \alpha$, we accept the alternate hypotheses H2 and H3.

Table: 1

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.874
Bartlett's Test of Sphericity	Approx. Chi-Square	1170.500
	df	91
	Sig.	0.000

Table: 2

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.899	0.903	45

Table: 3

Dimensions	Factor loading	Factor Extracted	Construct
Tangible (perceptible by touch, appearance)		F-1	
Visual appearance of differently-abled employees	0.710		
Presentation and communication of the menu and for ordering of food	0.881		Tangible
Reliability (the quality of being trustworthy or of performing consistently well)		F-2	
Consumers prefer hospitality organizations with quality services by DAP	0.615		
Consumers' trust on timely and accurate services of DAP	0.743		Reliability
Consumers like to visit any hotel and restaurant employing differently-abled employees for family functions	0.811		
Consumers like to visit any hotel and restaurant employing differently-abled employees for professional functions	0.820		
Assurance (a positive declaration intended to give confidence; a promise)		F-3	
Consumers declare that DAPs services are very courteous.	0.526		Assurance
Consumers recommend and encourage friends and relatives to patronize hotels and restaurants employing DAP through electronic word of mouth promotion	0.580		
Responsiveness (the quality of reacting quickly and positively.)		F-4	
Consumers experience quick attention of DAP's in hotels and restaurants and their assistance for services	0.800		Responsiveness
Consumers willing to do more business with hospitality firms employing DAPs	0.745		
Empathy (the ability to understand and share the feelings of another)		F-5	
Consumers' willing to pay a premium price to hospitality establishments employing DAPs as a community service	0.769		
Consumers want to patron any hotel and restaurant employing differently-abled employees as they give personalized attention	0.655		Empathy
Consumers' having DAP in their family or friends are more considerable for an inclusive environment	0.438		
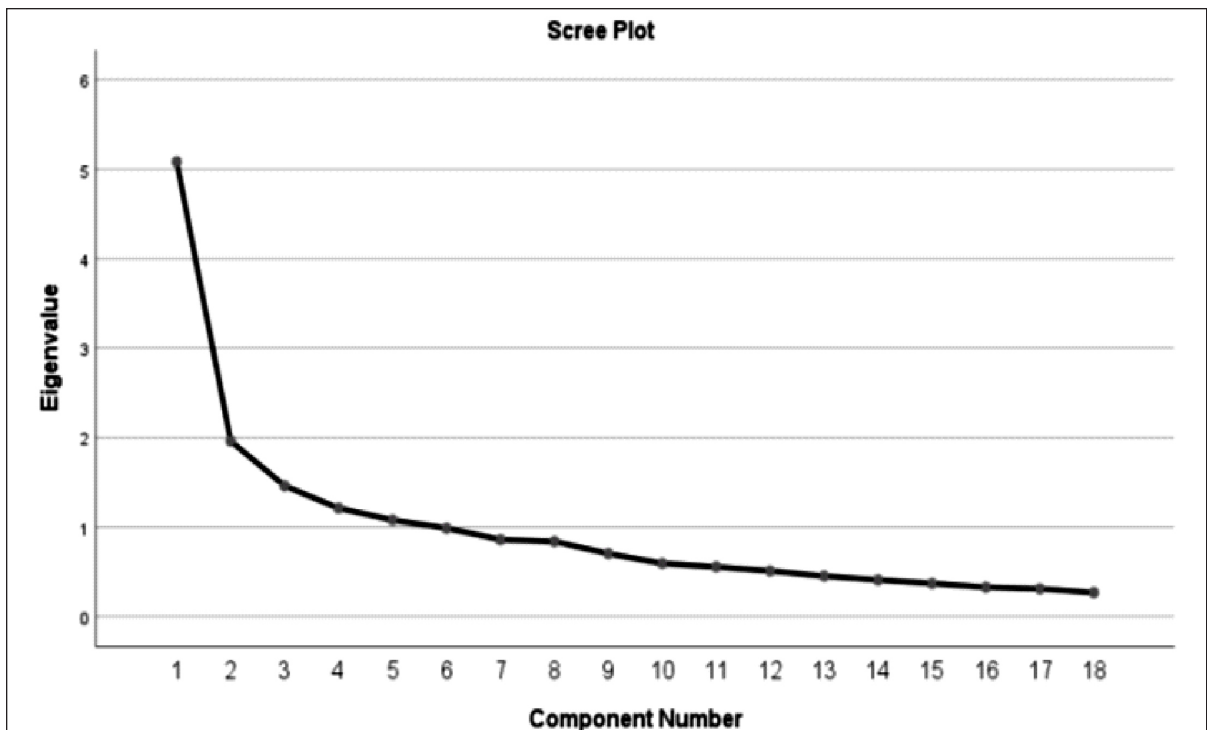
Figure 1: The scree plot graphs show the eigenvalue against the factor number in Figure:1. From the fifth factor onward, the line is almost flat, meaning each successive factor accounts for smaller and smaller amounts of the total variance.

RESULT

Consumers' perception of DAP employment in the hospitality industry has a lesser impact on the 'Assurance and Empathy' constructs of the SERVQUAL model. There is no sign of difference among the four regions of India on consumer perception. The null hypothesis has been rejected.

The employment of DAP is increasing globally, and in India, too many hospitality players are coming up with new concepts of inclusive properties like ITC Hotels, Lemon Tree Hotels, IHG, etc. Many stand-alone restaurants are also coming up all over India like Echoes café in Delhi, Mirchi & Mime – Mumbai, Ishaara – Mumbai, Sheroes Hangout – Agra, Lucknow & Udaipur, Café Toto – Kolkata, I can fly – Kolkata, Taste of Darkness – Hyderabad, Bangalore (Vohra, Lakshita. , 2020).

RECOMMENDATION

Motivational training should be given to DAP to influence consumers and 'Can Do' techniques to assure quality service to the consumer. Hospitality players should use DAP services accompanied by non-differently abled employees to retain consumers and improve service delivery. In order to create an inclusive

society, organizations should promote corporate social responsibility activities. The government should provide subsidies or tax rebates to hospitality players and consumers'.

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A STUDY ON THE IMPACT OF DISCOUNT AND ODD-EVEN PRICING STRATEGY ON THE PURCHASE INTENTIONS OF OTT MEDIA USERS IN INDIA

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ABSTRACT

Covid-19 pandemic has changed the Indian TV and video market. OTT platforms saw a sudden increase in popularity and subsequent increase in subscription. However, the recent announcement of price cut in Netflix's subscription packages once again brings to the foray the effect of pricing on purchase behavior. Following Netflix, other OTT players also announced similar subscription offers. Present research aims to study of the effect of odd pricing (or 9-ending pricing) and discount pricing on the purchase intention. It is intended to answer questions on the extent to which pricing policies affect purchase of media products and how customers perceive the value-based pricing concept of OTT players. Research findings indicate that there is a positive relationship between pricing policies and purchase intention of OTT subscription packages. The results also show that the pricing strategies affect the purchase of media products and perceived price fairness has a positive impact on purchase intention.

Keywords: Pricing, OTT, Purchase intentions, Value based pricing, Price fairness

INTRODUCTION

Media and Entertainment as a sector has been evolving since the COVID-19 pandemic in terms of consumption. Various segments of the sector have evolved and nourished themselves, redefining monetization, profit protection and management. As a result, various at-home models also have emerged. Over-the-top (OTT) media is one service that has been facing challenges and encouragements in this phase. The value creation for OTT in tune with this change in consumer behavior and habit formation lead to new pricing strategies for almost all OTT players to try out in the same market. Value-based pricing principles become imperative that all standards are maintained in order to initiate purchase intentions, keeping the changes in demand from the consumer.

The present study examines the relationship between pricing policies of OTT subscription packages on consumer purchase intentions. The relationship between odd - even and discount pricing policy and the purchase of OTT subscription packages is analyzed to understand the media consumption habits of OTT viewers

in India. The concept of value-based pricing is studied through customers' perception of price fairness. The impact of independent variables- Odd even pricing and discount pricing policies on the dependent variable- purchase intentions is evaluated.

This research paper thus attempts:

1. To study the relationship between odd-even pricing policies of OTT platforms and consumer purchase intentions.

2. To study the relationship between discount pricing policies of OTT platforms and consumer purchase intentions.

3. To analyze the relationship between pricing policies of OTT platforms and value-based pricing.

REVIEW OF LITERATURE

Price has always been an important marketing variable influencing the purchase behaviour of consumers and contributing to the revenue of the firm (Finch et al., 1998; Han et al., 2001, p. 435). Al-Salamin & Al-Hasan (2016) found positive relationship between price and purchase intentions. Product pricing have long been structured in a manner to appeal customers' emotions and influence purchase intentions (Parsa & Naipaul, 2008). A phenomenon which came to be known as psychological pricing. Present study examines the relationship of such techniques viz. odd-even pricing, price discounts and perceived price fairness with purchase intentions.

Odd-even pricing

Exposure to the odd pricing leads to more participation by the consumers in the offer as compared to exposure to no-ending priced offer (Gerald, Holdershaw & Garland, 1997, Faber

& Faber, 2020). Gendall et al. (1997) suggested that demand tends to be more than expected in case of odd pricing. Stiving & Winer (1997) as cited by Varki et.al (2006) demonstrated the influence of price-ends on consumer decisions as digits are processed from left to right by consumers. According to Liang & Kanetkar (2006) price is not processed holistically rather each digit separately and that consumer price sensitivity and in turn manufacturer and retailer profits are indeed influenced by price endings.

H1: There is no relationship between odd-even pricing and consumer purchase intention of OTT subscription packs.

Discounted pricing

Many studies have been done on the effect of discounted pricing on sales of various product categories ranging from food item, consumer appliances, automobile, gaming software etc. According to Bambauer-Sachse & Massera (2018), consumers once exposed to promotions exhibit lower purchased intention in no promotion period than those with no exposure to promotion. Vigna & Mainardes (2019), suggest how discounts lead to accelerated purchases & experimentation. Gaming software sales have shown an increase in sales given discounted rate and amount of discounted price (Hoon & Chen, 2019). Volume discounts lead to perceived savings and therefore show a positive relationship with purchase intentions in case of grocery products (Iranmanesh et al, 2017). In case of online stores selling mobile phones, the perceived store image and in turn consumer's purchase intentions are positively influenced by price discounts (Faryabi, Sadeghzadeh & Saed, 2012). In case of fast-food services, a price discount irrespective of a

minimum purchase criterion, moves the brand to consumer's consideration set from the hold set (Teng, 2009).

H2: There is no relationship between price discounts and consumer purchase intention of OTT subscription packs

Perceived price fairness

Son & Byuongho, (2019) have found perceived price fairness to have moderating effect on the perceived price-purchase intention relationship. Consumer attitude online group buying is positively influenced by perceived price benefit (Koschate-fischer, Huber & Hoyer, 2016). Lien-Ti & Yu-Ching (2001) have suggested the importance of perceived price fairness to build up satisfaction.

H3: There is no relationship between perceived price fairness and consumer purchase intention of OTT subscription packs.

METHODOLOGY

This research aims at studying the impact of odd-even pricing, discounted pricing and perceived price fairness on the purchase intention of OTT subscription packages. The research questions being:

1. Do pricing policies of OTT platforms have an impact on the consumer purchase intentions?

2. What is the relationship between Odd even pricing policies of OTT platforms and the consumer purchase intentions?

3. What is the relationship between discount policies of OTT platforms and the consumer purchase intentions?

4. Does perceived price fairness has an impact on consumer purchase intention of OTT subscription packs?

5. What is the relationship between pricing policies of OTT platforms and the value-based pricing?

This is a descriptive study where primary data was collected through a structured questionnaire circulated online. Questionnaire was divided into 4 sections: The first section involved questions related to demographic details of the respondents and their media consumption patterns. Section two, three and four dealt with items related to odd-even pricing, discount pricing and price fairness (Al-Salamin & Al-Hassan, 2016). All non-demographic items mentioned in the instrument were assessed through a 5-point Likert scale. On the scale of 1 to 5, 1 was measured as strongly disagree and 5 as strongly agree. The questionnaire was drafted such that it covers the issues related to the objective of this study, hence the face validity was ensured by the researchers. Also, the questionnaire was discussed with the experts and the changes suggested by them were incorporated hence ensuring its content validity. Non-probability convenience sampling was used for the survey. A typical sampling unit was an OTT subscriber. Care was taken to include respondents from various age groups, educational qualification, profession, economic background etc. A pilot testing done on 45 respondents indicated that all the mentioned variables showed Cronbach's Alpha value ranging from 0.75 to .088. Overall Cronbach's Alpha being 0.856.

Table 1: Reliability Statistics

Cronbach's Alpha	No. of Items
.856	13

This suggests that the instrument is reliable, consistent and can be acceptable as per the research standards. Out of a total of 150 questionnaires which were circulated, 120 valid questionnaires were recovered. The final accumulated data was analysed using ANOVA.

DATA ANALYSIS AND DISCUSSION

The first section of the questionnaire collected data on monthly spend on OTT subscription, number of hours of OTT viewing and the most preferred OTT platforms besides demographics. The sample consisting of 120 respondents, OTT platforms were preferred by 92.5 % respondents as a medium for entertainment consumptions followed by 44.2% preferring TV (C&S) and 35.8% preferring web portals besides other streaming platforms. Respondents had multiple OTT subscriptions with as many as 22.2% having more than 5 subscriptions. Amazon Prime (82.5%), Disney Hotstar (78.3%) and Netflix (77.5%) were the top 3 subscribed OTT platforms followed by Sony Liv, Zee 5 (38.3%), YouTube (37.5%) and Voot (21.7%).

30.8% respondents spent ₹201 to ₹500 per month on OTT subscriptions. Only 7.5% respondents spent more than ₹2000 per month. 31.4% respondents spent 0 to 3 hours watching OTT content. 28.9% spent 3 to 6 hours, 22.3% spent 6 to 10 hours and 17.4 % respondents spent more than 10 hours on OTT platforms. There were three independent variables viz. odd-even (or 9-ending price), discount pricing and perceived price fairness, relationship of which was studied with the dependent variable i.e., purchase intention.

Table 2: Relationship between Odd-even pricing and purchase intention

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
SubsEnding9	Between Groups	35.474	4	8.869	5.252	.001
	Within Groups	192.492	114	1.689		
	Total	227.966	118			
PreferOdd	Between Groups	21.867	4	5.467	3.803	.006
	Within Groups	163.881	114	1.438		
	Total	185.748	118			
SaveMoneyOdd	Between Groups	4.762	4	1.190	.894	.470
	Within Groups	151.793	114	1.332		
	Total	156.555	118			
AttractedOdd	Between Groups	20.084	4	5.021	3.191	.016
	Within Groups	179.378	114	1.573		
	Total	199.462	118			

To measure the variable odd-even pricing, the statements used in the Likert scale were: Subscription packages ending with 9 (₹ 149, ₹ 199, ₹ 299etc.) are more convincing, I prefer to buy products / services that have odd pricing (₹149, ₹199, ₹299 etc.), I can save money when buying products that have odd pricing (₹149, ₹ 199, ₹ 299 etc.) and I get attracted to the odd pricing (₹ 149, ₹ 199, ₹ 299 etc.) of subscription packages and it helps me in making purchase decisions.

ANOVA done on these statements indicate that there is a significant relationship between purchase intention and odd-even pricing with respect to packages ending with 9, preference of respondent towards odd pricing and attraction towards odd pricing which leads to purchase intention. (Table 2) However results show that respondents do not think that they save money due to odd-even pricing of subscription packages.

Table 3: Relationship between Discount pricing and purchase intention

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
AttractedDiscount	Between Groups	28.314	4	7.079	4.919	.001
	Within Groups	164.039	114	1.439		
	Total	192.353	118			
FreeSubscription	Between Groups	29.640	4	7.410	4.539	.002
	Within Groups	186.108	114	1.633		
	Total	215.748	118			
LimitedTimeDiscount	Between Groups	28.210	4	7.052	5.857	.000
	Within Groups	136.070	113	1.204		
	Total	164.280	117			
MoreDiscountPurchase	Between Groups	18.874	4	4.719	2.586	.041
	Within Groups	208.000	114	1.825		
	Total	226.874	118			

To measure the variable discount pricing, statements used in Likert scale were: I am attracted towards discounted pricing but I am equally concerned about content quality, I enjoy free subscription offers for OTT given by other services such as telecom, if an OTT is offering a limited times discounted subscription offer that can be a reason for me to buy it and the more the discount of a product the more is the purchase intention.

(Table 3) ANOVA done on these statements indicate that there is a significant relationship between purchase intention and discount pricing with respect to respondents getting attracted to discount pricing, OTT players offering free subscription package deals and limited time discount offers and more discounts leading to higher purchase intention.

Table 4: Relationship between Perceived price fairness and purchase intention

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
CheckOTTPlan	Between Groups	22.741	4	5.685	3.680	.007
	Within Groups	176.133	114	1.545		
	Total	198.874	118			
CompareSubscriptionPlan	Between Groups	23.454	4	5.864	3.336	.013
	Within Groups	200.395	114	1.758		
	Total	223.849	118			
DiscountBetterDeal	Between Groups	29.409	4	7.352	5.515	.000
	Within Groups	151.986	114	1.333		
	Total	181.395	118			
OddEvenBetter	Between Groups	4.613	4	1.153	.815	.518
	Within Groups	159.938	113	1.415		
	Total	164.551	117			

To measure the variable odd-even pricing, the statements used in the Likert scale were: I always carefully check the OTT subscription plans to be sure that I get the best value for money I spend, I compare various OTT and their subscription plans to get the best deal, When I buy a plan on discount, I feel I am getting a better deal and the odd even pricing of the subscription packages make me feel that I am getting a better deal.

ANOVA done on these statements indicate that there is a significant relationship between purchase intention and perceived price fairness with respect to respondents checking the OTT subscription plans before subscribing, comparing the plans of different OTT players checking the discounts and deals offered. (Table 4) However results show that respondents do not think that odd even pricing policies offer them a better deal.

Table 5: Impact of Odd Even Pricing, Discount Pricing and Perceived Price Fairness on purchase intention

ANOVA		Sum of Squares	df	Mean Square	F	Sig.	
OddEvenPricing	Between Groups	17.198	4	4.300	3.952	.005	
	Within Groups	124.018	114	1.088			
	Total	141.216	118				
DiscountPricing	Between Groups	24.811	4	6.203	7.854	.000	
	Within Groups	89.238	113	.790			
	Total	114.049	117				

PerceivedPriceFairness	Between Groups	16.799	4	4.200	5.047	.001
	Within Groups	94.038	113	.832		
	Total	110.837	117			

On the basis of table 5 we reject all three hypothesis and conclude that Odd Even Pricing, Discount Pricing and Perceived Price Fairness have a positive impact on purchase intention.

MANAGERIAL IMPLICATIONS

This research paper contributes to the knowledge in series of issues associated with pricing strategies of media products with specific reference to OTT players in India and consumer purchase decision process. For the industry, it would throw insights on customer perception of odd-even and discount pricing policies and its subsequent impact on purchase intent.

CONCLUDING OBSERVATIONS

The psychological pricing such as odd-even pricing and discount pricing policy have an influence on the purchase intention. Also, subscribers perceived price fairness plays an important role in subscription decisions. Therefore, marketers may look at innovative pricing policies to attract subscribers.

This research was limited to studying pricing policies; however, the subscribers would also be considering other factors such as genre and content of the OTT platforms before subscribing. Further research can be conducted considering content and pricing policies as variables. The impact of content on consumer media purchase intentions can be examined and compared with the demographic profile of OTT users. Consumer media consumption patterns and its impact on the industry pricing policies can also be studied to understand the pricing strategies of OTT players in India.

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BANK MERGER BENEFITS: A STUDY FROM STAKEHOLDERS' PERSPECTIVE

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ABSTRACT

The study aims to assess the benefits of bank mergers from the point of view of bankers and researchers. As merger of banks has been taking place in India in regular intervals, extensive research is conducted in the study to analyse the benefits of merger. Primary and categorical data has been used for the study. A scheduled questionnaire is prepared for data collection. A total of 217 responses are processed for the study purpose. Six factors are extracted from exploratory factor analysis. It is found that bank merger has financial benefit and market benefit. The present study will help bankers to design a comprehensive merger strategy.

Keywords: Bank merger, Merger benefit, Social benefit, Economic benefit
JEL Classification: G21, E58, L60, M14

INTRODUCTION

Banking sector is an integral part of Indian economy (Pallissery, 2015). The Government of India is planning to merge weak bank with a few well performing and strong bank to compete global risk. Merger has been used as a strategy to revive the sick banking industries in India. Study shows that merger has significant impact on financial performance on the merging bank (Singh and Das, 2018). Specially, Asset quality and management efficiency has increased after merger (Mehandiratta, 2018). Merger improves the service delivery time and loan limit to customer (Kavishwar, 2014). Merger and Acquisition not only affects the operation of banking sector but also on foreign market and customer services (Mistry, 2017). But some research studies have different opinion that merger has no significant impact on post-merger financial performance. Post-merger profitability of some bank is not satisfactory (Prasad, 2011; Khushwah, 2016). Variety of studies are conducted to trace benefits of merger for the resulted firm but a little effort has been devoted to trace the socio-economic impact of merger and acquisition in Indian banking sector. This study will help to analyse the benefits from different aspects, and not just a comparison of pre-merger and post-merger data as already done in previous researches. The problem statement of the study is formed on these notions.

REVIEW OF LITERATURES

Petkar (2014) found that merger led to an increase in the market value of shares which benefitted the shareholders by increasing their wealth and improved their dividend earnings. But as a change in the customer management policy, the merged bank started charging more fees which led to a significant erosion of customers (Kavishwar, 2014). The accumulation of bad loans in the statements, increasing trend of losses, operational inefficiency, management inefficiency, financial inefficiency has forced certain banks to merge in the past years (Bhiwandikar, 2011). Pombarla (2020) and Gupta (2020) rightly said that the consolidation should not be there to bail out weak banks as it would adversely affect stronger banks. It can negatively affect the stock price (Campa and Hernando, 2006), increase operational inefficiency and credit problems. This raises a question, whether to merge or not to merge? As per the research of Glassman and Aaron (1975) in Pennsylvania banks, mergers led to improvement in banking services and satisfaction among large number of customers. It also accelerated the service delivery time and the loan limit to customers.

Several other researchers found that no change has occurred in the financial performance of the banks after the merger and acquisition (Fatemi et al., (2017); Kalaichelvan (2011); Prasad (2011). Thus, it is still unclear whether mergers and acquisitions in banking sector is beneficial or not. Also, most of the studies are based upon average differences in parameters and therefore lack in scientific inferences. Few authors even applied t-test but they have not conducted the normality test of samples. By

nature, t-statistics cannot give a vivid result when data is not normal. Less attention has been put on socio-economic point of view of merger and acquisition. Kalaichelvan (2011) used questionnaire method for analysing the perception of bank employees but ignored the perception of customers. Tatuskar (2016) applied CAMEL model for pre-merger and post-merger analysis. In addition, opinion of researchers, academicians in the concerned field have not been also emphasized which is also explored in the present research work.

OBJECTIVES

i. To analyse the socio-economic benefits of bank merger.
ii. To assess the influence of socio-economic benefits of merger-on-merger benefits.
iii. To study the impact of private and public bank merger on merger benefits.

DATA AND METHODOLOGY

The present study is explorative and empirical in nature. Data collected from primary sources. Factors are generated and multiple linear regression has been applied by using these factors. The methodology adopted by Panda et al., (2021) and regression assumptions suggested by Chan (2004) are referred for methodology development and assumption testing.

Nature and Source of Data

A scheduled questionnaire is prepared for collection of primary data. The opinions of researchers, bank customers, academicians in the field of commerce and management of Odisha are observed. Probability sampling method is applied for data collection.

Questionnaire and Scale Development

There are four segments of the questionnaire. The first part includes the demographic information of the respondents and the rest part contains parameters measuring merger benefits. The variables taken in the questionnaire have been selected after referencing prior articles. The merger benefits construct has been developed after taking into consideration the variables taken by Tatuskar (2016), Petkar (2014), Mistry (2017) and Kalaichelvan (2011).

Sampling Design and Selection of Sample Unit

Probability method of sampling is adopted for collection of primary data. Questionnaire is distributed to the target population. The population is unknown so sample units are selected on the basis of multiplication of 10 to 20 with the number of variables based on the findings of (Kline, 1998). Questionnaires were distributed to 232 respondents. However, 217 responses were processed after checking unengaged responses.

Table 1: Demographic Profile

Variables	Frequency	Percentage
Gender		
Male	126	58.1
Female	91	41.6
Age		
20-30	235	62.5
30-40	33	15.2
40-50	47	21.7
50-60	2	9
Banking Experience		
Less than 1 Year	13	6
1 to 5 Years	77	35.5
5 to 10 Years	78	35.9
More than 10 Years	49	22.6
More Benefits of Merger for		
Public Bank Mergers	109	50.2
Private Bank Merger	108	49.8
Total	**217**	**100%**

Source: Authors' own tabulation

It is observed that a greater number of male respondents have been participated in the survey. Majority of respondents are youth but are having more banking experience. Benefits of merger is same whether it is a private bank merger or public bank merger. Similarly, banking benefits are same for both merged bank or not merged bank.

Reliability Analysis

Reliability is an essential ingredient of research when primary data applied. Cronbach (1951) parameter, popularly known as alpha have been widely used for measuring reliability of the data set. Nunnally (1988) suggested a value more than .7 is preferred. Such value in this study is .78 which is even more than the recommended criteria.

Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) is applied for generating factors. Principal Component Analysis (PCA) is used for factor extraction. Sehgal et al., (2014) advocated that PCA can yield better output as compare to other methods of factor extraction. Kaiser Meyer Olkin (KMO) test (Kaiser, 1970) of Sampling Adequacy and Bartlett's Test of Sphericity (Bartlett, 1950) are two essential parameters in EFA. Sampling parameter can be correctly measured by applying KMO test (Ayuni & Sari, 2018). Such value must be more than 0.5. On the other side, Bartlett's Test of Sphericity (Bartlett, 1950) examines the closeness among variables. Such test statistics must be statistically significant (Knapp and Swoyer, 1967). In the present study, both parameters are satisfied. Moreover, all the communalities are more than .5 as per the recommended criterion of Osborne (2014). The eigen values and the total variance explained are fitting the recommended criterion. In the process, six factors are extracted which are portrayed in the table below.

Table 2: Factors, Variables and Factors Loadings

Variables	Loadings	Factors
Credit Worthiness	.745	Merger Benefit
Capital Adequacy Norms	.610	
Cost Advantage	.587	
Curbing Competition	.475	
Rural Bank Connectivity	.786	Social Benefit
Improving Governance	.604	
e Platform	.572	
Foreign Investment	.798	Foreign Benefit
Exploring Foreign Market	.713	
Helping Economic Growth	.827	Economic Benefit
Financial Inclusion	.642	
Attracting New Customer	.483	
Product Differentiation	.747	Market Benefit
Synergy Benefit	.486	
Market Share	.477	
Share Price	.800	Financial Benefit
Profitability	.698	

Source: Authors' own tabulation

Six factors are named as merger benefit, social benefit, foreign benefit, economic benefit, market benefit and financial benefit. All these components are processed for regression models. Dependent variables, independent variables and dummy variables are decided in accordance with the research objectives.

Table 3: Regression Parameters

Parameters	Model 1	Model 2	Model 3
R Square	.14	.21	.17
Adj. R Square	.13	.19	.14
D-W Stat.	1.72	2.12	.177
F Stat. (P Value)	6.82 (.00)	9.13 (.00)	6.97
Residual Mean	.00	.00	.00
Residual Std. Dev.	.993	.995	.986

Source: Authors' own tabulation

R square and adjusted R square check the level of explanation made by dependent variables in the model. These values are too low in the three models. But research process can be proceeded even with these low R square or adjusted R square values. Filho et al., (2011) substantiated that R square is a biased estimate. Further high R square value cannot justify a fitted model and low R square value cannot reject a proposed model (blog.minitab.com). Durbin-Watson (1950) statistics examine serial autocorrelation in the residuals at lag 1. Such test statistics should lie between 1.5 to 2.5 (Maxwell & David, 1995). F statistics should be significant to produce a fit model. Residual mean and standard deviation should be 0 and 1 to satisfy normality of residuals assumption. Thus, it is inferred that all regression parameters are satisfied.

DATA ANALYSIS

Table 4: Regression Coefficients of Model 1

Variables	B	Std. Error	t	Sig.	Tolerance	VIF
(Constant)	1.12	.227	4.946	.000		
Foreign Benefit	.100	.054	1.836	.068	.928	1.077
Market Benefit	.138	.069	1.987	.048	.923	1.083
Financial Benefit	.286	.071	4.032	.000	.936	1.068
Public Bank Merger	.015	.155	.094	.925	.318	3.148

Source: Authors' own calculation
Note: Dependent Variable: - Merger Benefit

The table above measures regression coefficients. It is found that market benefit and financial benefit along with the constant has significant impact on merger benefit at 5% level and 1% level. The regression results are enumerated below.

Merger Benefit = 1.12 + .286 * Financial Benefit + .138 * Market Benefit + .1 * Foreign Benefit.

Table 5: Regression Coefficients of Model 2

Variables	B	Std. Error	t	Sig.	Tolerance	VIF
(Constant)	.766	.240	4.946	3.190	.002	
Social Benefit	.234	.066	1.836	3.519	.001	.870
Foreign Benefit	.181	.055	1.987	3.298	.001	.893
Market Benefit	.131	.070	4.032	1.880	.062	.891
Financial Benefit	.151	.071	.094	2.130	.034	.928
Public Bank Merger	-.216	.154	-1.39	.164	.315	3.171

Source: Authors' own calculation

Note: Dependent Variable: -Economic Benefit

In the above table, except public bank and merged bank, all other variables are significant at different levels. Constant, social benefit and foreign benefit has significant impact on economic benefit at 1% level of significant as sig. value is less than .01. Financial benefit is significant at 5% level and market benefit is significant at 10% level..The regression results are summarised as below.

Economic Benefit = .766 + .151 * Financial Benefit + .234 * Social Benefit + .181 * Foreign Benefit. The dummy variable cannot influence the economic benefit of merger.

Table 6: Regression Coefficients of Model 3

Variables	B	Std. Error	t	Sig.	Tolerance	VIF
(Constant)	.998	.243	4.102	.000		
Foreign Benefit	.142	.057	2.505	.013	.906	1.104
Market Benefit	.193	.071	2.720	.007	.900	1.111
Financial Benefit	.076	.075	1.010	.313	.877	1.140
Merger Benefit	.188	.066	2.835	.005	.851	1.174
Public Bank Merger	-.160	.161	-.995	.321	.311	3.213

Source: Authors' own calculation

Note: Dependent Variable: - Social Benefit

The table explains regression coefficients. All the variables have significant impact except financial benefit. Market benefit and merger benefit has significant impact on social benefit at 1% level and as foreign benefit is significant at 5% level.

POLICY IMPLICATIONS

Kavishwar (2014) had an opinion that services of bank have been improved in the post-merger period. However, merger acts a protective strategy for the sick firm. Some implications, based on findings, are enumerated below. Customers always expect better service at door step with no charge or extra charge. The study found that majority of customers welcomed a bank merger. They believe that merger will bring many new services at cheaper cost. Whatever may be the cause of merger, customer should be king in getting better services out of the process. The study reveals that all bank merger benefits have significant impact on economic benefit of merger. Respondents emphasized that merger can penetrate more bank services in rural areas which in return can foster financial inclusion process. The study found that there is a significant impact of merger on society. Society gets bank services in cheaper cost at door step. Glassman and Aaron (1975) also substantiated that unmerged bank contributes less for public benefit.

CONCLUSION

Bankers may go for merger to enlarge its geographical reach or expand its customer intake. Merger helps a bank for expansion of its existing network. A bank can merger with another bank in a win-win situation but not under compulsion. However, a bank with financially sound can acquire a sick firm and successfully promote the resulted firm to a profit making one. In the digitalised society with the abundance use of internet and technology, the banker should rethink the physical expansion than virtual expansion because of merger. Reserve Bank of India and central government play a major role in bank mergers. Government of India takes the decision of mergers which is undertaken under the supervision of RBI. It is witnessed from the study that merger has been used as a surviving strategy to revive the under performer or the sick firm. Rather, merger strategy can be used as a developmental tool in expansion and growth of existing business operation by optimising the existing scale of production and technology.

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CHATBOT FOR EDUCATIONAL SERVICES:CONFIRMATION AND ASSESSMENT OF QUALITY DIMENSIONS

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ABSTRACT

The increased use of digital devices and integration of information technology has resulted in a rise in the development and implementation of artificial intelligence-based bots. Education sector is no exception and is actively exploiting the capabilities of chatbots for teaching and learning. Delhi University too took a leap forward in this regard by enabling its admission chatbot in the current academic session. Since research in this domain is still in its infancy, the present study was undertaken to provide an understanding of the chatbot quality and effectiveness for academic institutions. Responses obtained from 226 students who had used the admission chatbot were analyzed using the technique of CFA and SEM. The results confirm 13 dimensions of chatbot quality for educational services. Further, the performance of the admission chatbot is found to be above average for all the dimensions, indicating the scope as well as need for improvement in its quality and effectiveness, especially with respect to the dimensions of Personalization, Security, and Information Quality which have been revealed to be exerting a significant impact on the overall experience of the users (i.e., students). The findings thus help in identifying important constituents of chatbot quality and may be used by higher education institutions and Universities to develop and integrate chatbots in teaching and learning activities to yield desired experience for students across different disciplines and courses.

Keywords: Chatbot, Quality Dimensions, User Experience, Educational Services

INTRODUCTION

The increased usage of digital devices over the years has resulted in a shift from offline to online platform. We are progressing towards an era where robotics and machine learning have made it possible to automate the human effort. This artificial intelligence-based bot, commonly known as chatbot, is becoming the next megatrend. In education sector too, Universities all over the world are experiencing changes in the way they work and are showing increased interest in exploiting the capabilities of chatbots for

teaching and learning. Technological solutions have also been developed for optimal and rapid response handling of admission enquiry system of higher education colleges and Universities. The case in point is University of Delhi that recently enabled an interactive chatbot to solve the queries of the students related to its undergraduate admission procedure, courses, fee structure and other information (The Economic Times, 2021). The application is aimed at assisting prospective students and parents on admission enquiries in a timely, reliable and efficient manner.

Though the use of conversational pedagogical agents in learning environments is not new, an understanding of this innovation is still immature. Not many studies have been undertaken on analyzing chatbot characteristics and their resultant effect on user experience. The present research aims to address this critical gap in the literature.

LITERATURE REVIEW

Dimensions of Chatbot Service Quality

The scope of tasks chatbots and virtual assistants can perform is growing rapidly, resulting in the consensus that artificial intelligence will have a pivotal role in future. At the same time, quality will continue to play a pivotal role in enhancing the acceptance and ensuring the continued use of chatbot services by customers.

Since many aspects such as consumer perceptions, service attributes and personnel, service

delivery and service environment, mould the quality and effectiveness of a service (Rust & Oliver, 1994, Noor et al., 2021), previous studies laid extensive focus on identifying the same for varied service contexts including

tourism, airlines, healthcare, and education. Most dominant work in this regard has been the service quality scale, popularly known as Servqual, developed by Parasuraman et al. (1988). The five dimensions of Servqual (viz, tangibles, reliability, responsiveness, assurance, and empathy provide an evaluation of service quality in terms of the gap between customer expectation and perception of service performance.

With advances in information technology and service innovations, organizations have changed the way they interact and provide service to customers (Ngyuen, 2019). Researchers focus to examine quality of electronic services led to the development of E-Servqual by Parasuraman et al. (2005) that further incorporated varied attributes that influence quality of e-services.

However, innovation in the form of development of artificial intelligence-based agents in the customer service domain again presented a need to revisit the Servqual model. A study was conducted by Radziwill & Benton (2017) with an aim to provide a comprehensive review of quality attributes for chatbots and conversational agents. The researchers identified three broad categories viz. effectiveness, efficiency, and satisfaction, in which the quality attributes were placed.

In another study, Guesmia et al. (2018) aimed at developing a multi-dimensional measure of perceived quality for chatbots and identified sixteen dimensions of quality. However, only four dimensions namely, visual appeal, efficiency, ease of use, coherence, and reliability could be retained and validated through PLS-SEM.

In a continuing work that involved an assessment of chatbot use on customer support, Nguyen

(2019) reported an improvement in customer experience that could be achieved due to the introduction of chatbot service. Their findings also pointed that failure to provide human support with chatbot may not necessarily worsen customer experience.

While investigating consumers' acceptance and intention to reuse a service robot and artificial intelligence-based services in airline industry, Meyer-Waarden et al. (2020) used the Technology Acceptance Model (TAM) with an added component of 'trust'. The researchers adopted service quality dimensions from the E-Servqual scale and reported reliability and perceived usefulness as most important determiners of intention to reuse the chatbot.

A similar kind of study conducted by Li et al. (2020) in the context of Chinese online travel agencies identified and investigated five dimensions of chatbot quality- understandability, reliability, responsiveness, assurance, and interactivity, for their impact on user confirmation or continuance. Except for responsiveness, the findings revealed the remaining four chatbot dimensions to be positively associated with use confirmation.

A recent work by Noor et al. (2021) has advanced the service quality model by adding dimensions specific to the context of artificial intelligence-based service agents. The researchers have developed a conceptual framework that include twelve dimensions that integrate the service quality model to the unique characteristics of chatbots and conversational agents.

The aforesaid discussion forms the basis of identifying attributes that constitute quality dimensions to evaluate chatbot services. Thirteen underlying dimensions are tested in the present work for their validation and use as an overall diagnostic tool to assess the effectiveness of the admission chatbot of University of Delhi.

User Experience

Experience has become as important as the product or service and the onus to deliver the right and desired experience is on the firms.). While chatbots cannot replace humans, they can complement the user experience in multiple ways such as reducing the waiting time, handling initial support interactions, responding to simple enquiries, and providing human support to follow up or resolve the issue. Due to the ability of artificial intelligence-based systems to predict customer actions, chatbots hold good potential to deliver individual and personalized service experience. At the same time, any single touchpoint between customers and organizations that does not deliver the expected service results in a negative customer experience and attitude (Van de Sand et al., 2020).

Iqbal et. al. (2018) have opined that customer experience can be enhanced through the use of chatbots that are effective and effortless to use. The contact-less service of chatbot and inseparability between the customer and the technology (Curran & Meutr, 2005), the interaction is unique and provides an experience that is evaluated by consumers as being favourable or unfavourable, positive or negative, good or bad, pleasant or unpleasant (Djelassi et al., 2018).

Despite the increasing use of chatbots in services, not much research has been conducted on user experience for this application area. The present study is an attempt to fill this void in literature.

OBJECTIVES

The study aims to:

1. Identify and confirm the quality dimensions for chatbot in educational setting

2. Assess the performance of Delhi University admission chatbot on various quality dimensions, and

3. Examine the impact of chatbot quality on user (or students') experience.

METHODOLOGY

The study used secondary data sources to structure and integrate the existing literature in the area of information systems, use, design, and implementation of chatbots. Using an online questionnaire, primary responses were collected (1-15th January, 2022) from those students who had used the University's admission chatbot at the time of applying for admission in the current academic session.

Through three sections of the questionnaire, information was sought on applicants' background and demography, their assessment of the effectiveness of the admission enquiry chatbot on various characteristics, and the applicants' response outcome in form of their overall user experience with the chatbot application. The measures have been borrowed from previous studies and were modified to suit the context under study. All responses were obtained on a seven-point Likert scale. The final data obtained from 226 students was analyzed using AMOS 20.0 software.

VALIDITY AND RELIABILITY OF MEASURES

Reliability of the data set was established from the cronbach alpha values and composite reliability scores. Values above 0.70 for all the measures establish reliability of the data set. Further, the standardized loadings above 0.70, values of average variance extracted more than 0.50 pointed towards the validity of measures used in the present work.

Table 1: Measures Used in the Study

Construct	Description	Coding	No. of Items	Factor Loadings	Alpha
Reliability	Performing services dependably and accurately	RL1	4	.768	0.913
		RL2		.807	
		RL3		.839	
		RL4		.837	
Responsiveness	Prompt response and speedy resolution of problem	RS1	4	.813	0.919
		RS2		.804	
		RS3		.819	
		RS4		.860	
Availability	Accessible anywhere and anytime	AV1	2	.844	0.854
		AV2		.828	

Aesthetics	Appeal and clarity of interface design	AE1	2	.748	0.781
		AE2		.781	
Personalization	Individual and personal attention	PI1	4	.839	0.928
		PI2		.803	
		PI3		.854	
		PI4		.890	
Security	Safety and privacy	SE1	3	.913	0.943
		SE2		.882	
		SE3		.912	
Control	User control of the process or outcome	C1	3	.851	0.937
		C2		.948	
		C3		.889	
Ease of Use	Free of effort	EA1	3	.847	
		EA2		.874	
		EA3		.870	
Enjoyment	Perceived enjoyment from the use	EN1	3	.907	0.942
		EN2		.914	
		EN3		.877	
Contact	Provision of human support	U1	3	.864	0.921
		U2		.828	
		U3		.889	
Proactiveness	Providing services beyond prescribed commands	F1	5	.784	0.949
		F2		.913	
		F3		.883	
		F4		.865	
		F5		.863	
Humanity	Presence of human-like features or emotions	H1	3	.898	0.918
		H2		.895	
		H3		.770	
Information Quality		IQ1	5	.852	0.960
		IQ2		.915	
		IQ3		.931	
		IQ4		.873	
		IQ5		.903	

Overall Experience	Outcome of the interactions, systems and processes	O1	3		0.942
		O2			
		O3			

ANALYSIS AND FINDINGS

Identification and Confirmation of Chatbot Quality Dimensions

Extensive literature review in the area of service quality helped in identifying major attributes and dimensions of quality of chatbot services. Using CFA in AMOS 20.0, the study confirmed 13 dimensions of chatbot quality (see Table 1). The fitness indices within the acceptable range (CMIN/DF=2.766, GFI= .701, NFI=.847, TLI= .880, CFI= .895, RMSEA= .089, LO 90=.084, HI 90=.093) support a good model fit.

THE STRUCTURAL MODEL

The structural model (Figure 1) was prepared to assess the direct impact of each of the thirteen dimensions. As the fit indices (CMIN/df=4.420, NFI=.665, TLI=.685, CFI=.717, RMSEA=.123) are in the acceptable range, the results support a reasonable model fit.
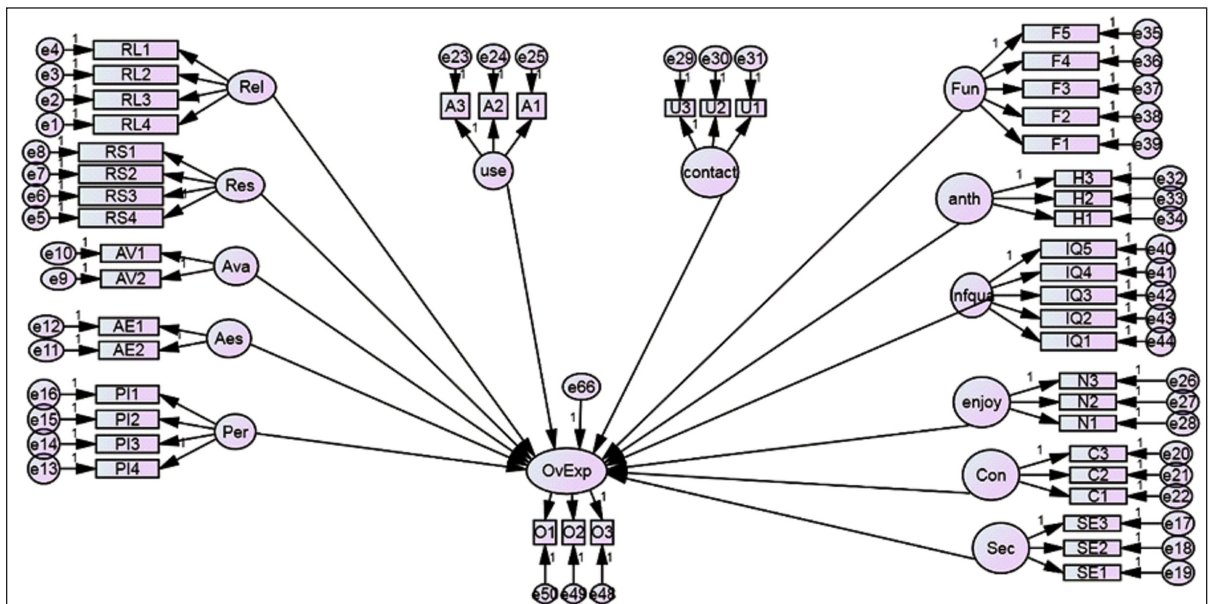

Figure 1: The Structural Model

RL: Reliability (Rel), RS: Responsiveness (Res), AV: Availability (Ava), AE: Aesthetics (Aes), PI: Personalization (Per), SE: Security (Sec), C: Control (Con), A: Ease of Use (Use), N: Enjoyment (Enjoy), U: Contact (Contact), F: Proactiveness (Fun), H: Humanity (Anth), and IQ: Information Quality (Infqual).

IMPACT ASSESSMENT AND MEAN PERFORMANCE

Each of the thirteen dimensions of chatbot quality were examined for their impact on the overall experience of the users. The results in Table 1 indicate significant influence of only three dimensions (namely, Personalization, Security, and Information Quality) on different response outcomes. Of these dimensions, information quality is found to be most significant aspect (Beta=.866), followed by personalisation in affecting the user experience in a positive direction. Further, 'security' is found to exert a negative impact on user experience.

Table 2: Impact Assessment and Mean Scores

			Beta	Sig.	Mean
OvExp	<---	Reliability	-.219	.648	4.4690
OvExp	<---	Responsiveness	.442	.377	4.7445
OvExp	<---	Availability	-.680	.173	4.6372
OvExp	<---	Aesthetics	.577	.227	4.4181
OvExp	<---	Personalization	.301	***	4.5321
OvExp	<---	Security	-.191	***	4.6917
OvExp	<---	Control	.025	.639	4.5988
OvExp	<---	Ease of Use	-.347	.134	4.5383
OvExp	<---	Enjoyment	-.069	.187	4.6386
OvExp	<---	Contact	.486	.040	4.5634
OvExp	<---	Proactiveness	-.391	.236	4.6779
OvExp	<---	Humanity	.251	.442	4.6652
OvExp	<---	Information Quality	.866	***	4.6434
Overall Mean					4.5015

(Source: Data Analysis)

However, though the mean scores are encouraging, the performance is below the maximum score of 7 (on a seven-point Likert scale), thus indicating the scope for improvement in University's admission chatbot. The performance is found to be highest in respect of its 'responsiveness' followed by 'security'. Quite ironically, the chatbot is performing well on responsiveness- a dimension that is not exerting any significant influence on students' use experience. At the same time, high security feature is resulting in a negative experience concerning the use of the chatbot.

CONCLUSION AND IMPLICATIONS

The present study makes a makes a useful contribution to the field of research by addressing the need and examining the chatbot attributes that can streamline interactions between students and administration. The findings reveal the effectiveness of the thirteen quality dimensions of the admission enquiry chatbot in yielding desired user experience.

However, the results point out towards the need to introduce necessary changes in the chatbot application to improve and update the existing chatbot application in accordance with the information and quality sought by the users. First, it would be more appropriate to shift focus from general to specific information needs across disciplines and courses offered. This will help the University to develop a better connect and have a clear view of the admission-related problems faced by the students. Second, an occasional lack of performance on an attribute may not necessarily produce a bad experience. Proactive approach and assistance of human representatives at the point of action can supplement chatbot's efficiency and ability to handle enquiries. Third, the dual approach of having conventional methods along with chatbot application can be effective in catering to a widened base of students and providing them with a provision of staying connected at all times. Lastly, it is important that the interactive systems and chatbot applications are regularly assessed and evaluated to ensure that they provide consistent utility and desired experience of use.

In sum, the insights from this work can be used by higher education institutions and Universities to develop and integrate chatbots in teaching and learning activities across different disciplines and courses.

LIMITATIONS AND FUTURE SCOPE

The gaps of the study will pave way for future research in this evolving domain. Researchers can empirically validate the quality dimensions for chatbot applications in varied service contexts and examine each of the dimensions for its impact in generating different groups of experience viz., positive-negative, learning-oriented, and engagement-oriented. Inclusion and assessment of other outcome variables such as satisfaction and intentions to use, may provide further interesting insights. Lastly, an investigation into the design-based and model-based perspective of user experience would be relevant to chatbot research and development.

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ECONOMIC GROWTH, FINANCIAL DEVELOPMENT AND STOCK MARKET: SECTORAL EVIDENCE FROM INDIA

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ABSTRACT

The study undertaken aims to investigate the effect of financial development and sector-specific stock market indices on the respective sector's growth for the Indian economy and uses quarterly time-series data ranging from 2005-06: Q1 to 2019-20: Q4. The study applies Autoregressive Distributed Lag (ARDL) bounds test, concluding the existence of a long-run co-integrating relationship between sector-specific GDP with stock market indices and financial development in India. The granger causality tests conclude the existence of a bi-directional causality running between financial development and sector-specific economic growth. The study found that there exists a two-way causality between sectoral stock market development and sector-specific economic growth only in the services sector while only a unidirectional causality runs from stock market growth to GDP growth in the manufacturing sector, and there exists no causality in the utility sector.

Keywords: Financial development, stock market, Autoregressive distributed lag (ARDL) bounds test, Granger causality, economic growth.

INTRODUCTION

Investment is considered to be the major factor that plays an important role in the determination of growth in output and income as per economic theory. A robust financial institution in the economy ensures mobilization of savings to investment through the working of banking, and the capital markets. Both these components are equally important in channelizing the funds from households to business and bringing about growth in investment which ultimately results in the growth of economies across the world.

LITERATURE REVIEW

Earlier studies found a positive long-run causal relationship exists between the financial sector development and growth in the economy [Goldsmith (1969); Levine, (1993, 1997); Beck et al. (2000); Demirguc-Kunt (2006); Khatun, 2016]. However, some studies also showed a negative or no long-term relationship between financial development and growth in the economy. [Patrick, 1966; Lucas, 1988; Singh, 1997; Andersen and Tarp, 2003], while some others provided a less uniform conclusion [Demetriades, 1996; Samargandi et al. 2015].

While investigating the long-run causal relationship between the stock market and economic growth, studies have found that a sound and liquid stock market enables efficient capital allocation, facilitates the exchange of goods and services, mobilizes domestic savings, and reduces the risk through diversification [Pagano, 1993; Korajczyk (1996); Levine and Zervos, 1998]. In India such studies have been conducted by Kamat and Kamat, 2007; Pradhan, 2007; Agrawalla and Tuteja, 2007; Acharya et al.,2009. These studies analyzed the relation between either stock market or financial development and growth of the economy. Therefore, to encompass the impact of both the variables, this study analyzes the impact of growth in the stock market and financial development on economic growth through a sectoral analysis.

DATA AND METHODOLOGY

The study covers quarterly data from 2005-06: Q1 to 2019-20: Q4 to examine the relationship between sector-specific economic growth, sectoral stock market development, and financial development in India. The data have been compiled from Handbook of Statistics on Indian Economy, World Bank database, the official website of National Stock Exchange (NSE, India) and Bombay Stock Exchange (BSE, India).

Three sector-specific models are estimated to investigate the impact of respective sector-specific indices and financial development on sector-specific GDP. The sector-specific GDP is used as a proxy variable for sectoral economic growth taken as a dependent variable in the three models: (i) GDP of the manufacturing sector (GDPM), (ii) GDP of electricity, gas, and water sector (GDPEGW) and (iii) GDP of the service sector (GDPS).

The study uses the stock market indices for these three sectors, namely, NIFTY India manufacturing index (INDXM); BSE Utilities index (INDXEGW); and NIFTY Services Sector index (INDXS), to analyze the impact of sectoral stock market indices on sector-specific economic growth. The broad money supply measure M2 published by the Reserve Bank of India has been taken as the proxy for financial development (FD) in the economy.

The models include the World bank energy prices index (ENRGI), Real exchange rate (REER), T-bill rates (TBR), and wholesale price index (WPI) as control variables in the study. All the variables are taken in their natural logarithm. The models are specified as follows:

Model I: LGDPM= *f*[LINDXM,LFD,LENRGI,LREER,LTBR,LWPI]

Model II: LGDPEGW= *f*[LINDXEGW,LFD,LENRGI,LREER,LTBR,LWPI]

Model III: LGDPS= *f*[LINDXS,LFD,LENRGI,LREER,LTBR,LWPI]

The study adopts the Autoregressive Distributed Lag (ARDL) approach-based bounds test proposed by Pesaran, Shin, and Smith (2001) to examine the long-run cointegration relationship between sectoral economic growth, stock market indices of respective sectors, and financial development in the economy.

EMPIRICAL ANALYSIS

The results from the Augmented Dickey Fuller (ADF) unit root test used to check for the stationarity of the series used in the analysis. The results reveal that all the variables are stationary at their first differences, that is, I (1) except the stock market index for services which is stationary at level.

Long Run Relationship

To examine the cointegration, the ARDL model given by Pesaran et al. (2001) was employed which is applicable even if few of the series under analysis are stationary at the level and few at the first order of integration. The results of the ARDL bounds test used to examine cointegration have been presented in Table 2. The estimated F-value for all the three models I, II, and III was found to be higher than the upper bounds at a 5 per cent significance level ascertaining the existence of long-run relationships among the variables in all three models. The lower panel of Table 2 exhibits the results of diagnostic tests for all three models and all three models pass these tests.

Table 1: ARDL Bounds Test

Indicators	Model I	Model II	Model III
F-statistics	5.7706*	4.5271*	4.6088*
*Significant at 1%			
Diagnostic Tests	Model I	Model II	Model III
Serial correlation LM test (F)	0.0842	1.1085	0.0686
Heteroscedasticity test (F)	0.7402	0.1249	0.0502
Ramsey reset test (F)	0.9531	0.8106	1.0137

Source: E-views 12, authors' calculation.

Table 2: Estimated Long term coefficients of ARDL Model

Regressors	Model I: LGDPM		Model II: LGDPEGW		Model III: LGDPS	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
LINDXM	0.179**	2.442	–	–	–	–
LINDXEGW	–	–	-0.316***	4.73	–	–
LINDXS	–	–	–	–	0.372***	3.831
LFD	0.205**	2.068	0.492***	5.784	0.229**	2.545
LENRGI	-0.120***	(-2.948)	0.130***	2.859	-0.087**	(-2.358)
LREER	1.092***	2.784	2.351***	5.322	-0.649	(-1.231)

LTBR	0.101*	1.719	-0.01	(-0.198)	-0.155***	(-3.843)
LWPI	0.502***	2.768	0.195	1.223	0.126	0.687
CONS	0.497	0.616	1.173	1.321	0.218	(–0.795)
Robustness Indicators						
R2		0.994		0.993		0.984
Adjusted R2		0.991		0.987		0.98
F-statistics		310.317		178.421		246.019
D.W. statistic		2.35		2.298		1.289

Source: E-views 12, authors' calculation.
Notes: (i) Figures in parentheses (#) are estimated t-values.
 (ii)*, ** and *** indicate significance at 10%, 5% and 1% level, respectively

The long-run coefficients estimated from the ARDL models are given in Table 3. The results indicate that the sector-specific stock market development index is positively related to the respective sector's economic growth in all the three sectors namely manufacturing: electricity, gas, and water, and services. Financial development is also found to have a significant long-run relationship with economic growth in all three sectors. This implies that the sector-specific stock market development has a positive influence on that sector's economic growth while financial development in the economy affects all the sectors of the economy positively in terms of leading to the output growth in these sectors. encourages economic growth in that particular sector. All the other control variables are found to have a significant relationship with growth in the manufacturing sector with the energy price index exhibiting a negative relationship. The energy price index and REER are found to have a significant positive relationship with economic growth in the Electricity, Gas, and Water Supply sector while in the case of Services, the interest rates, and energy price index are found to be having a significant effect with energy price index exhibiting a negative relationship.

Stability of Long Run Model
The stability of the long-run model is evaluated by testing the recursive residuals using the cumulative sum and cumulative sum of square tests for all three models. Any systematic changes arising from the coefficients of regression are detected by the Cumulative sum test, while the cumulative sum of square test detects if there are certain sudden changes from the constancy of regression coefficients (Brown, Durbin & Ewans 1975).
Results of the CUSUM and CUSUMSQ tests indicate that both the statistics lie within the interval bands of 5 per cent confidence interval for all three models. Results suggest that there is no structural instability in the residuals of the equation of the models.

Figure 1a: CUSUM for Manufacturing Sector Model (I)
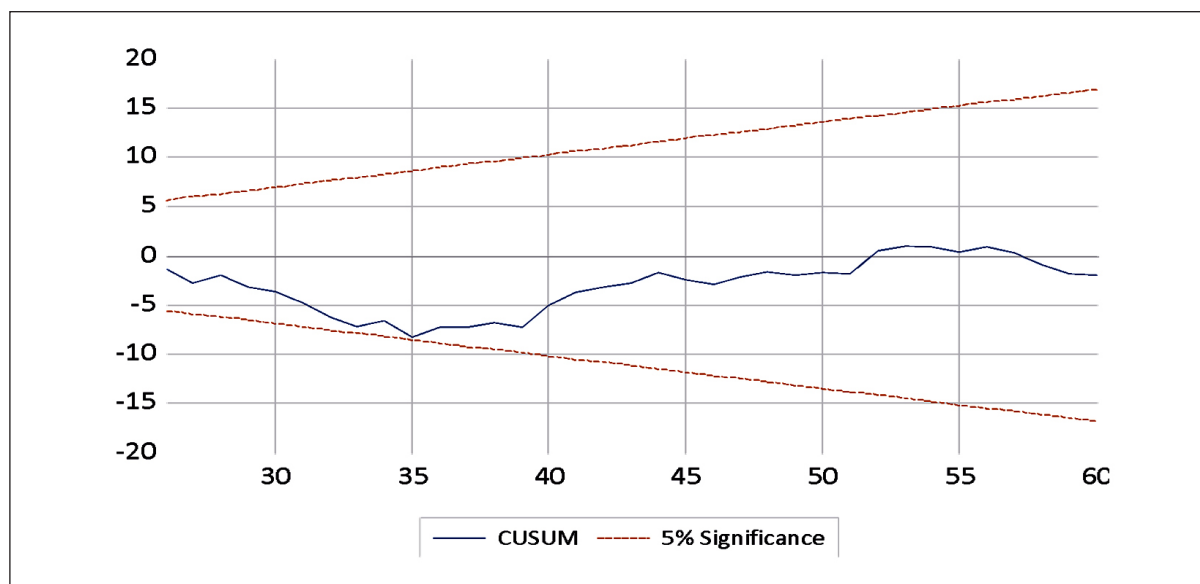
Source: E-views 12, authors' calculation

Figure 1b: CUSUM of Squares for Manufacturing Sector Model (I)
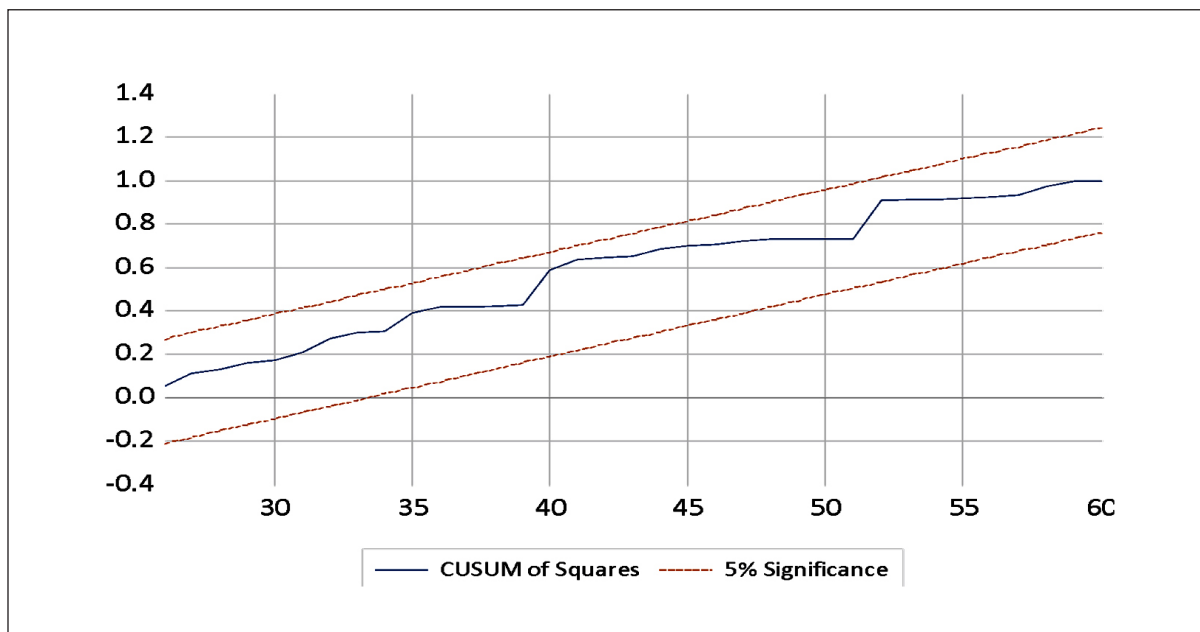
Source: E-views 12, authors' calculation.

Figure 2a: CUSUM for Electricity, Gas & Water Sector Model (II).
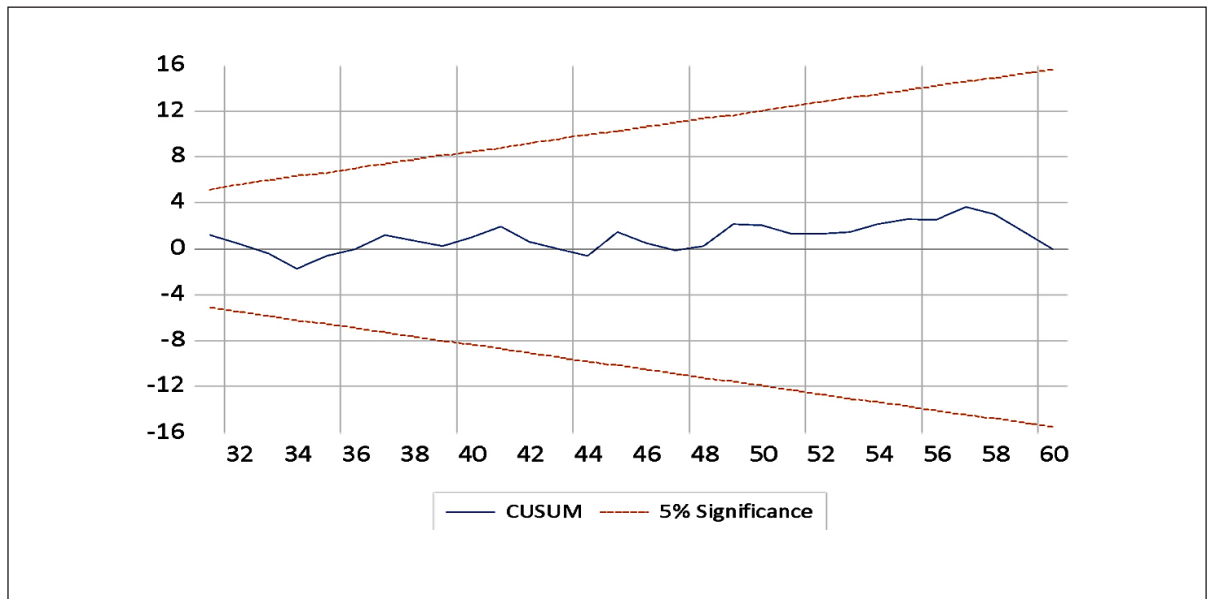
Source: E-views 12, authors' calculation.

Figure 2b: CUSUM of Squares for Electricity, Gas & Water Sector Model (II)
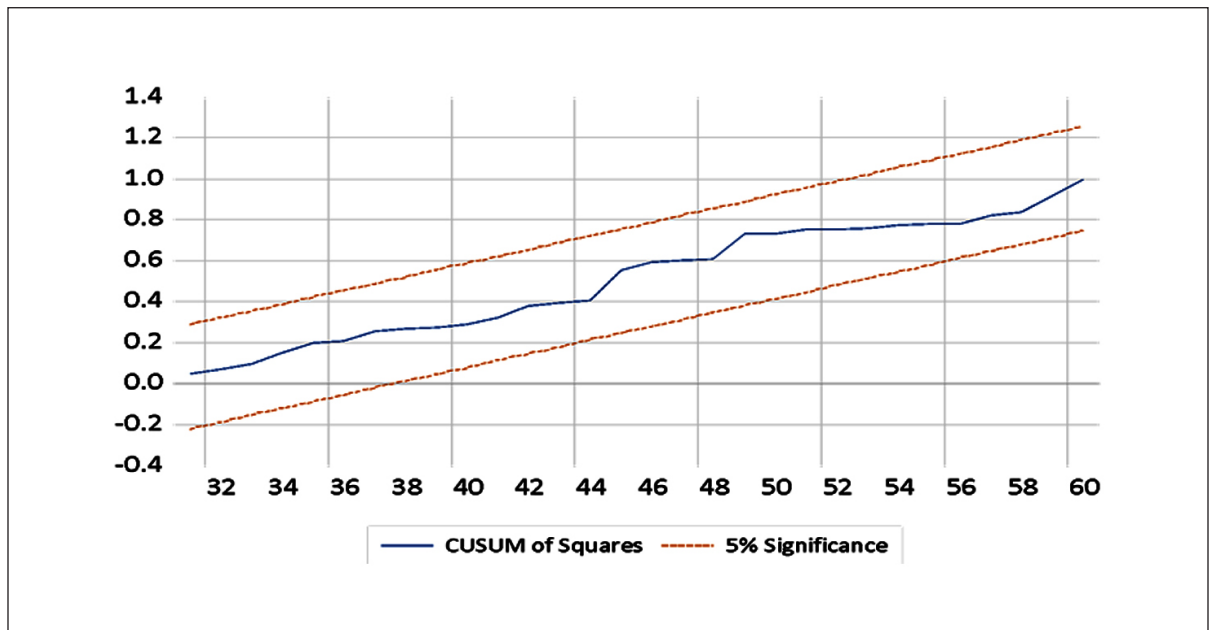
Source: E-views 12, authors' calculation.

Figure 3a: CUSUM for Services Sector Model (III)
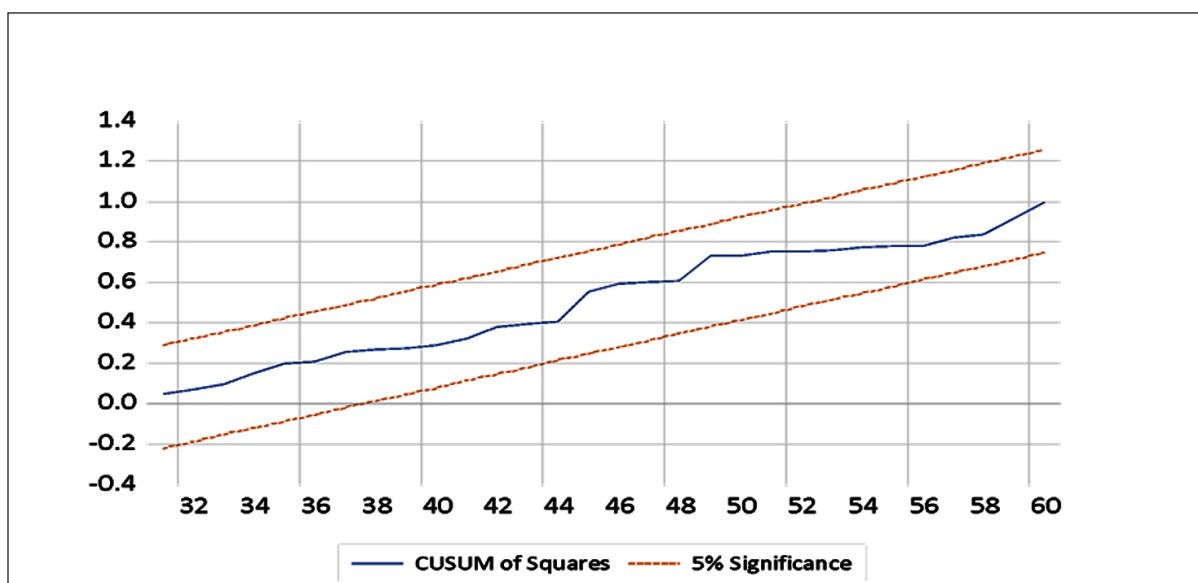
Source: E-views 12, authors' calculation.

Figure 3b: CUSUM of Squares for Services Sector Model (III)
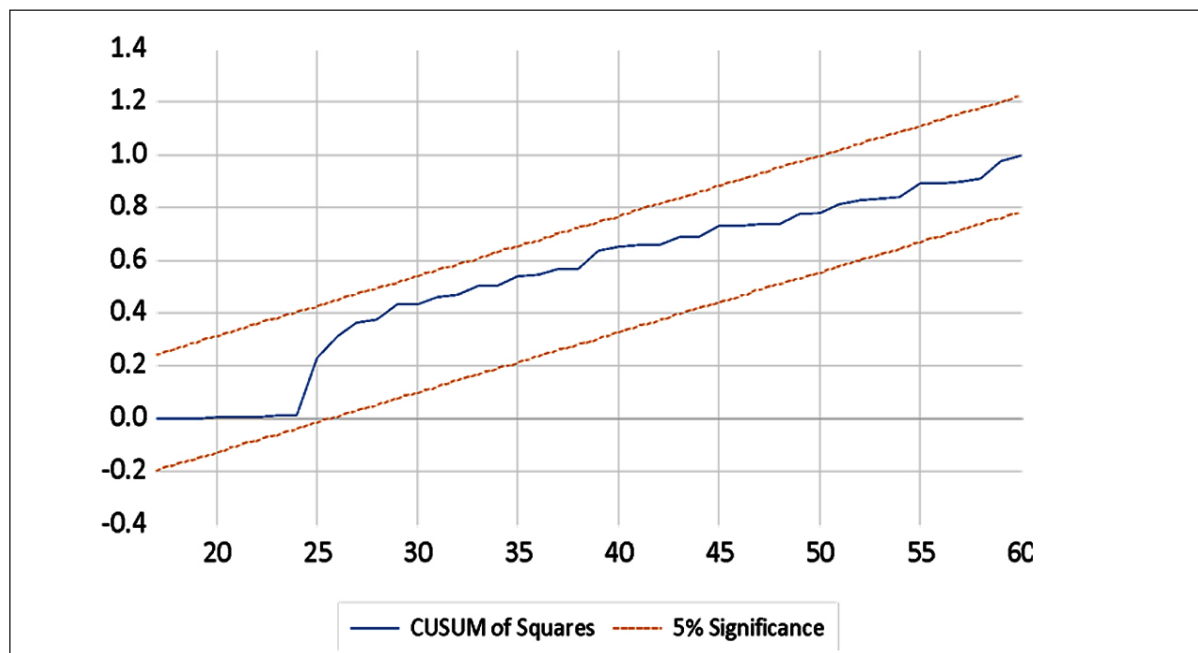
Source: E-views 12, authors' calculation

Short Run Relationship

Results of short-run dynamics using the ECM version of ARDL are reported in Table 4. The results show that in the short run, the sector-specific indices of all the three sectors are positively related to the economic growth in the sector but the co-efficient is significant only in the case of the services sector. The ECM of the ARDL approach reveals that the adjustment rate in short-run deviation is high with the ECT (– 1) term being –0.597, –0.751, and –0.499) for models I, II, and III respectively, with all the coefficients being significant at 1 per cent.

Table 3: Estimated Short Run Coefficients

Regressors	Model I: DLGDPM		Model II: DLGDPEGW		Model III: DLGDPS	
	Coefficients	t-value	Coefficient	t-value	Coefficient	t-value
DLINDXM	0.033	-0.931	–	–	–	–
DLINDXEGW	–	–	0.047	-1.092	–	–
DLINDXS	–	–	–	–	0.078*	-1.895
DLFD	0.014	-0.393	-0.025	-0.346	0.039*	-1.955
DLREER	0.406**	-2.132	0.677**	-2.501	0.018	-0.651
DLTBR	0.069**	-2.009	-0.005	-0.125	0.012	-0.537
DLENERGI	-0.061*	-1.759	0.046	-1.025	0.048	-1.017
DLWPI	1.038***	-3.453	–0.446*	-1.905	–0.137	–1.002
CONS	0.477***	-7.761	-5.315***	-5.403	5.034***	-6.118
ECT (-1)	–0.597***	–6.878	–0.751***	–5.443	–0.499***	–6.054

Source: E-views 12, authors' calculation.
Notes: (i) Figures in parentheses (#) are estimated t-values.
 (ii) *, ** and *** indicate significance at 10%, 5% and 1% level, respectively.
 (iii) D denotes the first difference of the series.

The results of the Granger causality test for the three models are provided in Tables 5(a), 5(b), and 5(c), respectively. The results indicate that there is two-way causality running from the GDP of manufacturing (LGDPM) to Financial Development (LFD) while there is unidirectional causality from sectoral stock market growth to economic growth in the manufacturing sector.

In the case of the electricity, gas, and water sector, again, there is two-way causality running from the GDP of this sector (LGDPEGW) to Financial Development (LFD) while there is no significant causal relationship between sectoral stock market growth to economic growth in electricity, gas, and water sector.

The results of the Services Sector indicate that there is two-way causality running from both sectoral stock market development and financial development in the economy to the economic growth in the services sector (LGDPS) in India.

Table 4(a): Granger Causality Results (Model I)

Sources of Causation							
Dependent Variable	Independent Variable						
	LGDPM	LFD	LINDXM	LENRGI	LREER	LTBR	LWPI
LGDPM	–	5.78**	4.49**	1.175	1.26	0.094	3.64*
LFD	4.74**	–	3.38*	0.04	2.05	0.93	2.33
LINDXM	1.51	0.68	–	8.96***	2.13	2.82*	1.46
LENRGI	1.89	2.25	0.88	–	0.01	0.69	3.10*
LREER	3.31**	2.91*	9.56***	5.97**	–	3.34*	2.09
LTBR	0.51	0.65	0.12	1.94	0.64	–	0.28
LWPI	1.007	0.86	0.4	1.56	0.35	0.002	–

Source: E-views 12, authors' calculation.
Notes: *, ** and *** indicate significance at 10%, 5% and 1% level, respectively.

Table 4(b): Granger Causality Results (Model II)

Sources of Causation							
Dependent Variable	Independent Variable						
	LGDPEGW	LFD	LINDXEGW	LENRGI	LREER	LTBR	LWPI
LGDPEGW	–	15.46***	0.41	0.16	1.71	0.16	2.78
LFD	8.32***	–	1.02	0.04	2.05	0.93	2.33
LINDXEGW	0. 01	0.06	–	3.01*	0.12	1.81	0.08
LENRGI	2.61	2.25	1.12	–	0.01	0.69	3.10*
LREER	2.44	2.91*	0.46	5.97**	–	3.34*	2.09
LTBR	0.79	0.65	1.81	1.94	0.64	–	0.28
LWPI	0.02	0.86	2.86*	1.56	0.35	0.002	–

Source: E-views 12, authors' calculation.
Notes: *, ** and *** indicate significance at 10%, 5% and 1% level, respectively.

Table 4(c): Granger Causality Results (Model III)

Sources of Causation							
Dependent Variable	Independent Variable						
	LGDPS	LFD	LINDXS	LENRGI	LREER	LTBR	LWPI
LGDPS	–	15.67***	11.01***	0.64	0.3	0.16	3.50*

LFD	0.39	–	8.16***	0.04	2.05	0.93	2.33
LINDXS	4.56**	2.98*	–	4.58**	1.63	0.53	2.49
LENRGI	2.17	2.25	1.79	–	0.01	0.69	3.10*
LREER	4.68**	2.91*	7.83***	5.97**	–	3.34*	2.09
LTBR	0.79	0.65	0.11	1.94	0.64	–	0.28
LWPI	0.48	0.86	0.0005	1.56	0.35	0.002	–

Source: E-views 12, authors' calculation.
Notes: *, ** and *** indicate significance at 10%, 5% and 1% level, respectively.

CONCLUSION

With growing diversification in a fast-developing economy like India, it is important to analyze the effects of financial development and sectoral stock market investments on different sectors as the different sectors may respond differently to the investment coming from the different channels. Also, the effect of sectoral growth on the stock prices in that sector can be different for different sectors as the nature of products and business structure vary. This paper aims to investigate the relationship between sector-specific economic growth, sectoral stock market development, and financial development in the country. The ARDL bounds test confirms the existence of a long-run cointegrating relationship between sector-specific GDP with stock market indices and financial development in India in the presence of different macroeconomic control variables related to inflation, interest rates, energy prices, and exchange rate. The long-run ARDL estimates for all the three sectoral models show a positive and significant relationship between sector-specific GDP with respective stock market indices. Further, there is clear evidence that financial development has a positive impact on sector-specific GDP in the long run irrespective of the type of sector.

However, the rise in energy prices acts as a hindrance to economic growth in the major sectors of the economy. The estimated long-run results are consistent with the theoretical foundation of the relationships. The short-run estimates support the empirical results of long-run estimates The Granger-causality test results confirm bidirectional Granger causality running from financial development to sector-specific economic growth during the study period for all the models but two-way causality between sectoral stock market development and sector-specific economic growth exists only in the services sector. For the manufacturing sector, the sector-specific stock market growth causes economic growth in the sector, but manufacturing GDP growth does not lead to growth in manufacturing stock market indices. The sectoral stock market development and economic growth do not show any causality with each other for the electricity, gas, and water sector, indicating that growth in this sector is more sensitive to the financial development and international energy prices and exchange rates rather than the domestic stock market in the short run.

The above findings suggest that the long-run economic growth of the different sectors in the

economy is influenced positively by the growth in the respective sector of the stock market. The causality between the two is different for different sectors in the short run which explains the reasons for different sectors of the stock market performing differently in response to growth in incomes of different sectors. The impact of other macroeconomic variables also turns out to be different for separate sectors which implies that policies for specific sectors should be made keeping into consideration the specific characteristics of that sector and then an integrated approach should be adopted to align with the overall economic goals of the country.

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ELIMINATING TALENT ACQUISITION CHALLENGES IN THE NEW PARADIGM: A PROPOSED MODEL OF TALENT ACQUISITION PROCESS

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ABSTRACT

In the wake of post-pandemic work dynamics, there's talent shortage worldwide, even after huge unemployment caused by temporary closing-down of businesses and disrupted economic activities due to COVID-19. There's enormous cost involved in talent screening, assessment, and hiring after rounds of interview and selection tests, however when newly hired candidate doesn't turn-up after receiving offer or undergoing onboarding process, whole activity-endeavor is squandered. The new age TA manager face multifold issues in identification, hunt, and sourcing of talent in the ever-dynamic working environment in post-pandemic context. The market of skilled candidates is becoming fiercely competitive in tech-enabled and AI supportive work-era, posing further question of, how and where to detect right talent in right time and at the right cost, who stays with organization at least till the time he starts generating return on investment for the organization. The biggest challenge talent acquisition managers face today is, candidates turning ghosts after selection and receiving employment-offer. It is a loss in terms of time, money, efforts, and work. TA managers are in constant search of solution to cope-with this issue. In this paper we have made an attempt to unravel this burgeoning problem by posing two research questions; What factors determine joining decision post-selection in an organization? And; What strategy should TA manager use to make dynamic talent join the organization when selected after rigorous screening and selection process?

By analyzing conceptual secondary data and recent literature relevant to answer research questions, we propose a useful model for new age TA managers to successfully hunt for talent and make informed decisions. Model proposed in this paper is an original work of authors to unravel problems faced by TA managers in acquiring right talent at right cost and within right time by comprehending employee intention to join and provides insightful techniques to be applied by TA managers to break vicious circle of search-select-ghost-search.

Keywords: Talent Acquisition (TA), Talent Search, Acquisition Cost, Talent Ghosting

INTRODUCTION

Right talent acquisition is first step to success. But what if your talent 'ghosts' after selection and/or offer-acceptance, it turns into a big pain and huge loss. The cost of recruitment, then loss of work thereof for which candidate was selected. Indian professional industry is facing this unrelenting challenge after Covid-19 waves especially, IT industry. The potential employees are getting hired at even 100% hike and yet they do not turn-up on day of joining or interview. In India, ghosting stands at 35% meaning 3-4 people ghosting out of every 10, and costs to the tune of Rs. 1000 crore per year to recruitment industry (Golikeri, 2018). According to an article by Jones (2021) in 'Business Insider', mention of 'Ghosting' in Glassdoor interview reviews has reached to 450% since start of pandemic. According to an article in Forbes ghosting in US has increased from 18% in 2019 to 28 % in 2021 (Kelly, 2021). Experts believe that apart from Covid-19 calamity, main reason for this crisis is broken recruitment chain/process. Other researchers identified various reasons and challenges as factors governing this issue.

In this paper, authors have made an attempt to identify all possible reasons/challenges and proposed some possible solution in form of a model to be adopted by recruiters to meet this challenge. To conduct this study, following research questions were posed along with objectives to resolve those questions.

Research Question 1: What factors determine joining-decision post-selection in an organization/ challenges and reasons governing as factors for ghosting?

Objective 1: Identifying factors responsible for talent turning-down offer for employment after rigorous screening and selection process.

Research Question 2: Are there some effective solutions available?

Objective 2: Proposing an effective talent acquisition process model to hire, make a candidate join and stay till s/he is assimilated with organization.

The methodology used is Evidence-based review using an integrative synthesis of published literature that is peer-reviewed and validated with thorough data analysis. High emphasis is drawn on problem-solving approach to challenges and issues faced by TA Managers in post-Covid-19 work environment. By analyzing conceptual secondary data and recent literature relevant to answer research questions, we intend to propose a useful model for TA managers to successfully hunt for talent and make informed and efficient decisions in acquiring right talent.

IDENTIFYING CHALLENGES/ REASONS OF GHOSTING

Talent is meant to be skilled human resources and precisely the human and intellectual capital an organization has, is what makes it successful, competitive and sustainable. The finest of policies, procedures, techniques, and expert vision can also become futile if not executed and performed by the 'Right people' in the expected right manner. This lays dire need of having right talent in right time and at the right cost. 'Right people' mean talent which not only has required skills and competencies but also which

fits into organizational culture well (Pandita, 2019). Several researchers have made attempts to ease the TA process, and make it effective to deal strategically with its concerns. "The worth of talent can be analysed by difficulty of finding it" (Polyhart, Weekley, & Dalzell, 2018). In modern times, specifically when pandemic hit the organizations, working professionals and the whole economy, talent pool has further shrunk and pose various unexplored challenges to deal with. When best of efforts is made by TA Manager and HR department to shortlist and attract fine talent for vacant position, either they run away casting about for better offer and negotiations or become ghosts on day of joining/onboarding.

According to Oppong (2013) one of the challenges in TA field is, indicators of talent are contradictory and sometimes even unclear (Kontinen, 2019). Now, mind-set of talent prospects, is becoming further unclear, and contradictory of their actions. While they appear for interview and selection process, giving their candidature for filling the position, it is still uncertain whether they will join with the same company if get selected.

It is crucial to success of TA process, to address the acquisition challenges so that companies can spot the struggling steps, focus their resources on these difficult areas and overcome them. With increasing demand for high-potential talent and scarce 'Star' performers, there's growing tendency of employees to switch companies and high propensity of having multiple job offers. "According to the Talent Now Survey 2018, Attracting top quality candidates has become difficult as talented job seekers are having multiple offers in hand" (Anita, 2019). This has resulted in the changed power dynamics in the market,

and candidates are having increased power to negotiate and decide. In an effort to explore 'impact of Employer brand on the intent to join', (R. Sharma, 2018) have studied and found, there's positive relationship between employer branding and employee attraction, turnover intention, job satisfaction and organisational commitment.

As Talent is rising, TA strategy must be re-assessed to meet challenges of changed work dynamics and overcome drawbacks of having no clear vision, low employee engagement and long time and high cost in hiring talent (Walford-Wright & Scott-Jackson, 2018). Further, lack of commitment challenge, as per recent survey of HR professionals at Fortune 200 companies proclaimed, most difficult aspect of the role of TA professionals was creating and ensuring a true sense of ownership among senior managers regarding their roles during TA process (Kontinen, 2019). Another challenge is even if organisation has successfully attracted talent, in next step, where transition takes place from acquiring to assimilation in the organisation, candidate may find that expectations are not met by employer, leading to loss of acquired talent (Holland & Scullion, 2021) and host of challenges that talent may leave either after receiving or accepting offer. At the integration stage, while organisation put efforts to socialise new talent through On-boarding process, again if these efforts do not appeal the employee psychologically, s/he may feel most vulnerable and likely to consider leaving the organisation, eventuating in all the TA process, time and cost in hiring talent go in vain. Therefore, initial 90 days are crucial to success of newly hired talent, through careful on-boarding of newcomer as the whole process is time consuming and costly (Sharma & Stol, 2020).

In the post-pandemic career scenario, job seekers lack certainty about employers' expectations (Hirst & Benson, 2021) and are also uncertain about their own career paths and what exactly they're looking for in a job offer due to 'career shock' (Akkermans et al., 2020).

Table 1: Showing Problems/Challenges due to Candidates' 'Ghosting' Behaviour

Problems/Challenges	Author
Changed (negotiation) power dynamics of talent[bru], High Cost per-acquisition [hlrst]	(Walford-Wright & Scott-Jackson,2018)[a], (Kontinen, 2019)[b], (Anita, 2019)[e], (Arrawatia & Verma, 2019)[g], (Fayoumi & Loucopoulos, 2021)[h], (Bugg, 2015)[i], (G. G. Sharma & Stol, 2020)[l], (Deeba,2020)[q], (Phillips-Wren et al.,2016)[r], (Umachandran, 2021)[s], (Jayathilake et al., 2021)[t], (Holland & Scullion, 2021)[u]
High/long time spent per-acquisition [aqrs]	
Offer Decline after hectic and vibrant acquisition process [beiru], No show on day of joining[eu], Ghosting after accepting offer/on-boarding [eglu]	
Quality of acquired talent[abgqr]	

Table 2: Showing evidence-based literature synthesis of factors leading to 'Ghosting'

Challenges Identified	Author
Candidate's Intent to Join:	(Walford-Wright & Scott-Jackson, 2018)[a] (Kontinen, 2019)[b], (Hite & McDonald, 2020)[c], (Hirst & Benson, 2021)[d], (Anita, 2019)[e], (Pandey et al., 2021)[f], (Arrawatia & Verma, 2019)[g], (Fayoumi & Loucopoulos, 2021)[h], (Bugg, 2015)[i], (Hancock & Schaninger, 2020)[j], (Potočnik et al., 2021)[k], (G. G. Sharma & Stol, 2020)[l], (James, 2021)[m], (Girotra et al., 2018)[n], (Jose, 2019)[o], (Srivastava & Bhatnagar, 2010)[p], (Deeba, 2020)[q], (Phillips-Wren et al., 2016)[r], (Umachandran, 2021)[s], (Jayathilake et al., 2021)[t], (Holland & Scullion, 2021)[u], (Pandita et al., 2019)[v], (Whysall et al., 2019)[w]
Employer Brandb[gnoprvw], No clear vision[a], Lack of commitment[g,u], Lack of mutual trust[abu], Lack of certainty of expectations [cdgkm]	
Lack of clarity in prospect due to Career shocks and disruptive career path resulted after Covid-19[ct]	
Lack of understanding of changed needs and mind-set of talent candidates[beghkmstu]	
Failure to win talent during acquisition process[begiruv]	
Timely assimilation and nurturing of acquired talent[egiuv]	
Engagement and retention of acquired talent[bfglmqtuvw]	
Changed work dynamics in post-pandemic times and WFH/remote locations[cfjmst]	

PROPOSED MODEL FOR IMPROVISED EFFECTIVENESS OF TALENT ACQUISITION PROCESS

Using integrative synthesis, reviewed literature provides evidenced elucidation for challenges faced by new age HR department and TA Managers, specifically after the whole recruitment process has been implemented and all strategic ends are scrutinized. Therefore, we propose a conceptual model that would not only improvise effectiveness of talent acquisition, besides will ensure gainful assimilation of newly hired talent in the organisational culture, leading to competitive-advantage of the organisation as it will assist TA managers in dealing-with challenges listed and encountered in acquiring talent.

Figure 1: Proposed Model of Effective Talent Acquisition Process

Talent Pipeline is foundation in strong build-up of appropriate supply of required talent in the organisation. As recognised by CGMA (2012) "Two of most critical factors in Industry 4.0 are, quality of its human capital and management of its talent pipeline" (Whysall et al., 2019). This step will ensure a positive employer identity and brand image for prospective talent. To build a strong and profound Talent Pipeline employers need to make their organisation both known and attractive, to develop familiarity to reduce fear of the unknown and offset chances of failure of socialisation process (Silzer & Dowell, 2009). In digital era, TA managers must manage their social media profiles to enhance brand image. For example, keeping a track what others are writing about them on important platforms like 'Glassdoor',

'LinkedIn' etc. Then create brand image by publishing regular blogs about their best practices, issues concerning candidates and employee testimonies.

Practice Candidate relationship management by keeping track of candidates appeared for interview earlier, open doors for ex-employees, maintaining talent pool and inviting them in social events of the organization to nurture prospects and turn them to active candidates.

Initial Screening and Shortlisting Many of the recruiters stated that labour market is candidate-driven and top candidates stay available for 10 days only before getting hired (Anita, 2019). The TA managers should be quick in tapping the talent, shortlisting and calling for the interview before it is found by the competitor. Delay in hiring process may lead to further increased cost of hiring and loss of productivity due to vacant position. TA manager must screen employment history of candidate to determine if there's job hopping pattern or by identifying personality traits like conscientiousness from LinkedIn profiles that reveal commitment level of candidate (Fernandez et al., 2021)

TA managers should be careful in this step and do not call candidates who are well-settled in their native place and might not be willing to relocate. Even if they get lured with hiring advertisement and/or employer brand to take momentary decision, chances are s/he may step-back later. In the first step employer made attempt to attract the talent and establish positive brand image, however if candidate's expectations and preferences are different, it may be insufficient to get attention of and call-acceptance by the talent candidate.

Call for Selection Process (Selection Test) is a discretional step as per demand of the industry. Many organizations conduct behavioural/ personality tests, psychometric tests and analytics to evaluate talent candidate and also to map commitment, clarity and other traits required for job.

Conducting Rounds of Interview: Several rounds of interview targeted at assessing the candidate's KASH (Knowledge, Abilities, Skills and Habits) and intention to join. Habits and attitude, reveal a lot about candidate's conscientiousness to keep employer informed of his/her final decision. These rounds also reveal availability and punctuality of candidate to meet schedule, or if candidate is skipping the interview repeatedly, avoid pursuing with such candidate, as s/he lacks commitment and will be hard to retain. At this stage it is relevant to assess changed needs and desires of candidates (Anita, 2019).

Probing intent to join This step can help deal with host of challenges that are listed above in Table II. While interviewing at initial level, look for signals that may indicate his/her intent to join by following ways:

a) While asking about the joining-period and expected CTC, if response is direct and clearly stated revealing commitment of the candidate, however if response is vague and undecided, it reveals, s/he's not seriously looking-for or planning to join. This will also reveal his/her knowledge of industry norms on CTC and whether s/he has negotiation power.

b) By probing more into intention to join while candidate is made comfortable after rounds of conversations, after breaking the ice, ask "if there's anything that might stop you to decline offer or step-back in last minute" ask in the

flow of the conversation upfront to get real answer and right intention on decision to join or decline offer on selection.

c) Next question could be "if you have applied for/attended interview elsewhere, and waiting for results?", and "if you have other offer in hand, how you weigh it against the offer I may give you?" know if answers are logical, well interpreted.

d) Dig more into getting professional and personal reasons that motivates him/her to look for job change, and what exactly are his expectations from job role and package offering.

e) Stick to the procedures of making an offer and seeking acceptance in written/on mail within a certain time duration, to prevent delay in hiring and documented offer acceptance to make certain the timely joining.

f) Pay close attention to verbal and non-verbal cues, tone, and expressed/unexpressed concerns that precisely reveal his/her intention to join. Also, may have a structured questionnaire to test his seriousness and sincerity to look for job change.

g) Do not hesitate to ask if s/he has informed family members of the decision of job-change, and if s/he's married, and informed spouse about this decision and how supportive spouse is for this decision.

Offer of employment should be made only when TA manager has ascertained and ensured positive, favourable and committed intention of candidate to join and to stay with the organisation after joining. Offer must constitute all items and benefits that meets the needs and expectations of candidate to increase chances of offer-acceptance.

Engaging Talent Before On-boarding This is one of crucial steps to ensure joining of selected candidates. It is this break in acquisition process after offer-acceptance and before joining that 'Ghosting' occurs most of the time and is costliest. At this stage, organization must engage prospective employee by keeping in touch, clarifying on psychological contract, and assigning 'Mentor/s' to nurture and engage them till they join and get assimilated in the organization. These mentors may organize interactive session after offer-acceptance to educate candidate about career growth plans, opportunities, clarify doubts related to organization's processes, and help reduce fears through socialization.

Talent Onboarding, Nurturing and Assimilation After On-boarding, still task of TA manager is not over yet, if assimilation of newly hired from unknown to known has not taken place. This transition will help talent to become productive contributors from being an 'outsider'. Researchers have established, new employees when effectively socialized after On-boarding process and have developed positive relations with peers, will tend to sense more adapted to new job role demands, have an improved self-efficacy, and robust attachment with organization leading to greater organizational commitment and intent to stay.

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FINANCIAL DIARY: A TOOL FOR FINANCIAL PRUDENCE

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ABSTRACT

Financial planning is very crucial for achieving financial goals in life, one can anticipate the financial needs of the future and can ensure a smooth flow of funds at all times. The study is an eye-opener to the respondents as they got to know the pattern of their income and expenses. By saving the money spent on bad habits such as tobacco, smoking and drinking; they will be able to divert their income to return generating micro-investment avenues in future.

INTRODUCTION

For centuries, savings are given priority by Indian households, still India ranked 23rdin a list of 28 countries on financial literacy (Business line, 2012). It also lacks financial literacy. Financial inclusion can be achieved when the savings of Indian households especially in the rural area is channelized in the formal financial system. Financial literacy is an integral part of financial inclusion. Basic knowledge of financial concepts can help the disadvantaged practice thrift and induce them to save, access credit, use the funds to find a better livelihood, earn income and thus join the mainstream from exclusion (Pamarthy, 2012).

All the literary definitions about financial literacy can be summarized as knowledge and ability to make informed financial judgments to reach an intended outcome such as lifetime financial security and the skills required to realize those outcomes (Kimiyaghalam and Safari, 2015). Knowledge about finance and financial planning is especially important for low-income people as they have limited financial resources. If they are taught the importance of financial planning, they can manage short term volatility in income and can meet unexpected emergencies without getting trapped in unnecessary debt from the money lenders. A financial Diary is a powerful tool in understanding the financial behaviours of those at the bottom of the pyramid.

LITERATURE REVIEW

Financial literacy is a buzzword. Karlanet al (2014), identified constraints for effective use of savings products and services by the poor that include transaction costs, lack of trust and regulatory barriers, information and knowledge gaps, social constraints, and behavioural biases. Rawat and Gambhir (2017) revealed that 16 out of 100 people did not save money and this proportion mainly include people

in the unorganized sector such as rickshaw pullers, street vendors, etc. By fostering entrepreneurship and financial development in rural areas, it alleviated poverty (Ayyagariet al, 2013). Financial literacy plays a crucial role in reducing poverty (Askar, 2020).

For Micro Insurance, many academicians and researchers have developed conceptual notes (Vinayagamoorthyet al, 2012; Mahantaet al, 2016; Paramasivan and Rajaram (2016); Ahsan (2009); Nandruet al (2016)) and conducted empirical analysis for microinsurance. The conceptual studies mainly focus on microinsurance characteristics, importance, benefits, impact, IRDA regulations, penetration level, demand-supply gap, types of microinsurance etc. Empirical studies highlighted that the reach of microinsurance was very poor among the economically vulnerable section and lack of awareness was one of the major barriers to its lower penetration.

In a research study, The U.S. Financial Diaries (USFD), Morduchet al (2017) collected detailed financial data from 235 low- and moderate-income households over the course of a year, through Financial Diary. A non-profit organization, Microfinance Opportunities (MFO) used financial diaries as a tool for consumer research. Across three United States Agency for International Development (USAID)-funded studies (2019) in Malawi, Cote d'Ivoire and Ethiopia, high-frequency panel data collection was done using financial diaries. The authors studied the experiences of the Financial Diaries of women from India, Kenya, and Mexico and revealed the gender gap through this study. Contrary to these studies, an experiment conducted in Uganda by Smits and Günther (2018) proved that the financial behaviour of the respondents was not changed in a significant way by just using the financial diary which was distributed free of charge to them and training on how to use them was provided. There are no such studies conducted for the local population of Gujarat in Ahmedabad and Gandhinagar cities.

RESEARCH OBJECTIVES

1. To check if the people in low to moderate-income groups are habituated to prepare a financial diary.
2. To understand the income and expense pattern and identify the savings and investment preferences in the selected income group in the unorganized sector.
3. To empirically test the awareness and willingness to invest towards micro-insurance and micro-investments avenues.

OPERATIONAL DEFINITION

Respondents in low to moderate-income groups are those families in which more than one family member is working in an unorganized sector and the collective monthly income of the family is at least Rs.2,000. The IRDA Micro-insurance Regulations, 2005 defines a Micro-insurance policy as a general or life insurance policy to cover economically vulnerable sections of the society with a sum assured of Rs 50,000 or less. Micro investment avenues are those investing options in which people can invest with limited incomes and assets. This includes bank fixed deposit, recurring deposit, Systematic Investment Plans

(SIP) in Mutual Fund, Post office savings, Atal Pension Yojana, Sukanya Samridhi Yojana Self Help Group and Public Provident Funds.

RESEARCH METHODOLOGY

An exploratory search was executed to study the current pattern of recording the income and expenditure, followed by low to moderate-income group respondents, working in the unorganized sector, in selected areas of Ahmedabad and Gandhinagar. It was observed that the majority of them either did not record their income or it was not recorded in the standardized format. Hence, a standardized format of the financial diary was provided to the respondent to record their income and expenses. Financial Diary refers to systematic recording of income, expenses and savings in a pre-defined standardized horizontal and vertical format.

The diary is divided into three heads viz., A-Income, B-Expenses and C-Savings. A vertical box indicates the time in the week. Under 'A' head, the horizontal box collects information on income from husband, wife, other members and sources of other income (gift, wages etc). Under 'B' head, the horizontal box collects information on different types of expenses such as educational fees, rent, food, transportation, medical, habit, electricity, gas bill, water, cable TV, telephone other expenses. Under 'C' head the horizontal difference of income and expenses, across the week is indicated. The standardized diary format was translated into the Gujarati language for ease of data collection.

The respondents were asked to record the data on income, expenses and savings on weekly basis starting from 01st January 2020 till 31st January 2020 i.e. five weeks. Researchers intermittently on weekly basis collected the datasheet and consolidated the data at the end of the month. Hence the longitudinal (trend or balance panel) type of research design was adopted. The nature of the study was quantitative. Quota sampling was adopted in which data were collected from sampling elements such as transport worker (30), domestic worker (30), street vendor (30), home-based worker (30) and factory worker (30). Thus, the total sample size was 150. Researchers went to the respondents' workplace for collecting data. Delphi research approach accompanied by a standardized diary (research instrument) was adopted for data collection. Face-to-Face (Personal Visit) contact method and self-administered diary filling method was adopted to reach conclusive research. Data were processed and managed using SPSS and Excel. The data was analyzed using Tabulation, descriptive statistics such as Mean (X), Median (M), Mode (Z), Standard Deviation (SD), Frequency, Percentage and inferential statistics such as the Analysis of Variance (ANOVA) Test.

Once the respondents learnt the perfect method of recording the data, a questionnaire was prepared to test their awareness and willingness to invest in micro-insurance and micro-investments avenues.

Table 1: Research Methodology

Parameters	Empirical Study
Research Design	Descriptive
Sub-Type of Research Design	Single Cross-Sectional
Sampling Procedure	Non-Probability
Sampling Technique	Quota Sampling
Sample Size	150
Sample Size Determination	n = Z2* p* q /e2, i.e. (1.96)2 * (0.5) (0.5) / (0.08) 2
Sampling Unit	Workplace
Sampling Element	Transport Worker, Domestic Worker, Street Vendor, Home based Worker and Factory Worker
Research Approach	Survey Method
Contact Method	Personal Visit
Research Instrument	Questionnaire
Sources of Data Collection	Primary and Secondary
Data Processing and Management	SPSS and Excel
Data Analysis	Frequency Table, Percentage and Tabulation
Descriptive Statistics	X, M, Z, SD
Inferential Statistics	McNemar Test, Fisher's Exact Test

(Source: Authors' Compilation)

EMPIRICAL RESULTS AND DISCUSSION

Section-I Financial Diary

On average the income of the husband, wife, other members and other income was Rs.9,086; Rs.2,525; Rs.1,965 and Rs.627 respectively. Other income included occasional wages and gifts in cash which were seldom received. The average income of the wife was lower than that of the husband because along with the household responsibility she was able to devote just part-time to her economic activity. The average monthly spending of the households on education fees, rent, food, transportation, medical expenses, electricity, gas bill, water, cable TV, telephone and other expenses were Rs.1,473, Rs.927, Rs.5,480, Rs.772; Rs.525; Rs.815; Rs.499; Rs.381; Rs.20; Rs.209; Rs.341 and Rs.1,027 respectively. In order to provide quality education to their children incurred the highest expenses with an SD as high as Rs.1,906.

Amount spent on irrelevant expenses such as habit was more than Rs.500 with an SD as high as Rs.1,007. It was the addiction to a habit that forced the respondents to spend more. Water being a free commodity the spending was very meagre. Food, transportation, medical, electricity and gas bill expenses were considered subsistence expenses. The spending on cable TV, telephone and other expenses may be curtailed and such savings could be channelized for investments.

Table 2: Test Statistics on Income, Spending and Savings

Hypothesis	ANOVA Result	Statistical Significance	Interpretation
H01: Transport worker, Domestic worker, Street vendor, Home-based worker and Factory worker do not significantly differ in their monthly income.	$F_{(4, 145)}= 3.25$, p= 0.01	Significant	Domestic workers were women as well as men, in some cases other family members were also working; so, their average income was higher compared to other groups referred to in the study. The (X) and (SD) income was as high as Rs.17,009 and Rs.8,713 respectively.
H02: Transport workers, Domestic workers, Street vendors, Home-based workers and Factory workers do not significantly differ in their monthly spending.	$F_{(4, 145)}= 4.00$, p= 0.006	Significant	They lived in a joint family, hence the SD on food expense was as high as Rs.3,359.49. Adults were spending on an average Rs.1,297, on habits such as drinking, smoking and chewing tobacco.
H03: Transport workers, Domestic workers, Street vendors, Home-based workers and Factory workers do not significantly differ in their monthly savings.	$F_{(4, 145)}= 1.22$, p= 0.31, ns	Insignificant	Across all the categories except factory workers, families had borrowed money to meet their expenses. The income of transport workers was very irregular and they borrowed a minimum Rs.3,550 in a month. The factory workers were in a better-off position as they worked in an organized sector, where the minimum and timely wages were paid by the employer when compared to workers working in the unorganized sector, whose income was often dependent on the mercy of master or clientele.

(Source: SPSS Output)

Section-II Awareness on Micro Investments and Micro Insurance
(A) Micro Investments: The same set of respondents were surveyed with a questionnaire to check out their awareness of micro-investments and microinsurance.

Table 3: Elementary Details

Parameters	Observed Statistics	Interpretation
Gender	Male: 81%, Female: 19%	Males and females both were involved in the economic activity, to meet their livelihood. Females were a bit introverted to fill the questionnaire and therefore, she asked the male members to respond to the questionnaire. As a result, the numbers of male respondents were noted more than females.

Family Composition (Maximum Value)	Adult: 7	
Boy Child: 4		
Girl Child: 3	It indicates that family size has a direct bearing on income, expense and savings.	
Holding Bank Account	Yes: 94%, No: 6%	The credit of holding the bank account could be attributed to the movement of Pradhan Mantri Jan-Dhan Yojana, under which a concrete effort to include below-poverty line, low and moderate-income group people to open the bank account for the purpose of financial inclusion.
The habit of Recording of Income and Expense	Yes: 17%, No: 83%	Recording income and expenses is the best exercise to have control over expenses. For those who recorded the data, it was not in the standardized format.
Endorsement of Financial Diary	Yes: 89%, No:11%	The hands-on trial experience of recording the matter in the financial diary, for one month before the survey, created a habit of recording income, expenses and savings.
Maintaining Future Financial Diary	Yes: 79%, No:21%	This exercise-induced interest in the respondents to record the data on a long-term basis. Recording helped them to curb the spending on irrelevant habits.
Below Poverty Line (BPL) Card Holder	Yes:27%, No: 73%	People who have income less than $1.90 a day are considered in BPL Category (Drishti, 2019) and holding the BPL card provides access to subsidized food and free healthcare facilities.

(Source: SPSS Output)

Whether there was any change in recording the details before and after the implementation of the financial diary was tested through McNemar Test. H04: There is no significant difference in the method of recording income and savings with the implementation of a financial diary. χ^2 (150) =84.79, p<0.0001, the result was significant, indicating that respondents learnt the correct methodology to record the data.

Monthly Savings

135 (90%) respondents carried out monthly savings, indicating that they had a thorough check on the income and expenses. 15(10%) respondents were unable to save due to the reasons like drinking habits, smoking habits; chewing tobacco etc did not leave them with any surplus balance. The addiction to such harmful habits not only wiped out their pockets but also adversely impacted their

health. Only one member earned and fed all the other dependent members. Such responsibility did not leave them with any surplus money. In fact, families had to borrow during the financial crunch. A Fisher's Exact Test was applied to test, H05: There is no association between holding a bank account and carrying out monthly savings. The two-sided p-value was $0.002 < 0.05$, the result was significant, indicating that respondents who had bank accounts were inclined to save due to the incentive of receiving interest.

Investments of Savings

Out of 135, 61 respondents carried out investments. 45% invested their savings and 55% did not invest their savings. 58% deposited the saved money in a savings bank account, 26% had lent it to friends on interest and 16% had lent it to relatives on interest. Higher interest was received from friends and relatives so the money was lent to them instead of parking the funds in a savings bank account.

Non-Investment of Savings

45% had put the money idle in the cupboard as a part of the precautionary motive. 31% and 24% had provided interest-free loans to friends and relatives respectively, an assistance gesture by forgoing interest.

Awareness and Investment Willingness (Micro Investments)

Table 4: Awareness and Willingness For Micro Investments

Avenues	Minimum Amount (Rs.)	Awareness	Willingness
Bank Fixed Deposit	100	25%	23%
Recurring Account	10	23%	21%
Systematic Investment Plan in MF	100	12%	10%
Post Office Savings	500	12%	10%
Atal Pension Yojana	42	9%	18%
Sukanya Samridhi Yojana	250	2%	3%
Self Help Group	Unanimously Decided	9%	8%
Public Provident Funds	500	8%	6%

(Source: SPSS Output)

Respondents were aware and also invested in the debt avenues, awareness on equity investments was less. Respondents showed high interest in investing their money in Atal Pension Yojana (a scheme mainly implemented for the benefits of the unorganized sector) because of its attractive features such as present-day accumulation till retirement age and later date distribution of pension. Proper guidance and large-scale awareness for people of the unorganized sector would increase the enrolment in the scheme.

Frequency and Minimum Amount of Investments

Preferred mode was monthly (28%); yearly (28%); quarterly (17%), half-yearly (17%) and 10% showed no interest in investments due to lack of either knowledge on investment avenues or no surplus of funds in their kitty. The respondents were ready to invest on an average Rs.1,117. Maximum respondents showed the capacity of investment of Rs.100 and the maximum amount for investments indicated by respondents was Rs.8,000.

(B) Micro Insurance:

Mukhyamantri Amrutum Yojana (MAA Card)

MAA card is a health insurance scheme targeted to families of BPL for free of cost indoor treatment (surgeries) with annual coverage up to Rs.3,00,000 per family. 64% were holders of MAA cards and 26% did not hold MAA Card, as they did not fulfil the criteria for availing of the same. Beneficiaries of MAA cardholders receive medical benefits in kind.

Awareness and Benefits Availed from Ayushman Bharat Scheme

The scheme is for availing cashless medical treatment at an empanelled hospital for three days pre-hospitalization and 15 days post-hospitalization expenses.

Table 5: Awareness and Benefits Availed From Ayushman Bharat Scheme

Details of Scheme	Awareness (%)	Benefits Availed (%)
Rs. 5,00,000 per year to your family	09%	8%
Medical examination, treatment, and consultation	21%	27%
Pre-and-post hospitalization charges	14%	14%
All pre-existing conditions are covered from day one	12%	13%
Free treatment in private empanelment hospitals	13%	13%
Accommodation benefits	12%	9%
Food services during hospitalization(patient)	18%	16%

(Source: SPSS Output)

Respondents were grossly aware of the Ayushman Bharat Scheme and regarding cent per cent benefits availed under the scheme was not there either because they were not aware or the need was not felt.

Awareness and Willingness to Invest in Micro-Insurance Scheme

Table 6: Awareness and Investment Willingness In Micro-Insurance Scheme

Schemes	Minimum Amount (Rs.)	Awareness	Willingness
Social Development Plan	-	9%	7%

Grameen Super Suraksha	-	9%	8%
Janata Personal Accident Product	15	19%	26%
Janashree Bima Yojana	200	15%	9%
Accident Insurance Policy	-	18%	8%
Personal Accident Insurance Plans	899	6%	2%
Kishi Shramik Samajik Suraksha			
Yojana	-	6%	6%
Amartya Siksha Yojana Policy	50	13%	15%
Shakthi Security Shield	35	5%	19%

(Source: SPSS Output)

Frequency of Minimum Premium Subscription

33% did not wish to subscribe to micro-insurance schemes, as a couple of the respondents were holding MAA cards so they did not wish to pay a premium for other types of micro-insurance schemes. Preference for premium payment was yearly (37%), monthly (14%), quarterly and half-yearly (eight per cent each). They were ready to pay an average of Rs.158.60 as a premium amount and the maximum amount that respondents were ready to pay was Rs.2,000.

CONCLUSION

The financial diary helped the respondents to record the data on income, expense and savings in a systematic format. The habit of recording the expense data helped them to identify the huge money spent on addiction and also curtail the same. Channelization of savings in the formal sector in the form of investment is a must for the growth of an individual's wealth and also for the growth of the economy. Thus, awareness and subscription of micro-investment products such as Atal Pension Yojana would help the low to moderate-income group masses to not only save but also properly invest the money, so that wealth is generated for their future subsistence.

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Acknowledgement

IMPACT OF MONETARY STIMULUS PACKAGE TO COUNTER ECONOMIC CRISIS – COVID 19

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ABSTRACT

The Covid-19 outburst both supply and demand shocks. Aggressive monetary stimulus that inject liquidity and support investment can offset the effect of demand and supply shock. Policy makers in the developing economies must access the efficiency and socioeconomic consequences of the moderation policies. In the short run the economic policy of the developing economy was dedicated on providing crisis relief to vulnerable population as in the short run it is not possible to stimulate the system. The study's goal is to examine the impact of monetary stimulus package for the Indian economy to kick-start the economy out of the stagnation trap. This paper is an exploratory research. The data used in this paper is from the reports made by an international and national organisation like WHO, IMF, Report by Reserve bank of India, articles from newspapers, interviews by the experts in the field.

INTRODUCTION

The Covid-19 outburst combines aspects of both supply and demand shocks. Aggressive monetary and fiscal stimulus that inject liquidity and support investment can offset the effect of demand and supply shock. In the short run the economic policy of the developing economy was dedicated on providing crisis relief to vulnerable population as in the short run it is not possible to stimulate the system. The objective of the study is to analyse the influence of monetary stimulus package for the Indian economy to kick-start the economy out of the stagnation trap. This paper is an exploratory research. The data used in this paper is from the reports made by an international and national organisation like WHO, IMF, Report by Reserve bank of India, articles from newspapers, interviews by the experts in the field. "The anticipated recovery for the economy depends chiefly on the length of the outbreak and the efficiency of the policy responses. Theories related to monetary policy and growth of the economy have speedily progressed over time captured by insignificances, divergences, and inconclusiveness and cross currents" (Brunner & Meltzer, 1972). Theories associated with the Economic growth and the monetary policy precede as far back to classical QTM (quantity theory of money) (Gali J., 2008). However, in the 1930's only modern theories approached to the forefront with the theory

of Liquidity Preference of Keynes following this by Monetarism an economic theory and successively by numerous theories, like theory of Real Business Cycles, the New Keynesian Economics and the Model of New Consensus (Goodfriend and King, 1997; (P. & Sawyer, 2008). For a long time, the influence of monetary policy on different variables and explicit on output has been the centre of research indistinctly in short-run and long -run (Walsh, 2003). There exist complex and contradictory relationship between economic policy and economic soundness. A prevailing survey has made an attempt to identify these dynamics.

A crucial point that appear is that to comprehend financial instabilities, monetary policy should intervene as an instrument at the period of crunch during crisis. The Reserve bank of India has come up with a stimulus plan to condense the ill-effects of the nation-wide lockdown. Main focus of the present paper is to discover the influence of monetary stimulus package in restraining financial insecurities in a developing market like India.

The research work has been divided into four subdivisions. The initial first part is a brief review of economic policy and economic stability dynamic forces which is followed by the literature on monetary policy and its influence on economic expansion. Next section gives a brief on the methodology. Further it will be followed by the section that handles the exploratory results and its implications. And the last part of the study takes down to the conclusion.

LITERATURE REVIEW

From the existing review of literature, we observed a wide range of both empirical and theoretical research on the prevailing association between monetary policy and economic soundness.

Monetary theory is built on the design that the alterations in the money supply is the chief influencer of the economic activities. Irving Fisher, the chief promoter of the theory states that if the economy's supply of money rises then the business activities of the economy will also upsurge and also the other way around. That means there exist a direct relationship between supply of money and the economic activities.

Keynes, rejected the classical dichotomy He asserted that the theory of money and the theory of prices can be integrated through the theory of aggregate demand or the theory of output. The apparatus of the interest rate which will increase investment will finally increase income through multiplier (Keynes, 1936).The Monetarist theory assumes that the velocity of money (V) is relatively stable, this suggests that nominal income is chiefly the function of the money supply (Friedman & Schwartz, 1963) (Friedman M. , 1968). There is extensive documentation found in the prevailing literature that supports this (among others Bullard, 1999; (Nogueira, 2009).

Selected studies have established narrow or no influence of monetary instrument. (Cyrus & Koech Elias, 2014) inspected the outcome of fiscal and monetary instrument shocks on the growth of the economy in Kenya by employing VAR methodology on the time series data discovered that monetary resources have no impact on the real output. (Kamaan, 2014) Also initiate insignificant association between monetary policy and economy's growth. (Lashkary & Kashani, 2011) Observed the

influence of monetary variables on the growth of the economy in Iran and found insignificant association between the volume of money and the economy's growth, real economic variables and the level of employment.

An extended study on empirical research also authorizes that monetary policy is decisive for the growth of the economy. (Vinayagathasan, 2013) Estimated the effect of monetary resource on the growth of the economy by using a seven-variable structural VAR for Sri-Lanka establish that rate of interest shock had a substantial effect on the output in accordance with the economic theory. (Onyeiwu, 2012) Studied the influence of monetary instrument by using the ordinary least square method for the Nigerian economy estimated a positive influence of monetary policy on the Economic (GDP) growth. (Billi & Verdin, 2014) Observed that monetary policy and the financial stability are intrinsically intertwined. As financial uncertainties can restrict economic growth and also hamper the Efficiency of monetary transmission. This shows that financial stability is important for the conduct of monetary policy. These opinions further reinforce the statement that these two variables (financial stability and monetary policy) are supportive in the long-run.

(Nair & Anand, March 2020) Enquiries about the monetary policy as an instrument to attain economic stability. The study after making comparison between rate of interest attained from the standard Taylor rule and asset price augmented Taylor rule concluded that aiming asset prices could be one of the potent ways to comprehend financial insecurities and resulting economy's slowdown. (Loayza V & pennings, March2020). Discussed in the short run economic policy should be dedicated towards disaster relief to susceptible population and in the medium term monetary and fiscal stimulus should be used for the recovery of the economy.

METHODOLOGY

It is an exploratory research. The data used in this paper is from the reports made by an international and national organisation like WHO, IMF, Report by Reserve bank of India, articles from newspapers, interviews by the experts in the field. Nature of the paper is conclusive and suggestive to bring the attention of the readers towards the influence of monetary stimulus package at the outburst of covid-19 in restraining financial uncertainties in an emerging economy like India.

ANALYSIS AND DISCUSSION

Monetary stimulus – An Effort to elevate the Economy

The magnification of COVID-19 disturbances has conveyed urgency to comforting repayment pressures and refining access to working capital by moderating the burden of debt servicing, prevent the diffusion of financial stress to the real economy, and certify the steadiness of viable businesses and households. The Indian central bank professed a postponement of the moratorium on loan EMIs by three months .

Due to continuing disruptions of COVID-19 Developmental and Regulatory policy of the central bank publicised (on 27th march, 2020) that all commercial banks, cooperative banks and Non-bank financial companies to prolong the moratorium period for the three months

from 1st june,2020 to 31st August ,2020 on term loan instalments. During the moratorium period the borrower is not obliged to make payment of an EMI on the loan amount. This time period may also be identified as EMI holiday as borrower is allowable to halt their loan payments. Under the usual situations, if the reimbursement of the loan has been deferred than the history of the borrower's credit and the risk classification of the loan will be unfavourably impacted. But as per the extension of the moratorium on loan EMI's given by the RBI the borrower's credit history will not be affected.

Owing to the extension of loan moratorium, the difficulties faced by individuals and businesses in making repayment of the loans due to cash flow and income interferences will be reassured. And this delay of loan payments will not call for penal charges and also will not impact borrower's credit score. This step further going to reduce the Non-performing Assets of banks at least for certain time period.

Observing the evolving financial market and macroeconomic conditions; further the aim of the central bank of India was to inject more liquidity in the economy. Further, the central bank of India has reduced the repo rate and the reverse repo rate to confirm that banks lend credit to the productive sectors of the economic system instead of submissively park funds with the central bank (RBI). This decision of central bank continues to direct the proactive move under the monetary policy of India. These slashed rates will be supportive for the economy to revive the economy in the long run .

Figure 1: Policy Rates source: https://rbi.org.in/

Date	Repo Rate (%)	Reverse Repo Rate (%)	CRR (%)	SLR (%)
April 2021	4	3.35	3	18
May 2020	4	3.35	3	18
March 2020	4.4	4.4	3	18.25
February 2020	5.15	4.9	4	18.25
October 2019	5.15	4.9	4	18.75
August 2019	5.4	5.15	4	19.5

To handle the liquidity pressure of shadow banks and microfinance institutions central bank has freed up more capital (Rs 50,000 crore) that banks can lend targeted Long-term repo operation (LTRO). LTRO is a tool in which central bank offers liquidity to banks for a period of one to three years at the prevalent repo rate. In turn as a collateral to the central bank the banks offer government securities with same or higher tenure. This measure will provide relief to the economy by preserving adequate liquid assets in the economy. It will further ease and incentivize banks to ensure the availability of credit and permitting healthy working in the financial markets.

In order to address the significant volatility in the domestic financial market and also to deliver relief to the Indian banking system, under the Marginal standing facility (MSF) banks limit to borrow funds from the Reserve bank of India in an emergency situation has been increased. This initiative will permit the Indian banking system to avail an extra additional liquidity of Rs 1, 37,000 crores under the window of liquidity adjustment facility (LAF) at the reduced MSF rate of 4.65 %.

In the outlook of COVID-19 the financial institutions like National Housing Bank, Small Industries Development Bank of India and National Bank for Agriculture and Rural Development are finding difficulties to raise finance from the market. These financial institutions play a significant role in meeting the long-term funding desires and needs of the agriculture and rural sector, small industries and the housing finance companies. In the wake of COVID-19 pandemic, under the monetary stimulus to empower these financial institutions special refinance facilities of Rs 50,000 crore have been provided to NABARD, NHB and SIDBI in order to meet credit needs of the diverse sectors.

The next initiative taken under the monetary stimulus package declared by the central bank incorporated 60 percent rise in the WMAs (Ways and Means Advances) of states and union territories with the aim of providing relaxation
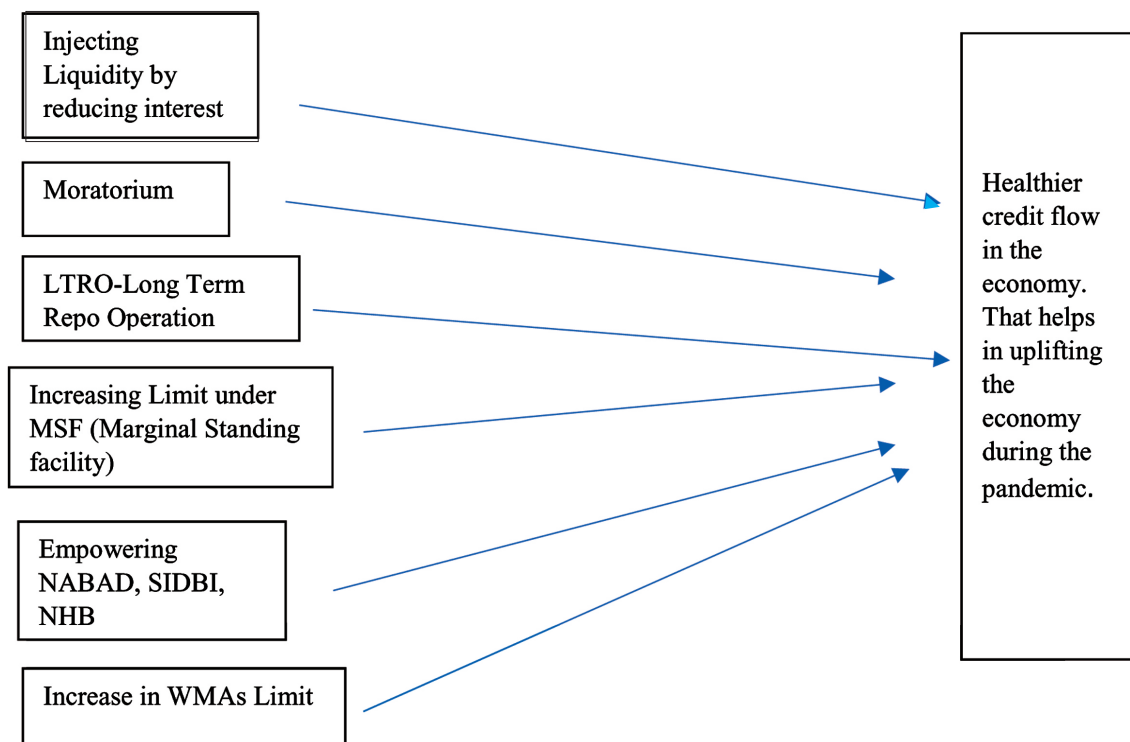
Figure 2: Model

to undertake the current pandemic suppression and the mitigation efforts. This move will also help them to plan the market borrowings better. In the outburst of COVID-19 India's exports and imports have contracted abruptly due to shrinkage in global activity and trade. The production and realisation cycles have been affected due to rescheduling of orders and deferral in realisation of bills. The decision by the regulatory body to upsurge the determined time period of the pre-shipment and the post-shipment export credit has been taken in understanding the prominence of exports in earning foreign exchange and in providing income and employment.

CONCLUSION

The Asian Development Bank (ADB) has anticipated that the GDP (Gross Domestic Product) of India will strongly recover b due to constant economic retrieval improved by increased government stimulus, the ongoing vaccination drive and a flow in domestic demand. Envisaging an optimistic picture "Asian Development outlook 2021" estimate that economic activity will continue to regularise and improve as supported by the government measures in the year 2020. The central bank of India on the monetary front reacted with a mix of Conventional monetary policy and unconventional monetary policy. Such liquidity measures have been incorporated in the monetary stimulus package to alleviate the damaging financial effect of the pandemic COVID-19. There has been significant reduction in the policy rates and around Rs.9.57 Lakh crore i.e. approx. 4.7 percent of the Gross Domestic Product has been injected in the economy since Feb 2020 to improve the availability of credit in the economic system (Ministry of Finance 2020).Central bank has taken numerous progressive and governing policy approaches to augment provision of liquidity to assist financial markets, stakeholders and also to ease the financial stress due to the pandemic COVID-19 by improving the flow of credit and firming credit discipline.

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IMPACT OF ONLINE WORKING MODE ON THE WORK-LIFE BALANCE (WLB): AN EMPIRICAL ANALYSIS OF BANKING SECTOR EMPLOYEES IN DELHI-NCR, INDIA

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ABSTRACT

This study examines the impact of telecommuting on work-life balance among bank employees in Delhi NCR. So, we chose 100 employees from banks like SBI and ICICI to write this paper. However, the online working mode changed their accountability, duties, tasks, and responsibilities at home and work. Moreover, the data were collected from a variety of sources and were collected while working online. It was collected via postal questionnaire and telephone interview using simple random sampling to ensure that all banking sectors were represented. Using ANOVA, we compared the difficulty of achieving work-life balance (WLB) in public and private sector banks. ANOVA was used to analyses the data, but also percentage and mean score. The ANOVA result shows that the obtained value is higher than the table value, rejecting the null hypothesis. It means that achieving WLB at different hierarchies is significantly more difficult. The study found that employees in the banking sector had increased workloads when working online. WLB is difficult to achieve when working online.

INTRODUCTION

To meet the current demands, most businesses have transformed themselves and allowed employees to work online. The biggest challenge was to keep a WLB in our daily routine and working hours when working online. The WLB concept was first introduced in America in 1986, though it had been used in everyday language for several years. The concept was introduced because American employees were working towards achieving community goals and were unable to focus on personal matters such as family, self-care, social gatherings, etc. WLB, according to Clutterbuck (2003), is a major issue in the twenty-first century. According to the American Psychological Association, balancing work and family is a major issue for today's employees. There must be an equilibrium between work and personal life, but in today's competitive world, this balance is missing.

Work and family are two sides of the same coin. People work eight hours a day, five/six days a week, and spend the rest with family. However, due to the nature of online work, their personal and family time is compromised. This study's main goal is to assess the impact of online working on WLB between home and work. So, this study examines whether bank employees can balance their work and personal lives by working online. We also looked into the factors affecting WLB. In the current scenario, online working has changed both the work culture and the family lifestyle. Social distancing and regular disinfection are required in the workplace and daily life. Thus, most employees struggle to achieve their WLB when working online. A working female has more responsibilities at home than a working male. There have been many studies on the WLB of banking employees, but none on WLB when working online, where the scenario is constantly changing and a quick response is required to achieve the goal. So, this study focuses on the banking industry. Thus, it is vital to investigate how employees in Delhi NCR Region balance work and family life when working online. This study is based on the views of various banking employees.

WORK-LIFE BALANCE AND ONLINE WORKING MODE

The Guilt-Free Woman's Guide to A Good Life", written by (Kaveree Bamzai, 2019) women are facing many dynamic kinds of personal and professional anxieties and stress levels due to the heavy responsibilities of work-life as well as family. (Julka & Mathur, 2017) studied WLB among women employees and examined the personal/family-based factors as well as work-based factors that directly contribute to WLB. Rewards and WLB among Working Women shows that women are interested in work, and they choose work as employment because this will help them to manage their family live and work life (Goswami et al., 2015). For maintaining the WLB of employees in the banking sector it was found that demand for high performance, long working hours during work, poor work environment, inflexible working hours, workload leads to stress in work (Myilswamy and Gayathri, 2015). (Soomro et al., 2018) WLB leads an individual to live a healthy, fruitful, happy, and successful life. For those who want to live a high quality of life. WLB effect on role performance and affective commitment as well as the role to link. The result of the study showed that experience of WLB increased efficient commitment in employees working in the organization and that affective commitment had a positive influence on role performance (Kim's, 2014). Gender differences in the perception of WLB revealed that organizations have to take different initiatives comprising of flexible timings, part-time work, setting up of care facilities, etc. to balance their WL (Doble et al., 2010). The work-life parity and representative commitment turn into a noticeable benchmark among high-performing associations. This shows that some family-accommodating associations feel the requirement for WLB (Susis & JawaharraniK, 2011). The investigation additionally inspected if there were any hindrances and explanations behind the shared appropriation

of WLB strategies in the banking division (Mordi et al., 2011). WLB was a matter of privilege and VIP feel offered by the company's big business corporate. It was giving flexibility and direction to their employees and it was very limited to get access to it. (Gautam & Sharma, 2020).

Statement of the problem, research objectives, and hypothesis

It is well known that the banking sector operated online in accordance with Indian government guidelines. This harmed many employees' work-life balance. This harmed bank employees. As a result, employees, especially working women, experienced stress, depression, irritation, and family conflicts. This research focuses on banking employees in Delhi NCR. The study looked into the effects of online working on employees' social and work environments. And how they achieve job satisfaction and work-life balance.

Data, sample design, and research methodology

A structured questionnaire is used to collect data for the research. All four banks in Delhi-NCR were polled for their employees' opinions on the subject. Simple random sampling is used to ensure that the sample includes representatives from all banking sectors. Derived from a five-point Likert scale, the questionnaire contained 43 questions. A 5-point rating scale with scores was used to quantify the questions (5-Highly Satisfied, 4-Satisfied, 3-Neutral, 2-Dissatisfied, 1-Highly dissatisfied). SBI, PNB, Kotak, and ICICI employees were chosen equally. The study sampled 100 working employees (Table-1). Table 1 shows the data collected from bank employees for research purposes.

Table 1: Sample Selected for the Study

Sr. No.	Name of the Bank	No. of Employees	Percentage of Employees
1	Punjab National Bank	25	25
2	State Bank of India	25	25
3	Kotak Mahindra Bank	25	25
4	ICICI Bank	25	25
	Total	**100**	**100**

DATA ANALYSIS

Objectives

To investigate the WLB of bank employees working online mode, table 2 and table 3 shows that, the mean score of satisfaction with work-life balance among different variables for both public and private sector banks, respectively. The mean score is computed using a five-point scale.

Table 2: Mean Scores of Satisfactions with WLB amongst different Variables of Overall Satisfaction for Public Sector Banks

Different variables of Overall Satisfaction	HS	S	N	DS	HDS	Total score	Mean score
Job Satisfaction	10	13	16	11	0	172	3.44
Career Satisfaction	9	16	15	10	0	174	3.48
Fitness /Health	10	11	14	15	0	166	3.32
Time with Family/Staff	8	9	19	14	0	161	3.22
Time For Friends, Interests, etc.	7	8	20	15	0	157	3.14
Salary satisfaction	11	15	15	9	0	178	3.56
Time For Friends, Interests, etc.	7	8	20	15	0	157	3.14
Salary satisfaction	11	15	15	9	0	178	3.56

HS-Highly Satisfied, S-Satisfied, N-Neutral, DS-Dissatisfied, HDS-Highly Dissatisfied

Table 3: Mean scores of satisfactions with WLB amongst different variables of overall satisfaction for Private Sector Banks

Different variables of Overall Satisfaction	HS	S	N	DS	HDS	Total score	Mean score
Job Satisfaction	8	13	18	11	0	168	3.36
Career Satisfaction	11	14	15	10	0	176	3.52
Fitness /Health	12	13	12	13	0	174	3.48
Time with Family/Staff	10	11	15	14	0	167	3.34
Time For Friends, Interests, etc.	11	11	13	15	0	168	3.36
Salary satisfaction	12	17	13	8	0	183	3.66
Time For Friends, Interests, etc.	7	8	20	15	0	157	3.14
Salary satisfaction	11	15	15	9	0	178	3.56

HS-Highly Satisfied, S-Satisfied, N-Neutral, DS-Dissatisfied, HDS-Highly Dissatisfied

Table 2 shows that public sector bank employees were more satisfied with their salary than socializing with friends, whereas table 3 shows that private-sector bank employees were happier with their salaries and less happy with spending time with family and self.

Tables 4 and table 5 shows that, the impact of online work on WLB for both types of banks respectively. The mean score is derived from the responses on a five-point scale. Similarly, the cumulative mean score is calculated for various work types.

Table 4: Mean Score of Impact of online working mode on WLB for Public Sector Bank

Nature Of Work		Always	Often	Some times	Rarely	Never	total score	Mean Score	Cumulative Score
Impact of home on online work	Tired due to office work	5	12	19	11	3	155	3.1	3.47
	Reduction in effort	3	7	13	15	12	124	2.48	
	Responsible person	41	9	0	0	0	241	4.82	
Impact of online	Distraction due to family stress	0	0	7	29	14	93	1.96	3.04
	Reduction in effort	3	8	12	14	13	124	2.48	
work on home	Self-confidence in doing office	39	11	0	0	0	239	4.78	
Family support	Help from life partner/family/ friends	31	11	7	1	0	222	4.44	4.49
	Advice from partners/ family/ friends	26	15	5	4	0	213	4.26	
	Support during working late for hours at home	40	8	2	0	0	238	4.76	
Social Life	Maintain safe distance while with the market	50	0	0	0	0	250	5	4.96
	Maintain safe distance while with friends	46	4	0	0	0	246	4.92	
Works holism	Learning new things at home	24	15	8	0	0	216	4.32	4.03
	Time management from home and for work	10	19	19	2	0	187	5.74	

Table 5: Mean Scores of Impacts of online working mode on WLB for Private sector Bank

Nature Of Work		Always	Often	Some times	Rarely	Never	total score	Mean Score	Cumulative Score
Impact of home on online work	Tired due to office work	3	18	12	10	7	150	3	3.43
	Reduction in effort	4	8	2	12	14	126	2.52	
	Responsible person	38	12	0	0	0	238	4.76	
Impact of online work on home	Distraction due to family stress	0	0	8	27	15	93	1.86	3.03
	Reduction in effort	3	7	15	12	13	125	2.5	
	Self-confidence in doing office work from home	37	13	0	0	0	237	4.74	
Family support	Help from life partner/ family/ friends	29	7	12	2	0	213	4.26	4.54
	Advice from partners/ family/ friends	31	14	4	1	0	225	4.5	
	Support during working late for hours at home	43	7	0	0	0	243	4.86	
Social Life	Maintain safe distance while with markets	50	0	0	0	0	250	5	5.00
	Maintain safe distance while with friends	50	0	0	0	0	250	5	
Works-holism	Learning new things at home	22	23	5	0	0	217	4.34	4.03
	Time management from home and for work	12	15	20	3	0	186	3.72	

In both the public sector and private sector banks, the respondents' social lives (4.96) and (5.00) are severely impacted. The impact of work on home (3.04) and home on work (3.47) of public sector banks and the impact of work on home (3.03) and home on work (3.43). The findings revealed that the social life of the respondents was affected more than other work.

Table 6: Level of Difficulty in achieving Balance among Public Sector Banks and Private sectors Banks.

Type Of Bank	High Level		Moderate Level		Easy Level		Total	
Type A (Public Sector)	10	20	37	74	3	6	50	100 %
Type B (Private Sector)	15	30	33	66	2	4	50	100 %

Table-6 represents the difficulty level of respondents with their WLB in the select banking sectors. It is observed that Private sector Banks find it more difficult to achieving work-Life Balance as compared to public sector Banks

Hypothesis
Ho: There is no significant difference in the level of difficulty of achieving WLB between banks and hierarchies.
Hα: There is a significant difference in the level of difficulty of achieving WLB between banks and hierarchies.

Table 7: Calculation of analysis of variance (ANOVA)

Source Of Variation	Square Of Sum	DF	Mean Of Square	F	P-Value
Between Group	1108.333	2	554.167	79.167	0.003
Within Group	21	3	7		
Total	1129.333	5			

Table-7 shows that, the obtained F value of 79.167 is higher than the table value of F even at a 0.05 level of significance, so the null hypothesis is rejected. This shows that achieving a WLB varies greatly between banks and hierarchies.

DISCUSSION AND FINDINGS OF THE STUDY

As shown in Table 2, public sector bank employees are more satisfied with their jobs and careers than private sector bank employees. Compared to public sector banks, private sector employees are more satisfied with their salaries, health, and time with family and friends. With respect to work-life balance, public sector banks have more impact than private sector banks, according to the mean scores calculated for each type of work (Table 3). Also, private sector banks have a greater impact on family and social life than public sector banks. Unlike work holism, which is neutral. Work-life balance is difficult for 20% of employees in public sector banks, while it is easy for 74%. Work-life balance is

difficult for 30% of employees in private banks, moderate for 66%, and easy for only 4%.

CONCLUSION

During online working, they were more concerned about their workplace contribution and family responsibilities. Keep families safe and clean was difficult for employees. WLB measures for online employees should be improved by banks. On-line employees were also encouraged to keep a healthy WLB. Organizations and employees must work together to keep life in balance. A good WLB benefits both the company and the employee. During online working, they were more concerned about their workplace contribution and family responsibilities. Keep families safe and clean was difficult for employees. WLB measures for online employees should be improved by banks. On-line employees were also encouraged to keep a healthy work-life balance. Organizations and employees must work together to keep life in balance.

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INDIAN EXCHANGE TRADED FUNDS MARKET – A SYSTEMATIC LITERATURE REVIEW

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ABSTRACT

The panorama of investment opportunities offered by Exchange Traded Funds (ETF's) to investors and its momentous growth since their inception in the country has created a need to evaluate the existing literature on Indian ETF's. Hence, the study aims to systematically review 74 research articles published in peer-reviewed journals and conferences related to Indian ETF's. The research articles chosen for the study are scrutinized based on various attributes to highlight current trends in the literature and identify future research directions. Detailed content analysis has revealed that most of the research articles are empirical in nature that have predominantly used secondary data and the leading research theme identified is the performance evaluation of Indian ETF's relative to other protruding areas.

Keywords: Exchange Traded Funds, Systematic Literature Review, Indian Exchange Traded Funds.

INTRODUCTION

Since the financial turmoil witnessed by the world in the year 2008, investors are found to be extremely cautious about earning sustainable returns rather than quick returns from their investments by choosing financial instruments that mitigate the risk exposure. This has led to the popularity of portfolio investment strategies that diversifies and reduces the investment risk for the investors, which is classified into active and passive investment strategies. In case of an active management strategy, the responsibility of generating higher returns than the market lies on the portfolio manager who collects a fee from the investor for mitigation of risk and implementation of various strategies. Alternatively, passively managed funds simply follow the market index and does not have a management team applying their own strategies while making investment decisions on behalf of the investors.

The prominent passively managed fund that has gained prominence among the investors are ETF's that are challenging the dominance of mutual funds. They play a major role in offering an innovative platform to the investors that can overcome the drawbacks of actively managed funds (Xu et al, 2014). ETF's track their respective benchmark commodity, index, sector or international indices by holding an archetypal sample of securities that provide

exposure to an index or a basket of securities that can be traded on the exchange like a single stock (Hall, 2004). ETF's have low expense ratio's compared to mutual funds as they follow a passive investment strategy and investment in ETF's substantially mitigate or completely eliminate tax burden on realized capital gains due to their special feature of 'redemption in kind'(Poterba & Shoven, 2002). ETF investors can also benefit from intra-day trading facilities, undertake short selling of ETF units and write options on ETF's (Aggarwal & Schofield, 2014).

American Stock Exchange launched its first US based ETF in the year 1993 called SPDR's (Standard and Poor's Depository Receipts) (Bansal & Somani, 2002) and the first ETF in India was launched in the year 2001 which started trading on National Stock Exchange (NSE) from January, 2002. In less than two decades since the inception, NSE launched its 100th ETF (on 5th July, 2021) and investor participation in transacting with ETF's has gone up by 96 per cent from 2.04 million investors in FY 2019-20 to 4.01 million in FY 20-21.

Several studies conducted on ETF's globally have focused on evaluation of operational characteristics and performance of European ETF and US's while some cover Asian ETF's. Through careful analysis of available literature on Indian ETF's it was found that systematic literature on Indian ETF's market has been almost non-existent with an exception of only one research paper that studied 20 research articles (Arati. B, 2020) related to Gold ETF's traded across the world. The robust growth and popularity of Indian ETF's has created a curiosity in understanding the theoretical developments related to this choice of financial instrument, which formed the basis for this paper.

DATA AND METHODOLOGY

Research articles chosen for this study were obtained by searching for relevant articles using appropriate keywords (Indian ETF's, Indian Equity ETF's and Indian Gold ETF's), mentioning the time frame along with inclusion and exclusion criteria's. Research articles were collected from databases like Proquest, EBSCO and Google Scholar from earliest available date of research articles related to Indian ETF's till end of calendar year, 2021 and this search was undertaken during the last week of December, 2021. Different article types such as research papers, review papers, working papers and conference papers were downloaded from the databases if they contained the search keywords in their title, abstract, keywords or body of the research paper. Further, we only considered research articles that fulfilled all the following criteria's:

a). articles that studied or included Indian ETF's in their study with full-text access and

b). articles published in conference proceedings or peer reviewed journals;

After obtaining several articles based on the objective of the study another round of review process was performed to confirm if the shortlisted articles could be considered as the final sample. This was performed by going through the abstract or content of the paper (in few cases) that resulted in the final sample of 74 research articles related to Indian ETF's.

DESCRIPTION AND CLASSIFICATION OF LITERATURE

In this section, we have systematically classified the 74 research articles based on publication year, journal of publication, type of ETF's studied, type of research and data, statistical techniques employed, citations and content analysis. This section of the study is paramount to understand the trends in existing literature related to Indian ETF's and identify the research gaps.

Year of publication

Figure 1 shows the distribution of research articles published from 2009 to till the end of calendar year 2021. Even though the first Indian ETF was launched in the year 2001, research articles related to Indian ETF's can be found only from the year 2009 and there has been a consistent number of publications only from year 2012. The highest number of articles published were during the year 2020.
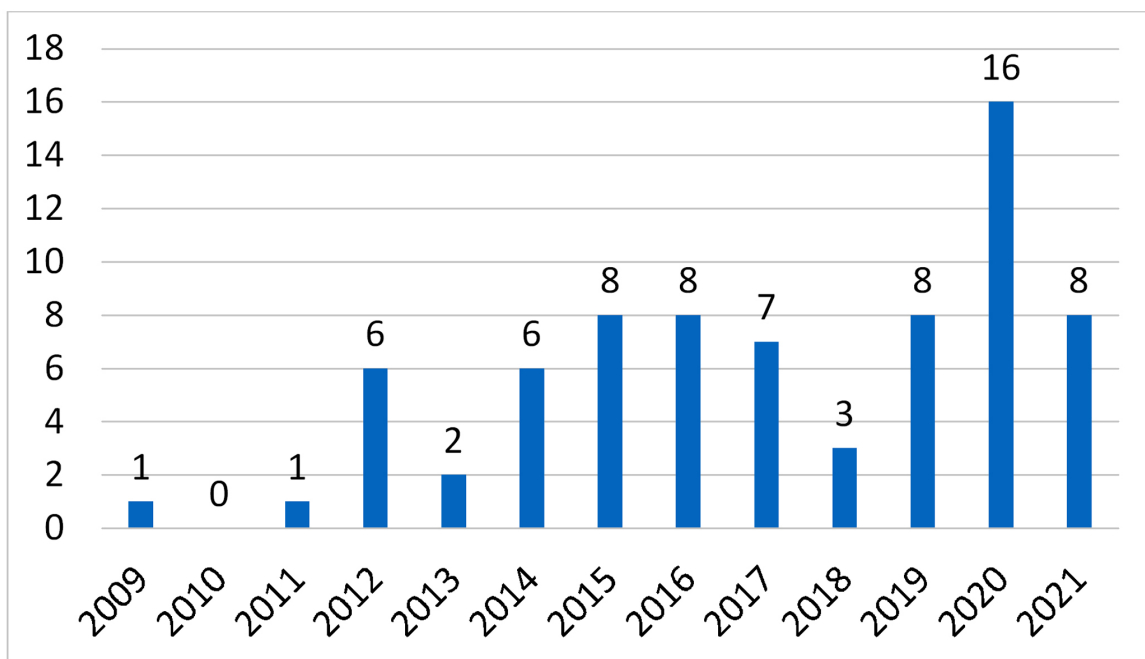
Figure 1: Article distribution from 2009 to 2021

Journal of Publication

Classification of articles based on their journal of publication helps in spotting the journals that expressed interest in publishing articles related to Indian ETF's (Singh, H. P., & Kumar, S. 2014). There are about 63 journals which have published research articles related to Indian ETF's and most of the journals identified through this analysis have only one article related to Indian ETF's published in their journal which indicates the interest shown by the journals in publishing articles related to Indian ETF's.

Type of ETF's studied by the research articles

There are majorly four different types ETF's traded in the Indian Stock Exchanges that are Equity ETF's, Gold ETF's, Debt ETF's and World Indices ETF's. It becomes imperative to understand which ETF is studied the most in the available academic literature. From the analyses (Figure 2)it can be inferred that there are about 29 research articles that focus on equity ETF's followed by 27 research articles on Gold ETF's. About seven research articles have studied both equity and gold ETF's whereas three research articles have studied both equity and world indices ETF's traded on the Indian Stock exchanges. There was only one research article that was found which studied all the 82 Indian ETF's (Prasanna, P. K., 2012). The category of 'Others' include two research papers that conceptually explained different characteristics of ETF's.
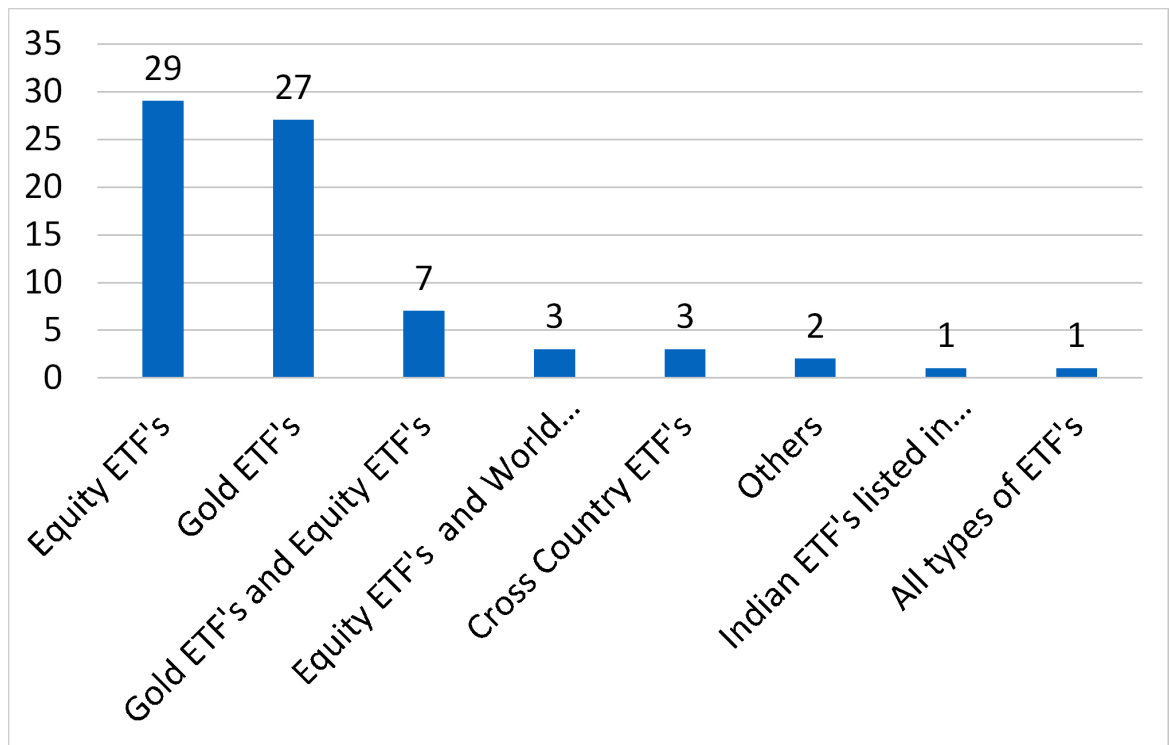
Figure 2: Type of ETF's studied by the research articles

Type of research studies and data

Analysis of the sample articles based on the type of research study and type of data studied helps in understanding the basis of the academic literature. Figure 3 shows the classification of articles based on the type or research study and the choice of primary or secondary data. The sample research articles are classified into four different categories namely Empirical, Descriptive, Conceptual

and Others. Empirical research includes studies, which are based on observations or experiments following a particular theory or hypothesis. Descriptive studies include research articles that describe a particular phenomenon and its characteristics through a survey tool or observation and conceptual research study includes interpretation of available information or existing theories. Category named 'others' include literature review papers. Highest number of research studies related to Indian ETF's are empirical in nature and all these studies use secondary data. There are five research articles which are descriptive in nature all of which have used primary data and four research articles that have conceptually explained the concept of ETF's. There is only one article placed in the category of 'Others' which includes a literature review paper that studied the research articles available on Gold ETF's across the globe. This analysis provides a strong evidence of lack of literature review papers related to Indian ETF's which is fulfilled by this study.
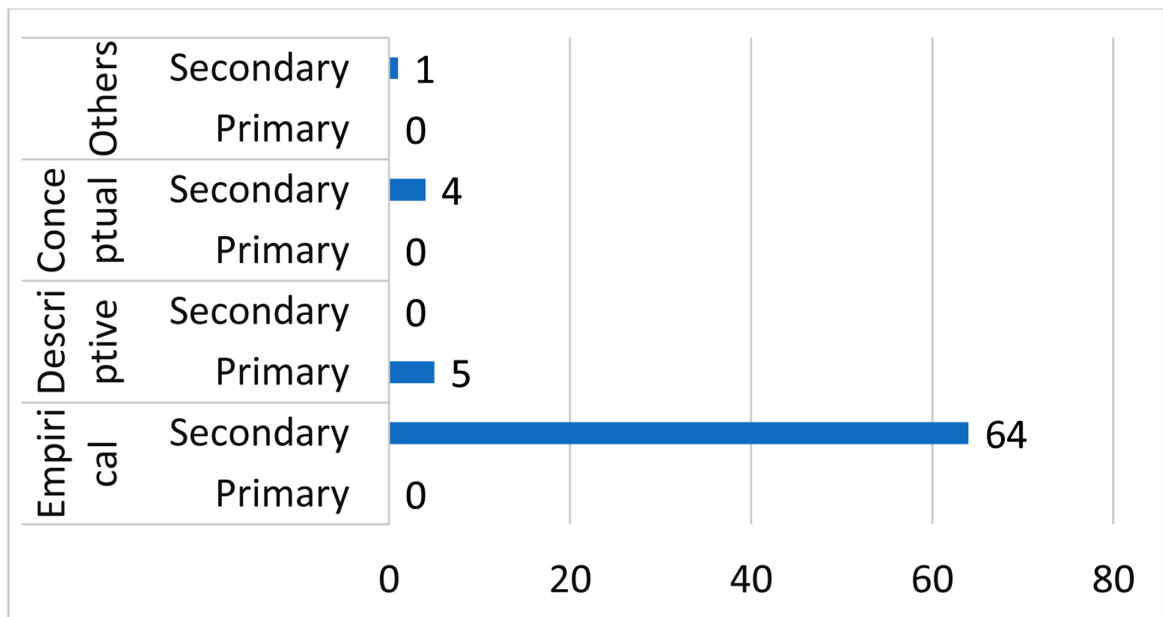
Figure 3 : Article distribution by type of study and data

Statistical Techniques

In this section of analysis, we have identified statistical techniques used by the researchers while studying the Indian ETF's. Table 1 highlights the frequency of statistical techniques used by the researchers. Most of the sample research articles use a combination of the below listed statistical techniques. The table includes only statistical techniques that are adopted by more than five research articles for practical reasons. The most prominent research technique found in the literature is the evaluation of ETF's using risk and return analysis.

Table 1: Frequency of Statistical techniques employed.

Sl. No	Statistical Technique	No. of research papers
1	Risk and Return Analysis	47
2	Regression Analysis	21
3	Estimation of tracking error	21
4	Sharpe Ratio	19
5	Treynor Ratio	14
6	Measurement of Stationarity	13
7	Correlation Analysis	12
8	Jensen's Alpha	11
9	Co -integration test	10
10	Vector Error Correction Model	7

Citation Analysis

Citation analysis helps in examining the cited reference of a series of articles to identify the noteworthy or predominant work in a selected field (Singh, H. P., & Kumar, S. 2014). The citation for the sample articles were obtained from Google Scholar as on 31st December, 2021 and Table 2 presents the list of research articles that has 20 or more citations to avoid having a long list of articles. We found citations only for 40 out of 74 articles. The highest citation from the sample research articles is obtained by the research article titled 'Performance of Exchange-Traded Funds in India' authored by P. Krishna Prasanna in the year 2012.

Table 2: Articles listed according to their citations.

Sl.no	Article	No. of Citations
1	Prasanna, P. K. (2012).	55
2	Aggarwal, R., & Schofield, L. (2014).	33
3	Narend, S. (2014).	25
4	Charteris, A., Chau, F., Gavriilidis, K., & Kallinterakis, V. (2014).	25
5	Goyal, A., & Joshi, A. (2011)	20
6	Purohit, H., & Malhotra, N. (2015)	20

Content Analysis

Table 3: Classification of articles based on their content

Sl.no	Themes	No. of articles
1	Performance Evaluation of ETF's with Benchmark indices	29
2	Tracking Efficiency of ETF's	19
3	Performance Analysis of ETF's with Mutual funds tracking the same Benchmark index	8
4	Measurement of Volatility and arbitrage possibilities	8
5	Performance Evaluation of Gold ETF's	8
6	Pricing, Price Discovery and Pricing Efficiency of ETF's	7
7	Premium and Discount Analysis of ETF's	5
8	Evaluation of relationship between Gold with Stock market indices and macro- economic factors	4
9	Others (Conceptual Papers on ETF's)	4
10	Determinants of tracking error	4
11	Performance evaluation and Tracking efficiency of Equity or Gold ETF's in Bullish and Bearish Markets	3
12	Non- Linearity in Indian ETF's	1
13	Determinants of fund flow	1
14	Determinants of volume	1
15	Performance Analysis of ETF's with ELSS	1
16	Performance Analysis of Gold and Equity ETF's	1
17	Determinants of volatility	1
18	Country ETF's influence on Stock Markets	1
19	Behavioral Trends of Gold ETF Investors	1
20	Impact of ETF listing on the price of the constituent securities of the index	1

Content analysis is a research tool that helps in determining the prominent themes of literature related to a particular topic. Examining the sample of 74 papers on Indian ETF's helped in classifying the research articles in to 20 different themes. The frequency of research articles focusing on a particular theme can be found in Table 3.

FINDINGS AND RESEARCH GAP

A sincere effort has been made to include all the relevant studies related to Indian ETF's and following findings are listed down along with notable research gaps.

Availability of Limited Research

Though the first ETF in the country was listed in 2001, the number of studies found related to Indian ETF's are limited when compared to the studies available related to ETF's of United States and other European Countries. From the analyses it can be concluded that there is no clear indication of increasing trend of articles published related to Indian ETF's and there was no prominent journal identified through the study which had significant number of publication of research articles related to Indian ETF's. Also, there are about 34 out of 74 articles which has nil citations indicating the dearth of literature related to the topic.

Dominance of empirical research based on secondary data

About 86.48 per cent of the sample research articles included in this study are based on secondary data and are empirical in nature. Only five out of 74 articles of the sample research articles were based on primary data and all of them were descriptive in nature.

There was no literature review paper identified which focused on Indian ETF's exclusively which is fulfilled by this study.

Lack of inter- country researches

There are a number of studies from the sample research articles that compared the performance of Indian ETF's with index funds or other similar financial instruments available in India but only 3 studies out of the whole sample compared the performance of Indian ETF's with the ETF's of other countries.

Dominance of single theme of research or uni- directional research

About 60 per cent of the research articles evaluated the performance of ETF's with either their benchmark indices or other alternative financial instruments. This indicates the neglect of other research themes, which are also of high importance.

AVENUES FOR FUTURE RESEARCH

The aim of this paper is to highlight the existing trends of available literature on Indian ETF's and to identify the avenues for future research. The analysis and scrutiny of 74 research articles related to Indian ETF's has brought forward many issues that can be addressed in the future researches. The exponential growth of Indian ETF's in the past two decades is not justified with the number of available research articles which can be overcome if greater interest is shown by the academicians and researchers by undertaking studies that focus on multi- dimensional analysis of Indian ETF's. Studies on Indian ETF's can be conducted related to determinants of tracking errors and other operational

characteristics of ETF's that impact their performance which will help in overcoming the concentration of available literature on a specific theme. Also, the number of studies on debt and world indices ETF's listed and traded on the Indian Stock Exchanges are very limited as the primary focus is given to equity and gold ETF's. There are no studies that focus on regulatory challenges, agency issues or technological advancements and the influence of macro–economic variables on the performance of Indian ETF's. Participation of foreign investors or their perception about emerging markets ETF's such as Indian ETF's.

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ON-DEMAND RIDE HAILING SERVICES (RHS) FOR COMMUTING PURPOSES: A CASE OF KERALA, INDIA

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ABSTRACT

The evaluation of the antecedents of users' continuous usage intention has become essential for the success of ride hailing services. This study analysed the antecedent role of customers' perceptions and satisfaction with continuous usage intention of ride hailing services in Kerala, India. The model used in this study conceptualizes customers perceptions as a composite variable comprising four dimensions (perceived usefulness, perceived ease of use, perceived value and satisfaction) prescribed by the Technology Acceptance Model (TAM). It employed a descriptive, correlational survey approach in which the responses of 216 registered users of ride hailing were analysed using descriptive inferential statistics. Linear regression analysis indicated that the model provided a statistically significant explanation for the variation in users' continuous usage intentions. The study also found empirical support for customers' perceptions (perceived usefulness, perceived ease of use, perceived value and satisfaction) as antecedents of continuous usage intention with ride hailing services.

INTRODUCTION

In recent years, ride-hailing services have become increasingly popular throughout the world because of new transportation technologies. These services have become more prevalent especially in developing countries, where public transport is a major problem due to lack of investment (Nguyen et al.,2020). Ride hailing is distinguished from traditional carpooling because it does not require rigid time schedules or fixed itineraries (Agatz, 2011). Ride hailing services, transformed by technological improvements in the fields of transportation and smart devices (Maqableh & Karajeh, 2014), are cheaper than using licensed taxicabs, connecting passengers and local drivers using their personal vehicles is a comfortable method for door-to-door transport (Wikivoyage, 2020). Unlike the traditional taxi, as the ride share cars do not possess any distinctive visual appearance, the application also provides few valuable information to the

rider such as the type of the vehicle, license plate number, approved information regarding driver's identity to facilitate the rider to identify the driver-partner at pickup location. The fee is charged according to the rider's preference, which varies across cities and times (Tang et al., 2020). The bidirectional user assessment system facilitates both the passenger and the driver-partner, to report journey experience. In 2009, Uber emerged as of first service to provide such facilities (Uber, 2018).

This conceptual study discusses the factors that influence customer's intention to choose ride hailing services over traditional taxi. Technology Acceptance Model (TAM) was used to comprehend the customer's intention to use ride hailing apps technology.

METHODOLOGY

This research adopted a cross-sectional, descriptive, correlational study design that sought to establish the antecedent role of customers' perceptions with regarding satisfaction with RHS in Kerala. We used a survey-based questionnaire to collect data from respondents. The survey tools are based on pre-recognized scales from previous studies. A total of 216 respondents were selected using random sampling methods. All these respondents constitute the users of Uber in Kerala, India. We reached 300 consumers and received 216 valid responses indicating a 74.67% response rate. Statistical Package for Social Sciences (SPSS) software version 22 was used for data analysis. Simple linear regression was used to identify the underlying correlations among data. The simple linear regression is as follows:

$$Y = \beta 0 + \beta 1\ P1 + \varepsilon 1\ (1)$$

The given model used in this study conceptualizes customers perceptions as a composite variable comprising four dimensions (perceived usefulness, perceived ease of use, perceived value and satisfaction) prescribed by the Technology Acceptance Model (TAM). The proposed model for this study is given in diagram 1.
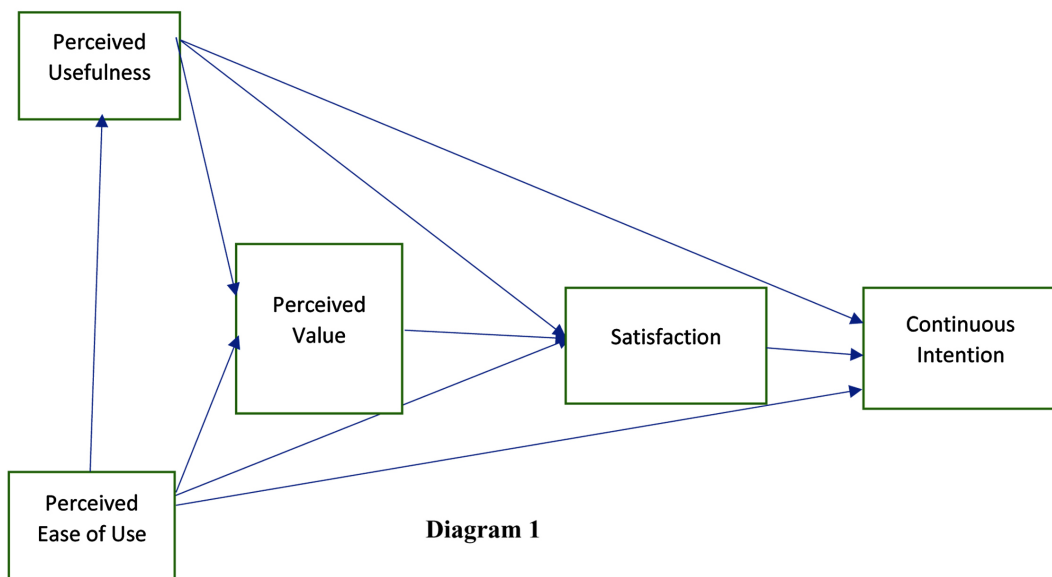
Diagram 1

Reliability

Cronbach's Alpha coefficient (α) was used to assess reliability of the measures. As a rule of thumb, reliability of 0.7 and above is recommended to denote the research instrument as reliable (Roberts, Priest & Traynor, 2006). Using this cut-off value, all measures exhibited internal consistency with Cronbach's Alpha values greater than 0.7, which is shown in table 1.

Table 1: Internal consistency

Constructs	Cronbach's Alpha
Perceived Usefulness	0.953
Perceived Ease of use	0.972
Perceived Value	0.910
Satisfaction	0.804
Continuous Intention	0.854

Source: Primary Data

RESULTS AND DISCUSSIONS

The summary of the results is presented in two main sections:
(1) Descriptive statistics and (2) Inferential statistics.

Descriptive Statistics

Of the 300 respondents only 216 were able to participate in the study by completing and returning the questionnaire on time. This was equivalent to a 75.93% response rate. According to Rubin and Babbie (2011), a 50% response rate is adequate for reporting and analysis. This indicated the adequacy of the response data for the analysis.

Demographic Characteristics

This section summarizes the responses regarding the demographic characteristics of the participants.

Table 2: Demographic characteristics of the sample (n = 216)

Respondents		Frequency	Percent	Cumulative Percentage
Gender	Male	121	54.02	54.02
	Female	103	45.98	100
Age	<21	23	10.27	10.27
	22-30	94	41.96	52.23
	31-40	67	29.91	82.14
	41-50	24	10.71	92.86
	>51	16	7.14	100

Educational Qualification	Up to 12th	17	7.59	7.59
	Undergraduate	34	15.18	22.77
	Graduate	82	36.61	59.38
	Postgraduate and above	91	40.63	100
RHS Usage Duration	Less than a month	14	6.25	6.25
	Less than three months	23	10.27	16.52
	Less than six months	32	14.29	30.80
	Less than a year	67	29.91	60.71
	More than a year	88	39.29	100
Frequency of Use	Everyday	28	12.50	12.50
	Once in a week	33	14.73	27.23
	Once in two weeks	61	27.23	54.46
	Once in a month	83	37.05	91.52
	Rarely	19	8.48	100

Source: Primary Data

Table 3: Descriptive statistics results for study constructs

Construct	Mean	Standard Deviation	Skewness (-3 to +3)	Kurtosis (-10 to +10)
Perceived Usefulness	4.039	0.696	-1.251	1.887
Perceived Ease of use	4.167	0.602	-0.624	0.845
Perceived Value	4.182	0.544	-0.506	0.901
Satisfaction	4.174	0.497	-0.997	2.220
Continuous Intention	4.069	0.559	-0.227	-0.259

Source: Primary Data

The results indicated that perceived value had the highest mean score (4.182), followed by satisfaction (4.174) and perceived ease of use (4.167). The standard deviation is estimated to be 0.559. Table 3 clearly shows that all the skewness and kurtosis values fall within the acceptable range thereby ensuring the normality of data.

Inferential Statistics

We conducted a simple linear regression analysis to examine whether the model provides a statistically significant explanation of the variation in online retailing consumers' satisfaction, and more importantly to determine the empirical support for customers' perceptions as an antecedent of satisfaction with online retailing services. The following section presents the findings and interpretations of linear regression analysis.

Goodness of Fit

Table 4 shows the output measures regarding the "goodness of fit", i.e., how well the model fits the data. The table presents the coefficient of determination (R-Square) which is used to test the goodness-of-fit of the model which reveals what percentage of variability in the dependent variable is accounted for by all independent variables.

Table 4: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.71	0.503	0.494	1.98783

Source: Primary Data

R was calculated as 0.71 and adjusted R square was 0.494. If the R-Square value is 1, then there is a perfect fit, whereas R-Square value 0 indicates that there is no relationship between the independent and dependent variable. According to Table 4, the adjusted R-Square value is 0.503. This result shows that a moderate relationship exists, implying that other factors affecting satisfaction were not studied in this research adding up to 49.7%. The adjusted R^2 is important as it helps to discourage over fitting of the model (Doane & Seward, 2011).

ANOVA

ANOVA table shows whether the model can predict Y using X. It contains the output for determining the statistical significance of the model.

H0: The model has no predictive value ($\beta_1=0$)
H1: Implies that the model has predictive value ($\beta_1 \neq 0$)

Table 5: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	845.196	4	211.299	53.473	0.000
	Residual	833.762	211	3.951		
	Total	1678.958	215			

Source: Primary Data

Table 5 explains that, statistical significance of the model was assessed using the following hypotheses: H0: β1 = 0; that is variation in Y is not explained by variation in X. H1: β1 ≠ 0; that is variation in Y is explained by variation in X. According to H0, if a coefficient (βι) = 0, the distribution of the response variable (Y) does not directly depend on the input variable Xi, which can therefore be "dropped" from the model. Because the significance value (0.000) was less than 0.05, the null hypothesis was rejected. This implies that the model is statistically significant and therefore useful in predicting the relationship between customers' satisfaction and continuous usage intention with RHS.

Table 6: Coefficient table

Variables	B	Std. Error	t	Sig.
(Constant)	-3.441	1.150	-2.993	0.003
Independent Variables	0.231	0.011	20.786	0.000

Source: Primary Data

Table 6 shows that β = 0.231 and the p-value = 0.000 (β ≠ 0 and p-value < a). The null hypothesis which proposes that perceived usefulness, ease of use, perceived value and satisfaction have no statistically significant effect on users' continuous usage intention of RHS. This outcome support to the findings of Akbari et al., (2020), who empirically established that perceived usefulness, ease of use, perceived value and satisfaction have no statistically significant effect on users' continuous usage intention in RHS context.

CONCLUSIONS

With the rapid growth of online services, customer satisfaction and continuous usage intention have become a major concern for online retail managers and practitioners because customers are less likely to search for alternative purchase options when the current website offers satisfaction (Dwivedi, 2021). This study makes an important theoretical contribution to the study of online consumer behaviour by proposing and outlining perceptual antecedents of ride hailing consumer satisfaction. The study recommends that RHS decision makers should put more effort into enhancing the quality of their services to ensure that their customers are satisfied with their services. The research also shows that users continuous usage intention towards RHS depends on their perceived usefulness, ease of use, perceived value and satisfaction, confirming that RHS users' behaviour is subject to individual perceptions. It therefore provides future scholars with a useful framework for incorporating both IS and consumer behaviour theories and constructs in their research projects.

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PERSONAL FINANCIAL PLANNING AND FINANCIAL WELLBEING: A STUDY ON SCHOOL TEACHERS IN JORHAT DISTRICT, ASSAM

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ABSTRACT

Today we live in a world which is be best described by the VUCA (Vulnerability, Uncertainty, Complexity and Ambiguity) factor. In such a world, with growing level of uncertainties, personal financial planning is of paramount importance. A comprehensive financial plan encompassing all the crucial aspects of personal finance: savings, insurance, investment, retirement, taxation and estate, would not only prepare one for 'rainy days' but also ensure fulfillment of various short and long term financial goals. Moreover, at present times, with the onset of the novel corona virus, people around the globe have faced economic insecurity and liquidity crunch. In order to survive such difficult times, personal financial planning is not only a good proposition but has become a basic requirement. The paper attempts to highlight the level of financial planning and financial wellbeing, along with the reasons and challenges faced by respondents while planning. In addition to this, the researcher attempts to determine the association between financial planning and financial wellbeing.

Keywords: : VUCA, financial planning, economic insecurity, financial wellbeing etc.

INTRODUCTION

Socio-economic structure of the country has witnessed significant changes over the years. From shifting of people to nuclear family setup from traditional joint family structure (thereby putting a cap on their income sources), ever-rising price levels owing to inflationary forces (limiting purchasing power), longer span of lives owing to modern day health care facilities, are some of the changes which has called for a comprehensive financial plan. Moreover, modern times are best characterised by the VUCA (Vulnerability, Uncertainty, Complexity and Ambiguity) factor. At such times, lack of financial planning is not a good proposition for one's financial stability and

financial resilience. To make things worse, with the outbreak of the novel corona virus, in addition to businesses facing irrevocable losses, individuals around the globe have faced economic insecurity, arising from their job losses or from massive pay cuts. Personal financial planning would not only provide a cushion for these unforeseeable events, but also assist one in achieving other short and long term financial targets. Personal financial planning is the process of designing and implementing a comprehensive strategy to meet one's financial objectives. It is a goal-oriented process that entails a thorough examination of a person's current financial situation and the development of necessary strategies to fulfill short- and long-term financial goals.

LITERATURE REVIEW

Altfest L. (2004), in his study describes personal financial planning as a method that enables households to take care of their financial needs in the most efficient manner. He also describes it as an umbrella term that incorporates all the elements, retirement planning, tax planning, cash flow management, investment planning, credit planning and estate planning, that reflects the financial interest of a household. Colaco G. & Rao D. (2016), in their study highlights personal financial planning as an All-inclusive plan, conceptualized and implemented by an individual to fulfill his/her financial needs. The plan covers areas such as money management, insurance, investment, estate, retirement and credit planning. Prawitz, A. et al. (2006) measured financial wellbeing on subjective basis, which included eight components:

current level of financial stress, financial condition, households' ability to bear their monthly expenditure and for future emergencies and trimming on entertainment and other activities owing to financial concerns. Consumer Financial Protection Bureau (CFPB, 2015) measured financial wellbeing on four important dimensions: financial control, financial freedom in making life choices, financial resilience and staying on track to meet one's financial targets. People who are well equipped and competent at money management are more likely to exhibit higher level of economic wellness (Sabri, M. and Leila, F. (2013)). Personal financial planning is a holistic way of looking at managing one's finances in attempt to achieve financial satisfaction and witness lower levels of financial stress. Desirable financial behaviors such as developing or having a financial plan to attain one's financial targets, have a positive influence on financial wellbeing of the individuals(Mahdzan, N. et al. (2019)). Previous literature strongly advocate for the significant positive influence of financial planning on individuals' financial wellbeing. Financial planning, as component of responsible financial behavior, has a strong positive influence on financial wellbeing of individuals (sehrawat, K. et al.2021). Adam, A.M. et al. (2017) in their study shed light on the significant positive effect of financial planning on the financial wellbeing of the retirees.

SIGNIFICANCE OF THE STUDY

Significance of personal financial planning lies in one's paramount importance on achieving financial independence and economic wellbeing. Over the years, the socio-economic structure of the society has seen some significant changes,

which has enhanced the need for a holistic financial plan to achieve one's financial goals. Moreover, planning on one's finances plays a crucial role in ensuring financial security and stability, especially at present times of uncertainty.

OBJECTIVES OF THE STUDY

The following are the objectives set for the study:

1. To determine the level of personal financial planning and financial wellbeing among the respondents.
2. To shed light on the reasons behind personal financial planning and challenges faced by them in planning their finances.
3. To shed light on the relationship between personal financial planning of the respondents and their subjective financial wellbeing.

HYPOTHESIS

Ho: Financial wellbeing is not statistically significantly different across the levels of personal financial planning.

RESEARCH METHODOLGY

The study is based on primary data and a well structured questionnaire has been administered for the same. The nature of the study is descriptive as well as analytical. The target population is government school teachers residing in Jorhat District. In the district, there are 1,690 government schools, having a total of 6275 teachers as per data gathered from Office of the Inspector of Schools database, Jorhat in the year 2019. Using a Krejcie and Morgan Table, for the finite population of 6275 teachers, the sample size comes to be 364. Considering a response

rate of 80 percent, the proposed sample size would be 455. However, only 400 respondents' responses were found to be complete and useful for the study. In an attempt to make the sample more representative in nature, respondents were selected from five educational blocks (Central Jorhat, East Jorhat, Jorhat, North West Jorhat and Titabor) of Jorhat District, Assam, under Axom Sarba Siksha Abhiyan. The sample size of 400 teachers was selected from each of the five blocks on proportionate basis. The selection of schools was however, made on random basis. For categorization of respondents into different levels of financial planning and financial wellbeing, percentile is used (Below 33rd percentile- low, above 33rd to below 66th percentile- medium and above 66th percentile- high). Personal financial scores were calculated based on their response to various aspects of planning selected for the study: savings and expenditure, insurance, investment, retirement, taxation, estate planning and their strict adherence to planning and reviewing and revising it in the light of changes in one's personal life. Responses were collected on Five point Likert scale. In respect of financial wellbeing, levels of financial wellbeing were based on their responses to ten questions administered to them, which intent to capture their level of economic wellness. Kruskal- wallis H test is conducted to determine whether statistically significant difference in planning existed among the three levels of financial wellbeing and Spearmen Rho would throw light on the correlation between the two ordinal variables: personal financial planning and financial wellbeing. Henry Garrett's ranking method has been applied to provide ranking to the reasons for planning.

SIGNIFICANCE OF THE STUDY

Out of 400 respondents selected for the study, 35 percent fall into the low level of financial planning category, followed by about 37 percent in the moderate level of financial planning and about 28 percent in the high level of financial planning cohort (table 1). This categorization is done with the help of percentile, on the basis of their responses to various aspects of planning as mention in the section 6 (research methodology) of the paper.

Level of personal financial planning

Table 1: categorization of respondents on the basis of the level of personal financial planning

	Frequency	Percent
Low	140	35.0
Medium	147	36.8
High	113	28.3
total	400	100.0

Source: computed data

The primary data highlighted that the select respondents showed higher level of planning in three dimensions of personal finance: saving (92 percent), insurance (54 percent) and investment (52 percent). But in case other important dimensions of personal finance: debt (36 percent), retirement (35 percent), tax (29 percent) and estate planning (16 percent), the planning is low as less than 50 percent of the total respondents agreed to have planned in these aspects. Moreover, in case of strict adherence to the developed plans and reviewing and revising it in the light of the changes in one's personal life, the percentage is merely 19 percent and 34 percent respectively. This highlights the lack of a holistic financial planning among the respondents.

Table 2: Percentage response to select aspects of personal financial planning

Aspects	Savings and expenditure	Insurance	Investment	Debt	Retirement	Estate	Tax	Strict adherence to plans	Review and revise
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
	92	54	52	36	35	16	29	19	34

Source: Primary study

Reasons for Personal Financial Planning

The responses were collected to determine the reasons behind personal financial planning of the respondents. Garrett's ranking method has been applied to provide ranking to the reasons for

planning. Based on the aforesaid ranking method, financial preparedness for future uncertainties (Rank 1) was found to be the most probable reason behind personal financial planning of the respondents. Followed by becoming financially self-reliant (rank 2), building wealth (rank 3), having a stress free post retirement (rank 4), better management of income (rank 5), safeguarding future need of the dependents (rank 6), for achieving financial discipline (rank 7) and for gaining financial understanding and confidence in financial affairs (rank 8).

HENRY GARRETT'S Ranking Method

Table 3: Ranking of statements

	STATEMENTS	Average Score (Garrett Score/ total No. of respondents	Ranks
1.	For better management of income.	46.925	5
2.	For achieving financial discipline by keeping spending on track.	32.845	7
3.	For gaining financial understanding and confidence in financial matters.	29.625	8
4.	To become financially self-sufficient.	66.655	2
5.	To be prepared for future uncertainties.	75.0575	1
6.	Building wealth.	54.18	3
7.	To have a stress-free post retirement life.	51.1	4
8.	To safeguard future needs of the dependents.	44.7625	6

Source: Primary data

Challenges to Personal Financial Planning

Based on primary data collected (table 4), about 90 percent of the respondents found personal financial planning a challenging task. 86 percent of the respondents agreed to uncertainty with regard to future as the primary challenge in financial planning. In addition to this, feeling of fear and anxiety is also found to be acting as a hindrance in their planning, as a significant percentage i.e. 80 percent, agreed to the same. Other reasons stated by respondents as obstacles in their financial planning are low level of awareness in the financial planning domain (77 percent) ,indecisiveness with respect to from where to start (75 percent) and finding it unappealing and monotonous (40 percent).

Table 4: Responses to challenges faced in personal financial planning

SL.NO	CHALLENGES	% AGREED
1	Low level of awareness	77
2	Unappealing and monotonous	40

3	Not sure where to start	75
4	Future is too uncertain	86
5	Feeling of fear and anxiety	80
6	Not a challenge	10

Source: primary study

FINANCIAL WELLBEING

Out of 400 respondents selected for the study, about 35 percent fall into the low level of financial wellbeing category, followed by about 31percent in the moderate level of financial wellbeing and about 34 percent in the high level of financial wellbeing cohort (table 5). This categorization is done with the help of percentile, on the basis of their responses to the statements administered to measure subjective financial wellbeing of the respondents as mention in the section 6 (research methodology) of the paper.

Table 5: level of financial wellbeing

Levels of financial wellbeing	Frequency	Percent
low	142	35.5
medium	123	30.8
high	135	33.8
Total	400	100.0

Source: primary study

ASSOCIATION BETWEEN PERSONAL FINANCIAL PLANNING AND FINANCIAL WELLBEING

In order to determine the relationship between personal financial planning of the respondents and their level of financial wellbeing, kruskal-wallis H test and Spearmen Rho is computed. Kruskal- wallis H test is applied to shed light on whether statistically significant difference in financial wellbeing existed among the three levels of financial planning and Spearmen Rho would throw light on the correlation between the two ordinal variables: personal financial planning and financial wellbeing. The tables (7) indicates that there is a statistically significant difference in the level of financial wellbeing among the three categories of financial planning (chi-square value H (2) equal to 140.165 and p value = 0.00, with a mean ranks of 117.68, 221.67 and 275.58 for low, medium and high financial planning category).

Table 6: Kruskal Wallis H test (Mean ranks)

	Financial planning	N	Mean Rank
Financial Wellbeing	low	140	117.68
	medium	147	221.67
	high	113	275.58
	Total	400	

Source: Computed by author

Table 7: Kruskal Wallis H test (significance test)

Test Statisticsa,b	
	Financial Wellbeing
Chi-Square	140.165
df	2
Asymp. Sig.	.000
a. Kruskal Wallis Test	
b. Grouping Variable: Financial planning	

Source: computed by author

The cross table (8) clearly highlights that about 65 percent of the respondents with a higher level of personal financial planning fall in the higher level of financial wellbeing, while only about 36 percent of the respondents could be grouped into 'moderate' level of planning category and merely about 6 percent of the respondents falling in the 'low level' of financial planning cohort could be grouped into 'high' financial wellbeing cohort. Similarly, lower percentage of respondents in the high financial planning category fall in the low financial wellbeing category as compared to the other respective categories.

Table 8: Cross tabulation between financial planning and financial wellbeing

Cross tabulation						
			Financial Wellbeing Category			Total
			Low	Medium	High	
Financial	Low	Count	99	33	8	140
		% within Financial Planning Category	70.7%	23.6%	5.7%	100.0%
	Category	Count	32	62	53	147
		% within Financial Planning Category	21.8%	42.2%	36.1%	100.0%
	High	Count	11	28	74	113
		% within Financial Planning Category	9.7%	24.8%	65.5%	100.0%

Total	Count	142	123	135	400
	% within Financial Planning Category	35.5%	30.8%	33.8%	100.0%

Source: Computed by author

The spearman's Rho as computed to determine the correlation between the two variables (financial planning and financial wellbeing) is 0.585. This indicates a moderate level of positive correlation existing between the variables.

Table 9: Correlation between financial wellbeing and financial planning

Correlations				
			Financial wellbeing	**Personal Financial planning**
Spearman's rho	Financial wellbeing	Correlation Coefficient	1.000	.585**
		Sig. (2-tailed)	.	.000
		N	400	400
	Personal Financial planning	Correlation Coefficient	.585**	1.000
		Sig. (2-tailed)	.000	.
		N	400	400
. Correlation is significant at the 0.01 level (2-tailed).				

Source: author's computation

CONCLUSION

The study attempted to shed light on the level of financial wellbeing and financial planning among the select respondents and also determine the association between the two. Moreover, the researcher also attempted to bring to light the reasons for individual's inclination towards planning and the various challenges faced by them while planning on different aspects of personal finance. The findings of the study showed that a moderate level of financial planning among the select school teachers, while the in case of financial wellbeing, the level of subjective financial wellbeing was found to be low. The significant positive relationship was found between financial planning of the respondents and their level of financial wellbeing. Based on the Henry Garrett's ranking method, financial preparedness for future uncertainties was found to be the most probable reason behind personal financial planning of the respondents, followed by becoming financially self-reliant, building wealth, having a stress free post retirement, better management of income, safeguarding future need of the dependents, for achieving financial discipline and for gaining financial understanding and confidence in financial affairs. In the aspect of challenges faced in planning, majority of the respondents agreed to uncertainty with regard to future as

the primary challenge in financial planning. In addition to this, feeling of fear and anxiety is also found to be acting as a hindrance in their planning. Other reasons stated by respondents as obstacles in their financial planning are low level of awareness in the financial planning domain, indecisiveness with respect to from where to start and finding it unappealing and monotonous.

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"ROLE OF EDUCATION IN THE DEVELOPMENT OF ENTREPRENEURIAL INTENTION,"

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ABSTRACT

Entrepreneurship solves unemployment among youth in India. It starts with the development of (EI) in students. According to TPB, Intention is the outcome of Attitude, S. N, and PBC, the same holds for entrepreneurship intention. Education influences students' Attitude, S. N, and he/she is receiving, so in this study, we attempt to establish the relationship between the antecedents of TPB and education.

We conduct a study on the Indian students belonging to graduation and post-graduation of different specializations. In this study, a "Five-point Likert scale" was employed and 239 samples collected from students were used. We applied a path analysis algorithm and bootstrapping procedure to establish the relationship between the constructs and to check the proposed hypotheses respectively in Smart PLS 3.0.

Education has a significant positive relationship with the three antecedents of TPB. Apart from this, attitude towards entrepreneurship and PBC show a significant relationship with the (E. I) of students, which supports the TPB. S. N does not show a positive significant relationship with the (E. I) of students, which contradicts the research conducted in past across the world.

Study depicts the relationship of education with factors formulating the "Entrepreneurial Intention" (EI) that is new, as previous studies conducted depict the relationship of education directly with the (E. I) of students. Hence, the study adds to the use of the "Theory of Planned Behavior" in (E. I) development. The universities and colleges can use this study to motivate their students towards entrepreneurship by providing the environment in an educational institute and by teaching entrepreneurship to all specializations.

Keywords: "Entrepreneurship," "Entrepreneurial Intention (E. I)", "Subjective Norms (S. N)", "Perceived Behavior Control (PBC)", "Theory of Planned Behavior (TPB)", and "Attitude Towards Entrepreneurship (A. E)".

INTRODUCTION

At present when regular jobs are shrinking in India at a rapid pace, university education is no

more a license to work. Because of the extensive digitalization and usage of Artificial Intelligence, big corporate has reduced the working staff, and there is increasing demand for professional graduates. According to previous literature, there are a huge amount of studies are present regarding the "entrepreneurial intention" of an individual by using the "Theory of planned behavior" (Ajzen, 1991; Gird and Bagrami, 2008; Mwiya et al., 2017) and Institutional theory (Petrovskaya, Zaverskiy, and Kiseleva, 2017; Kumar and Borbora, 2019) but very few studies are present which consider the impact of "higher education" on the (EI) of an individual.

The study aimed to demonstrate a relation between education and the antecedent of "Entrepreneurial Intention" according to (TPB) in the Indian setting, which is rare.

The study results show that students' education has a positive significant relationship with the antecedents of (EI).

LITERATURE REVIEW

Higher education serves as an important tool for promoting entrepreneurial intention (Nabi and Liñán, 2011). People who pursue higher education not only gain information and develop their abilities and expertise, but they also have a splendid opportunity for empowering individuals. (EI) is the outcome of individual attitude towards the entrepreneurship (A. E), Subjective Norms required for entrepreneurship development, and (PBC). (E. I) of an individual is like we describe the Intention of an individual and intention as the outcome attitude, P.B. C, and S. N (Icek, 1991). The perception

of entrepreneurship as a future profession influences university students' intention to start a business (Tomy and Pardede, 2020). Apart from higher education having a relationship with entrepreneurial intention, it is found that studies have been conducted across the world on the impact of "Entrepreneurial Education" on (EI).

According to research done on undergraduate students at three Malaysian institutions, entrepreneurial education has a substantial association with students' (EI) (Mustapha and Selvaraju, 2015). Similarly, entrepreneurial knowledge has a direct relationship with (EI) along with having a relationship with the three antecedents of intention is being established by "Francisco Liñán & Juan Carlos" "Rodríguez-Cohard & José M. Rueda-Cantuche" (2011). Likewise, the study is conducted in which entrepreneurial education is divided into three groups "generalized entrepreneurial education, Motivational entrepreneurial education, and augmented entrepreneurial education" and all three have a positive significant relationship with entrepreneurship development (Sk. Mahmudul Hasan, Eijaz Ahmed Khan, 2016). Similarly, there are studies present around the world which state the relationship between education with the (E. I) of and students (Wu and Wu, 2008; Kim et al., 2020; Xuan et al., 2020). Like most of the previous studies conducted across the world state the direct relationship of "Entrepreneurial Intention" (EI) with education and entrepreneurial education but in this study, we attempted to create a relation between three antecedents of (E. I) with Education including both entrepreneurial education and Higher education. According

to the literature following hypotheses are constructed: -

Hypotheses

H1: Education has a positive significant relationship with (AE).

H2: Education has a positive significant relationship with (SN).

H3: Education has a positive significant relationship with (PBC).

H4: A.E has a positive significant relationship with the "Entrepreneurial Intention" of students.

H5: PBC has a positive significant relationship with (EI) of students.

H6: SN shows a positive significant relationship with (EI) of students.

RESEARCH METHOD

This study is conducted on the graduates and postgraduate students from Indian universities and colleges. We use a questionnaire containing the "Five points Likert scale" for the collection of the data. In the study Undertaken total of 239 respondents are considered. Path Analysis algorithm is used to establish the relationship between the constructs. The hypotheses are tested by running bootstrapping procedure in "smart PLS 3.0".

MEASUREMENT OF SCALE: - INSERT TABLE 1

Values given in the table for "Cronbach's Alpha", "rho_A", "Composite Reliability", and "AVE" is above the acceptable values of 0.700, >0.70, ≥ 0.700, and ≥ 0.500 respectively according to "Hair, Risher, Sarstedt, & Ringle" (2019)(C. Jain, 2019). Hence, the scale used in

the study is reliable and has an acceptable value of convergent validity.

RESULT AND DISCUSSION

In this study, an indirect relationship is established between the Education of the students and the EI of students by establishing the relationship between three antecedents of intentions/ Entrepreneurial Intention (E. I) according to TPB. Figure: -2 given below depicts the relations between the constructs studied by performing a "path analysis algorithm" in "smart PLS 3.0". Insert Figure 1 and Table 2

VIF values given in table:-2 are well below 3 that is acceptable (Hair et al., 2019) as a result, the suggested model is devoid of collinearity issues. Values given in the table:-3 are well below 0.85 which is considered as the threshold for HTMT "discriminant validity" (Henseler, Ringle, and Sarstedt, 2014). As a result, the suggested model is devoid of discriminant validity problems. Insert Table 3 We can quantify the consequences of independent constructs using (f^2) values; the higher the value, the stronger the influence. According to "Cohen (1988)", "The effect size of (0.02) is considered a small effect, (0.15) is a medium effect and, (0.35) is taken as a large effect". Table: -4 depicts that only S. N shows an insignificant effect (0.002) on the (E. I) of students while other constructs taken in the study show effects ranging from small (0.02) to strong effects (0.35). Insert Table 4

R^2 is used to demonstrate the capacity of external influences to explain the endogenous variable. "R^2 values of 0.75, 0.50, and 0.25 are substantial, moderate, and weak" (Hair et

al., 2019). The value of A. E (0.192) is below the acceptable limit of 0.25 weak and values for other constructs taken in the study are above 0.25 and below 0.50. Insert Table 5

HYPOTHESIS TESTING

Bootstrapping is extracting sub-samples from a large sample to compute the bootstrap standard error, which is used to calculate t-values for testing the path significance (Wong, 2013). P-values are used to test the proposed hypothesis by running the bootstrap procedure (Belkhiri et al., 2015). This study determines the relationship between EI antecedents and the education that leads to EI development. Insert Figure 2

HYPOTHESIS TESTING

On testing the hypothesis by running the bootstrapping procedure in smart PLS it is found that P- values for the Hypothesis H1, H2, H3, H4, and H5 is below the acceptable level of 0.05 as given in the Table:-6 hence acceptable (Hair et al., 2019). Apart from these five Hypotheses only H6 (S. N ≥ E. I) does not hold as the P-Value is 0.594 that is above the acceptable limit of 0.05. Insert Table 6

DISCUSSION

It is found that AE has a positive significant relationship with the EI of students taken in the study similarly PBC also shows a significant positive relationship with the EI that is well supported by the previous studies including (Al-Jubari, Hassan and Liñán, 2014; Yurtkoru, Kuşcu, and Doğanay, 2014; Mwiya et al., 2017; Zulfiqar et al., 2017). But in this study, it is found that "Subjective Norms" (SN) do not have a positive significant relationship with the EI of students that contradicts the previous studies including (Soomro and Shah, 2014; Saraih et al., 2018; Al-Jubari, 2019).

Apart from verifying the TPB in the study undertaken an attempt has been made to establish the relationship between the education and the antecedents of the EI that adds up to the usage of TPB for entrepreneurship development as in previous studies it is found that there is a direct positive significant relationship between Education and "Entrepreneurial Intention" (E. I) (Passaro, Quinto, and Thomas, 2018; Kim et al., 2020; Tomy and Pardede, 2020).

The study depicts the indirect relationship between the "Education" and (E. I) of a student as given in Table: -7. Insert table 7

CONCLUSION

This study tests the TPB in the Indian context on the students belonging to all the specializations, including both management and non-management (Science, Commerce, Arts, and Technology) as students are the building blocks of any country. In this study, it is found that attitude towards entrepreneurship and PBC has a significant relationship with the EI of students that supports the "Theory of Planned Behavior" in the Indian context but it is found that SN does not have a significant positive relationship with "Entrepreneurial Intention". In the study, we have established the relationship between education with antecedents of EI, which suggests that there is an indirect relationship between the education of students and the "Entrepreneurial Intention" of students in India. The study helps in establishing the relationship of education with three antecedents of entrepreneurial intention.

LIMITATION & FUTURE SCOPE OF THE STUDY

In this study undertaken we have taken students from different specializations together due to which impact of specialization of education on EI of students cannot be determined, in future researchers may segment the students into different specializations and analyze the role of specialization on EI of students.

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APPENDIX

Table 1: "Construct Reliability and Validity,"

Constructs	"Cronbach's," "Alpha"	"rho_A,"	"Composite" "Reliability,"	"Average Variance" "Extracted (AVE)"
A. E	0.846	0.852	0.883	0.521
Education	0.876	0.883	0.906	0.618
E. I	0.867	0.872	0.897	0.557
P.B. C	0.831	0.836	0.877	0.546
Subjective norms	0.808	0.818	0.862	0.513

Table 2: Inner VIF

"Constructs,"	Attitude Towards Entrepreneurship	Education	Entrepreneurial Intention	P.B. C	Subjective Norms
Attitude Towards Entrepreneurship			1.643		
Education	1.000			1.000	1.000
Entrepreneurial Intention					
P.B. C			1.869		
Subjective Norms			1.887		

Table 3: HTMT (Discriminant Validity)

	Attitude Towards Entrepreneurship	Education	Entrepreneurial Intention	P.B. C	Subjective Norms
Attitude Towards Entrepreneurship					
Education	0.502				
Entrepreneurial Intention	0.638	0.530			
P.B. C	0.660	0.714	0.787		
Subjective Norms	0.693	0.623	0.596	0.774	

Table 4: F2 (Effect Size)

	Attitude Towards Entrepreneurship	Education	Entrepreneurial Intention	P.B. C	Subjective Norms
Attitude Towards Entrepreneurship			0.076		
Education	0.238			0.604	0.398
Entrepreneurial Intention					
P.B. C			0.271		
Subjective Norms			0.002		

Table 5: R2 (Power of exogenous variables for explaining endogenous variables)

Constructs	R Square	R Square Adjusted
Attitude Towards Entrepreneurship	0.192	0.189
Entrepreneurial Intention	0.499	0.493
P.B. C	0.377	0.374
Subjective Norms	0.285	0.282

Table 6: (Hypothesis Testing)

"Constructs,"	"β"	"Standard Deviation (STDEV)"	"T Statistics"	"C. I 5%"	"C. I 95%"	"P-Values,"	"Decision,"
A. E -> E. I	0.250	0.076	3.299	0.130	0.381	0.001	Accepted
Education -> A. E	0.439	0.064	6.840	0.338	0.551	0.000	Accepted
Education -> P.B. C	0.614	0.046	13.368	0.540	0.691	0.000	Accepted
Education -> Subjective Norms	0.534	0.050	10.761	0.456	0.621	0.000	Accepted
P.B. C -> E. I	0.504	0.065	7.683	0.392	0.609	0.000	Accepted
S. N -> E. I	0.042	0.080	0.534	-0.087	0.180	0.594	Not-Accepted
P.B. C -> E. I	0.504	0.065	7.683	0.392	0.609	0.000	Accepted
S. N -> E. I	0.042	0.080	0.534	-0.087	0.180	0.594	Not-Accepted

Table 7

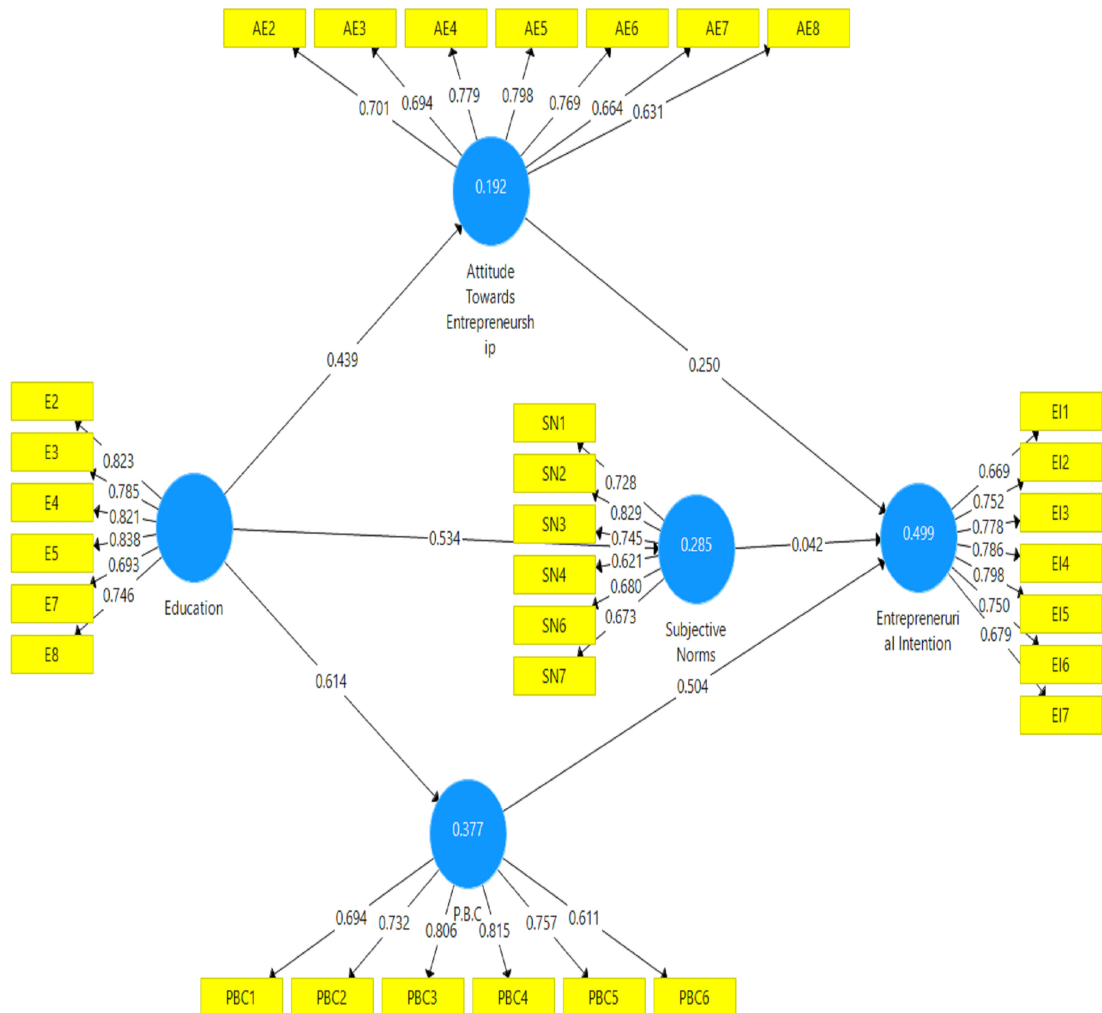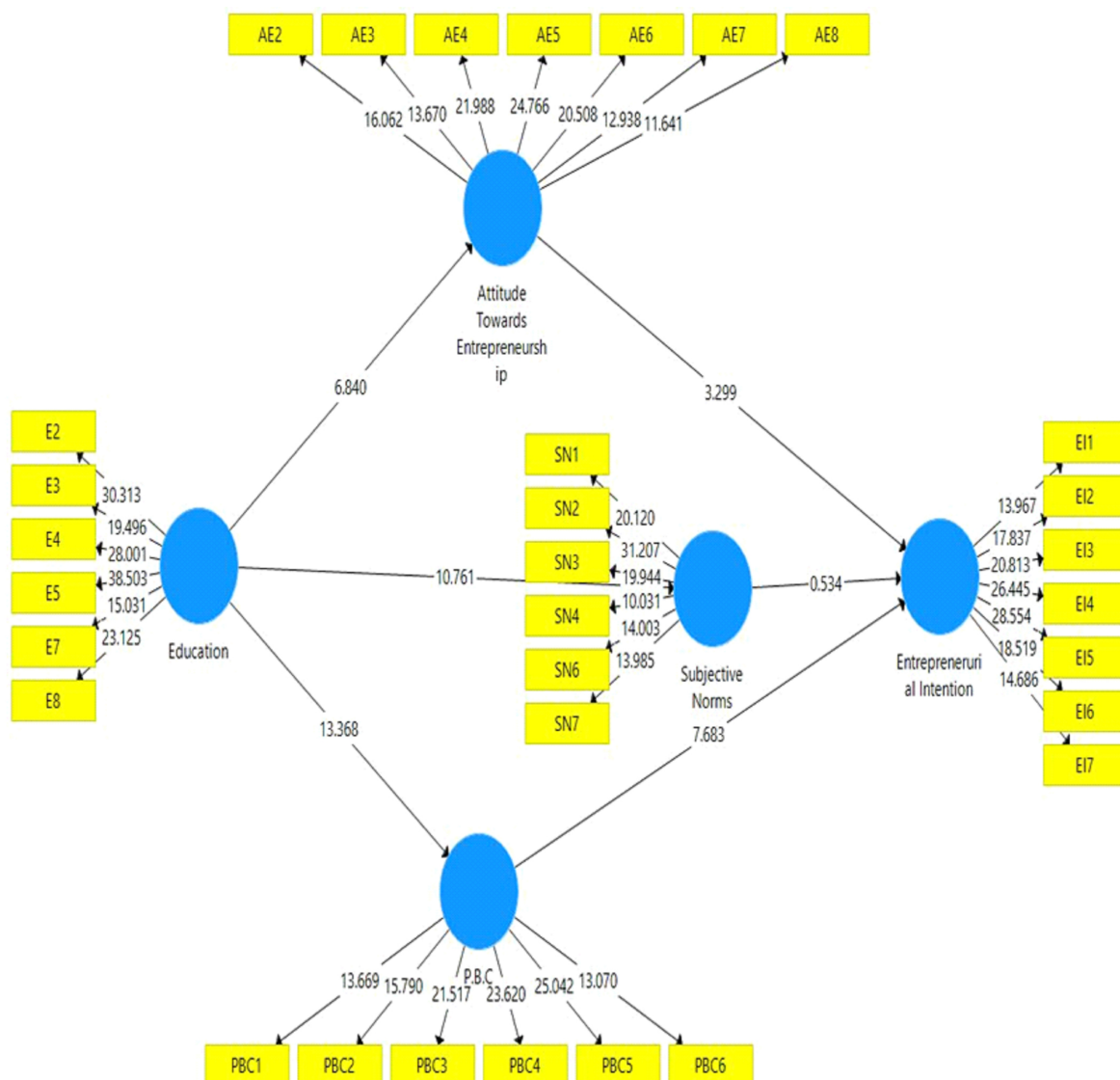| "Indirect Relationship,"	"Original Sample (O)"	"Sample Mean (M)"	"Standard Deviation (STDEV)/Error,"	"T Statistics (|O/STDEV|)"	"P Values,"
E > A. E -> E. I	0.119	0.123	0.037	3.235	0.001
E > P.B. C -> E. I	0.258	0.260	0.047	5.484	0.000
E -> S. N -> E. I	0.049	0.050	0.040	1.221	0.222

FIGURES

Figure 1: (Path Analysis)

Figure 2: (Bootstrapping Model on 5000)

ROLE OF SOCIAL MEDIA ON ENVIRONMENTAL PRACTICES

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ABSTRACT

Social media has become an important tool for spreading knowledge and awareness on various subjects. People are using social media for gaining knowledge as well. Similarly people are using social media for spreading and gaining knowledge about environmental related concern. Environmental concern has become popular term with the growing world. This research provides a brief review about uses of social media for spreading environmental awareness and further how these environmental concern helps in identifying the green purchase behaviour of the consumers. For this study, 250 questionnaires were distributed among the respondents and 205 submitted their response. Linear regression was applied for an analysis of study. The results of the study show that there is significant effect of social media on environmental awareness and environmental awareness on green purchase behaviour. It means social media helps in spreading awareness of environmental issue and concern among individual and this awareness subsequently leads to purchase of green product. Research study is concluded with limitation further scope of study.

INTRODUCTION

Now technology is changing and becoming a major force in growing market. Day by day technologies have increased on global levels which have grasp customer interest as they are changing their behaviour and lifestyle. Technologies have changed the scenario for sustainability also by spreading awareness about it. Today growth of technology can be seen through growth of social media (Rust, Moorman, & Bhalla, 2010).

Social media refers to the interactions among people in which they share and/or exchange information, create content, spread awareness, connect with people and earn money in an online mode and also increases the network of communication. Various popular social networking giants like Google, Facebook and Twitter become a part of everyday life for millions of Indians. According to the report of statista (2021), 32.3% of people are active

on social media in India. In today's time, social media is playing the role of spreading and creating awareness among individuals and consumers.

Environmental awareness is a very unique term to study. It has several meaning. According to some author, environmental awareness refers to the understanding of natural resources and how it helps to the society and according to few, to know the ways and intensity of environmental resources and how it is useful for the enhancement of cultural, economical and social value. Today awareness about environment is important because serious problems such as pollution, global warming and climate change are increasing with time (G, Anbalagan et al, 2015). Social media is fulfilling its responsibility of environmental awareness among citizens up to the mark.

Green purchase behaviour refers to the buying of environmentally friendly products or sustainable products which can be recycled and also can not harm the environment (Chan, 2001; Mostafa, 2007). It also refers to the decision making of purchasing green product by the consumers. It is a kind of socially responsible behaviour (Moisander, 2007). It may include whole process of production from raw material to final product. Social media which has become a new channel for sharing information can influence consumer green purchase behaviour by making them aware about environmental concerns of the society (Anvar & venter, 2014). The present study seeks to accomplish the influence of social media on environmental awareness and environmental awareness on green purchase behaviour and also to identify the effect of demographic factors on social media.

LITERATURE REVIEW

Social Media and Environmental awareness

Several studies have been conducted in this context. Social media has wholeheartedly and rapidly embraced environmental sector. Social media has become a channel of spreading awareness about environment campaigns. It also conveys information on major environmental issues such as moving away from fossil fuel dependence to renewable energy, changing dynamics of climatic conditions and effects of various natural calamities on people (world economic forum, 2016). As environmental awareness is growing so well the environmental concern. Now environmental concern is not only the duty of the government or companies but also of the whole society (Kotchen & Reiling, 2000).

In recent time, social media is used for the enhancement of natural environment in much faster way and also to large mass of audience in a short period of time. Social media has been used as a platform which allows public to involve in influencing and disagreeing on environmental decisions made by corporation or government which has the power to affect them (Warner, Eames & Irving, 2014). Social media also provide the facility of setting trend on current issue of environment and activism (Curtis et al., 2010). Now people are seeking for various websites of social media for primary source of news and information.

Environmental awareness and Green Purchase Behaviour

Many studies shows positive relationship among ecological knowledge and green purchase behaviour (Grunert, 1993; Davis 1993). Some common green practices include

recycling, purchasing organic food, using less paper, saving electricity, avoiding aerosols and plastic bags (Gilg, Barr & Ford, 2005). Consumers are realising the negative and positive effect of their activity or behaviour on the environment and shifting their purchase habits more and more towards the green product and process and even are ready to pay more for it.

Green consumer avoids purchasing product which can cause harm to environment during the whole process of manufacturing to delivery of product. In the opinion of Aziz and Yani (2017), green purchase behaviour means not only satisfying consumers' needs and wants but also showing concern for environment and society. There is also a strong relationship between recycling and the purchase of recycled product (Biswas et al., 2000).

Chryssohoidis and Krystallis (2005) argued that buying of green product can influence consumer lifestyle of living in a healthy way. Consumer who takes care of environment more often buy ecological product (Nam et al., 2007). Many studies have argued that green product is usually high in prices and high price have negative impact toward purchasing of green product by consumer (Gleim et al., 2013; Olsen et al., 2014). Some studies highlighted that this leads to greatest barrier in purchasing of green product (Connell et al., 2010; Gleim et al, 2014) but according to Díaz et al (2012), informed purchaser even gets ready to pay high prices for green product to save environment from negative impact.

According to Aman et al. (2012) and Mostafa (2007), environment awareness leads to positive attitude toward green product and process which subsequently leads to green purchase behaviour. Some studies show there is a link between awareness and green purchase behaviour (Fu et al, 2013; Chan et al., 2000).

| SOCIAL MEDIA | → | ENVIRONMENTAL AWARENESS | → | GREEN PURCHASE BEHAVIOUR |

OBJECTIVES AND HYPOTHESES OF THE STUDY

The present study seeks to accomplish the following objectives:

1. To study the influence of social media on environmental awareness.

2. To identify the impact of environmental awareness on green purchase behaviour.

On the basis of available literature and conceptual framework, researcher has developed the following hypotheses:

H1: Social Networks positively influence Environmental Awareness.

H2: Environmental Awareness positively influences Green Purchase Behaviour.

METHODOLOGY

Sample and Data Collection

A descriptive research design is used for this research paper. Collection of data and

information has been done through snowball sampling method. The study was based on primary data. A well framed questionnaire was distributed up to collect the information and data from the district of Western Uttar Pradesh. 250 questionnaires were distributed, out of those 205 submitted their response. The questionnaire consists of two sections. The questionnaire was designed with the items adapted from previous studies, social media, environmental awareness (Dellarmelin et al., 2018) and green purchasing behaviour (Arpita Khare and Suki et al.). Through the results of descriptive statistics,

it is observed that 65.9% females and 34.1% males were there in the survey. The age profile of the respondents reflects the majority of the respondents (75.2) were of 18-24 years of age, approximately 22% of the respondents were 25-31 years of age. 2.4% of the total respondents were 32-38 years of age.

Analysis

To investigate influence of social media on environmental awareness and influence of environmental awareness on green purchasing behaviour, linear regression technique has been adopted.

DATA ANALYSIS AND INTERPRETATION

Regression

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.736a	.541	.539	2.101	.541	240.816	1	204	.000

a. Predictors: (Constant), Social Media
b. Dependent Variable- Environmental Awareness

In this regression model, the value of R square is shown as 0.541 which means that 54.1% of the variables under the dimension social media contribute to the environmental awareness. Hence, green social media moderately correlates with environmental awareness.

Table 2: ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1062.744	1	1062.744	240.816	.000b
	Residual	900.270	204	4.413		
	Total	1963.015	205			

a. Dependent Variable: E.A
b. Predictors: (Constant), S.M **It is quite evident that the p-value is .000 Therefore, while**

considering social media influence on environmental awareness, we can state that we will reject null hypotheses and accept an alternative hypothesis that is social media have an impact on the environmental awareness as the p-value is less than 0.05.

Table 3: Coefficients

Model		Variables	Unstandardized Coefficients		T	Sig.	Hypothesis Results
			Beta	Std. Error			
1	(Constant)		11.809	.638	18.497	.000	
	S.M	SM →EA	.448	.029	15.518	.000	H1:Supported

a. Dependent Variable: Environmental Awareness

In the above coefficient table, the value of unstandardized coefficients beta for social media is positive which means if 1 unit increases in social media, then environmental awareness may increases by .448 times. The value of beta for social media is 0.448 which depicts social media is the influential factors for customers in changing their environmental awareness of green product. As P value for social media is less than 0.05 which depicts that social media positively influence environmental awareness.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.776a	.602	.600	1.811	.602	308.657	1	204	.000

a. Predictors: (Constant), E.A
b. Dependent Variable: Green Purchasing Behaviour

In this regression model, the value of R square is shown as 0.602 which means that 60.2% of the variables under the dimension environmental awareness contribute to the green purchase behaviour. Hence, environmental awareness strongly correlates with green purchase behaviour.

Table 5: ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1012.340	1	1012.340	308.657	.000b
	Residual	669.083	204	3.280		
	Total	1681.422	205			

a. Dependent Variable: E.A
b. Predictors: (Constant), E.A

It is quite evident that the p-value is .000 Therefore, while considering environmental awareness influence on green purchase behaviour, we can state that we will reject null hypotheses and accept an alternative hypothesis that is environmental awareness have an impact on the green purchase behaviour as the p-value is less than 0.05.

Table 6: Coefficients

Model		Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Hypothesis Results
			B	Std. Error	Beta			
1	(Constant)		9.115	.886		10.289	.000	
	E.A	EA →GPB	.718	.041	.776	17.569	.000	H2:Supported

RESULTS AND FINDINGS

This study examines the influence of social media on environmental awareness and also influence of environmental awareness on green buying behaviour. The results of regression of first hypothesis (SM→EA) depicts that social media positively influence environmental awareness as p value is less than 0.05 and also according to the value of R square social media is contributing 54.1% to environmental awareness. The results of regression of second hypothesis (EA→GPB) depicts that environmental awareness positively influence green buying behaviour as p value is less than 0.05 and also according to the value of R square environmental awareness is contributing 60.2% to green buying behaviour.

CONCLUSION

Environmental issue and reduction of natural resources forced human resources to give attention on environmentally safe products. Now organisation are shifting their attention more towards environmental friendly product and process which subsequently leads to increase in the customer interest to purchase green product (Kapur, 2016).

This research addresses that how social media leads to awareness about environment and how environmental awareness among individual leads to purchase of green products. Through this study it has also been concluded that there is significant effect of social media on environmental awareness and environmental awareness on green purchase behaviour. The finding (SM→EA) do meet the assumptions by Severo et al. (2019) and Rahim et al. (2016), which emphasize that social media is responsible for spreading awareness about environmental issues. Consumers use social media to have news and information, to improve their knowledge about environmental issue and awareness. The finding (EA→GPB) do support the hypothesis by Jian-xin et al. (2013) which emphasize that environmental awareness among consumers do motivate them in purchasing green products. Consumers with good environmental awareness would only buy green products in spite of their high prices.

LIMITATION AND FUTURE RESEARCH

Like any other research, this study also has some limitation and direction for future scope. First, the variables used in this study may have different effect on respondents from different social and cultural background. Second, this study has been conducted on limited variables but in future it can be done on different variables such as environmental concern, sustainability, green marketing and many others. Third, one of the important limitations was sample size of the current study. Size of sample for this study was less and collection of data and information has been done through snowball sampling technique which is a non-probability technique, limiting the generalization of findings. To overcome this, future research should use relevant sample size and probability sampling technique that use to cover wide range of population and that does not limit the generalisation of findings.

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THE IMPACT OF ENVIRONMENTAL CONSCIOUSNESS, ENVIRONMENTAL ATTITUDE AND PERCEIVED QUALITY OF GREEN PRODUCTS ON GREEN CONSUMER BEHAVIOUR OF MILLENNIALS IN NCT OF DELHI

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ABSTRACT

Climate change is now a problem of present generation rather than future. In the present era, the resolution of environmental issues should be on the top priorities of all stakeholders of society and efforts should be made to minimize it as much as possible. Delhi is 10th most polluted city of the world and it is facing more environmental problems. Consumers are playing a significant role in society and the over-consumption and over-utilisation of the natural resources has led to deterioration of nature (Chen & Chai, 2010). Consumers of millennial generations are more sensitive to sustainability (Kapferer & Michaut-Denizeau, 2020). This Paper emphasis on Green Consumer Behaviour of millennials and the impact of Environmental Consciousness, Environmental Attitude and Perceived Quality of green products on Green Consumer Behaviour of Millennials in NCT of Delhi. A structured questionnaire has been used to record the responses of 230 millennials consumers of NCT of Delhi and SEM technique is used to analyse the significance of all the constructs used in the study. The factors influencing Consumer Behaviour used in various models is considered as the basic idea for study in the light of Green Consumer Behaviour and especially for millennials of NCT of Delhi. The results found that all the factors used in the study have a significant impact on Green Consumer Behaviour. This paper has mentioned the implications for marketers to support the sustainable development of society.

Keywords: Environmental Consciousness, Environmental Attitude and Perceived Quality of Green Products, Green Consumer Behavior, Millennials.

INTRODUCTION

The natural ecosystem has abandoned oxygen, food items, coals, precious metals, etc. but humans are consuming all-natural resources very speedily and in fact, in the name of development, nature is deteriorating day by day. Environmental Problems have been considered as one of the top challenges that the world is facing today followed by other economic challenges. (Paetz et al, 2012). United Nation expressed that earth has become 1.1°C warmer ,2010-20 was the warmest decade and 2015-19 were the 5 warmest years. As per the Environment Performance Index (EPI Index 2020) India is on 168th rank out of 180 nations. Delhi is one of the most polluted cities in India as well as globally. The hazardous impact of Environmental destruction is showcasing hazardous impact on the health of young generations' (Panwar & Ahmad, 2018). Those who were born between 1981 and 2000 are known as Millennials. (Naylor, 2022) and they are more educated, employable, acquiring wealth, fast decision-makers, and concerned for the environment as well.

LITERATURE REVIEW

Environmental Consciousness

It is significant to know the consciousness level of the Millennial generation towards the environment. P. Kautish et al, 2019 found the moderate influence of environmental consciousness and recycling intentions of 312 responses from India on Green Purchase Behavior. In another study of Taiwan conducted by (Lin & Niu, 2018) have also applied EFA, CFA & SEM and found a positive effect of environmental knowledge, consciousness, attitude, and social norms on purchase behavior. In Hong Kong, 399 consumers were studied through SEM analysis and the author concluded that environmental consciousness positively affects the green consumer behaviour via environmental attitude. (F.Y. Cheung, 2019).

Environmental Attitude

Environmental attitude is a significant construct as it was used in the theory of planned behavior (TPB) emphasizes that attitude has a greater effect on purchase intention and further, it has an impact on buying behavior. In the tourism industry, a study on 450 Indian tourism has been conducted by M. Sadiq et al, 2022 and they demonstrated that factors of environmental concern and health concern play a key role in determining tourists' eco-friendly behavior. Alfonsius and Gilbert, 2021 conducted the research on Indonesian consumers and assessed through SEM that the relation between environmental attitude and green buying behavior is positive. A study used primary data from over 1000 people belonging to Generation Z in Vietnam and revealed that there is a positive effect of a green attitude on the purchase of green products. (Nguyen et al, 2021).

Perceived Quality of Green Products

In this study Perceived quality of green products included to keeping in mind that it will be valuable for all manufacturers of green products to know that it has positive impact on Green Buying behavior of millennials. Ariffin et al., 2016 found that customers' perceived quality has a significant positive influence on repurchase intention. Gotlieb et al., 1994, assessed that perceived quality affects behavioral intentions

via satisfaction. Wang et al, 2019 evaluated the responses of 844 Chinese consumers' trust in food certification, and incorporated perceived quality as a new construct into the theory of planned behavior.

Green Consumer Behaviour

Green Consumer behavior is explored by many researchers but many things are yet to be explored. Smith, 2020 revealed that females are more inclined to green marketing. (Tilikidou & Delistavrou, 2007) found highly educated citizens are more adopting pro-environmental behavior. (Gumeni & Gorica, 2014) Conducted their research in Albania on 250 respondents and revealed that 36% of respondents were willing to pay an extra price for green products.

RESEARCH GAP AND NEED OF THE STUDY

Sustainability is one of the most discussed topics in the agendas of all nations. It has become necessary for all the marketing fraternity to understand the Green Consumer behavior, especially millennials. Generation Y falls in such a category in terms of employability, wealth, spending pattern that they will be the center of attraction for all firms. This paper has identified a research gap that very limited studies are being done in the area of green consumers and for Delhi millennials, very less studies have been conducted. This study is the need of the hour to understand the consequences of environmental issues and the role of millennial consumers in resolving environmental issues.

RESEARCH OBJECTIVES

The objective of the study is to understand the Green Consumer behavior and factors which influence Green Consumer Behavior. The main objectives of the study are as below:

1. To study the impact of Environmental Consciousness on Green Consumer Behavior.
2. To study the impact of Environmental attitude on Green Consumer Behavior.
3. To study the impact of Perceived Quality of Green Products on Green Consumer Behavior.

PROPOSED FRAMEWORK

Author has developed a proposed framework through review of literature to assess the impact of Environmental Consciousness (EC), Environmental Attitude (EA), and Perceived Quality of Green Products (PQGP) on Green Consumer Behavior of millennials of NCT of Delhi.
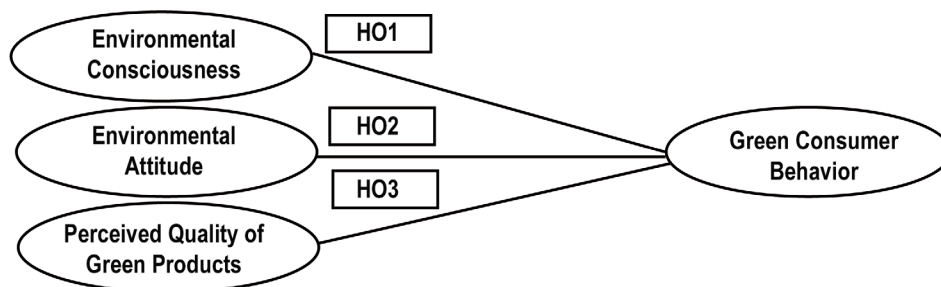

Figure 1   Source: Authors

RESEARCH METHODOLOGY

Descriptive research design have been used in the study. The NCT of Delhi has been taken as the Population of the study. The authors have used a structured questionnaire to collect the responses of millennials and its scale was adapted from already well-known and tested scales. A total of 26 items were used in the study including 5 demographic questions and 21 Construct items. The Survey was done on millennials and 230 millennial respondents have recorded their responses. Random Convenient Sampling is used for drawing samples. The sample adequacy is tested through Kaiser-Meyer-Olkin (KMO) test and the KMO value 0.938 is recorded. Bartlett's Test of Sphericity is also found significant which a positive indication to apply factor analysis.

Research Hypothesis

To meet the objectives of the study research hypotheses have been formulated as below.

HO1: There is a significant impact of Environmental Consciousness (EC) on the Green Consumer Behavior (GCB) of millennial consumers in the NCT of Delhi.

HO2: There is a significant impact of Environmental Attitude (EA) on the Green Consumer Behavior (GCB) of millennial consumers in the NCT of Delhi.

HO3: There is a significant impact of Perceived Quality of Green Products (PQGP) on the Green Consumer Behavior (GCB) of millennial consumers in the NCT of Delhi.

Construct Reliability & Validity
Construct Reliability

The reliability of all the constructs used in the study have been tested through Cronbach's Alpha and Composite Reliability (CR). The computed Cronbach's Alpha Values of all the constructs are more than the recommended value of 0.7 and are shown in Table 1. The computed Composite Reliability is also more than 0.7 for all constructs and values are shown in Table1. Hence Constructs Reliability is established. (Hair et al., 2009)

Table 1: Reliability & Validity of Constructs

Construct	Items	Scale/Items Source	Cronbach's α	CR	AVE
EC (Environmental Consciousness)	EC1	All items of Construct adapted from (Kautish & Sharma, 2018)	0.919	0.936	0.693
	EC2				
	EC3				
	EC4				
	EC5				
EA (Environmental Attitude)	EA1	All items of Construct adapted from (Severo et al., 2018)	0.864	0.907	0.693
	EA2				
	EA3				
	EA4				
	EA5				

PQGP (Perceived Quality of Green Products)	PQGP1	All items of Construct adapted from (Lee., K. 2008).	0.936	0.936	0.747
	PQGP2				
	PQGP3				
	PQGP4				
	PQGP5				
GCB (Green Consumer Behavior)	GCB1	All items of Construct adapted from (Straughan & Roberts, 1999).	0.921	0.921	0.660
	GCB2				
	GCB3				
	GCB4				
	GCB5				
	GCB6				

Source: Authors

Construct Validity

The validity of the constructs used in the study is tested through the Average Variance extracted (AVE) which are above the benchmark level i.e. 0.5. (Hair et al., 2009) and exhibited in Table 1, hence Convergent Validity is being achieved. Discriminant Validity for all the constructs has been shown in Table 2 which clearly shows that the correlation values of all the constructs are lesser than the square root of Average Variance Extracted (AVE) which means Discriminant validity is also achieved. (Hair et al., 2009).

Table 2: Correlation Matrix

PQGP	EC	GCB	EA
0.864			
0.634	0.833		
0.623	0.658	0.812	
0.670	0.591	0.590	0.832

Source: Authors

Descriptive and Inferential Analysis

Descriptive Analysis

The Demographic Profile of the respondents also has been studied and found that the highest respondents are male i.e. 61.74%, maximum respondents are senior Secondary qualified i.e., belonging to the No income group i.e. 75.65%, and the majority are residents of West Delhi i.e. 42.61 %. According to Byrne (2016). In order to apply Structural equation modeling the required values of skewness should be in the range of -2 to +2 and kurtosis -7 to +7 and all values of the study fall in the range which means data is normally distributed and suitable for multivariate analysis.

Inferential Analsis
Table 3: Model Fitness Index

S.No	Model Fit Indices	Acceptable Value	Computed Value	Model Fitness	Source
1	CMIN/DF	< 3	1.767	Good Fit	Hair et al. (2009)
2	GFI	≥ 0.90	0.879	Good Fit	Hair et al. (2009)
3	CFI	≥ 0.90	0.967	Good Fit	Hair et al. (2009)
4	NFI	≥ 0.90	0.928	Good Fit	Hair et al. (2009)
5	TLI	≥ 0.90	0.962	Good Fit	Hair et al. (2009)
6	RMSEA	≤ 0.06	0.058	Good Fit	Hu & Bentler (1999)

Source: Authors

The model initially developed for the study has achieved all the parameters for the goodness of fit exhibited in Table 3. The Relationship and impact of Constructs are explained in Figure 2 with the help of the Structural Equation Model.

(Structural Model)
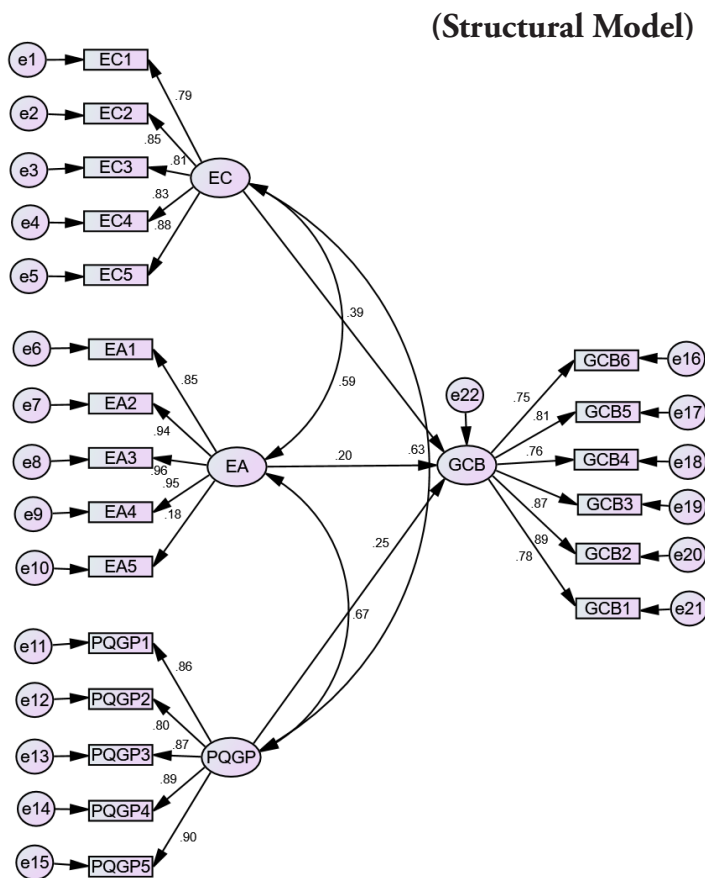
Figure 2

Source: Authors

Table 4 : Path Estimates

Hypotheses	Variable Path	Significant Values	Hypotheses Support
HO1	EC → GCB	***	Accepted/supported
HO2	EA → GCB	.008	Accepted/supported
HO3	PQGB→GCB	.002	Accepted/supported

Source: Authors

The above-mentioned table exhibits the Significance values of all the Hypothesis HO1, HO2 and HO3 are ***, .008, and .002 respectively which are lesser than the recommended value of 0.05. Hence all the Hypotheses are significantly accepted.

LIMITATIONS

The main limitation of the study is that we have conducted in NCT of Delhi so its outcome may not be applicable to the population beyond the geographical location. We have selected specifically the millennial generation so consumers below and above the age category may behave differently.

FINDINGS

The Findings of the study are that the young consumers of the NCT of Delhi are environmentally conscious. Their attitude plays a significant role in influencing Green consumer behavior and their perception regarding the quality of green products also influences positively Green Consumer Behavior of millennials of NCT of Delhi.

IMPLICATIONS

The outcome of the study has theoretical, managerial, and societal implications. The future researcher can explore the further impact of all constructs used in the study on the consumer decision-making process, buying motives for the millennial generation. All the marketers selling green products to the youth of NCT of Delhi should focus on environmental attitude and should work on the quality of green products as it will help them to target the young customer segment. The societal implications emphasize the role of all citizens as sellers or buyers which is important to promote sustainable development of the society.

CONCLUSION

In this study, we have selected especially young consumers of NCT of Delhi as they have more potential to buy green products. The national and global marketers are required to realize the potentials of the young consumer market in India for green products (Gentina & Muratore., 2012). There are very limited studies that explain young consumers' attitudes with respect to green products (Larsson et al., 2010). All marketers can target the youth segment by using the behavioral outcome of millennial consumers of this study for the sustainable development of the nation.

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UNDERSTANDING OF THE LEVEL OF INTEGRATION BETWEEN INDIA AND SRI LANKAN ECONOMIES WITH THE APPLICATION OF (DCC)–MGARCH

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ABSTRACT

Prime focus of this article is to check if there are suitable diversification opportunities investing in India. Granger causality tests, vector auto-regression (VAR) and dynamic conditional correlation (DCC)–MGARCH are applied to investigate the level of integration between India and Sri Lankan economies. No causality is observed. Outcome of VAR suggest that Sri Lankan economy does not impact the return of the Indian stock market. Applying DCC–MGARCH, it is observed that there is no volatility spillover from Sri Lanka to India in short-run but there is long run spill over of volatility from Sri Lanka to India. The outcomes of the study may assist market managers in setting policies by considering the pattern of volatility transmission from Sri Lankan stock market to Indian stock market.

JEL Codes: C32, G10, G11

Keywords: Unit root test, VAR, Granger Causality DCC–MGARCH

INTRODUCTION

There is an increase in cross-border transaction because of liberalization. Since 1990s many investors are investing globally integrated markets. Because of linkage in the markets investors are getting higher returns and opportunities for hedging. In the present scenario the knowledge of volatility spill over is important for global investors to minimize risk. (Natarajan et al; 2014).

As per the previous studies, it was proven that developing countries were disproportionately influenced by global financial crises. The Great Depression of 1930, the Mexican crisis of 1994, the Asian currency crisis of 1997, and the global financial crisis of 2008, to mention a few, have shown how volatile stock markets of one country influenced the volatility of other markets.

Volatility spillovers using various tests from the group of ARCH have attracted the researchers to study developing and emerging markets. Global portfolio managers have been driven to diversify their portfolios by investing in

emerging markets such as India, China, South Korea, Malaysia, and Taiwan due to the high return potential of these markets.

The studies on volatility spillover suggest that there are leading and trailing correlations between various economies that are linked globally. Ebrahim (2000), Jaiswal-Dale and Jithendranathan (2009), Natarajan et al. (2014), and Alfreedi (2019) explored the spillover between various stock markets.

India has attracted more global portfolio managers for during last two decades because of fast growing economy in the world in spite of currency risk, political risk and interest rate risk. Along with India it would be worthwhile to investigate neighboring countries.

The research is broken down into five pieces. The second section contains a comprehensive assessment of the literature on interconnections and spillover. Section 3 discusses data and technique, whereas Section 4 discusses empirical outcomes. The last section includes an overview and concluding remark.

REVIEW OF LITERATURE

Extensive review of existing literature has been conducted to find out spill over in financial markets.

Savva et al. (2004) suggested that London and German markets are influences by US markets while studying dynamic correlation and spillover among US, Germany, London and France markets. Bartram et al. (2007) used time varying copula dependence model to find linkage between Euro and Non-Euro European economies and found that market dependence within Euro region grew only for a few countries like France, Germany, Italy, Netherlands and Spain.

Bekaert and Harvey (1997) found that in integrated markets, global variables drive volatility while in fragmented markets local factors also play part in volatility. In et al. (2001) during the Asian Financial Crisis of 1997–98, found that Hong Kong and Korea have reciprocal spillover.

Jang and Sul (2002), Leong and Felmingham (2003) studied the co-movement of Asian stock markets before, during, and after the Asian Financial Crisis and found that during the financial meltdown, Asian markets' it was intensified. Johnson and Soenen (2002), studied the equities markets of Australia, Malaysia, Hong Kong, New Zealand, China, and Singapore are highly integrated with Japan's stock market.

Premaratne and Miyakoshi (2002) studied the degree of return and volatility spillover from Japan and USA to Asian Stock Markets using bi-variate EGARCH and found that regional integration among Asian Countries was greater as compared with US market. Bala (2004) studied Asian, US and UK markets and found a high degree of volatility co-movement between Singapore and Hong Kong, Japan US and UK. Rao and Naik (1990) studied the correlation between the US, Japanese, and Indian stock markets and found that Indian market had a poor link with overseas markets like US and Japan because of regulations and restrictions on trade and capital movement during 1970s.

Hansda and Ray (2002) studied price correlations among ten stocks listed on BSE, NSE, and Nasdaq/ NYSE and found and established bi-directional causation between the prices of the dually listed equities using VAR models and found that markets are efficient in receiving and integrating pricing data.

Nandy and Chattopadhyay (2019) studied Indian stock exchange's interconnection with domestic financial system such as the money market, FIIs, FOREX, bullion market, and overseas stock markets such as the Nikkei of Japan and other markets reflected by the S&P500 and found high level of interconnection between Indian and international financial markets.

Madhavan and Ray (2019) studied the price and volatility relationships between global custodial receipt prices traded in London and shares listed on the BSE using VAR for price analysis and DCC of GARCH models for volatility links, as well as currency rates, international and local indexes. The prices of GDR and their underlying shares in BSE had high level of similarity in VAR findings, while DCC–GARCH showed a high dynamic correlation.

The fact that India is one of the world's fastest-growing economies draws the interest of international investment managers. As a result, the spillover effects between India and Sri Lanka in particular would be intriguing to observe. The authors were motivated to perform this study because, as the literature implies, no large studies have been done to assess these economies.

DATA AND METHODOLOGY

The asymmetric volatility spillover effect of the Sri Lankan stock market on the Indian stock market was investigated in this study. The Indian stock market is represented by the Nifty 50, whereas the Sri Lankan stock market is represented by the S&P Sri Lanka 20 (SPLK20LP). These stocks' daily adjusted closing stock indices were collected from January 4, 2011 to March 3, 2021. The return of the series has been calculated using the log difference of the data. Granger causality, VAR, and DCC were used to investigate volatility transmission effects from the Sri Lankan stock market to the Indian stock market.

The Granger Causality Method is a method for determining the cause of an event. Granger causality is a popular method for investigating the causal relationship between variables (Granger, 1969).

Vector auto-regression (VAR) is used to see if the lagged returns of Indian stock indices or the lagged returns of Sri Lankan stock indices determine stock returns. It would help us comprehend the extent to which Indian stock markets are reliant on foreign stock markets.

VAR and Variance Decomposition

The VAR model can be presented as follows:

$$Y_t = b_1 Y_{t-1} + b_2 Y_{t-2} + b_3 Y_{t-3} + \ldots + b_n Y_{t-n} + e_t$$

In this equation, Y_t is the asset return which is dependent on its own lag Y_{t-1}, Y_{t-2} and Y_{t-3}. β_1, β_2 and β_3 are the coefficients of the lagged value of assets return. VAR model is applied on stationary series and it requires optimal lag. VAR model is used for variance decomposition. Lastly, we use the DCC model to investigate the transmission effect between the Indian and Sri Lankan economies. The DCC method was used to investigate the short- and long-term persistence of volatilities.

RESULTS AND DISCUSSION

The results are presented in Table 1 and are based on descriptive data of stock returns in our study countries. Both markets have negative skewness in their daily return series. Normality is rejected as evidenced by the Jarque–Bera test.

ADF test has been used to ensure the stationarity of each country's return series in this study. Tables 1 and 2 show that the P value for each series is less than 5%. As a result, each country's log return series is stable at I(0). Table 4 shows the Granger causality results for several series. The impact of the Indian stock market on the Sri Lankan stock market has been investigated in this study. The findings of the no causation test between the Indian and Sri Lankan stock markets are shown in Table 4.

Table 1: Descriptive Statistics

	Return NIFTY	Return SPLK20LP
Mean	0.0002	-0.0001
Median	0.0003	-0.0001
Maximum	0.0365	0.0487
Minimum	-0.0604	-0.0557
Std. Dev.	0.0048	0.0042
Skewness	-1.0688	-1.8306
Kurtosis	19.1366	44.5030
Jarque-Bera	27136.0800	172071.2000
Probability	0.0000	0.0000
Sum	0.4130	-0.1448
Observations	2458.0000	2379.0000

Author's estimation

Table 2: Granger Causality Test

Pairwise Granger Causality test			
Lags:2			
Null Hypothesis	Obs	F-Statistics	Prob.
Return NIFTY does not Granger Cause Return SPLKLP	2377	0.031	0.970
Return SPLK20LP does not Granger Cause Return NIFTY		0.155	0.857

Author's estimation

The lag selection criterion is shown in table 5. Table 6 summarizes the results of multivariate VAR. The connection of the Indian and Sri Lankan stock markets is depicted in Table 6. The results of the VAR clearly display that the Indian stock market is reliant on its lags. The Indian stock market and the Sri Lankan stock market have no association.

Table 3: Results of VAR

Vector Autoregression Estimates					
Standard errors in ( ) & t-statistics in []					
	Return NIFTY	Return SPLK20LP		Return NIFTY	Return SPLK20LP
Return NIFTY(-1)	0.0191	-0.0059	ReturnSPLK20LP(-1)	0.0057	0.1696
	-0.0205	-0.0180		-0.0235	-0.0206
	[0.93090]	[-0.32722]		[0.24333]	[8.23656]
Return NIFTY(-2)	0.0096	0.0012	ReturnSPLK20LP(-2)	-0.0035	0.0268
	-0.0204	-0.0179		-0.0238	-0.0209
	[0.46992]	[0.06735]		[-0.14793]	[1.28501]
Return NIFTY(-3)	0.0151	-0.0035	ReturnSPLK20LP(-3)	-0.0268	0.0318
	-0.0204	-0.0179		-0.0238	-0.0209
	[0.74154]	[-0.19361]		[-1.12494]	[1.52199]
Return NIFTY(-4)	-0.0252	-0.0003	ReturnSPLK20LP(-4)	0.0269	0.0368
	-0.0204	-0.0179		-0.0238	-0.0209
	[-1.23808]	[-0.01933]		[1.12923]	[1.76094]
Return NIFTY(-5)	0.0771	-0.0220	ReturnSPLK20LP(-5)	0.0011	0.0135
	-0.0204	-0.0179		-0.0239	-0.0209
	[3.78089]	[-1.23353]		[0.04748]	[0.64628]
Return NIFTY(-6)	-0.0879	0.0187	ReturnSPLK20LP(-6)	0.0288	0.0193
	-0.0205	-0.0179		-0.0239	-0.0209
	[-4.29662]	[1.04422]		[1.20551]	[0.92040]
Return NIFTY(-7)	0.0774	-0.0096	ReturnSPLK20LP(-7)	0.0237	-0.0192
	-0.0205	-0.0180		-0.0236	-0.0206
	[3.77283]	[-0.53237]		[1.00771]	[-0.93034]
C	0.000131		C	-4.37E-05	
	-9.80E-05			-8.60E-05	
	[1.33719]			[-0.50845]	
R-squared	0.0230		R-squared	0.0382	
Adj. R-squared	0.0172		Adj. R-squared	0.0325	
F-statistic	3.9573		F-statistic	6.6852	
Log likelihood	9322.7830		Log likelihood	9637.2360	
Akaike AIC	-7.8480		Akaike AIC	-8.1132	
Schwarz SC	-7.8115		Schwarz SC	-8.0767	

Table 4: Results of Variance Decomposition

Variance Decomposition of Return NIFTY				Variance Decomposition of Return SPLK20L9P			
Period	S.E.	Return NIFTY	Return SPLK20LP	Period	S.E.	Return NIFTY	Return SPLK20LP
1	0.005	100.000	0.000	1	0.004	0.002	99.998
2	0.005	99.997	0.003	2	0.004	0.005	99.995
3	0.005	99.997	0.003	3	0.004	0.005	99.995
4	0.005	99.941	0.059	4	0.004	0.007	99.993
5	0.005	99.904	0.096	5	0.004	0.007	99.993
6	0.005	99.903	0.097	6	0.004	0.069	99.931
7	0.005	99.837	0.163	7	0.004	0.093	99.907
8	0.005	99.773	0.227	8	0.004	0.100	99.900
9	0.005	99.771	0.229	9	0.004	0.101	99.899
10	0.005	99.767	0.233	10	0.004	0.101	99.899
11	0.005	99.767	0.233	11	0.004	0.102	99.898
12	0.005	99.765	0.235	12	0.004	0.103	99.897
13	0.005	99.765	0.235	13	0.004	0.104	99.896
14	0.005	99.765	0.235	14	0.004	0.104	99.896
15	0.005	99.765	0.235	15	0.004	0.104	99.896
16	0.005	99.765	0.235	16	0.004	0.104	99.896
17	0.005	99.765	0.235	17	0.004	0.104	99.896
18	0.005	99.765	0.235	18	0.004	0.104	99.896
19	0.005	99.765	0.235	19	0.004	0.104	99.896
20	0.005	99.765	0.235	20	0.004	0.104	99.896

Author's estimation

In reality, the variance decomposition index in Table 7 shows that, aside from India, Sri Lanka has no significant lagged impact on the Indian stock market. It demonstrates that there is very little interconnectedness between the Indian and Sri Lankan stock markets. The DCC–GARCH model was used to assess the volatility and co-volatility dynamics between the Sri Lankan and Indian stock exchanges. In Table 5, the terms 'mu' and 'omega' refer to the overall mean and the intercept term, respectively. Apart from that, the ARCH effect, which is denoted by alpha1, is the influence of prior disturbances or error term generated using mean equation, whereas the effect of previous variance is expressed by GARCH (beta1). All ARCH and GARCH terms of various stock indices are substantial, implying that volatility is persistent. As a result, each stock exchange experiences volatility in both short and extended time periods. Because the coefficients of alpha and beta are positive, it has a positive effect on present conditional variance. In Indian stock markets, however,

volatility decay is the slowest (sum of ARCH and GARCH coefficients is 0.99). Furthermore, we use the DCC– MGARCH model to look at the volatility spillover between the Indian and Sri Lankan economies. It is seen that dcca1 is positive and negligible, but dccb1 is positive and substantial, implying that there is no integration and asymmetry influence between the Indian and Sri Lankan economies in the short term. There is integration in the long run. Consequently, portfolio managers investing in India in the short term benefit from this economy's diversification.

**Table 5: Results of Dynamic Conditional Correlation**

Variables	Estimate	Std. Error	t value	Pr(>|t|)
rSPSrilanka].mu	0.00	0.00	0.54	0.59
[rSPSrilanka].omega	0.00	0.00	0.60	0.55
[rSPSrilanka].alpha1	0.14	0.05	3.07	0.00
[rSPSrilanka].beta1	0.85	0.06	14.69	0.00
[rNiftyIndia].mu	0.00	0.00	3.57	0.00
[rNiftyIndia].omega	0.00	0.00	1.77	0.08
[rNiftyIndia].alpha1	0.09	0.02	4.19	0.00
[rNiftyIndia].beta1	0.89	0.02	44.25	0.00
[Joint]dcca1	0.00	0.00	1.00	0.32
[Joint]dccb1	0.99	0.01	140.44	0.00

Author's estimation

Table 6: Five Periods Ahead Forecasting

		ReturnNIFTY	ReturnSPLK20LP
Day 1	ReturnNIFTY	1	-0.01557
	ReturnSPLK20LP	-0.01557	1
Day 2	ReturnNIFTY	1	-0.01554
	ReturnSPLK20LP	-0.01554	1
Day 3	ReturnNIFTY	1	-0.01551
	ReturnSPLK20LP	-0.01551	1
Day 4	ReturnNIFTY	1	-0.01548
	ReturnSPLK20LP	-0.01548	1
Day 5	ReturnNIFTY	1	-0.01546
	ReturnSPLK20LP	-0.01546	1

Author's estimation

Figure 1: Plot of DCC of 2379 observations:
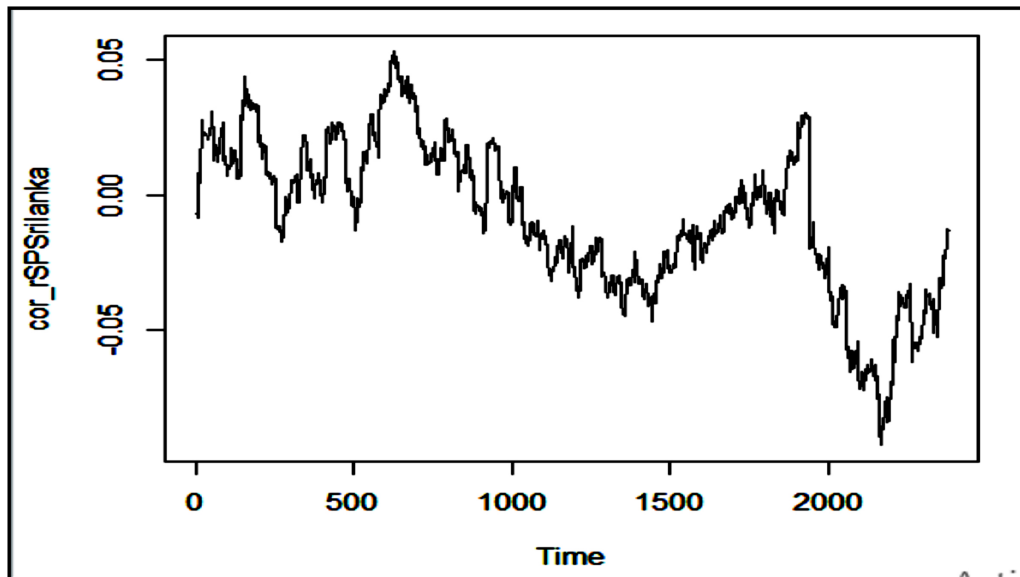
Author's estimation

Figure 2: Plot of Covariance
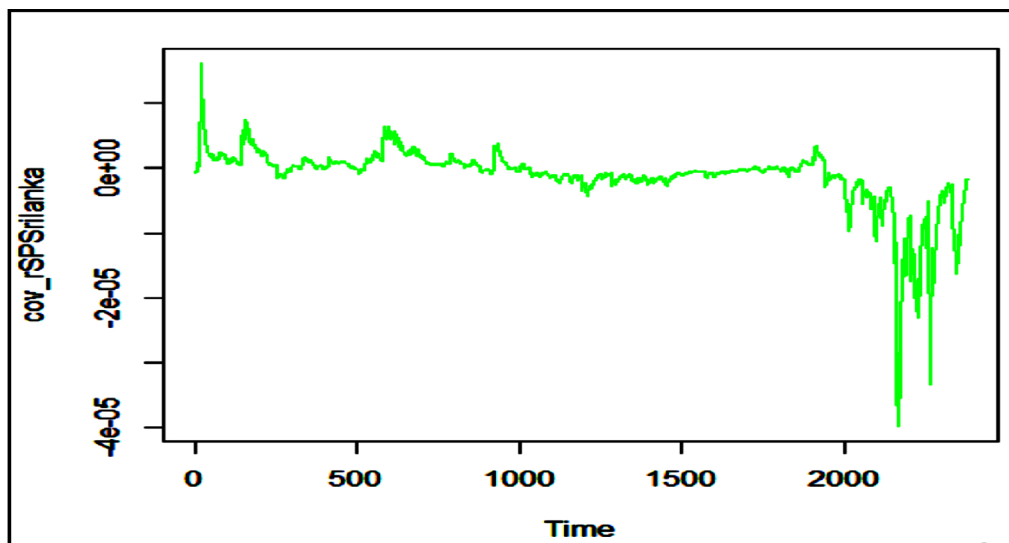
Author's estimation

Five periods ahead forecasting is given in table 6. In figure 1 and in figure 2 time plot of DCC of 2379 and plot of covariance are presented respectively.

SUMMARY & CONCLUSION

Portfolio managers are always looking for stock markets of other countries that are not integrated with each other in order to achieve the global diversification benefit among diverse markets. In this study, we inspect the spillover effect between the Indian and Sri Lankan economies to investigate if fund managers investing in India can diversify their portfolios into other similar nations. Indian markets are more associated with their own lags, according to our findings. There is no causal relation as indicated by Granger causality. Furthermore, our findings are strengthened by a variance-decomposition matrix, which vividly reveals that, aside from its own lagged values, the Sri Lankan economy has no impact on India. These markets are poorly connected, according to our findings. Finally, we use the DCC–MGARCH model to test the spread of volatility from Sri Lanka to the Indian market. Dcca1 is positive and negligible, and dccb1 is positive and considerable; implying that there is no incorporation and asymmetric effect from the Indian economy to the Sri Lankan economy in the short- term, but there is integration in the long -run.

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