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C O N T E N T S

Volume 9	Issue 3(1)	March 2020
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S.No		Pg.No
1.	Impact of Knowledge Management for Career Development Among it Professionals <p style="text-align: right;">T. Amutha</p>	1
2.	HR Approaches in Implementation of Cyber Physical System (CPS) to Manage Challenges in Industry 4.0 <p style="text-align: right;">S.Andaldevi</p>	13
3.	A Study on Job Satisfaction Factors and its Influence on Employee Loyalty <p style="text-align: right;">S. Annie Priyadharshini and J.Clement Sudhahar</p>	18
4.	Empirical Assessment of Quality of Work life Towards Creating Suggestive Job Enrichment Solutions in ITes Sector in Coimbatore <p style="text-align: right;">J.Arthi</p>	28
5.	Dimensions of Emotional Intelligence on Job Performance of Manager in it Industry <p style="text-align: right;">R.Arun Prasath and T. Kayal Vizhi</p>	34
6.	Performance of Select Public Sector Banks Using Cramel Model <p style="text-align: right;">Baggam Seshu Sailendra and T. Subramanian</p>	39
7.	Cyber Security – The Most Critical Security Risks and how to Guard Against Hackers <p style="text-align: right;">S.Beena and Amutha.T</p>	49
8.	A Study on The Impact of Employee Retention in Star Hotels of Coimbatore District <p style="text-align: right;">S. Dhanabagiyam and K. Sathiyabamavathy</p>	54
9.	The Influence of Social, Cultural and Educational Factors on Entrepreneurial Instinct and Personality Traits of Management Students <p style="text-align: right;">Divyashree.M</p>	64
10.	A Study on The Factors Influencing Women Entrepreneurial Growth In Coimbatore District <p style="text-align: right;">A.Pankajam, N.Sathyabama and D.Poongothai</p>	75

11.	Developmental Work Research as an Approach to Facilitate the Creation of Inclusive Social Innovation Through University Technology Transfer in Africa	85
	Faraja T. Igira	
12.	Entrepreneurship and Intellectual Property law and Policy: Two Forgotten Intertwined Tools for Promoting Economic Development of Developing Economies	98
	Grace Kamugisha Kazoba	
13.	Impact of HR Practices on the Attitude of Differently-abled Employees	112
	N. Jayagowri	
14.	Rethinking Models of Innovation and Incubation- Changing Economic Scenario in Developing Nations	117
	G.S.Jayesh	
15.	Business Analysis, Business Intelligence, Business Analytics, Data Analytics, Big Data Analytics and Datascience for Entrepreneurs	122
	P.Jeyaashri Sai	
16.	What are the Skills Required for a Successful Startpreneurs? – An Analysis	128
	M. Kalpana, K. Suresh Kumar and R.S Lavanya	
17.	CSR Funds, Business Incubators and Start-Up Ventures - the Positive Link	140
	R.Karunambika and J.Arthi	
18.	Visitor Perception on Environmental Impacts of Botanical Garden, Ooty for Sustainable Practices	147
	T. Kayalvizhi and Bindu.V.T	
19.	Title of the Paper: Problems Faced by Women through Cyber Space	162
	Malarvizhi.V	
20.	Crowd Funding	171
	Meena Maheswari and Srinivas M.B	
21.	Impact of PradhanMantri Mudra Scheme on New Business Opportunities	180
	M.Munnishramya	
22.	Participation of Women Entrepreneurs in Digital Marketing	188
	Nimaanil and T.Radha	
23.	Indigeneous Entrepreneurial Avenues in Wayanad	197
	Nimi Markose and Bindu.V.T	

24.	A Survey on Artificial Neural Networks and its Real Time Applications	210
	M. Praveen Kumar and S.Syed Shajahaan	
25.	No More Bosses its Robosses	218
	K.Priyadharshini	
26.	Store Attributes as Strategic Measure in Retail Apparel Stores	222
	S.Rubeya and P.Santhi	
27.	Anoverview on Behavioural Finance	229
	S.Sangeetha and K. Ramya	
28.	Reforms in the Regulatory Framework Towards Ease of Doing Business in India	237
	S.Sethuram	
29.	The Impact of Visual Merchandising on Consumer Decisions in Purchasing	245
	V.Agneeswari Sowmiya	
30.	Retention Strategies of Teaching Faculty in Engineering Institutions at Coimbatore City	251
	J.Sumalatha	
31.	Challenges Faced by Startup Entrepreneurs	255
	Vaishnavi. C and Gokilavani. G	
32.	Self-Perceived Transaction Costs in Digital Marketing – A Thought for Decision Making	262
	M.A.Vijaya	
33.	Bridging the Skill Gap for Industry 4.0: An Indian Context	267
	A. Vimala, S. Narendra Rathnaraj and Jeeva Sundar	

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Editorial.....

It is heartening to note that our journal is able to sustain the enthusiasm and covering various facets of knowledge. It is our hope that IJMER would continue to live up to its fullest expectations savoring the thoughts of the intellectuals associated with its functioning .Our progress is steady and we are in a position now to receive evaluate and publish as many articles as we can. The response from the academicians and scholars is excellent and we are proud to acknowledge this stimulating aspect.

The writers with their rich research experience in the academic fields are contributing excellently and making IJMER march to progress as envisaged. The interdisciplinary topics bring in a spirit of immense participation enabling us to understand the relations in the growing competitive world. Our endeavour will be to keep IJMER as a perfect tool in making all its participants to work to unity with their thoughts and action.

The Editor thanks one and all for their input towards the growth of the **Knowledge Based Society**. All of us together are making continues efforts to make our predictions true in making IJMER, a Journal of Repute

Dr.K.Victor Babu
Editor-in-Chief

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In the interests of Indian academic publishing and the credibility of our research and knowledge production, the UGC reiterates the following :

- (1) The old 'UGC Approved List of Journals' has been replaced with the new UGC-CARE Reference List of Quality Journals' (UGC-CARE List) and with effect from 14th June, 2019 research publications only from the journals indexed in UGC-CARE List should be considered prospectively for any academic purpose.
- (2) The Vice Chancellors, Selection Committees, Screening Committees, research supervisors and all/any expert(s) involved in academic/ performance evaluation and assessment are hereby advised to ensure that their decisions in the case of selections, promotions, credit-allotment, award of research degrees etc. must be based on the quality of published work rather than just numbers or a mere presence in peer reviewed or in old UGC Approved List of Journals which is available for reference on the UGC website.

(P.K. Thakur)

Secretary(Officiating)



IMPACT OF KNOWLEDGE MANAGEMENT FOR CAREER DEVELOPMENT AMONG IT PROFESSIONALS

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Abstract

The study helps to assess the knowledge management towards the career development. This paper provides suitable suggestions from the analysis outcomes for development of career of the IT professionals. The study is based on the primary data collected from 120 employees from the IT Professionals through a structured questionnaire. The simple percentage analysis is used to find the frequencies of the results and mean score value is calculated for factors considered for the career development. The analysis of variance is used to find the significant difference between designation and existing status of the knowledge management. Correlation is used to find the association between knowledge sharing and career development. Employees were satisfied with the knowledge management. There is no relationship between culture barrier and career development. There is no association between knowledge transfer and career development. This shows that there is an impact of knowledge management towards career development of employees.

Keywords: Knowledge Management, Career Development, Knowledge Retention, Knowledge Sharing and Knowledge Transfer.

1. Introduction

The study analyzed the Impact of Knowledge Management for Career Development among IT Professionals. Great changes have taken place in Career Development through Knowledge Management. This study reveals the impact of Knowledge Management to development career in great level. There is significant difference between cultural barrier and knowledge management. Knowledge management is the process of creating, sharing, using and managing the knowledge and information of an organization. It refers to a multidisciplinary approach to achieving organizational objectives by marketing the best use of knowledge. Career development is the series of activities or the on – going / lifelong process of developing one's career. The organization becomes more flexible, the employee also becomes more flexible. With the improvement of people's work mode, people's career also changes. Under the



influence of the knowledge management, the new work mode is of mobility, which makes the employee's occupation choice and the career takes place important.

2. Review of Literature

Haradhan Kumar (2017) the aim of this study is to investigate the knowledge management that influence knowledge sharing environment and efficiency in an organizational context. The quantitative methods are used in this study. The data was collected by using structured questionnaire. The variables used in this study are knowledge sharing, knowledge management environment, knowledge management efficiency. The correlation and Cronbach's alpha test are used in this study. The paper concluded that the knowledge sharing has a positive impact on knowledge management practice environment.

Reza Eftekharzadeh (2017) the aim of this paper is to focus on how knowledge may be created through organizational sharing and is useful for identifying and evaluating certain key activities in the management of knowledge. The convenience sampling method was used in this study. The variables used in this are knowledge review, acquisition, creation, adoption, disseminations, transfer and distribution. The regression tests are used in this study. The paper concluded that there is a positive correlation between the processes and performance of knowledge management.

Quoc Irung Pham (2017) the aim of this study is to identify the measurement scale of KM practices, and to explore the impact of KM practices on the performance of business. The keywords used in this study are knowledge management, KM practice. The variables used in this study are training & mentoring employees, policies and strategies of KM, Knowledge capturing & acquisition from outside, effect of organizational culture. The cronbach alpha analysis test and also the linear regression analysis are conducted in this study. The qualitative and quantitative research methods are used in this study. The result of this study in R- square and the adjusted R- square denotes the impact on the success of SMEs, including training and mentoring employee, policies and strategic of KM, knowledge capturing and acquisition and effect of organizational culture.

Domen Kozjek (2016) the purpose of this research is to identify the factors of knowledge which have a significant impact on the organization. The keywords used in this study are knowledge management, knowledge factors, human capital. The factors used in this study are leadership management and



support, culture, information technology, KM strategy, performance measuring, infrastructure, training. As a result they found that the KM factors, which have a significant impact on the organization.

Anis Khedhaouria (2015) the purpose of this paper is to investigate motivation of team members to source knowledge increases their reuse and creation outcomes. Research design is analytical in nature and primary and secondary data was collected through structured questionnaire and simple random sampling method was used. The keywords used in this study are knowledge sourcing, knowledge reuse, knowledge creation, creativity, innovation. The variables used in this study are knowledge reuse behaviors, knowledge creation behaviors, knowledge sourcing from the group, knowledge sourcing from repositories, knowledge sourcing from internet, learning behaviors. The paper concluded that the knowledge reuse and creation outcomes result from various knowledge sourcing methods and the internet is more effective to increase knowledge creation.

Funmilola Olubunmi Omotayo (2015) this paper shows that the knowledge management is a key driver of organizational performance and a critical tool for organizational survival, competitiveness and profitability. The primary and secondary data was collected through structured questionnaire. The variables used in this study are knowledge sharing, knowledge sharing, loyalty, communication, people and culture. The paper concluded that the effective management of knowledge has a critical ingredient for organization seeking to ensure sustainable strategic competitive advantage.

Minwir Al-Shammari (2014) the aim of this paper is to investigate the relationship between organizational culture and Knowledge Sharing in a Gulf Co-operative Council Company (GCCC). Research design is analytical in nature and primary and secondary data was collected through structured questionnaire. The variables used in this study are trust, communication between staff, leadership, reward system and knowledge sharing. Cronbach alpha are used for reliability test and the result of this test showed that employees believe that the communication between staff culture is high with mean value (4.20). correlation coefficients were calculated to detect the existence of the relationship between the organizational culture factors and KS and result showed that relationship between organizational culture factors and KS are significant and positive and ranged between 0.425 and 0.750.



Ehsan Zargar , Masoomah Rezaee (2013) This study was conducted with the aim of understanding the concept of knowledge management and its impact on organizational success and applying it to improve employee performance. Research design is descriptive in nature and primary and secondary data was collected through structured questionnaire. The variables used in this study are knowledge management, performance, participation in the knowledge, organizing knowledge. The correlation coefficient tests are used in this study. The result of this test showed that there is a significant relationship between the component of knowledge detection and creation and performance at level of 0.01. The results indicated that knowledge management application is the integral component of organizations and its application increases the knowledge and information of employees and consequently increase organization's productivity.

Roongrasamee Boondao (2013) the aim of this paper is to study the personal and organizational factors that influence it in Thai organizations. The Keywords used in this study is Knowledge management: Personal factors: Organizational factors. Research design is descriptive in nature and data was collected through structured questionnaire. The factors used in this study are leadership and strategy, culture, information technology, measurement, infrastructure. The quantitative methodology approach and a stratified-sampling method is used in this study. Tests of validity and reliability were carried out. Reliability means that the set of latent construct indicators (scale items) were consistent in their measurements. Cronbach's coefficient was used to measure the reliability. It was found that effects of the personal factors of gender, age, position, and level of education on the knowledge management of the organizations were not statistically significant at a level of 0.05.

Jelena Rasula (2012) the aim of this study is to show that through creating, accumulating, organizing and utilizing knowledge, organisation enhances organizational performance. The model was empirically tested through structural equation modeling on a sample of 329. The variables used in this is information technology, organisation, knowledge and operational performance. The Structural Equation Modeling (SEM) was used to empirically verify the hypotheses. The results show that knowledge management practices measured through information technology, organisation and knowledge positively affect organizational performance.

Waheed Akbar Bhatti (2011) this study fills the gap and presents a conceptual framework model of process, intellectual capital, culture and strategy for successful implementation for knowledge management. This study



also examines the effective utilization of knowledge will not only create competitive advantage but maintains it as well, that would improve organizational performance. The keywords used in this study are knowledge management, organizational culture, intellectual capital, organizational performance. Turner and Minnone have identified key variables namely as process, intellectual capital, culture and strategy in knowledge management. This study was concluded that knowledge has become an asset of the organisation and its effective utility as core competency will bring the desired results.

3. Problem Statement

To meet the new challenges and retaining good employee, the organization should support their knowledge management practices by sharing their knowledge wisdom and modernize to upgrade their career development. It helps to identify the sustaining factors of knowledge management through upgrading themselves to meet the changing needs of the organisation.

4. Objectives of the Study

- To analyze the factors influencing effective knowledge retention among IT professionals.
- To study the development strategies adopted for knowledge management towards the career development.

5. Research Methodology

Descriptive research design was used for this study. The primary data was collected using structure questionnaire from the employees. The sample size for this study was 120 respondents. The Convenience sampling method was used for this study. The tools used in this study are mean score analysis, percentage analysis, correlation, regression and ANOVA.

6. Results and Discussions

Table 1

Socio – Economic Profile of the Respondents

S. No	Demographic Factors	Particulars	Frequency	Percentage
1	Gender	Male	81	67.5
		Female	39	32.5
2	Age	20 – 30 years	48	40
		30 – 40 years	48	40
		Above 40 years	24	20
		Married	74	61.7



3	Marital Status	Unmarried	46	38.3
4	Size of the Family	2 – 4 Members	88	73.3
		4 – 6 Members	27	22.5
		Above 6 Members	5	4.2
5	Type of the Family	Joint Family	24	20
		Nuclear Family	96	80
6	Educational Qualification	UG	82	68.3
		PG	23	19.2
		Diploma	15	12.5
7	Work Experience	Less than 5 years	57	47.5
		5 – 10 years	42	35.0
		10 – 15 years	9	7.5
		Above 15 years	12	10
8	Designation	Trainee	16	13.3
		Project Manager	18	15
		Software Engineer	19	15.8
		Associate Software Engineer	15	12.5
		Senior Software Engineer	12	10
		Team Lead	13	10.8
		Others	25	22.5
9	Stream	Support Team	24	20
		Marketing Team	13	10.8
		Java	17	14.2
		Php	15	12.5
		.Net	15	12.5
		Design Team	14	11.7
		Testing Team	11	9.2
10	Monthly Income	Less than Rs 20,000	19	15.8
		Rs 20,000 – 40,000	21	17.5
		Rs 40,000 – 60,000	43	35.8
		Above Rs 60,000	37	30.8
11	Awareness of Employees	Yes	120	100
		No	0	0
12	Opinion Towards knowledge Management	Something they are already doing but not under the same name	15	12.5
		It is strategic part of your business	53	44.2
		Something that could be beneficial for the organisation	52	43.3
13	Current Status	Intermediate Stage	69	57.5
		Introduction stage	2	1.7
		Growth Stage	49	40.8
14	Attitude of Senior	Sees it as very important and provides full supports	54	45
		Sees it as very important but hardly	66	55



	Management	supports it		
15	Company Culture	Basic values & purpose emphasizes on sharing of knowledge	6	5
		Open, encouraging & supportive culture	31	25.8
		Knowledge management exists in each & everybody's job	52	43.3
		Knowledge management is the task of a few designated one	31	25.8
16	Implementation	Company Level	10	8.3
		Department Level	65	54.2
		At all Levels	45	37.5

From the above table it indicates that the majority of the respondents are Male and maximum of the respondents lies in the age group between 20 – 30 years, the majority of the respondents are married and majority of the respondents consists of 2 – 4 members and maximum of respondents comes from nuclear family, the majority of respondents are from UG background, the maximum of respondents have less than 5 years of work experience and majority of the respondents belongs to others and the maximum respondents are from support team and the majority of respondents income lies between Rs 40,000 – 60,000, 100% of respondents have awareness towards knowledge management the majority of respondents have opinion towards it is strategic part of your business & the maximum respondents are in intermediate stage, the majority of senior management sees it as very important but hardly supports it, the maximum of respondents describes knowledge management exists in each & everybody's job and majority of knowledge management strategy is suitable to implement at department level.

Table 2
Mean Score Analysis Of Knowledge Sharing, Knowledge Retention, Knowledge Transfer And Career Development

S.No	Knowledge Sharing	Mean	SD
1	Useful knowledge can be easily shared	3.85	.461
2	Employees at workplace share their experiences and knowledge willingly	3.61	.690
3	Formal channels for knowledge sharing (like meeting)	4.33	.678
4	Providing incentives for knowledge sharing	3.02	.476
5	Employee visits to different organisation will share their knowledge	4.11	.868



Average Mean Score		3.784	
Knowledge Transfer			
1	Well defined process for creation of knowledge	3.83	.403
2	Much time is taken by an employee to get knowledge	3.03	.540
3	Feasible to learn from each others knowledge	3.70	.693
4	Knowledge gained from the product demo	4.04	.803
5	Organisation culture and structure	3.83	.737
Average Mean Score		3.686	
Knowledge Retention			
1	Sharing of knowledge among employees	4.31	.646
2	Applying the knowledge	4.02	.594
3	Transferring of knowledge in the organisation	3.72	.676
4	Creating knowledge in the organisation	4.28	.611
5	Knowing & learning of knowledge	3.66	.692
Average Mean Score		3.998	
Career Development			
1	The sharing of knowledge intent social appreciation & also improve career growth	3.72	.505
2	Rewards provided for employees for sharing their knowledge	2.97	.510
3	Trainings received for new technologies	4.06	.626
4	The resource of knowledge sharing endures with high salary	2.92	.602
5	Confidence level among employees will increase	4.43	.604



6	With continuous learning / sharing makes knowledge growth more higher with corresponding to careers	4.48	.809
7	The updating technologies improves career standards	4.21	.685
8	Thinking development improves career growth	4.59	.628
9	A high in social scale enhance good cause in career development	2.84	.622
10	With ability of smart knowledge employee becomes professional specialization	3.92	.552
11	Learning methodology of employees will improve their career growth	4.58	.544
12	Leadership quality will improve employees career	4.82	.389
13	Documentation of work helps for career to use it for future works	3.30	.544
Average Mean Score			3.910

The above table interprets that the variable Formal channels for knowledge sharing (like meeting) have highest mean score 4.33 with standard deviation 0.678, In Knowledge Transfer factor the variable Knowledge gained from the product demo have highest mean score 4.04 with standard deviation 0.803. In the Knowledge Retention factor the variable Sharing of knowledge among employees have the highest mean score of 4.31 with standard deviation 0.646. In the Career Development factor the variable Leadership quality will improve employees career have the highest mean score 4.82 with standard deviation 0.389.

Table 3
Analysis of Variance between Age of the Respondents and Knowledge Retention

Dependent factor	Independent factor Age Group	N	Mean	Standard Deviation	F	Significance
Knowledge Retention	20 – 30 years	48	4.0500	.17745	2.639	.076
	30 – 40 years	48	4.0000	.33770		
	Above 40 years	24	3.8833	.36316		

Ho: There is no significance difference between Age and Knowledge Retention.

It indicates that P is 0.076 which is lesser than 0.05 which indicates (ie) null hypothesis is rejected. Therefore it is clear that there is significant difference in the knowledge retention and age.

Table 4
Regression Analysis between Knowledge Sharing and Career Development

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
(Constant)	2.393	.246		9.737	.000
Knowledge sharing	.401	.065	.495	6.195	.000
R	.495 ^a				
R Square	.245				
Adjusted R Square	.239				
Std. Error of the Estimate	.20078				

H0: There is no association between Knowledge Sharing and Career Development.

It indicates that the p-value is significance and is less than .05 which is generally considered as “statically significant”. Therefore it is clear that there is association between knowledge sharing and career development.

Table5
Regression Analysis between Knowledge Transfer and Career Development

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
(Constant)	3.277	.242		13.543	.000
Knowledge transfer	.172	.065	.236	2.633	.010
R	.236 ^a				
R Square	.056				
Adjusted R Square	.048				
Std. Error of the Estimate	.22462				

H0: There is no association between Knowledge Transfer and Career Development.



It indicates that the p-value (“sig” for significance) is less than .05 which is generally considered as “statically significant”. Therefore it is clear that there is association between knowledge transfer and career development.

7. Major Findings

- Majority of the respondents are Male
- Majority of respondents belongs to age group 20 - 30 and 30 – 40 years.
- Majority of the respondents are Married.
- Majority of respondents consists of 2 – 4 members in the family.
- Majority of respondents have experience of less than 5 years.
- The Analysis of Variance between age of the respondents and knowledge retention shows that there is significant difference between the age of the respondents and knowledge retention.
- Regression Analysis between knowledge sharing and career development among IT Professionals shows that there is impact on career development by knowledge sharing.
- Regression Analysis between knowledge transfer and career development among IT Professionals shows that there is impact on career development by knowledge transfer.

8. Conclusion

The knowledge management is important in every organization. It is the process of creating, sharing, using and managing the knowledge and information of an organization. It refers to a multidisciplinary approach to achieving organizational objectives by marketing the best use of knowledge. This study set out to investigate with the objective of finding out the impact of knowledge management for career development. Knowledge management is increasingly becoming an integral and important element in corporate strategy for the career development of employees. Here adopted suitable methodology for data collection and analysis. It is clear from the study that most of the employees career are developed through knowledge management. The data are collected from the employees through questionnaire. It consists of knowledge sharing, knowledge retention and knowledge transfer. Findings from the literature as well as the study conducted that career are developed through the knowledge management.

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HR APPROACHES IN IMPLEMENTATION OF CYBER PHYSICAL SYSTEM (CPS) TO MANAGE CHALLENGES IN INDUSTRY 4.0

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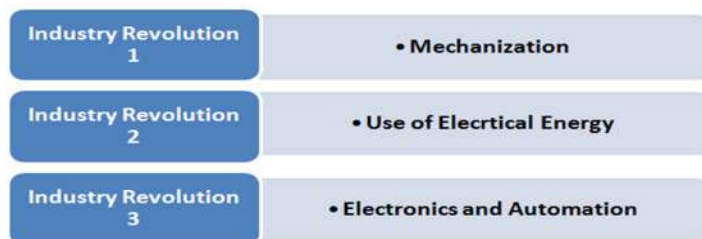
Abstract

Management approaches in industry 4.0 are characterised by modern manufacturing techniques and Cyber Physical Systems (CPS) in production units. CPS is based on the digital networking, linking of microcomputers and machines. The consideration is based on digital enhancing, reengineering of products, differentiation between combination of products valued combination of product and services and effectiveness of various operations. The learning and innovation process is based on people and enterprise capabilities. The main aim of the paper is to create knowledge on HR approaches in Industry 4.0 in executing innovation climate and effective learning in the organization. It also aims in a framework for future quantitative approach towards the current pace of industry 4.0.

Key words: - Industry 4.0, Cyber Physical System (CPS), HR approaches, Innovation, Learning

Introduction

Economy of a country is depended on industries. Every industry revolution created changes in economy, work life, work culture, commitment, etc. of an industry. Mainly the technological and innovation led to various changes in industrial revolution. The following picture despite the phases of industrial revolution-





The current industry revolution is based on industry pace 4.0 using the transformation of digital platform which replace the human work into computerized work.

Industry Pace 4.0

• Transformation of digital platform

The transformation of digital platform in industry 4.0 are ruled by the Cyber-Physical Systems (CPS), smart production work, reengineering of productions, value added service using advanced techniques, etc., In this new era of industry 4.0, Cyber Physical System (CPS) describe a new generation of engineered systems capable of high performance in information, computing, communication and control. Examples are: online and robotic medical surgeries; smart power grids, in which the power line health and consumption can be monitored at distance all the time; and autonomous vehicles, as trains, cars, drone or Unmanned Aerial Vehicles (UAV).

The physical phenomena found in the environment are included by computing or systems platforms which provide information for people or other technological components. CPS are new way of interaction based on the possibility of understanding both physical phenomena and environmental behavior as well as exchanging contextualized information between the computing world and the physical world, as people interact with each other at the internet (Rajkumar et al., 2010). Sensors tend to transform physical appearance into electrical or computer signs. Actuators generate specified technological devices such as radio sound, frequency, etc. to energize the physical work.

The interactions are based on computer reading and controlling of physical worlds, cycles of feedback reading and control adaption via computing for next generation (Lee 2008). CPS are based on multi-disciplinary view, because they are a meeting of embedded, real time, distributed sensors and control systems. This process requires experts working in different fields, such as civil engineering, mechanical engineering, bio-medical engineering, electrical, control, computer science engineering, chemical engineering, network engineering with the concepts of human interaction, learning theory, material science, signal processing and biology (Lee 2008; Sha et al 2009; Rajkumar et al 2010; Baheti and Gill 2011; Lee and Seshia 2017).

The process of CPS is detailed with the human resource of every industry. Manual work of business and operations are replaced with digital computer work. The HR and management approaches towards the industry 4.0 are digitized with micro computers, above mentioned sensors, actuators, embedded systems, etc. To face the Socio-economic factors by world's big economies,

digital work forum is needed. Some factors faced by the top economies such as China and Japan are aging, non-parallel work of customization and cost reduction.

Industry 4.0 includes various factors such as lack of skilled workforce, aging society later retirement, resource efficient and clean urban production, batch size 1, and mass customization low-volume high- mixture factories, increasing product variability, shorter product lifecycles, dynamic value chain networks, volatile markets and cost reduction pressure.

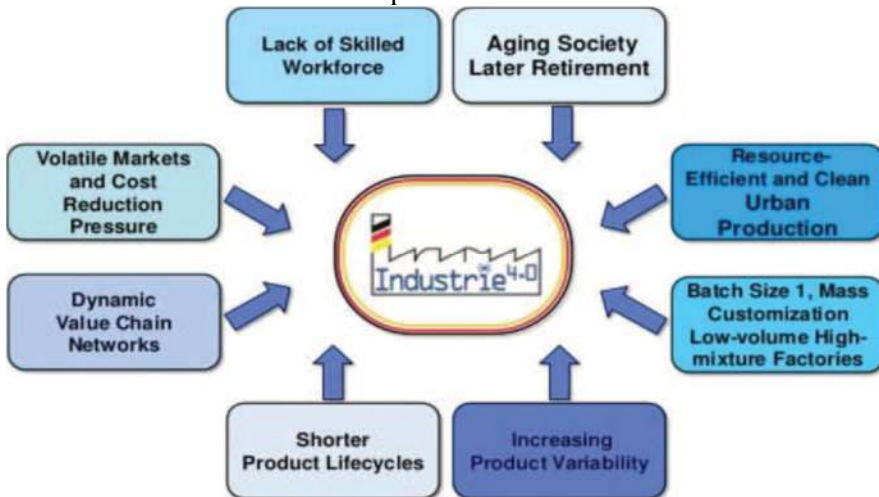


Figure 1, Socio economic triggers of industry 4.0

Source:<http://www.slideshare.net/SPRICOMUNICA/basque-industry-40-the-fourth-industrial-revolution-based-on-smart-factories>

The implementation of CPS is dependent on production sector Industry 4.0 supposed to have smart machines, storage system and production facility and to overcome the socio economic triggers, it minimizes the human intervention and increase productivity through adaptive HR approaches. HR approach system is categorized as follows

Training- Organization in industry 4.0 designs their training programs to enhance the employee’s innovative capability and learning skills. The training programs focus on team building and team work, mentoring as manager’s activity for new employees. The training session may not be directly relevant to their daily job but need to raise the problem solving skills of employees or workers

Staffing- The screening process of candidates is based on the knowledge and various skills. The selection procedures and recruitment should be an extensive process, For example, Hiring innovation employees, employees focus in



identifying the attributes needed for innovation behavior. Openness to new work experience is characterized by psychometric testing, active imagination, various preference, curiosity towards new work experience and environment, creativity and flexible thinking. The candidates with learning orientation and learning goals prefer to take up new challenges improve their work quality.

Compensation- This system in industry 4.0 is related with the contribution of employees to the organization. Compensation are based on individual, team performance as well as organizational performance.

Performance Appraisal- Performance appraisal system should be based on the employee's behavior based which is connected with result based approach qualitatively. These two approaches lead to learn and innovate new ideas in workplace. Regular feedback must be received by the employees which helps to evaluate their performance and also go through performance standards communicate the expectations, Measure the actual performance and also compare the actual performance in industry 4.0, ongoing feedback allows employees and management to corrective actions.

Job Design- In industry 4.0 working environment job design helps the organization to define the change in climate of innovation and work according to the business environment. It is basically characterized by job relation, flexible work in various department and exchange of task and responsibilities.

Discussions and Conclusion:-

The primary objective of the paper is to conceptually present Industry 4.0 and the management approach. The major goal of industry 4.0 is implementation of CPS and smart manufacturing. Implementation of CPS in production sector is completely based on embedded system, sensors, actuators, reengineering of products, different customized product, etc. Efficiently supply chain, enable cost leadership and value added service of the product or service.

The major view point of this paper is focused on the HR approaches in implementation CPS. The suggestions for implementation of industry 4.0 need matrix structure, project teams, flat hierarchy, leadership goals, HR approaches based on training and development, staffing, compensation, performance appraisal, job design and willingness of investment and knowledge. All these factors together focus on learning and innovation which paves way for implementation of industry 4.0

The management practices with the HR approaches provide environment and climate, which are suitable for learning new skills to meet the requirements and challenges of industry 4.0. The expansion of industry 4.0 paves way for more creative and innovative employees where appropriate HR approaches facilitate



learning process, enhance innovation and smart manufacturing and business operation.

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A STUDY ON JOB SATISFACTION FACTORS AND ITS INFLUENCE ON EMPLOYEE LOYALTY

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Abstract

Coimbatore is famous for its cotton and it is said to be the most developed cities in India. The industrial revolution was started in the year 1920s and years later many textiles, automobiles and pump sets industries was developed .The city is famous for hospitals and well reputed educational institutions. Even though there is a good economic growth because of textiles another manufacturing sectors like pumps produces good quality pumps and exported to other countries every year. Also there is a good recognition and huge demand for pumps in abroad countries. Hence the research study was carried out by the researcher in the pump manufacturing units located in Coimbatore region and about 300 workers responded to research survey though questionnaire.

Introduction

Many researchers examined job satisfaction as well employee loyalty and expressed their views in different perspectives in the area of social science research study. Every organisation expects a good position in the market and a well established brand name. Sometimes people join a particular company because of its brand name and company standards. So an employee knows that the organisation will provide the need or the expectations regarding job. In this case job satisfaction plays an important role. According to the management tradition a satisfied worker will definitely be a loyal worker to the organisation. All organisations has different HR policies on job satisfaction Therefore it is understood that management has a concern towards its employees .A loyal worker performance will be reflected in the job and a loyal employee is one of the reason for the organisation growth and performance. Now days there are many job opportunities for a worker and if any negative occurrence happens in the organisation or in the job the behaviour of the employee will be influenced by various factors such as employee turnover, absent from work etc. Hence Job satisfaction and employee loyalty is essential for the survival of the organisation. The present study aimed to concentrate on various job satisfaction factors and its influence on employee loyalty.

Review of Literature

Arvinder Kaur et.al., 2017 Examined the job satisfaction of employees working in Gurdaspur municipal committees in Punjab. Various job satisfaction factors like supervisor support, salary, working environment, job security, welfare measures,



rewards and recognition, were analysed by the researcher using various statistical methods namely factor analysis and percentages analysis . The end result of the study stated that men employees are more satisfied in the job than female employees .Hence the researcher from his study said that job satisfaction is influenced by these factors .Hence the organisation should take proper measures in this areas.

Lai Chai et.al., 2013 aimed to know the job satisfaction of workers working in administration departments of a particular organisation located in a small town of Malaysia called Seremban.The job satisfaction parameters taken for the study were promotion policies, fairness, work surroundings, salary systems. the result revealed that job satisfaction is influenced on various parameters such as promotion policies, work surroundings, salary systems. There is no association between job satisfaction and fairness from the study.

Pooja Pandey et.al., 2017 studied the factors affecting employee job satisfaction. The statistical technique such as linear regression analysis, percentage analysis, and correlation was carried out by the researcher using the tool namely SPSS in this research study. The outcome of the study was that employees are satisfied in their job and the factors such as

Stress in the job, working conditions, different organisational policies, promotion strategies, compensation has a positive impact but the level of satisfaction is viewed differently gender wise.

RESEARCH METHODOLOGY

Research design

- The primary data – through Questionnaire and
- Secondary data – articles for the study was collected through internet sources such as organisation websites, newsletters journals as well as articles through appropriate database.

Population Selected For the study

- 300 workers working in Coimbatore pump manufacturing units

Sampling Technique :

- Convenience sampling.

Statistical Tools Used for the Study

- Statistical technique **Pearson Correlation** was adopted by the researcher

RESEARCH OBEJCTIVE

- To measure the Job satisfaction of employees towards working Environment Relationship with Supervisors, Relationship with Colleagues, Salary System and Welfare facilities and its impact on employee loyalty.

TESTING OF HYPOTHESIS

Working environment

(H_0): There is no Positive Impact among Working Environment and employee Loyalty

(H₁): There is a Positive Impact among Working Environment and employee Loyalty

Relationship with superiors

(H₀): There is no Positive Impact between Relationship with superiors and employee Loyalty

(H₁): There is a Positive Impact between Relationship with superiors and employee Loyalty

Relationship with colleagues

(H₀): There is no Positive Impact between Relationship with colleagues and employee Loyalty

(H₁): There is a Positive Impact between Relationship with Colleagues and employee Loyalty

Salary system

(H₀): There is no Positive Impact between salary System and employee Loyalty

(H₁): There is a Positive Impact between salary System and employee Loyalty

Welfare facilities

(H₀): There is no Positive Impact between Welfare Facilities and employee Loyalty

(H₁): There is a Positive Impact between Welfare Facilities and employee Loyalty

DATA ANALYSIS AND INTERPRETATION

TABLE 1.1: CORRELATION TABLE FOR WORKING ENVIRONMENT

WORKING ENVIRONMENT		The working hours are comfortable	The workload is excessive well within the limit	The rest interval are adequate	Adequate facilities are provided to attend my job also proper equipments are provided	The work place is free from dust, pollution, noise and there is proper lighting/ventilation	There is a healthy worklife balance in my job
The working hours are comfortable	Pearson Correlation	1	.776**	.763**	.865**	.805**	.755**
	N	300	300	300	300	300	300
The workload is excessive well within the limit	Pearson Correlation	.776**	1	.864**	.779**	.852**	.928**
	N	300	300	300	300	300	300
The rest interval are adequate	Pearson Correlation	.763**	.864**	1	.832**	.932**	.919**
	N	300	300	300	300	300	300



	N	300	300	300	300	300	300
Adequate facilities are provided to attend my job also proper equipments are provided	Pearson Correlation	.865**	.779**	.832**	1	.912**	.766**
	N	300	300	300	300	300	300
The work place is free from dust, pollution, noise and there is proper lighting/ventilation	Pearson Correlation	.805**	.852**	.932**	.912**	1	.860**
	N	300	300	300	300	300	300
There is a healthy work life balance in my job	Pearson Correlation	.755**	.928**	.919**	.766**	.860**	1
	N	300	300	300	300	300	300

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

Interpretation

The correlation coefficient for job related factors is 1),(0.776),(0.763),(0.865),(0.805),(0.755) For overview scale type information this is quite enormous. The quantity of respondents in the example noting the two things is 300. P-esteem for this connection coefficient is .000. It's not in fact zero. SPSS doesn't give p-qualities to in excess of three decimal spots. Notice the corner to corner of ones. These are ideal relationships among's factors and themselves. The network is balanced on either side of the corner to corner, which means all relationships are given twice. Since $p < .05$, dismiss the invalid of no relationship and infer that the relationship is accurately significant.

TABLE 1.2: CORRELATION TABLE FOR RELATIONSHIP WITH SUPERIORS

RELATIONSHIP WITH SUPERIORS		I have got an easy approach to my supervisors	my superiors appreciate my performance	My superiors treat me properly	my superior is competent enough to guide me	My superior respect my opinion and criticisms	My superior does not show favouritism and treats all team members equally	A cordial working relationship with my superiors has helped to continue the services in this organization
I have got an easy approach to my supervisors	Pearson Correlation	1	.895**	.837**	.976**	.904**	.916**	.807**
	N	300	300	300	300	300	300	300



my superiors appreciate my performance	Pearson Correlation	.895**	1	.901**	.903**	.942**	.861**	.795**
	N	300	300	300	300	300	300	300
My superiors treat me properly	Pearson Correlation	.837**	.901**	1	.871**	.930**	.777**	.865**
	N	300	300	300	300	300	300	300
my superior is competent enough to guide me	Pearson Correlation	.976**	.903**	.871**	1	.922**	.919**	.854**
	N	300	300	300	300	300	300	300
My superior respect my opinion and criticisms	Pearson Correlation	.904**	.942**	.930**	.922**	1	.866**	.823**
	N	300	300	300	300	300	300	300
My superior does not show favouritism and treats all team members equally	Pearson Correlation	.916**	.861**	.777**	.919**	.866**	1	.802**
	N	300	300	300	300	300	300	300
A cordial working relationship with my superiors has helped to continue the services in this organization	Pearson Correlation	.807**	.795**	.865**	.854**	.823**	.802**	1
	N	300	300	300	300	300	300	300

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

Interpretation

The correlation coefficient for job related factors is (1),(0.895),(0.837),(0.976),(0.904),(0.916),(0.807) For study scale type information this is really enormous. The quantity of respondents in the example noting the two things is 300. P-esteem for this connection coefficient is .000. It's not actually zero. SPSS doesn't give p-qualities to in excess of three decimal spots. Notice the slanting of ones. These are ideal relationships among's factors and themselves. The network is even on either side of the corner to corner, which means all relationships are given twice. Since $p < .05$, dismiss the invalid of no relationship and infer that the relationship is factually huge.

TABLE 1.3: CORRELATION TABLE FOR RELATIONSHIP WITH COLLEAGUES

		There is a harmonious relationship among the employees across the hierarchies in the organization as well as in my department	My colleagues are helpful	Senior faculties guide their juniors in career and growth opportunities	There is a feeling of mutual trust and respect among the faculty members in my department as well as in an organization	Resources are freely shared throughout the organization	My colleagues show cooperation in work related tasks	Socializing across the teams has helped me to perform well in my job
There is a harmonious relationship among the employees across the hierarchies in the organizations as well as in my department	Pearson Correlation	1	.922**	.754**	.728**	.749**	.877**	.890**
	N	300	300	300	300	300	300	300
My colleagues are helpful	Pearson Correlation	.922**	1	.760**	.809**	.798**	.879**	.920**
	N	300	300	300	300	300	300	300
Senior faculties guide their juniors in career and growth opportunities	Pearson Correlation	.754**	.760**	1	.652**	.793**	.848**	.804**
	N	300	300	300	300	300	300	300
There is a feeling of mutual trust and respect among the faculty members in my department as well as in an organization	Pearson Correlation	.728**	.809**	.652**	1	.840**	.683**	.749**
	N	300	300	300	300	300	300	300
Resources are freely shared throughout the organization	Pearson Correlation	.749**	.798**	.793**	.840**	1	.839**	.810**
	N	300	300	300	300	300	300	300

My colleagues show co-operation in work related tasks	Pearson Correlation	.877**	.879**	.848**	.683**	.839**	1	.936**
	N	300	300	300	300	300	300	300
Socializing across the teams has helped me to perform well in my job	Pearson Correlation	.890**	.920**	.804**	.749**	.810**	.936**	1
	N	300	300	300	300	300	300	300

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

Interpretation

The correlation coefficient for job related factors is (1),(0.922),(0.754),(0.728),(0.749),(0.877),(0.890) For overview scale type information this is entirely huge. The quantity of respondents in the example noting the two things is 300. P-esteem for this relationship coefficient is .000. It's not in fact zero. SPSS doesn't give p-qualities to in excess of three decimal spots. Notice the inclining of ones. These are ideal relationships among's variables and themselves. The grid is even on either side of the askew, which means all relationships are given twice.

Since $p < .05$, dismiss the invalid of no relationship and reason that the relationship is measurably huge.

TABLE 1.4: CORRELATION TABLE FOR SALARY SYSTEM

		Am getting an equitable pay in this organization	I am satisfied with my salary	Organization fairly considers qualification , experience while framing policies for salary, fringe benefits and reward system	I get increment in reasonable scheduled time from the organization	Financial rewards policy of my organization is satisfactory
Am getting an equitable pay in this organization	Pearson Correlation	1	.936**	.947**	.909**	.944**
	N	300	300	300	300	300
I am satisfied with my salary	Pearson Correlation	.936**	1	.957**	.917**	.925**
	N	300	300	300	300	300

Organization fairly considers qualification, experience while framing policies for salary, fringe benefits and reward system	Pearson Correlation	.947**	.957**	1	.887**	.954**
	N	300	300	300	300	300
I get increment in reasonable scheduled time from the organization	Pearson Correlation	.909**	.917**	.887**	1	.904**
	N	300	300	300	300	300
Financial rewards policy of my organization is satisfactory	Pearson Correlation	.944**	.925**	.954**	.904**	1
	N	300	300	300	300	300

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

Interpretation

The correlation coefficient for job related factors is (1),(0.936),(0.947),(0.909),(0.944) For survey scale type data this is pretty large. The quantity of respondents in the example noting the two things is 300. P-esteem for this relationship coefficient is .000. It's not actually zero. SPSS doesn't give p-qualities to in excess of three decimal spots. Notice the slanting of ones. These are ideal relationships among's variables and themselves. The grid is balanced on either side of the inclining, which means all connections are given twice.

Since $p < .05$, dismiss the invalid of no relationship and infer that the relationship is factually critical.

TABLE 1.5: CORRELATION TABLE FOR WELFARE FACILITIES

Correlations					
		The canteen facilities are adequate	The transport facilities are adequate	Medical facilities are adequate	Proper measures are taken for the safety and security of the employees
The canteen facilities are adequate	Pearson Correlation	1	.971**	.962**	.788**
	N	300	300	300	300

The transport facilities are adequate	Pearson Correlation	.971**	1	.976**	.796**
	N	300	300	300	300
Medical facilities are adequate	Pearson Correlation	.962**	.976**	1	.806**
	N	300	300	300	300
Proper measures are taken for the safety and security of the employees	Pearson Correlation	.788**	.796**	.806**	1
	N	300	300	300	300

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

Interpretation

The correlation coefficient for job related factors is (1),(0.971),(0.962),(0.788) For review scale type information this is really enormous. The quantity of respondents in the example noting the two things is 300. P-esteem for this connection coefficient is .000. It's not actually zero. SPSS doesn't give p-qualities to in excess of three decimal spots. Notice the slanting of ones. These are ideal connections amongst variables and themselves. The lattice is even on either side of the askew, which means all relationships are given twice.

Since $p < .05$, dismiss the invalid of no relationship and presume that the relationship is factually non critical.

Findings and Conclusion

- From the study the researcher identified that the factors such as working environment, relationship with supervisors, relationship colleagues, salary system Shows positive influence on employee loyalty.
- A welfare facility showed a negative influence on employee loyalty.
- The employees gave a negative opinion on welfare facilities such as canteen facilities, transport facilities and medical facilities .Hence the organisation should take necessary actions to improve welfare facilities so that the needs of the employees in this aspect are fulfilled and it will help the organisation to retain the workers in the present organisation.

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EMPIRICAL ASSESSMENT OF QUALITY OF WORKLIFE TOWARDS CREATING SUGGESTIVE JOB ENRICHMENT SOLUTIONS IN ITES SECTOR IN COIMBATORE

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Abstract

The Indian ITes industry is focusing on the process of brand building with a view to create respect and awareness of the job among the people. In this context, quality orientation to the employees is highly required. With a rapid growth in offshore outsourcing, especially in the sectors of Automatic data management, Human Resources (HR), Finance and Accounting and Healthcare, only quality employees with specific skills and knowledge can produce quality results in upcoming services. Clearly, maintaining quality is critical in every aspect of a company's operation, but in few areas it is more important in BPO industry. The reason is simple: It is often the initial customer "touch point" that is, one of the first areas of a business with which a customer makes contact. The success of any ITes company is based on the quality footprints it creates through the performance of its employees. QWL (Quality of Worklife) is identification of those aspects of jobs and work environments that strongly impact the job satisfaction, job performance and life long well being of those who are employed (Seashore, 1975). QWL is a vital factor enriching the work environment to elicit best from the employees.

The four dimensions of QWL are identified and labelled as Reward system, Managerial style, Organisational support and Job itself. This paper attempts to provide knowledge about how employees in ITES sector perceive their job environment through QWL and how it can be improvised. This paper is an outcome of a study conducted with 100 employees across 5 organisations in ITES sector in Coimbatore with the objective to examine QWL and design suggestive strategies to enrich QWL. It was found that Job is the major factor that found to be important element as a part of developing QWL

Key words: QWL, ITES, Reward system, Managerial style, Organisational support , Job itself



Introduction

QWL is a philosophy, a set of principles which holds that people are the most important resource in the organisation as they are trust-worthy, responsible and capable of making valuable contribution and they should be treated with dignity and respect (Straw R.J and Heckscher C.C, 1984). QWL is a comprehensive construct that includes an individual's job related well being and the extent to which work experiences are rewarding and fulfilling. QWL can rightly create an environment in which commitment can flourish (Walton R.E, 1975).

Reward System

Reward system is essential in promoting a climate of involvement and career satisfaction. Today's organisations need to be more flexible so that employees are equipped to develop their workforce and enjoy their commitment. The components in Reward system are designed, developed and maintained on the basis of reward strategies and policies which will be created within the context of the organisation's culture and environment. Reward system enhances OC that will lead employees to remain as members, develop a strong belief in and acceptance of the values and goals of the organisation and willing to exert considerable efforts (Dhileep Kumar M., 2006).

The sub factors are as follows-

- Reward for Good and Hard work
- Interesting Job
- Information Sharing
- Pride and sense of accomplishment in job
- Recognition by supervisor
- Opportunity to improve skills
- Changes in work environment to stay competitive
 - Encouragement to use new ideas and approaches

Managerial Style

Managerial style strengthens the path goal relationship and also enhances the work environment that offers morally attractive solutions to many problems of the employees. The operational concept of Managerial style is found to incorporate 6 sub factors as follows:

- Participative Decision making
- Authority to make Decisions



- Easy accessibility to supervisor
- Ideas and suggestions valued by peers
- Supervisor's encouragement to implement risk prone decisions
- Good communication in work area

Organisational Support

Organisational studies argue that employer and employee exchange not only impersonal resources as money but also socio emotional resources such as approval, respect, recognition and support (Eisenberger, Armeli, Rexwinkel, Lynch and Rhoades, 2001). In line with this, the third dimension is named as organisational support with the sub factors as follows:

- Updation of Job related skills
- Clear goals to guide
- Enabling physical environment
- Skilled supervisors to lead
- Training to accomplish task
- Compatible time frame for completion of the task.
- Service quality as evaluation criteria.

The major determinant of QWL is Job itself and hence the fourth dimension is titled Job itself with the following sub scales:

- Challenging Job
- Skills and abilities match the job
- Adequate information
- Task significance

QWL and ITES Sector- Results

QWL includes good supervision, good working conditions, good pay and benefits and an interesting, challenging and rewarding job. High QWL is sought through an employee relations philosophy that encourages the use of QWL efforts, which are systematic attempts by an organisation to give workers greater opportunities to enhance their organisation's overall effectiveness. That is, a proactive human resource department finds ways to empower employees so that they draw on their "brains and wits," usually by getting the employees more involved in the decision-making process.



Table No.1 Determinants of QWL based on Mean Score Values

Organisational variables	Mean	SD
Quality of Work Life		
Reward system	3.938	0.694
Managerial style	3.865	0.682
Organisational support	3.893	0.670
Job itself	3.955	0.726

The nature of job in ITes is entirely different and companies today face formidable talent challenges. ITes organisations are well aware of the fact that there is no dearth of opportunities for talented personnel who are forever eyeing better options that can justify their talents. In such a tricky scenario, ensuring sustainable commitment from the talented lot is a tough nut to crack for HR mangers.

Reward System (3.938) is the second highest factor followed by Organisational support (3.893), Managerial style (3.865). It can be stated that Job itself under QWL has highest scoring.

Suggestive Model:

QWL is an essential factor for high productivity and performance (Walker, 1992). It has been extensively mentioned by Cummins Worley (2005), that reward system, physical work environment, work teams, employee involvement, and esteem needs affect level of productivity. Cascio (1998) wrote that employees who work in organisations where favourable QWL is experienced will like their organisations and feel that their work fulfils their needs. Paul Cornell (1987) has found that performance and QWL have a stronger link in data entry task. The composition of workforce continues to change over the years, companies that offer better working environment are expected to gain leverage in hiring and retaining valuable people. To sustain and progress in such an environment, skills and competencies of the employees should be multifaceted, upgraded and attuned to specific needs.

Based on the demographic variables analysis with QWL factors ,suggestive strategies are given in the chart below-

Personal Variables	Major Thrust	Actions
Type of organisation	<ul style="list-style-type: none"> Medical Transcription, Financial BPO, Online Education, Medical Records Management Online education operates on a different mode in relation to other types 	<ul style="list-style-type: none"> Job enrichment, Employee readiness program to adapt to change Matching skill sets with task
Gender	<ul style="list-style-type: none"> Managerial style found not to be significant Reward system, Organisational support, Job itself – expectations differ Continuance commitment- Not significant 	<ul style="list-style-type: none"> Neutralise Managerial style Distinguished Reward system Employee benefit programs – accommodate family design Fairness and equity strategies
Age	<ul style="list-style-type: none"> Maximum respondents – Young age 40-45 years – Expectation differs 	<ul style="list-style-type: none"> Customised Reward system Freedom to choose Work schedule Switch jobs without quitting (SJWQ) Relationship building
Marital status	<ul style="list-style-type: none"> Difference in Reward system and Job itself 	<ul style="list-style-type: none"> Competitive Reward system Job components to accommodate expectations Work life Balance
Educational Qualification	<ul style="list-style-type: none"> Differences of over qualification and under qualification of candidates addressed 	<ul style="list-style-type: none"> Training/retraining Increased teamwork Creative jobs Differential Reward system
Income	<ul style="list-style-type: none"> No much impact created across all dimensions 	<ul style="list-style-type: none"> Fair treatment of workforce Prompt redress of grievance Decentralise operations
Length of service		<ul style="list-style-type: none"> Better workplace relations
Employment status		<ul style="list-style-type: none"> Recognition Challenging job
Tenure	<ul style="list-style-type: none"> Employees with 6-8 years to be recharged 	<ul style="list-style-type: none"> Redesign Job elements Reorient their role Develop intellectual flair Save employees from career plateau risk

Fig No.1 Suggestive Model

Conclusion:

With globalisation and new business environment, organisations are enduring high tension to change policies and practices to stay competitive. ITES sector is subject to rapid changes and its operations are based on the environmental factors that influence the international clients. Work place is indeed an



important key to intensify employees work performance. Organisational support is also an important tool to strengthen employee work performance. Employer should be reminded that if their “main engine” is left working alone without any support or supervision, their performance will be less thus affects the quality of their productivity. QWL is a philosophy, a set of principles which holds that people are the most important resource in the organisation as they are trustworthy, responsible and capable of making valuable contribution. People also conceive QWL as a set of methods such as Autonomous work groups, Job enrichment and High involvement aimed at boosting the satisfaction and productivity of workers. Undeniably, incorporating good QWL practices will benefit the entire workforce and will increase their commitment towards their organization. The QWL decides the work behaviour of employees as the challenges of global competition increases. The importance of QWL has been linked to employees’ job outcome.

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DIMENSIONS OF EMOTIONAL INTELLIGENCE ON JOB PERFORMANCE OF MANAGER IN IT INDUSTRY

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Introduction

Emotional intelligence refers to the ability to perceive, control, and evaluate emotions. Emotional intelligence plays an important role in helping the managers and employees to cope with the dynamic changes that occur in the business environment. Some researchers suggest that emotional intelligence can be learned and strengthened, while others claim that it is an inborn characteristic. Employees need to enhance their emotional intelligence skills, apart from technical skills, which in turn will enhance their productivity on the job. Management of emotional intelligence by team members will help in developing interpersonal skills of the team members. It organization needs to be successful; it has to develop employee's emotional intelligence skills. Emotional intelligence in modern organizations induces energy and vitality in the dedicated employees. The multinational companies' environment expects proactive, initiative and responsibility for personal development from their employees. Motivation people to engage in their work are a prime problem in organizations and generally it becomes complicated by the existence of multiple roles, because the attitudes, behaviors, and emotions associated with one role may spill over to another. The employees do not always check their problems or triumphs at the door when walk into the office or come back to home from work. Within the context of the organization, the employee's often must engage in multiple roles to fulfil job expectations which can be talked by Emotional intelligence. Hence this research Endeavour tries to explore the relationship between Emotional intelligence Construct and Work Engagement Behavior which really implicate the managerial and organization performance.

Review of Literature

Sunetra Bhattacharya and JayanthiBasu (2007) the purpose of the research was to study Distress, Wellness and Organizational role stress of professionals in the area of information Technology (IT). The effect of sex and age on the above variables as well as the predictability of the variables from stressful life events and coping resources taken together were also examined. Results of the study reveal that women experienced greater wellness and older



personnel experienced more distress. **RakaShome (2007)** re-examined some current theoretical trends through which concepts such as diaspora and hybridity have been theorized in cultural studies in the western academy. Through an analysis of call centers in India it theorizes how the cultural politics of Indian call centers, and global flows of information technology, manifest new and emerging frameworks of hybridity and diaspora. **Olive et al (2008)** couples who for therapy with one person having borderline personality disorder (BPD) are a challenge for even the most seasoned couples counselor Linehan's DBT and Gottman's method for couples therapy from foundation for the work conducted with these couples. A case study illustrates how these models are used. **Mulla and Krishnan (2008)** the relationship of Karma-Yoga with the dimensions of empathy was explored through a study done on 108 students in a postgraduate programmed of business management. Karma-Yoga was found to be related to some dimensions of empathy. The results highlight the differential impact of dimensions of empathy. Empathic concern was found to be related to Karma-Yoga only for those individuals who were low on personal distress. **Rahim & Malik (2010)** found that an empirical account that reflects the direct relationship between emotional intelligence and organizational performance. They argued that emotional intelligence, though practically a moderator of the relationship between service delivery and customer satisfaction, is a basic driver of organizational performance.

Objectives of the study

To examine the impact of dimensions of emotional intelligence on manager performance.

Methodology

The study is basically an empirical one based on data gathered from the manager in IT industry. A sample of 512 respondents has been chosen for the purpose of the study. For this study, the researcher used a well-structured questionnaire to collect the data from the respondents. The questionnaire related to emotional intelligence on job performance of manager in IT industry. The researcher used multiple regression analysis to identify the factors of emotional intelligence. IBM SPSS 21 version was used for statistical purpose.

Impact of Dimensions of Emotional Intelligence on Job Performance of Manager in it Industry

Regression is the determination of statistical relationship between two or more variables. In simple regression two variables are used. One variable (independent) is the cause of the behaviour of another one (dependent). When there are more than two independent variables the analysis concerning relationship is known as multiple correlations and the equation describing such relationship is called as the multiple regression equation. Regression analysis is

concerned with the derivation of an appropriate mathematical expression is derived for finding values of a dependent variable on the basis of independent variable. It is thus designed to examine the relationship of a variable Y to a set of other variables $X_1, X_2, X_3, \dots, X_n$. the most commonly used linear equation in $Y = b_1 X_1 + b_2 X_2 + \dots + b_n X_n + b_0$. Here Y is the dependent variable, which is to be found. X_1, X_2, \dots and X_n are the known variables with which predictions are to be made and b_1, b_2, \dots, b_n are coefficient of the variables.

In this study, the dependent variable is job performance, Independent variables are self-awareness, self-management, social awareness and relationship management analysis are discussed as follows:

- Dependent Variable – Job performance (y)
- Independent Variable
 - i. Self-Awareness(X_1)
 - ii. Self-Management (X_2)
 - iii. Social Awareness(X_3)
 - iv. Relationship Management(X_4)
- Multiple R value: 0.672
- R Square value: 0.4489
- Adjusted R square value: 0.4317
- F value: 37.387
- P value: 0.000

Table 1: Variables in the Multiple Regression Analysis

Variables	Unstandardized Coefficients(B)	S.E error of B	Standardized Coefficients Beta	t-value	p-value
Constant	0.526	0.215	-----	2.443	0.015*
Self-Awareness	0.153	0.026	0.243	5.795	0.000**
Self-Management	0.042	0.012	0.159	3.454	0.001**
Social Awareness	0.175	0.020	0.380	8.596	0.000**
Relationship management	0.024	0.016	-0.059	-1.479	0.140

Note: ** Denotes significant at 1% level

* Denotes significant at 5% level

The multiple correlation coefficient is 0.672 measures the degree of relationship between the actual values and the predicted values of the job performance. Because the predicted values are obtained as a linear combination of self-awareness (X_1), self-management (X_2), social awareness (X_3) and relationship management (X_4), the coefficient value of 0.672 indicates that the



relationship between adjustment and the four independent variables is quite strong and positive.

The Coefficient of Determination R-square measures the goodness-of-fit of the estimated Sample Regression Plane (SRP) in terms of the proportion of the variation in the dependent variables explained by the fitted sample regression equation. Thus, the value of **R square is 0.4489** simply means that about 44.89% of the variation in job performance is explained by the estimated SRP that uses depression and anxiety as the independent variables and R square value is significant at 1 % level.

The multiple regression equation is

$$Y = 0.526 + 0.153 X_1 + 0.042 X_2 + 0.175 X_3 - 0.024 X_4$$

Here the coefficient of X_1 is 0.153 represents the partial effect of self-awareness on job performance, the coefficient of X_2 is 0.042 represents the partial effect of self-management on job performance, the coefficient of X_3 is 0.175 represents the partial effect of social awareness on job performance, holding the other variables as constant. The estimated positive sign implies that such effect is positive that job performance score would increase by 0.37 for every unit increase in self-awareness, self-management, social awareness and this coefficient value is significant at 1% level. The coefficient of X_4 is 0.024 represents the partial effect of relationship management on job performance, holding the other variables as constant. The estimated positive sign implies that such effect is positive that job performance score would increase by 0.024 for every unit increase in relationship management and this coefficient value is not significant at 5% level. Based on standardized coefficient, self-awareness (0.243), self-management (0.159), social awareness (0.380) is the most important factors to extract job performance, followed by relationship management (-0.059).

Conclusion

With the several organizations across the globe implementing the concept of emotional intelligence for their training and organizational development, it has been not yet focused much on IT industry. With the help of the current study importance of Emotional Intelligence training program for manager in IT can be understood. The focus on Emotional Intelligence for IT employee would create an outcome of good social relations, less burnout, less job tension, job satisfaction. This will help them to lead a better Quality of work life and attain overall life satisfaction. It has provided a view on the lifestyle and problems of manager in IT sector and has interpreted that gender based implication on Emotional Intelligence should be understood by IT industry. IT companies must further refine their policies and processes to strongly influence the participation of manager in key projects. Looking ahead, companies must



identify formal and informal procedures that can be restructured to encourage participation of manager in organizational performance. Organization can provide room emotional intelligence to improve their performance. Providing managers with continuous learning, mentoring, coaching and counseling, offering them opportunities for emotional self-awareness, accurate self-assessment, emotional self-control, transparency and adaptability, achievement orientation and initiative, optimism, empathy, inspirational leadership and change catalyst, team work and collaboration and encouraging them to take on higher responsibilities.

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PERFORMANCE OF SELECT PUBLIC SECTOR BANKS USING CRAMEL MODEL

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Abstract

Any development in the economy is made possible due to the thrust given in the Banking sector which is an important industry and a vital tool for progress, like wise any changes or modifications in the process will lead to reactions in the development of the nation. So the banking system's role and the viability of finance is a crucial tool for growth in the nation. Here in this article the researcher analyses the financial performance of the banks using CRAMEL that helps to understand the financial information that can measure the banks performance and the banks efficiency which is the need of the hour in the present environment. C - Capital Adequacy, R - Resource Deployed, A - Asset Quality, M - Management Quality, E - Earnings and the L - Liquidity. it is believed that there is a decline in profitability and productivity of the public sector banks as a result of liberalization. It is also caused due to the public and private sector banks have ruthless competition in the towards deposits generation and adding customers to their fold, in which private banks occupy a marginal edge to prosper in the banking business. Hence, an attempt has been made to analyse the performance of select public sector banks during the periods from 2014-2015 to 2018-2019 using the technique called CRAMEL model. Therefore the objective is to study the performance of select public sector banks using CRAMEL model. The Public sector banks in India are selected from the list available in the RBI database and 5 banks (**Bank of India, Canara Bank, Indian Bank, Indian Overseas Bank and Punjab National Bank**) arerandomly selected for the study. Tools used for analysis is Composite Ranking to analyze the performance of the select banks. The composite ranking reveals the overall situation based on the select parameters measuring CRAMEL model for the select public sector banks shows Indian Bank (2.00) achieved the first position, followed by Canara bank (2.667), Bank of India (3.167) achieved third position, while Punjab National Bank (3.500) achieved fourth and finally, the fifth rank achieved by Indian Overseas Bank (3.667). The study concludes that based on the evaluation taking some of the ratios recommended by CRISIL rating system using CRAMEL model the early warning signal raised in this study can be used as analytical decision support



tool in onsite and off-site bank monitoring system to detect the banks that are experiencing problems in few of the areas that need to be rectified and it is recommended that the decision makers shall understand the actual situation to take appropriate decisions to protect the failures of the banks and to achieve considerable growth in the years to come.

Key Words: Public Sector Banks, Performance, CRISIL, CRAMEL, etc..

1. Introduction

The developing countries focus on increasing the growth of the economy by increasing the development works or to reenergize the present system. There has to be incremental and consistent growth in the activities of production in the country. The allocation of funds and the implementation of funds are some of the developmental schemes in the agenda for nation development. Any development in the economy is made possible due to the thrust given in the Banking sector which is an important industry and a vital tool for progress. As the banking sector is vital for economic development any changes or modifications in the process will lead to reactions in the development of the nation. So the banking systems role and the viability of finance is a crucial tool for growth in the nation.

Countries adapting a proper financial system have shown the base for an economic enhancement. Basically the researcher analyses the financial performance of the banks. The measure of profitability, asset turnover, liquidity of a bank are considered for the study along with the model of CRAMEL that helps to understand the financial information that can measure the banks performance and the banks efficiency which is the need of the hour in the present environment. The abbreviation CRAMEL represents six variable components that helps to measure the performance of banks and they are C - Capital Adequacy, R - Resource Deployed, A - Asset Quality, M - Management Quality, E - Earnings and the L - Liquidity. The analysis is done to understand the determinants of banks financial performance from the selected public sector Banks of India using the CRAMEL ratios.

1.1. Crisil Rating

CRISIL is the topmost credit rating establishment in the nation, which had its inception in the year 1986, and it has become an autonomous rating agency, and it is popular through the world for its functionality and it is also received accolades for its supremacy in the analytical abilities. This firm has been advocated by several financial institutions in and around the country, all over the world, and some of the firms that endorsed CRISIL are the Asian Development Bank, LIC, GIC. There are several banks abroad who uphold this



bank and many other nationalized banks to endorse this, as early as late 1980s. Owing to its existence in the field for almost four decades, added along with it, its analytical capabilities, it is no wonder that CRISIL has established strong bonding with firms, and investors and also the Govt. organizations.

Several international rating agencies have accredited the quality of service provided by CRISIL. The approach that CRISIL utilizes for the rating of the financial sector entities involved both qualitative and quantitative methodologies, which is proceeded by the structured methodology which is very well-known system, termed as the CRAMEL. This system involved the ranking and ascertaining of the relative strengths and weakness of every entity that is involved, and overall it is measured up to its peer group, and a comparative rating is achieved.

2. Literature Review

As per **Baral (2005)** study the performance of joint ventures banks in Nepal by applying the CAMEL Model. His study was mainly based on secondary data drawn from the annual reports published by joint venture banks. His report analyzed the financial health of joint ventures banks in the CAMEL parameters. His findings of the study revealed that the financial health of joint ventures is more effective than that of commercial banks. Moreover, the components of CAMEL showed that the financial health of joint venture banks was not difficult to manage the possible impact to their balance sheet on a large scale basis without any constraints inflicted to the financial health.

Bodla&Verma (2006) examined the performance of SBI and ICICI through CAMEL model. Data set for the period of 2000-01 to 2004-05 were used for the purpose of the study. With the reference to the Capital Adequacy, it concluded that SBI has an advantage over ICICI. Regarding to assets quality, earning quality and management quality, it can be said that ICICI has an edge upon SBI. Therefore the liquidity position of both banks was sound and did not differ much.

Af-Tamini and Iabnoun (2006) compares service quality and bank performance between national and foreign banks in the UAE. Also the paper compares the importance of the dimensions of the instrument between the two sets of the banks. The financial performance is compared using the of a Whitney non-parametric test. The results of this study will serve as a benchmark for UAE bankers from the 800 questionnaires, 480 responses were received.

As per **Grier (2007)** the study says that management is the prime important factor of study in the CAMEL rating system, as this has a significant role for the bank's performance and its success; moreover, it is also measured similar to the asset quality study. In similar line with Grier (2007)'s opinion, the consistent performance of a company on profits helps to increase the confidence of the



public about the bank and also reduce losses on loans by providing necessary provisions. This is highly regarded in order to have a stable financial structure which in turn provides reward to the shareholders. So the banks have to have regular strong earning, which paves way for its sustainability. The study of profitability ratio helps us to understand the capability of a company to create profits from its own revenue and its own assets.

Cinko&Avci (2008) noticed that globally all the banking supervisory authorities are using CAMEL rating system for many years. In this synthesis financial ratios were applied to calculate components of CAMEL ratings for the period of 1996-2000. The financial ratios were also employed to anticipate the delegation of commercial banks in 2001 to the SDIF by adopting discriminant analysis, logistic regression and neural network models. However the conclusion revealed that it was impossible to predict the transfer of a bank to SDIF by mode of CAMEL ratios.

Hays, Lurgio& Arthur (2009) have utilized CAMEL model to examine the performance of low efficiency vs. high efficiency community banks in conjunction with the logistical regression analysis. The analysis used data which are based on quarterly reports by commercial banks. The discriminant model derived from the CAMEL parameters is tested among data for 2006, 2007, 2008. Its results concluded that the model accuracy floats from approximately 88% to 96% for both original and cross-validations data sets.

Dash & Das (2009) have analyzed the Indian Banking Industry under CAMELS framework. The thesis compares the performance of public sector banks with that of private/ foreign banks. The analysis was performed from a sample of 58 banks operating in India of which 29 were public sector banks and 29 were private/foreign sector. The data used were from the audited financial statement for the financial years 2003-2008. The findings concluded that private/foreign banks have an edge over the public sector banks. The two factors of the CAMEL parameters that contribute to the best performance of the private banking/foreign were the Management Soundness and Earnings and profitability.

Kaur (2010) has made an analysis of commercial banks operating in India with reference to CAMEL approach. In his article he has categorized the banks into Public sector Bank, Private sector Banks and Foreign Banks. He used the CAMEL analysis technique with the purpose of ranking the banks. Each component of CAMEL has been interpreted using two ratios and a final composite index has been established. The data tools which were used was a sample of 28 public sector, 26 private sector and 28 Foreign banks and the data used was in secondary nature which was collected from statistical tables related to the Banks in India in the financial year 200-01 to 2006-07. The experiment revealed that the best bank from the public sector has been awarded to Andhra



Bank and State Bank of Patiala. In the category of private sector banks, Jammu and Kashmir Bank has been assigned the first rank succeeded by HDFC Bank. Among the foreign sector banks, Antwerp has bagged the first rank followed by JP Morgan Chase Bank.

Sangmi&Nazir (2010) has evaluated the financial performance of 2 top major banks in the northern India representing the biggest nationalized bank (i.e. Punjab national Bank, PNB) and the biggest private sector bank (i.e. Jamuna and Kashmir Bank, JKB). These 2 banks were selected in view their role and involvement in shaping the economic conditions of the northern India, specifically in terms of advances, deposits, man power employment, branch network etc. The research was mainly conducted on secondary data from annual reports of the respective banks. And the data used is related to five financial years (i.e. 2001-2005). The results highlighted that the position of the banks under study is sound and satisfactory as far as their capital adequacy, asset quality management capability and liquidity is implicated.

As per **Biswas (2014)**, the study has engaged the Camel model to scrutinise the performance of Andhra bank and Bank of Maharashtra public sector banks, which are the top five states in India. The result shows that Andhra Bank has shown high dominancy in the quality of earnings and the management efficiency, while Maharashtra Bank has performed well in liquidity and asset quality.

The study of **Isanzu (2016)**, has analysed the performance of Tanzanian commercial banks on the financial soundness by adopting the calculations of Camel model during the time from 2006 till 2011. The study finds that banks have used the ranking as a base by considering the various financial ratios appropriately that has made the banks to become highly competitive and also in the profit maximisation. NMB, Citibank and the Stanbic bank are the high performers by taking into account in all the financial ratios. The scope for further research from this study says that this concept can be adopted in all the countries to assess the safety and financial soundness of the banks.

As per **Al-Qaisi (2017)**, the study is involved to understand the various factors that affect the banks performance by engaging the Camels model. The samples were considered from the Amman stock exchange listed banks for the duration 2009 till 2014. The bank performances were analysed using the return on equity and return on assets. The outcome from the study says that asset quality, profitability, capital adequacy, management efficiency are the major factors that has an impact on the banks performances. The study also suggests the adoption of Came model rather than the Camel model in the central banks as it paves way for the best measure of the banks performances.

According to **Purohit and Bothra (2018)**, the study was done using the CAMEL model to compare the financial performances between ICICI Bank and



State bank of India. The result says that there is scope to increase the asset quality, capital adequacy for ICICI bank. The State bank of India has to adopt more efforts in improving their liquidity, earning quality and management efficiency.

3. Problem Statement

Banking needs to be looked at from the relevance of the Indian economy. It was observed that there are 21 public sector banks after merger and acquisition. In general, it is believed that there is a decline in profitability and productivity of the public sector banks as a result of liberalization. It is also caused due to the public and private sector banks have ruthless competition in the towards deposits generation and adding customers to their fold, in which private banks occupy a marginal edge to prosper in the banking business. Since the growth of an economy is largely dependent on the performance of the financial sector under the control of RBI, even with the growth of new foreign players, these banks will have significant role to play. Hence, an attempt has been made to analyse the performance of select public sector banks during the periods from 2014-2015 to 2018-2019 using the technique called CRAMEL model.

Objective

To study the performance of select public sector banks using CRAMEL model

4. Methodology

The research carried out is descriptive and analytical in nature and the research is based on the secondary data of the public sector banks collected from the RBI database. Source of data for the study is collected from the Annual Reports of the select Public sector banks which are available in RBI data base for the study periods. The Public sector banks in India are selected from the list available in the RBI database and 5 banks (**Bank of India, Canara Bank, Indian Bank, Indian Overseas Bank and Punjab National Bank**) are randomly selected for the study. After due merger and acquisition of nine private sector banks with the private and public sector banks, and 21 public sector banks, five banks namely Bank of India, Canara Bank, Indian Bank, Indian Overseas Bank and Punjab National Bank were selected randomly and specifically excluding State Bank and its associates because it comes under the group bank category. Financial year means the period of twelve months starting from 1st April of every year and ending on 31st March of next year. The study covered a period of 5 financial years from 2014-2015 to 2018-2019. Tools used for analysis is Composite Ranking to analyze the performance of the select banks.

5. Limitations of the Study

The performance of only five select public sector banks have been examined excluding other public sector, private sector and foreign banks. Therefore, the study does not reflect the overall picture of the performance of banking sector.

6. Analysis and Results

The banking sector is like a back bone of the society anywhere in the world and it plays a very crucial role of maintaining the economy of the society, which is very vital for the better functioning of the various undertakings that are necessary for the existence and progress of the society. In this regard, to analyze the select public sector banks performances based on the determinants of CRAMEL model such as C: Capital Adequacy, R: Resource Raising Ability, A: Asset Quality, M: Management & Systems Evaluation, E: Earnings Potential and L: Liquidity/Asset Liability Management which are considered to be the evaluators to assess the performance efficiency of the select five public sector banks using composite ranking method is presented as analysis and results hereunder:

6.1 Cramel Rating of Select Banks

Table 1: Rating

Banks	Capital adequacy ratio (C)		Investment to Deposit (R)		Return on investments (A)		Total Advances to Total Deposits (M)		Return on assets (E)		Deposits on Total Assets (L)	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
Bank of India	12.40	2	24.35	5	6.89	4	0.68	4	293.34	3	0.847	1
Canara Bank	11.92	3	29.18	4	7.33	2	0.73	2	460.74	1	0.860	4
Indian Bank	13.09	1	31.15	2	6.96	3	0.75	1	302.39	2	0.855	3
Indian Overseas Bank	9.95	5	32.85	1	7.62	1	0.64	5	55.67	5	0.866	5
Punjab National Bank	10.95	4	30.15	3	6.68	5	0.69	3	157.56	4	0.850	2

Capital Adequacy (C)

Performance of all banks based on capital adequacy ratio is more than 9% which is adequate enough for as per standard norms in which Indian bank achieved 1st position (13.09) followed by, Bank of Inida (12.40), Canara bank (11.92), Punjab National Bank (10.95) and finally, Indian Overseas bank (9.95).

Resource Raising Ability (R)

Investment deposit ratio confirming ability of all banks to raise its resources adequately posing satisfactory situation in which, Indian Overseas bank achieved 1st position (32.85), followed by Indian bank (31.15), Punjab National Bank (30.15), Canara Bank (29.18) and finally, Bank of India (24.35).

Asset Quality (A)

All five banks are realizing adequate return through their investment observed satisfactory in which 1st position towards return on investment is achieved by Indian bank (7.62) followed by, Canara bank (7.33), Indian Bank (6.96), Bank of India (6.89) and finally, Punjab National Bank (6.68).

Management Quality

Overall management of all banks to convert the available deposits into high earning advances proves its efficiency and ability in which Indian bank achieved 1st (0.75) followed by Canara Bank (0.73), Punjab National Bank (0.69), Bank of India (0.68) and finally, Indian Overseas Bank (0.64).

Earning ability (E)

Earning ability of all banks proves efficient enough adequacy to achieve higher return in which Canara bank achieved 1st position (460.74) followed by, Indian Bank (302.39), Bank of India (293.34), Punjab National Bank (157.56) and finally, Indian Overseas bank (55.67).

Liquidity (L)

All banks with respect to liquidity position based on deposits on total assets observed to have best hedged against liquidity risk in which Bank of India (0.847) achieved first, followed by Punjab National Bank (0.850), Indian Bank (0.855), Canara Bank (0.860) and finally, Indian Overseas Bank (0.866).

Table 2: Composite Ranking

Banks	C	R	A	M	E	L	Mean	Rank
Bank of India	2	5	4	4	3	1	3.167	3
Canara Bank	3	4	2	2	1	4	2.667	2
Indian Bank	1	2	3	1	2	3	2.000	1
Indian Overseas Bank	5	1	1	5	5	5	3.667	5
Punjab National Bank	4	3	5	3	4	2	3.500	4

The composite ranking reveals the overall situation based on the select parameters measuring CRAMEL model for the select public sector banks shows Indian Bank (2.00) achieved the position, followed by Canara bank (2.667), Bank of India (3.167) achieved third position, while Punjab National Bank



(3.500) achieved fourth and finally, fifth rank achieved by Indian Overseas Bank (3.667).

7. Suggestions and Conclusion

Capital Adequacy

IOB and PNB expected to ensure that they take up reasonable level of measures to minimize its operational losses to improve its capital adequacy.

Resource Raising Ability

With regards to the Resource Raising ability of the banks which reveals the resource position of the banks in terms of its ability to maintain a low cost, stable resource base shows IOB and Indian Bank are top performers while, least achiever are Bank of India and Canara Bank need to be significantly improve because banks are basically deposit funded which is necessary to mobilize its financial situation to consistently maintain its resource base.

Asset Quality

The degree of financial strength is measured based on the Asset Quality which is very important to assess the performance shows IOB, Canara Bank and IB are best performers while BOI and PNB need to take steps in gauging and strengthening the performance. The banks are recommend, not to allow the benchmark level of its Gross NPA need to improve its proportion of earning assets held by it and should be cautious to avoid potential credit losses.

Management Evaluation

As far as Management Evaluation is concerned the highest achiever is found to be Indian Bank followed by Canara Bank and PNB respectively whereas, the least rank achieved by BOI and IOB respectively. It recommended that the banks shall improve its goals and strategies, ability to adapt to the changing environment, improve its ability in managing credit and market risks. Improvement needed in the motivation levels of the staff members that also plays a pivotal role in the performance of the banks to achieve its maximum productivity levels.

Earnings Potential

The quality of earnings or the earnings potential of the banks is very important criteria to examine the bank's profitability and its capability to maintain the quality and earn consistently. It is found that Canara Bank and Indian Bank are 1 and 2 achievers while BOI, PNB and IOB achieved other three positions respectively. It is recommended that by proper maintenance and improvement of asset functioning based on interest spreads, expense levels, provisioning



levels and the earnings through non-interest income shall enhance earnings potential of the select banks.

Liquidity

Risk of liquidity can affect the image of banks. Hence it is crucial to maintain the liquidity position of the banks that will have reflection on the banks ability to meet its financial obligations. With regards to maintaining Liquidity by the select public sector banks, the highest achievers were Bank of India, PNB and IB and the least shared by Canara bank and IOB respectively. It is recommended that the banks shall mobilize and channelize its retail savings to achieve stability in accelerating the deposits that helps to support and enhance the liquidity position.

8. Conclusion

The study concludes that based on the evaluation taking some of the ratios recommended by CRISIL rating system using CRAMEL model the early warning signal raised in this study can be used as analytical decision support tool in onsite and off-site bank monitoring system to detect the banks that are experiencing problems in few of the areas that need to be rectified and it is recommended that the decision makers shall understand the actual situation to take appropriate decisions to protect the failures of the banks and to achieve considerable growth in the years to come.

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CYBER SECURITY – THE MOST CRITICAL SECURITY RISKS AND HOW TO GUARD AGAINST HACKERS

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Abstract

Cyber-security is the practice of protecting computers, servers, mobile devices, electronic systems, networks, and data from malicious attacks. It's also known as information technology security or electronic information security. It includes various categories like network security, application security, information security, operational security, disaster recovery and business continuity and end-user education. The threats countered by cyber-security are cybercrime, cyber attack and cyber terror. Cyber-security threats affect all industries, regardless of size. Some of the industries that has been reported with most cyber attacks in recent years are healthcare, manufacturing, finance and government. Today's security threats have expanded in scope and seriousness. It can be avoided by adapting certain measures such as by use of firewall, installing antivirus software, install an anti-spyware package, use of complex passwords, keeping the OS, apps and browser up to date, by ignoring spam, back up the computer, use virtualization, by securing the network, using two-factor authentication and use of encryption can secure the computers from hackers. This paper deals with critical security risks and the measures to safeguard against hackers.

Keywords: Cyber security, Control measures, Cyber-attacks, Network security, Encryption

Introduction

Over the years, Information Technology has transformed the global economy and connected people and markets in ways beyond imagination. With the Information Technology gaining the centre stage, nations across the world are experimenting with innovative ideas for economic development and inclusive growth. It has also created new vulnerabilities and opportunities for disruption. The cyber security threats emanate from a wide variety of sources and manifest themselves in disruptive activities that target individuals, businesses, national



infrastructure and Governments alike. Their effects carry significant risk for public safety, security of nation and the stability of the globally linked economy as a whole. The origin of a disruption, the identity of the perpetrator or the motivation for it can be difficult to ascertain and the act can take place from virtually anywhere. These attributes facilitate the use of Information Technology for disruptive activities. As such, cyber security threats pose one of the most serious economic and national security challenges.

The universal appeal of smartphones, the popularity of social media, and successful digital inclusion projects by the government have markedly increased Indians' digital presence — and their overall privacy risk exposure. Merely having an online presence can be a source of risk for the broad population of internet users, particularly vulnerable segments. Internet users who have only basic literacy or low educational attainment may not be proficient enough to make use of tools that protect them from cybercrime and data misuse. The growth of online shopping, web surfing, and internet services has resulted in a huge inflow of personal data to businesses and governments, an increase that opens more scope for privacy breaches. These potential violations are real threats to the success of digital technology-led initiatives. Moreover, the borderless nature of digital technology makes Indian consumers vulnerable to attacks from cybercriminals around the globe.

The Security risk can be classified into two.

1. Application Security Risk
2. Network Security Risk

Insecure software is undermining our financial, healthcare, defense, energy, and other critical infrastructure. As our software becomes increasingly complex, and connected, the difficulty of achieving application security increases exponentially. The rapid pace of modern software development processes makes the most common risks essential to discover and resolve quickly and accurately. As per the OWASP Project, the top 10 critical vulnerabilities in any web applications (Application Security Risks) are as follows.

1. Injection
2. Broken authentication
3. Sensitive data exposure
4. XML external entities
5. Broken Access Control
6. Security Misconfiguration
7. Cross Site Scripting
8. Insecure de-serialisation
9. Using components with known vulnerabilities
10. Insufficient logging and monitoring



Even without changing a single line of your application's code, you may become vulnerable as new flaws are discovered and attack methods are refined.

The network security concentrates on two issues viz the configuration of the systems involved in the network and the vulnerability associated with the services running in the network components.

In India, the Supreme Court recently endorsed privacy as a fundamental right of every citizen. Many government bodies currently play roles in cybersecurity, from surveillance and regulation to education and awareness; they include CERT-IN, the National Critical Information Infrastructure Protection Centre, the National Security Council, the Ministry of Home Affairs, the Defence Research and Development Organisation, the National Technical Research Organisation, the Department of Telecommunications' security wing, the Ministry of Electronics and Information Technology, the Data Security Council of India. With the increasing risks in cyberspace and data privacy, the goal is to provide security by adopting appropriate regulation while also keeping enough of an opportunity window open for the growth of digital innovation and a home-grown industry. Singapore is considered the world's leader in cybersecurity.

In India, a national Nodal Agency for Cyber Security has been set up under the Ministry of Electronics and Information Technology. CERT-In(Computer Emergency Response Team-India) is the national nodal agency for responding to computer security incidents as and when they occur. The main functions of CERT-In includes

To collect, Analyse and disseminate information on Cyber attacks

To provide emergency measures for disposing of cyber security incidents

To issue guidelines, advisories, vulnerability notes etc relating to information security practices, procedures, prevention, response and reporting of cyber incidents.

As per the data published by CERT-in, during the year 2018, 208456 incidents were reported. The types of incidents handled were Website intrusion & Malware propagation, Malicious Code, Phishing, Distributed Denial of Service attacks, Website Defacements, Unauthorized Scanning activities and Vulnerable Services. The summary of various types of incidents handled is given below:

Phishing	454
Network Scanning / Probing/Vulnerable Services	127481
Virus/ Malicious Code	61055
Website Defacements	16655
Website Intrusion & Malware Propagation	905
Others	1906
Total	208456

Managing Information Security:

The main three constituents in managing the Information Security are



- Technology - Products , Tools and automation
- People - skills, roles and responsibilities
- Process - shall be consistent and repeatable

Counter Measures - Technology

- Policies, Procedures and awareness - User education
- Physical Security - Guards, locks, tracking devices
- Perimeter - Firewalls, VPN, IDS/IPS
- Internal Network - Network segments, IPSec, NIDS
- Host - OS hardening, authentication, patch management, HIDS, HIPS
- Application - Application hardening, antivirus
- Data - ACL, encryption

Counter Measures - People

- Education and user training
- Awareness and training are one of the fundamental vehicles to help address information security threats – No one is going to take precaution if he is not aware of the potential negative consequences of his actions or inactions. No one is able to protect himself from attacks if he is not aware of how he can do it. Ignorance is no longer bliss. Social engineering attacks remain as one of the most successful attack on the Internet
- Anti-virus must be installed and patches and signatures must be up to date.
- Use of genuine Operating system and Software's
- Pirated software's includes malicious code
- Operating system and application security patches must be up to date.
- Hardware and software that provide memory (data Execution Prevention, Buffer Overflow) protection must be implemented.
- Install and enable Personal firewall ,Anti-spyware , Anti-phishing controls and HIPS
- Download applications from the trusted sources
- Do not follow unsolicited web links or attachments in email messages
- Exercise caution while visiting links to Web pages
- Do not visit untrusted websites
- Disable autoplay feature as a safe practice
- Consider Disk-encryption - Success of any encryption scheme depends on strength of Key/passphrase and how it is kept/shared.
- Practice limited account privilege . Admin privilege is not required for most of the day to day work



Counter Measures- Process

Policies: general statement produced by senior management that dictates what role security plays within the organization.

- Standards: mandatory activities, actions or rules
- Baselines: a point in time that is used as a comparison for future changes.
- Guidelines: recommended actions and operational guides to users when a specific standard does not apply.
- Procedures: detailed step-by-step tasks that should be performed to achieve a certain goal.

Conclusion:

The main aim of cyber security is to protect valuable data and networks from external and internal threats present in the organisation. Cyber security should help the organisation to secure organisation culture. It should help the people reduce the vulnerability of their information and communication technology (ICT) system. Cyber security should help people to manage confidentiality, integrity and availability of data. Some of the major cyber threats are cyber terrorism, Cyber warfare and cyber espionage. Organisations and other regulatory bodies must take effective measures for cyber security. The management of the organisation should make security policy a part of its strategic planning and every employee of the organisation should be aware about the security policies and the probable risk. Most of the people are using online services, it is essential to educate them regarding the cyber security and how they can deal it.

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A STUDY ON THE IMPACT OF EMPLOYEE RETENTION IN STAR HOTELS OF COIMBATORE DISTRICT

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Abstract

The success of tourism industry has given rise to increased demand for quality professionals in the Industry. The increasing demand for skilled and qualified human resources is posing a major challenge to the industry. In this mesmerizing industry, the effective utilization of human resources gives hotels a competitive advantage in the market place. Hotels should develop human resource practices which enable them to recruit, select, and retain competent employees who can contribute to the achievement of desired organizational objectives. But with every success there come problems or concerns which are needed to tackle as they might slow down the organization or the industry as a whole. One of the major issue in every growing industry in past is to row out itself from the problem of employee turnover rate. Employee turnover is one silent part of human resource management that can have a negative impact for the organization if managed improperly. This paper is an attempt to find out the frequencies of demographic factors towards the impact of employee retention in star Hotels and to analyze the gender differences towards employee retention in Star Hotels.

Key Words: Employee, Employee Retention, Job Turnover, Star Hotels, Hotel Industry, Star Hotels.

1. Introduction:

Tourism industry has massive economic impact that continues to expand to new markets and destination. According to the UNWTO (2015), the total export value from international tourism amounted to US\$1.4 trillion of tourism dollars earned are the US, Europe, Asia, Pacific and Africa. Only the Middle East posted negative growth at the time of the report which shows that tourism has a great scope for growth and development.



Tourism relies on, as well greatly impacts, the usual location in which it operates. In some destination, there is a grand appreciation of the ecological resources as the sources of the tourism production as well as environmental guard policies and tactics in place. Preservation of these important resources benefits not only tourist but also the local residents as well.

1.1 Human Resources Practisesin Hotel Industry

Basically Human resources in the hospitality industry require not just a human touch and “service with a smile” but also require individual’s who are multiskilled, cross-trained, forward looking in terms of perspective and mindset, and require strategic creative and systematic thinking. To encourage tourists to choose a particular hotel, the service provider must meet or exceed the guests’ expectations of service quality. But human resource managers in the hospitality industry are experiencing rapid changes due to the inundation of information technology and ever increasing globalization, HR progress through education, training, and development of employees in the industry at all levels is important in sustaining the industry’s competitiveness in the international arena.

The hospitality industry expects their employees to have formal educational qualifications, experience, and trade skills before entering the service Industry. Introduction of several new hospitality institutes across India has significantly improved the quality of hospitality education, and the graduate’s are gradually becoming better skilled and better trained to work in this glamorous and fast growing industry. Hospitality institutions must conduct training programs in order to produce trained and qualified professionals to work efficiently in the hospitality sector. Educational institutions are developing model curriculum to enhance the skills of the students to shine in the hospitality industry. Some of the incorporated changes include written and oral communications; interpersonal skills and computer literacy as part of skills enhancement, but students fail to learn to utilize these skills in a fashion expected by the industry. Many academic institutes do not possess necessary infrastructure to teach these skills and are in need of investment to develop educational and training infrastructure to face future challenges and major opportunities in the hospitality sector of India.

2. Review of Literature:

Amin et al., (2014) Performance appraisal is the process to access the individual performance and productivity. It means how well he or she is



performing on the job and establishing the plan for improvement. If it is not present in an organization, it caused many problems like low morale, decreased employee productivity and low enthusiasm to support the organization and it declines the organizational performance.

Goswami et al., (2012) the study is about various issues and causes related to attrition of employees and the major challenge faced by an organization is to retain their talented bunch of employees. According to author employee attrition is a very serious problem and an annoyance of every industry. The survey explains that just obtaining the skilled employees is not enough but to retain them is also a very stimulating issue. The research also states that any organization for that matter has to prepare and implement plans and policies in such a way that the skilled workforce should be retained, if the company does not do so it will lose a knowledgeable, trained and skill employee, which not only has direct impact but also can cause serious damage to the company's growth. It also helps in the smooth running of business operations.

Saed et al., (2012) Training is a marshalled activity that aims to impart instructions or information to improve the performance, knowledge, or skills of the trainee.

Ezulike (2012) advocates that as a human relations best practice, each organization has their set of effective retention policies is in place to address rewards and recognition, employee development, and compensation in the tourism sector. Employee retention is one of the main challenges that manager faces in retaining the human resources and research on this study have a huge significance to the tourism industries.

Gruman et al., (2011) Performance appraisal is a process of inspecting and evaluating an individual's performance in his duty to facilitate the decision of career development of the individual. It evaluates the person overall contribution to the organization through assessment of his internal characteristics, working performance and his capability to pursue higher position in organization.

KPMG – ESOP (2011) the first ESOP survey by Knylveld Peat Marwick Goerdeler (KPMG) was conducted in 2010-11. This survey was carried taking into account the changing regulatory environment; further this survey was re-launched to understand the current trends. The survey report provides information on ESOPs based on the data gathered from respondents. The highlights of the survey state that, ESOPs can be a vital tool for attracting and retaining employees. This tool gives a feeling of ownership and also encourages employees to boast long-term career aspirations in the organisation. While it is significant to ensure that the ESOP is attractive for employees, simple to understand and administer, compliant with various tax and regulatory



requirements, it is also required to convey the fundamental message of the employer i.e. retention. This includes preparing an appropriate plan, ensuring that it is accommodating all the current provisions of listing requirements, foreign exchange regulations, corporate law, income- tax, etc. In recent times, accounting of financial implications relating to ESOPs is also undergoing substantial change and is an important factor in the decision making process of any hotel. The factors of employee retention are Employee Empowerment, Appraisal System, Employee Training, Pay structure and compensation, and Employee Retention.

Dr.Yasar et al., (2010) Generally, empowerment is delegating the power of decision and action to the employees and giving more responsibility and authority to complete their task.

Hummayoun Naeem (2010) Empowered employees tend to be more confident and try to give their best to employer because they are given more authority indecision-making process.

Stanfield (2006) The goal-setting process that involves employee can enhance employee empowerment as employee consider himself more empowered knowing his or her job.

Osborne (2002) It means that employees have sufficient authority to determine how they perform their tasks. Empowerment includes involvement of employee in goal-setting, decision-making and motivational techniques and enabling employees to work in a participative environment.

Ramlall (2004) Performance appraisals are employed to determine who needs what training, and who will be promoted, demoted, retained, or fired. When people perceive an imbalance in their outcome-input ratios relative to others tension is created.

Huselid (1995) Training plays an important part in job satisfaction. As long as formal and informal training experiences like necessary skills training, coaching, mentoring, and management development can further influence employees' development.

Landsman (2004) suggested that training is a precious activity for enhancing skills and improving staff performance and training can address several of the factors contributing to staff retention, such as perceived support from the supervisor, the agency, and community. Training defines roles more clearly to the employees, thus minimizing job stress. Organization with sufficient training opportunities should have higher retention rate substantially.

3. Objective Of The Study

- To study the present Employment Retention practices in Star Hotels.

- To analyze the gender differences towards the impact of Employee retention in Star Hotels.
- To determine the age group difference towards the impact of Employee retention in Star Hotels.

4. Research Methodology

The questionnaires are prepared as self-administered and published electronically using the internet, internet-mediate questionnaires. Since the nature of the questionnaire help to reach a large population, inter-mediate questionnaire makes that one step further and it was possible to reach more respondents.

In this research, descriptive study research method has been done in order to find, the opinion of respondents towards factors of Employee retention in Star hotels in Coimbatore. Also, according to our research area Population is finite and number of items is certain. Hence, the population taken into consideration for the study is 1578.

The sampling procedure used is stratified random sampling. Stratified sampling is one of the method of sampling from a population. Stratification means the process of dividing members of the population into homogeneous subgroups before sampling. In computational statistics, we have divided the population into three strata's in which each strata's represent the star hotels. From the stratus simple random sampling has been applied to arrive a sample size of 260.

Statistical Tools Used:

Z-Test

ANOVA

5.TO ANALYZE THE GENDER DIFFERENCES TOWARDS THE IMPACT OF EMPLOYEE RETENTION IN STAR HOTELS

Ho: To analyze the gender differences towards the impact of employee retention in star hotels.

Table – 5.1

Factors	Gender		N	Mean	F	Df	Sig (2tailed)	Significance	Null Hypothesis
	Male	Female							
Employee Empowerment	Male	155	21.4000	1.033	258	.482	.310	Accepted	
	Female	105	21.2095		257.975	.451			
Appraisal System	Male	155	21.0839	.064	258	.875	.801	Accepted	
	Female	105	21.1429		242.861	.860			
Employee Training	Male	155	20.2516	2.923	258	.125			
	Female	105	20.8667		128.893	.182	.089	Accepted	
Pay Structure and Compensation	Male	155	18.5935	4.219	258	.027			
	Female	105	19.2952		243.300	.023	.041	Rejected**	
Employee Retention	Male	155	21.1097	1.083	258	.824			
	Female	105	21.1524		235.305	.821	.299	Accepted	

Note:* Significant difference at5% level

From the above table (5.1), it is inferred that there is significant difference in opinion exists among male and female for the factors of **pay structure and compensation**. Hence the null hypothesis is rejected for the factors of **pay structure and compensation**.

Hence, there is no significant difference in opinion exists among the male and female respondents for the factors of **Employee Empowerment, Appraisal System, Employee Training and Employee Retention**. Hence, null hypothesis is accepted for the factors of **Employee Empowerment, Appraisal System, Employee Training and Employee Retention**.

5.2 TO DETERMINE THE AGE GROUP DIFFERENCE TOWARDS THE IMPACT OF EMPLOYEE RETENTION IN STAR HOTELS

Ho: Different Age group of respondents have same opinion towards the impact of Employee Retention in star Hotels.

Table – 5.2.

Factors	Age group	Sum of Squares	Df	Mean Square	F	Sig.	Null Hypothesis
Employee Empowerment	Between Groups	28.246	4	7.061	1.557	.186	Accepted
	Within Groups	1156.616	255	4.536			
	Total	1184.862	259				
Appraisal System	Between Groups	25.198	4	6.300	.722	.578	Accepted
	Within Groups	2225.786	255	8.729			
	Total	2250.985	259				
Employee Training	Between Groups	36.359	4	9.090	.902	.463	Accepted
	Within Groups	2568.641	255	10.073			
	Total	2605.000	259				
Pay Structure and Compensation	Between Groups	80.650	4	20.163	3.301	.012	Rejected**
	Within Groups	1557.411	255	6.107			
	Total	1638.062	259				
Employee Retention	Between Groups	39.647	4	9.912	4.569	.001	Rejected**
	Within Groups	553.164	255	2.169			
	Total	592.812	259				

Note: *significant difference at5%level

From the above table (5.2), it is inferred that there is significant difference exists among the age groups of the respondents for the factors of **Pay structure and compensation, Employee Retention**. Hence, the null hypothesis is rejected for the factors of **Pay structure and compensation, Employee Retention**.



But, there is no significant difference in opinion exists among the age groups of the respondents for the factors of **Employee Empowerment, Appraisal System, and Employee Training**. Hence, the null hypothesis is accepted for the factors of **Empowerment, Appraisal System, and Employee Training**

6. Findings, Suggestion and Conclusion

6.1 Findings

The aim of this study is to identify the impact of human resources practices towards employee retention in star hotels in Coimbatore.

- Among the respondents, 59.6% of respondents are male and 40.4% of respondents are female respondents. Also, 56.5% of the respondents are married, 39.2% of the respondents are unmarried and other respondents are 4.2%.
- Among the respondents, 24.2% of respondents are in the age group of below 18-25 years, 38.1% of respondents are in the age group 26-35 years, 17.3% of respondents are in the age group of 36-45 years, and 16.5% of respondents are in the age group of 46-55 years and 3.8% of the respondents are 3.8% and also 17.3% of the respondents are up to high school, 28.5% of the respondents diploma degree, 32.7% of the respondents are bachelor degree, and 21.5% of the respondents are master degree.
- By the help of Z-test, shows the male and female respondents have different opinion towards the factor of pay structure and compensation, but they have same opinion for the factors like employee empowerment, appraisal system, employee training and employee retention
- By Applying ANOVA, it is found that the Null Hypothesis is rejected for the age group of respondents for the factors like Pay structure and compensation, Employee Retention .But they have same opinion for factors like Employee Empowerment, Appraisal System and Employee Training.

6.2 Suggestion

- A study can be performed comparing star category hotels for understanding which HR practices are yielding more appropriate results in retaining employees.
- It is suggested that hotel industry should strictly adhere and adopt a functional Employee Retention Management System.
- A special attention should be given towards overcoming the challenges of implementing the Human Resource Management System.
- It is important to understand that different parameters would be required to be adopted while preparing an effective Employee Retention Management System for the Departments, Genders and Star categories.



- Employees always look forward to a transparent system which is self explanatory and unbiased. Suitably the structure of HR practices should support work transparency and a balanced approach for employee and organization well being.
- The hotels should have department specific HR practices considering the diversity of challenges faced by different departments. The focus could be on a particular departmental challenge and accordingly effective HR practice could be framed to cope with it and improve efficiency and employee strength.

6.3 Conclusion

The high rises in demand for manpower arises out of the situation where employees are switching jobs for better or competitive offers. This results to a high rate of attrition. To overcome the problem of high attrition rate, hotels have started taking initiatives towards framing of effective Human Resource Practices. Hotel organizations implements some innovative practices with utmost dedication, remains ahead of their competitors because such practices have a significant association with building competitive advantage, job satisfaction, financial performance, employee turnover, service quality, employee commitment etc. and leads to an overall commendable corporate performance. It is also important for hotels to design and implement employee centric practices and analyze the effectiveness of these practices from time to time as per the changes in the employment market scenario. The top management along with the managers should show keenness and involve the associates in designing the HRM practices.

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THE INFLUENCE OF SOCIAL, CULTURAL AND EDUCATIONAL FACTORS ON ENTREPRENEURIAL INSTINCT AND PERSONALITY TRAITS OF MANAGEMENT STUDENTS

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Abstract

Entrepreneurship acts a vital role in the economic growth and development of the country, more so in a rapidly budding country like India. Entrepreneurship development today has assumed great impact as it is a key to economic development. It can be reasonably stressful but starting at college level allows students to gain the required life skills and confidence to make it in the real – world, by attaining hands on experience through entrepreneurial tutors and lectures. The family and peers should give moral and financial support to the students’ which will help him/her to take a risk and implement new ideas.

The present empirical study scrutinizes the social, cultural and educational factors which influence the Entrepreneurial Intent and Personality traits of management students. It provides an in depth knowledge of the selected factors in the formation of the students’ Entrepreneurial Intent and gives an implication on policymakers, government and universities for enhancing the students in planning entrepreneurial activities. This paper has also analyzed the role of family, peer persons, education to develop the entrepreneur behavior.

Keywords: Entrepreneurship, Social-Cultural and Educational Factor, Entrepreneurial Intent, Personality Trait, Management Students

Introduction

In India, the growth of entrepreneurship is becoming more imperative as it is one of the dynamic forces for achievement of economic development and job creation. Nowadays in this turbulent world economy, self – employment option become as a stable and an increasingly smart occupation for one to engage in, particularly where there is escalating unemployment hardship subsist.

Entrepreneurship is the process of creating value by rising the necessary time and effort, assuming the diverse factors such as financial, physical, and social risks, for rewards of monetary and personal satisfaction (Hisrichand Brush, 1985). Governments and Institutions are equally cheering entrepreneurship because of its importance in employment construction which directly impacts the gross domestic product.

The present empirical study scrutinizes the social, cultural and educational factors which influence the Entrepreneurial Intent and Personality traits of management students. It provides an in depth knowledge of the selected factors in the formation of the students’ Entrepreneurial Intent and gives an implication on policymakers,



government and universities for enhancing the students in planning entrepreneurial activities.

In India, there is an urgent requirement to ignite the minds of youth so that they can establish their new business enterprise and create many job opportunities for others. This paper tries to explore and understand if there is any association between social, cultural and educational factors of management students influencing the entrepreneurial intention and personality traits.

Literature Review

- **Fallows and Steven (2000)**, stated that one of the solutions to the graduate unemployment problem is to enter self-employment or establish their own businesses. Studies have shown that permanence and employment longevity is no longer a significant feature of career paths and the changing nature of career prospects in large organizations has resulted in graduates becoming more interested in starting their own business.
- **Mueller and Thomas (2001)**, Entrepreneurial behaviors of individuals are motivated and/or stimulated by their personality traits and socio-cultural history. In other words, personality factors play a significant role in entrepreneurial activities.
- **Varghese and Hasan (2012)**, state that Entrepreneurs' social status is an important factor which motivates individuals to initiate new business. While other researchers believe cultural attitudes in some societies construe into key socialization practices that encourage individuals' intentions towards new enterprises.
- **McClelland (1961)**, discovered that the need for success and accomplishment was an important factor. subsequently, many other researchers confirmed that a relationship existed between the need for achievement and entrepreneurship.
- **Zampetakis L A ,Gotsi M, Andriopoulos C and Moustakis V (2011)**, indicated that the more the students' perceived innovativeness, the greater was their Entrepreneurial Intention.
- **Fatoki (2010)**, identified creativity as a motivator for Entrepreneurial Intention.
- **Batey and Furnham (2008)**, demonstrated that people comprehend themselves better with regard to their own capacity. As such,, individuals may judge themselves as equipped for creating new and profitable thoughts which are important for succeeding in starting new ventures.
- **Kirzner (1973)**, maintained that entrepreneurial alertness was a specific skill of entrepreneurs which helped them in identifying Entrepreneurial opportunities.
- **Ardichvilli et al., (2003)** ,Entrepreneurial Alertness is a focus on information pertaining to Entrepreneurship, a heightened receptiveness towards information and the aptitude to analyse information.
- **Utsch& Rauch (2000)**, stated that Need for achievement is a behavioral disposition enabling individuals to proceed particular activities. An excellence standard is needed for this kind of activities so that individuals become able to make a self-evaluation in face of a challenging event demanding capabilities and desire for accomplishment. People with strong need for achievement wish to solve issues on their own, they establish some goals and then make personal efforts to achieve these



goals, and perform better when tasks are challenging, and they find creative approaches toward better performance.

Objectives

- To examine the influence of social, cultural and educational factors on entrepreneurial instinct and personality traits of management students.
- To understand the opinion of entrepreneurship among the management students.
- To know the awareness on perceived barriers to start up a venture among student community.

Hypothesis

- H1: There is a significant correlation among Cultural Factor (CF) and EI of Management Students.
- H2: There is a significant correlation among Social Support Network (SSN) and EI of Management Students.
- H3: There is a significant correlation among Perceived Barriers (PB) and EI of Management Students.
- H4: There is a significant correlation among Technical Educational Factor (TEF) and EI of Management Students.
- H5: There is a significant correlation among Educational Factor (EF) and EI of Management Students.
- H6: There is a significant difference among gender and factors related to Need for Achievement
- H7: There is a significant difference among gender and factors related to Innovativeness
- H8: There is a significant difference among gender and factors related to Entrepreneurial Alertness

Research Methodology

The research design used in the study is exploratory in nature as it identifies the social cultural and educational factors influencing the Entrepreneurial personality traits of management students.

. It is also a descriptive research as it identifies the correlation between selected factors and Entrepreneurial Traits. Descriptive research involves gathering data that describe events and then organizes, tabulates, depicts and describes the data collection (Glass & Hopkins, 1984).

The population considered for the study includes Management students of a leading standalone B-school in Coimbatore. The sample size considered for the study was 45. The technique employed to select the target sample is convenience sampling. The data required for the study were collected through structured questionnaire. To analyse the collected primary data, various statistical tools and techniques were applied. The research data was analyzed by the following statistical tools called PSPP.

The methods used to analyse the data are:

- Correlation
- ANOVA

Analysis and Interpretation**Table:1 Entrepreneurial Intent Vs Cultural Factor**

EI Vs CF	Correlation	Sig.
1	.590	.001
2	.486	.027
3	.043	.782

Interpretation

The value of significance for EI 1 vs CF 1 is .001 is less than the table value. Hence null hypothesis is rejected and the value of correlation between these two factors is observed as .590 which shows a significant correlation among these 2 factors.

The value of significance for EI 2 vs CF 2 is .027 is less than the table value. Hence null hypothesis is rejected and the value of correlation between these two factors is observed as .486 which shows a significant correlation among these 2 factors.

The value of significance for EI 3 vs CF 3 is .782 is greater than the table value. Hence null hypothesis is accepted and the value of correlation between these two factors are observed as .043 which shows no significant correlation among these 2 factors.

Table:2 Entrepreneurial Intent Vs Perceived Barrier

EI Vs PB	Correlation	Sig.
1	.603	.001
2	.462	.033
3	.138	.376

Interpretation

The value of significance for EI 1 vs PB 1 is .001 is less than the table value. Hence null hypothesis is rejected and the value of correlation between these two factors is observed as .603 which shows a significant correlation among these 2 factors.

The value of significance for EI 2 vs CF 2 is .033 is less than the table value. Hence null hypothesis is rejected and the value of correlation between these two factors is observed as .462 which shows a significant correlation among these 2 factors.

The value of significance for EI 3 vs CF 3 is .376 is greater than the table value. Hence null hypothesis is accepted and the value of correlation between these two factors are observed as .376 which shows no significant correlation among these 2 factors.

Table:3 Entrepreneurial Intent Vs Technical Education Correlation

EI Vs TE	Correlation	Sig.
1	.198	.458
2	.176	.402

Interpretation

The value of significance for EI 1 vs TE 1 is .458 is greater than the table value. Hence null hypothesis is accepted and the value of correlation between these two factors are observed as .198 which shows no significant correlation among these 2 factors.

The value of significance for EI 2 vs TE 2is .402 is greater than the table value. Hence null hypothesis is accepted and the value of correlation between these two factors are observed as .176 which shows no significant correlation among these 2 factors.

Table:4 Entrepreneurial Intent Vs Educational Factor Correlation

EI Vs EF	Correlation	Sig.
1	.374	.620
2	.157	.897
3	.041	.792

Interpretation

The value of significance for EI 1 vs EF 1is .620 is greater than the table value. Hence null hypothesis is accepted and the value of correlation between these two factors are observed as .374 which shows no significant correlation among these 2 factors.

The value of significance for EI 2 vs EF 2is .897 is greater than the table value. Hence null hypothesis is accepted and the value of correlation between these two factors are observed as .157 which shows no significant correlation among these 2 factors.

The value of significance for EI 3 vs EF 3is .792 is greater than the table value. Hence null hypothesis is accepted and the value of correlation between these two factors are observed as .041 which shows no significant correlation among these 2 factors.

Table: 5Entrepreneurial Intent Vs Social Support & Network Correlation

EI Vs EF	Correlation	Sig.
1	.603	.001
2	.431	.030
3	.123	.325

Interpretation

The value of significance for EI 1 vs SSN 1is .001 is lesser than the table value. Hence null hypothesis is rejected and the value of correlation between these two factors are observed as .603 which shows a significant correlation among these 2 factors.

The value of significance for EI 2 vs SSN 2is .030 is lesser than the table value. Hence null hypothesis is rejected and the value of correlation between these two factors are observed as .431 which shows a significant correlation among these 2 factors.

The value of significance for EI 3 vs SSN 3is .325 is greater than the table value. Hence null hypothesis is accepted and the value of correlation between these two factors are observed as .123 which shows no significant correlation among these 2 factors.

ANOVA

Table:6 GENDER Vs NEED FOR ACHIEVEMENT

Gender Vs NFA	N	Mean	Std. Deviation	Std. Error
MALE	25	3.84	.624	.125
FEMALE	20	3.40	.883	.197
Total	45	3.64	.773	.115
MALE	25	4.00	.866	.173
FEMALE	20	4.10	.553	.124
Total	45	4.04	.737	.110
MALE	25	4.24	.597	.119
FEMALE	20	3.50	.688	.154
Total	45	3.91	.733	.109
MALE	25	3.88	1.201	.240
FEMALE	20	4.05	.394	.088
Total	45	3.96	.928	.138

ANOVA						
Gender Vs NFA		Sum of Squares	Df	Mean Square	F	Sig.
NFA	Between Groups	2.151	1	2.151	3.829	.047
	Within Groups	24.160	43	.562		
	Total	26.311	44			
NFA	Between Groups	.111	1	.111	.201	.656
	Within Groups	23.800	43	.553		
	Total	23.911	44			
NFA	Between Groups	6.084	1	6.084	14.899	.000
	Within Groups	17.560	43	.408		
	Total	23.644	44			
NFA	Between Groups	.321	1	.321	.367	.548
	Within Groups	37.590	43	.874		
	Total	37.911	44			

Interpretation

The Anova table shows that there is a significant difference among gender and need for achievement which includes variables such as doing things fairly related to study and work, seeking added responsibility assigned to the person. The value of significance for both the variables are .047 and .000 respectively



Table:7Gender Vs Innovativeness

Gender Vs INN	N	Mean	Std. Deviation	Std. Error
MALE	25	3.56	1.193	.239
FEMALE	20	3.50	.827	.185
Total	45	3.53	1.036	.154
MALE	25	4.32	.557	.111
FEMALE	20	4.45	.759	.170
Total	45	4.38	.650	.097
MALE	25	4.32	.690	.138
FEMALE	20	4.25	.716	.160
Total	45	4.29	.695	.104
MALE	25	3.92	.759	.152
FEMALE	20	4.20	.951	.213
Total	45	4.04	.852	.127
MALE	25	3.92	.812	.162
FEMALE	20	4.10	.447	.100
Total	45	4.00	.674	.101
MALE	25	3.96	.735	.147
FEMALE	20	4.00	.649	.145
Total	45	3.98	.690	.103
MALE	25	3.76	.779	.156
FEMALE	20	3.20	.894	.200
Total	45	3.51	.869	.130
MALE	25	7.80	13.922	2.784
FEMALE	20	4.10	.641	.143
Total	45	6.16	10.458	1.559

ANOVA

Gender Vs INN		Sum of Squares	df	Mean Square	F	Sig.
INN	Between Groups	.040	1	.040	.036	.849
	Within Groups	47.160	43	1.097		
	Total	47.200	44			
INN	Between Groups	.188	1	.188	.439	.511
	Within Groups	18.390	43	.428		
	Total	18.578	44			
INN	Between Groups	.054	1	.054	.110	.741
	Within Groups	21.190	43	.493		
	Total	21.244	44			
INN	Between Groups	.871	1	.871	1.207	.278



	Within Groups	31.040	43	.722		
	Total	31.911	44			
INN	Between Groups	.360	1	.360	.788	.380
	Within Groups	19.640	43	.457		
	Total	20.000	44			
INN	Between Groups	.018	1	.018	.036	.849
	Within Groups	20.960	43	.487		
	Total	20.978	44			
INN	Between Groups	3.484	1	3.484	5.035	.030
	Within Groups	29.760	43	.692		
	Total	33.244	44			
INN	Between Groups	152.111	1	152.111	1.404	.243
	Within Groups	4659.800	43	108.367		
	Total	4811.911	44			

Interpretation

The Anova table shows that there is a significant difference among gender and innovativeness which includes creativity of a person. The value of significance for the variable are .030.

Table:8 Gender Vs Entrepreneurial Alertness

Gender Vs EA		N	Mean	Std. Deviation	Std. Error
EA	MALE	25	3.92	1.115	.223
	FEMALE	20	2.95	.999	.223
	Total	45	3.49	1.160	.173
EA	MALE	25	3.80	1.080	.216
	FEMALE	20	3.25	1.209	.270
	Total	45	3.56	1.159	.173
EA	MALE	25	3.24	1.012	.202
	FEMALE	20	3.40	1.231	.275
	Total	45	3.31	1.104	.165
EA	MALE	24	3.63	1.279	.261
	FEMALE	20	3.25	1.164	.260
	Total	44	3.45	1.229	.185

ANOVA

Gender Vs EA		Sum Squares	of df	Mean Square	F	Sig.
EA	Between Groups	10.454	1	10.454	9.214	.004
	Within Groups	48.790	43	1.135		
	Total	59.244	44			
EA	Between Groups	3.361	1	3.361	2.592	.115
	Within Groups	55.750	43	1.297		
	Total	59.111	44			
EA	Between Groups	.284	1	.284	.229	.635
	Within Groups	53.360	43	1.241		
	Total	53.644	44			
EA	Between Groups	1.534	1	1.534	1.017	.319
	Within Groups	63.375	42	1.509		
	Total	64.909	43			

Interpretation

The Anova table shows that there is a significant difference among gender and entrepreneurial alertness which includes reading news, magazines or trade publication regularly to start their own business. The value of significance for the variable are .004.

Findings

- The majority of the respondents are in the age group of 22 and above.
- 55.6% are male and 44.4% are female.
- 28.8% respondents of parents are into business. 44.4% of the respondent's relations are not into any business.
- 82.2% of respondents do not have prior experience.15.56% of the respondent have experience in business.
- There is a significant correlation among Entrepreneurial Intent and Cultural Factor.
- There is a significant correlation among Entrepreneurial Intent and Perceived Barriers.
- There is no significant correlation among Entrepreneurial Intent and educational Factor.
- There is no significant correlation among Entrepreneurial Intent and Technical education.
- There is a significant correlation among Entrepreneurial Intent and Social Support Network.



- There is a significant difference among gender and need for achievement which includes variables such as doing things fairly related to study and work, seeking added responsibility assigned to the person.
- There is a significant difference among gender and innovativeness which includes creativity of a person.
- There is a significant difference among gender and entrepreneurial alertness which includes reading news, magazines or trade publication regularly to start their own business.

Suggestions

- Institutions need to focus on Technical Education by providing and enhancing alertness among the students, which will boost enterprise creation and economic progress.
- Entrepreneurial activities may be organized pertaining to innovation, which will further boost their entrepreneurial intention.
- The family and peers should guide and render financial support to the students' which will help him/her to take a risk and implement new ideas.
- Management Students should be aware of various barriers prevailing in starting up a new venture.

Conclusion

Many researchers believe Entrepreneurship results in economic growth. It is a source which creates new opportunities and brings affluence to the nation widely. This paper attempted to examine the influence of different social cultural and educational factors on entrepreneurial instinct and Personality traits of management students.

Cultural factor, Perceived barriers and Social Support Network are positively correlated with Entrepreneurial Intent. It emphasizes the need to inculcate high cultural values and to have a clear and in depth knowledge on perceived barriers to start new venture. The family and peers should give moral and financial support to the students' which will help him/her to take a risk and implement new ideas. Moreover, the education system should provide ample information and motivation for the students in technical education.

These results are anticipated to have certain implications on both Institution and management students. On one hand the change will create an entrepreneurial environment as an effort to foster entrepreneurship among students. On the other hand, Students must be ready to be able to swift their current learning approach to a more practical way which is required in the entrepreneurial learning process.

Limitations

Limitation of this research is that it was conducted in a particular institution. The results of the study are dependent and may vary based on the number of respondents. In this study the sample size was only 45.



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A STUDY ON THE FACTORS INFLUENCING WOMEN ENTREPRENEURIAL GROWTH IN COIMBATORE DISTRICT

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Abstract

Emergence of women entrepreneurs has led to an engendered perspective in realm of entrepreneurship. Women entrepreneurship is closely intertwined with instrumental societal and economic benefits. Despite the fact that women constitute nearly half of the population in India, their participation in entrepreneurial activities remains severely limited. The study is an attempt to decipher the concept, profile and dynamics of women entrepreneurship in India, so the study aims at analysing the prevalence of women entrepreneurship in India. The criteria for selecting the existing research on the topic included highly cited research studies on Women entrepreneurship specifically in the Indian context. Most recent research studies available on Google Scholar, EBSCO and Proquest have been selected for the purpose of review. Sex disaggregated databases on women entrepreneurship published by Government of India and global publications are analysed for tracing the emergence of women entrepreneurs in India. The synthesis of review of the literature brought forth the diversified profile of women entrepreneurs in India. Women entrepreneurs are a heterogeneous segment belonging to different age groups and demographic background. They are also confronted with various genders specific and gender neutral challenges during the course of establishing and operating their ventures. Entrepreneurial activity is quite low in India and is mostly concentrated in states of Tamil Nadu, Kerala, Andhra Pradesh, West Bengal and Maharashtra. There is an urgent need to decode policy imperatives and interventions that can boost an engendered environment for women entrepreneurs in India.

Keywords: Women entrepreneurship, India

Introduction

Entrepreneurship is an area of research that has been of immense interest to researchers, academicians and policy makers. Entrepreneurship is significantly correlated to economic development of any economy by accelerating growth and prosperity Schramm (2006), and Baumol et al (2007). In the last few decades woman as entrepreneur are emerging both in developed and developing economies. It is evident that women entrepreneurs contribute immensely to improved poverty levels, increased per capita income and employment creation Aguirre, D., et al (2012), Kumar, S. M. et al 2013, Ogidi, A. E. (2014). The question of gender gap in entrepreneurship is pervasive across countries. In almost all the countries there is a wide gap between entrepreneurial activities across both the genders (GEM 2015-16 Global Report). There is also a wide gap between entrepreneurial activity between



male and females in Indian context. The current review is an attempt to understand the dynamics of women entrepreneurship in Indian economy.

Literature Review

The study is exploratory in nature and attempts to decipher the phenomena of women entrepreneurship in Indian context. The objectives of the study are:

- To review and explore the engendered definition and concept of women entrepreneurs in Indian context.
- To review the existing search and explore the profile, features and challenges encountered by Indian women entrepreneurs.
- To trace the emergence and prevalence of Indian women entrepreneurs through secondary government databases.

The criteria for selecting the existing research on the topic included highly cited research studies on Women entrepreneurship specifically in the Indian context. Most recent research studies available on Google Scholar, EBSCO and Proquest have been selected for the purpose of review. Sex disaggregated databases on women entrepreneurship published by Government of India are analysed for tracing the emergence of women entrepreneurs in India. Annual Report of Sixth Economic census published by Government of India and Census reports pertaining to Micro small and medium enterprises in India are utilized as quantitative sources of literature. Additionally Global Entrepreneurship Monitor Reports and Female entrepreneurship Index Report 2015 published by Global Entrepreneurship Development Institute is also being referred to.

Understanding Entrepreneurship

Entrepreneurship has been of immense interest to researchers. Over the centuries researchers belonging to various domains of knowledge have tried to decipher the dynamics of entrepreneurship. Cantillon was the first economist to introduce the term entrepreneur during 18th century, (Cantillon, R. 1755). Say opined that profits that accrue to an entrepreneur are distinct from the one who supplied capital, (Say, J. B. 1803). Schumpeter introduced the concept of innovation in the theory of entrepreneurship, (Schumpeter, J.A. 1934). Entrepreneur can be defined as the one who maximizes opportunity (Drucker, P. F. 1964). According to McClelland an enabling environment and one's abilities ultimately decide entrepreneurial activity (McClelland, D.C., 1961). The role of an entrepreneur is to fill the gaps in market due to rising market imperfections (Leibenstein, H., 1968). Knight propounded that risk bearing is a core function of an entrepreneur and bearing risks is what leads to profit generation (Knight, F. H., 1921). According to Weber, spirit of capitalism drives entrepreneurial activity in any society (Weber, M. 1947). According to Hagen, the marginalized groups in the society resort to entrepreneurship for achieving equality and respect (Hagen, E, 1960). Cochran considers cultural values, role expectations of society in which entrepreneur operates and the abilities of the entrepreneur as key factors explaining entrepreneurial activity across different contexts (Cochran, T.C. 1968). According to Casson, macro-economic factors either



promote or discourage entrepreneurship (Casson, M. 1982).

It can thus be construed that an entrepreneur is an economic agent taking risks with the expectation of earning profits. In the process the entrepreneur emerges an innovator and conscious decision maker leading to narrowing of gaps in market arising due to market imperfections. It is established that entrepreneurship is of immense importance to developed, developing and transition economies.

Understanding Women Entrepreneurship

Concept of Women Entrepreneur

With the emergence of women in the field of entrepreneurship, researchers have resorted to arrive at a comprehensive definition of women entrepreneur. Women who take onus to organize and manage the resources of their enterprises and bear all the risks in expectations of deriving profit can be termed as women entrepreneur. This definition portrays women entrepreneurs as conscious decision makers and managers (Coughlin, J. H., & Thomas, A. R., 2002). Women who chose to pursue the challenging role of an entrepreneur driven by their desire to fulfil their need of independence and achievement. This definition is only applicable to women entrepreneurs who are opportunity driven, i.e. women who resort to entrepreneurship driven by their free will. This definition excludes necessity driven entrepreneurs who are forced to pursue entrepreneurship out of some bare need (Dhameja S. K.2002).

When a women or group of women embark on initiating, organizing and managing their enterprise, they are termed as women entrepreneur (Suganthi, 2009). Creative activity of initiating and operating a business venture leading to economic empowerment and social betterment of women in the society can be termed as women entrepreneurship. This definition elaborates the positive, social and economic contribution of women entrepreneurship in the society (Munshi, S et al, 2011).

According to the Government of India, woman entrepreneur is the one who assumes dominant financial control (minimum financial interest of 51 per cent of the capital) in an enterprise (Government of India, 2012).

Thus it is evident that the definition of entrepreneur can be generalised to women entrepreneur too. Some researchers have defined women entrepreneur possessing unique personality traits, while others have focussed on the roles they play as an entrepreneur while the Government of India has regarded financial control as a parameter in defining women entrepreneur.

Based on the synthesis of available literature, women entrepreneurs in Indian context can be defined as women having dominant financial control over their enterprise, who either choose or are driven out of some necessity to take up the challenging role of an entrepreneur and embark towards starting, organizing and managing resources at their disposal in expectation of earning profits. Women entrepreneurs take conscious decisions in order to manage their enterprise. Women



entrepreneurship also leads to social and economic empowerment of women.

Features of Indian Women Entrepreneurs

Women entrepreneurship is more common in younger age groups in comparison to older age groups (Dhameja et al 2000). Women entrepreneurs have diverse educational background (Patole, M., & Ruthven, O., 2002). Majority of the women entrepreneurs belong to lower and middle income group (Vinze, M. D., 1987) and have service oriented enterprises (Gupta, 2013). Women entrepreneurship is now progressing from pickles, papads and powders and becoming visible in fields like engineering (Munshi, S et al, 2011). Women entrepreneurs are now emerging as “techpreneurs” (Charantimath, 2005).

Women entrepreneurs were concentrated in traditional and informal sectors of the Indian economy. But over the past decade women entrepreneurs are also diversifying themselves in contemporary and emerging sectors.

Challenges encountered by Indian Women Entrepreneurs

Indian women entrepreneurs are confronted with plethora of challenges. Access to easy and affordable finance and marketing is identified as prominent challenge by majority of women entrepreneurs (Panandikar, 1985). Hefty prices of raw materials, cumbersome procedures of licensing and registration and exclusion from banking and financial services create obstacles for women entrepreneurs (Vinze, M. D., 1987). Women entrepreneurs are often plagued with very weak financial status owing to which they are constrained. Lack of social and family cooperation, illiteracy and unawareness about various government schemes and programs hinder development of women entrepreneurship (Rao, C. H. 1991). Women entrepreneurs often report challenges associated with financial, labor and marketing problems (Chandra, 1991). Lack of cash flow and working capital, lack of manufacturing experience and burden of household responsibilities pose a serious challenge to women entrepreneurs of India (Das, M. 1999).

Social conditioning renders women to be shy, introvert and more concerned with family obligations. Shyness in business interactions, low achievement motivation, risk averse attitude, lower level of education, burden of family obligations, gender bias at the level of family and society, lack of managerial skills and experience, lack of business related information, non availability of finance are some of the challenges, (Singh S. & Saxena, S. C. 2000). Challenge of easy and affordable working capital and equity finance, poor marketing support, and infrastructural obstacles pose prominent challenge to women entrepreneurship (Ganesan, et al 2002). A range of social, personal, marketing, mobility, government support, financial, production and labor related problems, stress of work life balance and poor technical expertise are reported as main challenges faced by women entrepreneurs (Dhameja, S. K.2002).

Striking work life balance, poor self confidence, lack of business related knowledge,



shyness and reluctance in business dealings, lack of formal finance due to insufficient collateral, marketing problems, and scarcity of business premise are common challenges (Sinha, P. 2003). Some of the constraints encountered by women are exclusive to them (gender specific) while some of the constraints are faced by entrepreneurs irrespective of gender (gender neutral) (Munshi Setal 2011).

Women entrepreneurs in India are confronted with a wide array of challenges in their careers. Availability of venture and working capital emerges as the top challenges confronted by women entrepreneurs. Safe and affordable access to markets is another concern. Infrastructural bottlenecks, lack of advisory and business development support services, unawareness regarding existing provisions of government support and lack of social conditioning conducive for women's entrepreneurial personality strongly impede development of women entrepreneurship in Indian context

Women Entrepreneurship in India

Women entrepreneurship in India is still emerging. The representation of women as entrepreneurs is quite limited. In this section representation of women entrepreneurs in India is analyzed through data available in key government publications.

The ranking of India on parameter of women entrepreneurship according to the Global reports is also very dismal. According to the "Female Entrepreneurship Index Report", 2015 compiled by Global Entrepreneurship Development Institute, India ranked 70 with a low score of 25.3 among 77 countries studied. India lags behind even African countries, (Terjesen & Lloyd, 2015).

According to the Global Entrepreneurship Monitor Report on Women's Entrepreneurship 2016-17, India needs a lot of improvement as far as women entrepreneurial activity is concerned. Entrepreneurial activity in women is summarized in Table 2. Total early stage entrepreneurial activity in Indian females is only 7.6 percent while percentage of women having established business activity is only 3.4 percent.

Following points about women entrepreneurship in India can be concluded from the results of Sixth Economic Census:

- The representation of women in the area of entrepreneurship is very limited as only 13.76 percent of establishments are women owned.
- Majority (83.19 per cent) of the women owned establishments run without a hired worker.
- Majority (65.7 percent) of the women owned establishments are non-agricultural establishments.
- The top five states in women entrepreneurship are Tamil Nadu (13.51 percent), Kerala (11.35 per cent), Andhra Pradesh (10.56 per cent), West Bengal (10.33 Percent) and Maharashtra (8.25 percent).



- The top five economic activities undertaken by women entrepreneurs are agriculture (34.3 Percent), manufacturing (29.8 Per cent), trade (18.23 per cent), other Services (5.38 Percent) and accommodation & food services (2.77 percent).
- In agricultural activities majority of establishments (92.20 percent) pertain to livestock activities.
- In non agricultural activities majority (45.36 per cent) of the establishments are in manufacturing activities.
- Women owned establishments provided employment to 13.48 million persons.
- Majority (89 per cent) of the women owned establishments were of perennial nature, 9 percent seasonal and 2 percent casual.
- Majority (79 per cent) of the women owned establishments were self-financed while 14.65 percent were financed from donations or transfers from agencies. Only 3.37 percent availed funding from government sources, merely 1.08 per cent availed finance from financial institutions, 0.84 per cent availed loans from non-institutions/ money lenders and only 1 per cent availed finance from self help groups.

Women Entrepreneurship in Micro Small and Medium Enterprises in India

Women entrepreneurship is highly concentrated in Micro, Small and Medium enterprises in India. The notable findings evident from the review of Census of Micro, Small and Medium enterprises are:

- There is very limited participation of women entrepreneurs in Micro, Small and Medium enterprises.
- Women entrepreneurs are steadily increasing both in registered and unregistered sectors.
- There is a need to bring unregistered women enterprises into the registered sector for better prospects of women entrepreneurs.

Government effort for women entrepreneurs in India

Since independence India has adopted a planned approach to development. Five year plans were the fundamental plans outlaying targets and mechanisms to achieve development and growth. Each Five year plan had specific approach and target for women population. Key trends visible in the Five year plans are:

- From the first Five year plan (1951-56) to fifth Five year plan period (1974-78), the prime focus of plans and policies was welfare of women.
- From sixth Five year plan (1980-85), the focus shifted to development of women. The emphasis on development continued up to seventh Five year plan (1985-90).
- Empowerment of women took centre stage from eighth Five year plan (1992-97) onwards and is evident till the last Five year plan (2012-17).



Since women entrepreneurship is highly concentrated in Micro, Small and Medium Enterprises, government has dedicated schemes and programs for women entrepreneurs in the sector. According to the Annual Report of Ministry of MSME released in 2015-16, following major schemes and programs exist for women entrepreneurs:

- TREAD (Trade Related Entrepreneurship Assistance and Development). This scheme is aimed at the economic empowerment of women through nurturing entrepreneurship among women. This scheme specifically focuses on promoting non-farm activities.
- Mahila Coir Yojana was aimed at providing self employment in rural women artisans in coir producing regions. This scheme entails providing training and subsidized equipments and machinery.
- Prime Minister's Employment Generation Program is aimed at promoting opportunities for gainful self-employment. Assistance in the form of margin money subsidy and credit relaxation for women is provided 0.95 per cent of the project cost is borne by governments while 5 per cent is contributed by women entrepreneur.
- Cluster development scheme. This scheme is aimed at providing infrastructural support to women entrepreneurs. Only 20 per cent of project cost is borne by women entrepreneur while 80 per cent is borne by government of India.
- Entrepreneurship development Programs for women. This program is targeted at providing training to women beneficiaries.
- Government of India promotes women entrepreneurs to represent themselves in International and national trade fairs and exhibitions through hundred per cent reimbursement of travelling cost.

Ministry of Women and Child Development acts as a nodal agency for executing and monitoring programs and schemes related to empowerment and welfare of women. According to the Annual report of Ministry of Women and Child Development, 2016-17 major programs and schemes for women entrepreneurs are:

- Rashtriya Mahila Kosh provides financial, capacity building and marketing support to enterprising women belonging to poor economic background.
- E-Haat was launched in March 2016 to address the marketing constraint faced by women entrepreneurs. It is a digital marketing platform connecting women entrepreneurs to markets.
- Support for Training and Empowerment of women (STEP) is aimed at providing women with training and skill development to make them capable of pursuing self employment or entrepreneurship.
- Nari Shakti Puraskar scheme is aimed at felicitating people and organizations working for empowerment of women.



- Working women's Hostel scheme provides safe and affordable accommodation to working women along with crèche facility for their children.

Additionally, the Government of India has also made provisions for providing credit and financial assistance to women entrepreneurs through public sector banks. Public sector banks provide financial assistance to women entrepreneurs for venture and working capital requirements. These schemes providing financial assistance to women entrepreneurs stipulate flexible norms for lending.

Conclusion

Women entrepreneurship is instrumental for achieving economic and societal growth. Despite constituting around half of the total population of India, the economic participation of women is very limited. Women entrepreneurs of India are now emerging in non-traditional sectors. Women entrepreneurs are a heterogeneous segment having diverse demographic, economic and educational background. It is imperative that the policies and schemes cater to the unique needs of every segment. It is evident that there are numerous challenges faced by women in the course of their entrepreneurial career. There is a need of comprehensive action plan to counter these challenges. Women entrepreneurship is concentrated in five states namely Tamil Nadu, Kerala, Andhra Pradesh, West Bengal and Maharashtra. The policy and interventions of these states needs to be explored so that the best practices can be emulated in other states. Despite the fact that government has framed and implemented various supportive measures, women entrepreneurship in India remains alarmingly low. Majority of the women owned establishments are concentrated in unregistered sector and hence are unable to reap the benefits of government support. Impact assessment of existing policies and schemes may reveal novel ways in which women entrepreneurship can be nurtured. Women entrepreneurship is a diverse and complex domain which requires extensive and intensive research endeavors for decoding its dynamics.

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**DEVELOPMENTAL WORK RESEARCH AS AN APPROACH TO
FACILITATE THE CREATION OF INCLUSIVE SOCIAL INNOVATION
THROUGH UNIVERSITY TECHNOLOGY TRANSFER IN AFRICA**

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Abstract

It is becoming increasingly apparent that development challenges being faced by African societies can be partly addressed through university technology transfer (UTT). Generic models of UTT have suggested the inclusion of civil society as key stakeholders in the process to enhance the creation of social innovation. However, UTT systems in African countries are faced with a set of challenges which are much more socially complex than the ones met by UTT systems in technologically leading countries. While existing models of UTT depicts the roles and interactions among participating stakeholders, they do not portray the dynamic nature of UTT as well as what triggers the interactions among stakeholders. Based on the literature review, this paper identifies the challenges in UTT practices for social innovation in Africa and explicates the strength of Developmental Work Research (DWR) as an approach for supporting the creation of social innovation through UTT in Africa. Taking into account that social innovation should be integrated in all UTT processes, the paper attempts to answer two research questions. The first question is how can we enhance the innovation capacity of society and empower them to participate in UTT? The second question is how can the possible relations between different stakeholders be defined considering the tensions resulting from their complex diversity and dynamic nature? It is suggested that this knowledge can be a tool for future UTT as well as R&D work in the African Context. The paper concludes by outlining the need for empirically testing the applicability of DWR, specifically the expansive learning cycle as an approach for facilitating the creation of social innovation through UTT in Africa.

Keywords: University Technology Transfer, Developmental Work Research, Inclusive Social Innovation, Society, Africa, Expansive Learning Cycle.

I. Introduction

1.1. Global Perspectives on University-Industry Technology Transfer and Social Innovation

Technology transfer, in the context of universities, is the process by which new inventions and other innovations created by those institutions are turned into products and commercialized (Audretsch, Lehmann & Wright, 2014). A focus on university technology transfer (UTT) has been emphasized not only to enhance the competitiveness of the industry through access to innovative research results but also to ensure that university's research and development (R&D) results are made available to



society and thus, an important driver of innovation and economic growth (Fadeyi et al., 2019; Puerta Sierra, Marín Vargas, & López Torres, 2017; Teng, 2010). However, this transformation of university's mission has supported university-industry interactions in creating commercial entrepreneurial spinoffs while it neglected to interact with the society; a critical stakeholder of the university (Dubickis & Gaile-Sarkane, 2015). Furthermore, a key challenge for governments and institutions has been to adequately support the technology transfer process through various mechanisms, including patenting and licensing, while not losing sight of, and reinforcing, the educational and research mission of universities (Cho, Kwak & Jun, 2019).

Besides commercial ends, UTT could play an active role in tackling inequalities and poverty through inclusive social innovation (Cetindamar, 2016) as it takes place within an increasingly complex network of regional stakeholders. In this paper, we consider the definition of social innovation by Westley & Antadze (2010) as a process through which new products, processes or programmes are introduced, leading to a change in daily routines, resources' streams, power relations or values within the society affected by the innovation. In this regard, social innovative UTT projects aim to address social needs and societal challenges rather than focusing primarily on commercial competitiveness and making profit. Howaldt, Kaletka & Schröder (2016) argue that with social innovation, the new does not manifest itself in the medium of technological artifacts but at the level of social practices.

When transferring technology and the related knowledge, an entrepreneurial attitude from the university may need to be supported by other three important entities in the process, which are the government, industry and civil society. The collaboration among these four entities form what is referred to as a quadruple helix (Carayannis & Campbell, 2009) on the one hand, and a social innovation ecosystem (Domanski & Kaletka, 2018) on the other hand, all of which are two different models looking at the interaction between the four entities, with the later having more additional entities. Despite this development, extant research on UTT is fragmented and lacks coherent approaches and conceptualizations which fully depict the dynamic and evolving nature of UTT. Furthermore, current UTT models assume interaction between the four entity stakeholders will naturally happen (Miller, McAdam & McAdam, 2018). The situation is more challenging in the African context which has disadvantageous situations from the global economy and research on UTT is very scarce. In this paper, the government and industry entities will partially be addressed since the focus on social innovation warrants the need to focus more on the society entity.

This review identifies the challenges in UTT practices for social innovation in the African context and explicates the strength of Developmental Work Research (DWR) as an approach for supporting the creation of inclusive social innovation in Africa. Taking into account that social innovation should be integrated in all UTT processes, the paper attempts to answer two research questions. The first question is how can we enhance the innovation capacity of society and empower them to participate in UTT? The second question is how can the possible relations between different stakeholders be defined considering the tensions resulting from their complex diversity and dynamic nature? The approach allows us to engage stakeholders in changing their situation through expansive cycles of learning. Social innovation through learning by doing can result in



inclusiveness, scaling-up of the productivities and competitiveness of African economies.

This section continues with a description of the methodology of the review process. Section II illustrates the DWR approach. The results of the review are then presented in section III. Section IV presents a discussion of how the DWR can be used in facilitating the creation of inclusive social innovation through UTT in Africa. Section V provides concluding remarks and possible future work.

1.2. Methodology

The methodology consisted of a review of literature on UTT and social innovation practices in the African context. The importance of a systematic literature review (SLR) of academic literature is well acknowledged in previous university-industry collaborations research (see for example, Govind & Küttim 2017; Miller, McAdam & McAdam, 2018) and therefore deemed appropriate given the aim of this paper. A SLR is divided into two main stages: planning stage which focuses on defining the scope and limitation of the literature review and criteria for articles to be included in the search, and the review of the complete text of the articles.

In the first stage, the first step is to define the scope of the systematic review of the literature. Initially, I planned to focus on emerging economies or developing countries, but the search for a combination of keywords such as ‘university technology transfer’, ‘university-industry collaborations’, and ‘social innovation’ in ‘emerging economies’ or in ‘developing countries’ mainly gave literature from Asia, South Africa and Nigeria. To address this challenge I therefore adopted a methodology by de Wit-de Vries et al., (2019) that overall followed the analytical process of a systematic review but differs from other systematic reviews when it comes to searching and identifying relevant literature for the study. The search of literature was performed in October 2019, mainly through Google Scholar search engine. Furthermore, considering the limitation on the availability of literature focusing on the African context, the search was neither limited to any year of publication nor to any type of technology.

The main criterion of inclusion was a general focus on UTT and social innovation, where only papers specifically focusing on these two areas were considered. Taking into account that Africa’s patterns of structural changes and productivity growth are quite different from those of developing Asia (Osakwe & Moussa, 2017), I decided to narrow my focus to Africa instead of using the general terms ‘emerging economies’ or ‘developing countries’. Therefore, the second inclusion criterion was the interest in research conducted in the African context, which excluded research in other countries not in Africa.

In reviewing the selected articles, tags were used to identify whether or not the paper addressed the following research questions: What is discussed about UTT transfer practices and social innovation in Africa? What are the challenges to inclusive social innovation in Africa? Lastly, a table which summarized these questions and answers was used to analyze and present the results of the review. This review might be limited due to the selection of keywords that were included and excluded, resulting into a SLR which is not comprehensive, but it gives us insights into UTT practices and associated challenges to the creation of inclusive social innovation in Africa.



II. Conceptual Background

Before presenting the results of the literature review, this section presents an overview of DWR. The presentation lays a foundation for a discussion on its applicability in facilitating the creation of inclusive social innovation through UTT in the African context.

2.1. Developmental Work Research: An overview

Developmental Work Research is an interventionist approach to the study and reshaping of work and learning. It expands cultural-historical activity theory (CHAT) by bringing it to the domains of work, technology and organizations. In applying general CHAT principles, DWR incorporates the central proposition that the historical development of an activity system proceeds in 'expansive cycles of learning' instigated by cycles of disturbance, emergence, transformation and resolution of the internal contradictions within and between activity systems in its wider activity context (Engeström, 2005). The developmental trajectory of a new activity system is thus manifested in solutions to the emerging contradictions.

The elements of an activity system are presented in Figure 1. A subject refers to the individual or a group whose position and point of view is chosen as purpose of the analysis. The object is a collectively constructed entity through which the meeting of a particular human need is pursued; the object is transformed through activity into outcomes. The relations between the subject and the object are mediated by tools, artifacts, rules, procedures, the division of labor and the community. Tools or artifacts refer to culturally produced means for changing the environment and achieving goals. The division of labor refers to both the horizontal actions and interactions among the members of the community and to the vertical division of power, resources and status. The community refers to the participants who share the common object that shapes and gives direction to individual actions and the shared activity at hand. Within any community engaged in collective activity, there are informal as well as formal rules and regulational norms and relational values, each of which afford and constrain the internal dynamics, accomplishments and development of an activity system.

Activity systems are increasingly interconnected and interdependent in such a way that they form a producer-client relationship, partnership, network, or some other pattern of multi-activity collaboration. The fact that activity systems interact and overlap with other activity systems implies that the elements of an activity system are always produced by some other activity. Likewise, the outcomes of an activity are usually intended for one or more other activities, either as means, objects or as new subjects of the latter (Korpela, Mursu, Soriyan & Eerola, 2002). In this regard, networks of interacting organizations can be analyzed using a model of a network of activity systems (Figure 1) with potentially shared objects (Engeström, 2001).

Thus, the notion of 'expansive cycles of learning' refers to the processes in which an activity system resolves its pressing internal contradictions by constructing and implementing qualitatively new ways of functioning for itself (Engeström, 2015; Engeström, 1987). It helps to identify different phases in the development of work, technology, organization or society (Figure 2).

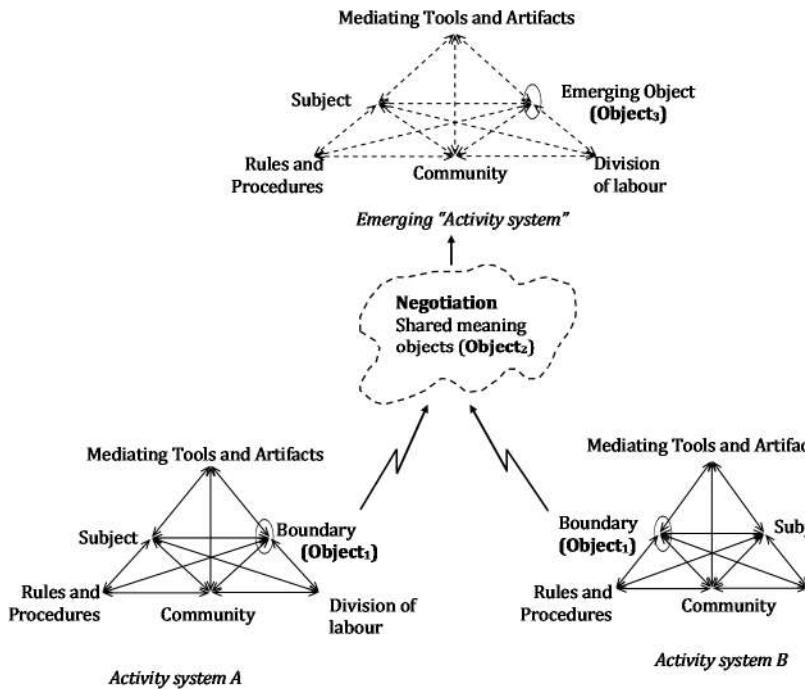


Figure 1: A shared object between two or more interacting activity systems engaged in inter-organizational learning (adapted from Weber, 2003, p. 171)

The first phase is the need state, which combines active and reflective participation of stakeholders in questioning and criticizing some aspects of the existing practice in a workplace or society. The second phase is the analysis. This is a phase when a sharpening contradiction has formed between certain factors of the activity system and therefore the discontentment of the members of the workplace or society is directed towards identifying existing contradictions within and between activity systems. The analysis can be historical, which seeks to explain the situation by tracing its origination and evolution and or empirical, which seeks to explain the situation by constructing a picture of its inner systemic relations. The third phase involves modelling in which, on the basis of the analyses, a working hypothesis of the 'zone of proximal development (ZPD)' for the activity system is formulated; described as the difference between what a person can accomplish when acting alone and what the same person can accomplish when acting with support from someone else and with culturally produced artifacts (Vygotsky, 1978). Members of a workplace sketch and plan a new solution to address contradictions. This involves actions such as developing new strategic instruments and forms of collaboration and division of labour. The fourth phase involves concretizing and testing the model by applying it in actual settings. The aim of this phase is to grasp the partial solution's dynamics, potential and limitations. The fifth phase is the implementation of the model through practical reconceptualising and revising. Finally, the sixth phase is the consolidation and reflection of the new practices.

This phase means transition to a state where new practices are followed systematically and the outcome of a developed model becomes a new form of practice.

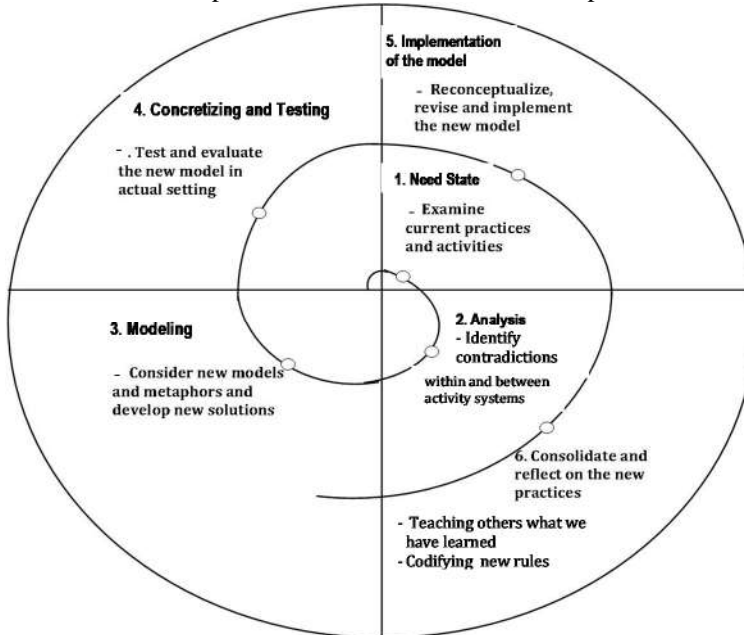


Figure 2: The iterative phases of an expansive learning cycle (adapted from Gay & Hembrooke, 2004)

The six actions are described by Engeström (2005) as phases of an outwardly expanding spiral, but multiple kinds of actions may take place at any time. The details and implementation are constructed and learned as the work community works its way through the expansive learning cycle. Accordingly, the expansive learning cycle is a useful tool for understanding open-ended learning processes in which the problem and its solution are not predefined, and the participants must generate and appropriate culturally new practices and knowledge (Rantavuori, Engeström & Lipponen, 2016).

The expansive learning cycle has been applied in studying networks of activity systems in multi-organizational fields (see for example Foot, 2001; Engeström, Rantavuori & Kerosuo, 2013; Rantavuori, Engeström & Lipponen, 2016). These studies mainly focused on analysing collaborative learning processes in interventions, such as Change Laboratories.

III. Results of the Review

3.1. University Technology Transfer Practices in the African Context

UTT within an individual African country or between African Countries is considered to be a way of addressing the challenges brought by technology transfer from developed nations to Africa. The most highlighted challenge is the fact that it is difficult for most African countries to evaluate and absorb incoming technology against existing needs (Danquah, 2018). Despite these developments UTT within the African



context still faces a lot of challenges, which hampers the achievement of UTT objectives (Fadeyi et al., 2019). It remains to be seen how efforts to commercialize and disseminate new technologies generated within a university can be informed by the nature of the specific demand for incremental innovation and technology adaptation by other stakeholders such as the industry, society and the government.

The main advantage of the universities in innovation initiatives is their competence to generate new original discoveries and new approaches to solve social problems. However, in Africa such efforts are still too few and small in relation to the size of existing social problems (Fadeyi et al., 2019; Trojer, Rydhagen & Kjellqvist, 2014). Most systems of UTT are constrained with structural deficiencies, systemic weaknesses, lack of skills and human development demands that relate to economic and social divide, which lead to limited demand in home markets and act as a constraint on technological progress (Kruss, Adeoti & Nabudere, 2012;).

The review indicated that the type of innovation activities resulting from UTT tends to be predominantly embodied in technology through the acquisition of machinery, software, equipment and R&D which is concentrated in the manufacturing sectors and financial sectors (Kruss, Adeoti & Nabudere, 2012; Interaction therefore tends to occur in a limited number of sectors where the field of university research capabilities match firms' technological requirements. Where interaction does occur, it tends to be through public conferences and meetings, consultation with individual researchers, publication and reports (Obanor & Kwasi-Effah, 2013).

In most cases the UTT projects are influenced by donor agencies, particularly because donors contribute significant proportions of the nation R&D funding (UNESCO, 2009) and aim to promote value addition in concerned sectors (e.g. projects in agriculture-related sub-sectors). In such projects universities and the industry involved are driven to interact with the society (e.g. local farmers) to substitute for missing indigenous knowledge. In this regard, projects have adopted international policy models without sufficient attention to appropriating these models in ways informed by local needs and unequal human development conditions. For example, African countries have adopted the establishment of institutions such as TTO, intellectual property management office (IPMO), innovation agencies, technology parks and incubators to facilitate the spillover of knowledge management by commercializing research undertaken at the universities. However, these institutions in most universities are understaffed and under budgeted to be able to accomplish their roles successfully. Their model is centered upon world-class research intensive universities and is associated with high technology and cutting edge innovation. Therefore, they are designed to become ideal environments for establishing and growing knowledge-intensive firms, which is different from the situation in Africa, where they are required to serve the local market and society requiring low technology application (Ayisi, Kivengea, & Ombakho, 2016).

Similarly, patterns of university industry interaction are mostly shaped by either the national policy to promote science and technology or the national system of innovation in development, in relation to global trends and influences (Bolo, et al., 2015). Therefore, a major issue of concern is whether these requirements are adopted with sufficient understanding of the distinctive local conditions and historical



trajectories, and whether it is possible for such targeted strategies to succeed, in the absence of threshold conditions (Kruss, Adeoti & Nabudere, 2012).

Furthermore, the extant literature highlights a major mismatch between the priorities and capabilities of the industry and the university sub-systems, with little interaction or co-evolution of capabilities. While universities are concerned with what is referred to as ‘big science’, the industry and society expect them to understand the industry’s line of business and the society’s contextual challenges respectively (ibid).

3.2. University Technology Transfer for Social Innovation in the Context of Africa: Observed Challenges

It is widely recognized that universities could play an active role in tackling inequalities and poverty by supporting social innovations (Cetindamar, 2016). In fulfilling this role, universities must do more than just generating and transferring knowledge and technology; they must foster leadership for the creation of entrepreneurial thinking and provide a suitable structure for transforming knowledge into new ventures which address social needs and societal challenges. However, the engagement of universities in promoting social innovation through UTT in Africa is still marginal and therefore, in contrast with their essential role as knowledge providers in innovation processes and as one actor of the helix models (Howaldt, Kaletka & Schröder, 2016) as well as the social innovation ecosystem.

There are at least three output dimensions on which a UTT process for social innovation is expected to deliver (BEPA, 2010): response to social demands that are traditionally not addressed by the market or existing institutions and are directed towards vulnerable groups in the society; tackle societal challenges through new forms of relations between social actors; or contribute to the reform of society in the direction of a more participative arena where empowerment and leaning are both sources and outcome of well-being. Recognition of these different output dimensions for social innovation is very important for the African context and developing economies in general. The dimensions have strong impact on the structure of UTT processes, including the identification of relevant society stakeholders, collaboration networks and for universities to balance between the need to address societal challenges and being commercially competitive. However, most of the TTO and associated institutions in Africa are not aware of the possible social impacts of technology transfer because their technology transfer models are based on privatization of knowledge (Fadeyi et al. 2019), which is opposite to the nature of social innovations.

Partners of the social innovation initiatives are required to contribute to the development of the innovation through both idea development and specific knowledge (Howaldt, Kaletka & Schröder, 2016). However, the situation is more challenging in Africa where the skill set is limited among society users of innovation as participants in the process (Nwuneli, 2015). This calls for approaches that can help increase society’s competences and capacities to contribute to the process and thus address the particular need to include weak groups and sectors in the UTT processes to achieve poverty reduction and broad societal development. Furthermore, considering the fact that social innovations are developed through collective learning embedded in a specific social context



(Shockley, 2015), it is necessary to understand the environment where they are developed and adapted through technology transfer.

IV. Application of DWR in Creation of Inclusive Social Innovation through UTT

The main strength of DWR as an approach to facilitate the creation of inclusive social innovation through UTT in Africa lies in its provision of a methodological language and a set of practices that allow the subjects of an activity system (in this case, the society innovation users) to identify and investigate their own circumstances in collaboration with university researchers, industry, government and other stakeholders. The six phases of the expansive learning cycle allow the participating helixes to better understand the expertise and capabilities of each other, which will help them to understand each other's interests and needs and clearly spell out each other's roles. The clarity of interests, needs and roles is the ease of achievement of the objectives of UTT within the society (Fadeyi et al. 2019).

The task of finding solutions to societal challenges begins with listening to the needs of affected society users (i.e. the need state). The need state helps participating stakeholders of the UTT project to collaboratively define the project scope and goals by questioning and criticizing the existing society's activity system. Visits of university researchers to the society and having discursive meetings with them are ways of obtaining an initial impression of the activity system and main existing problems. The analysis phase focuses on the past and current state of the society activity system; including the detailed analysis of key problems, contradictions and the activity's developmental potentials. This analysis leads to a deep understanding of the present activity system's characteristics.

However, any UTT initiative aimed towards inclusive social innovation in Africa needs to recognize that the marginalized group may be unable to express what problems they need to address, limiting the accomplishment of these two first phases. For this, the other involved entities must create a psychologically safe space for people to express themselves and leaders must be open to emotional communication. Contextualizing communication tools into local languages is also very important, especially in Africa where knowledge can easily be passed on through stories. Furthermore, since the society activity system is intertwined with the university, industry and the government's activity systems, the existing problems explored in the analysis phase should be understood as part of a system whole. As a result, solution to the existing problems often entails changing the overall activity system model. This understanding is very important to support the qualitative transformation of the society's activity system in the later phases of the UTT transfer process.

In the modeling phase, participating stakeholders of the UTT project consider the analyzed contradictions and explore new models and develop new solutions for the society activity system. This is a stage where the ZPD can be established to capture the transition from the past and present to a future advanced form of the society activity system. With phase four, where the developed models and new solutions are concretized and tested, the UTT process is set for experimentation, with continuous probing into new technologies and applications, where some will fail and some will succeed. In the

course of this phase contradictions between the old and the new model of the society activity system will occur. However, social learning process will unfold through the course of this experimentation.

After the new models have been tested, they are reconceptualized, generalized and implemented in phase five. This phase can cause contradictions between the new society activity system and the activity systems of the other participating stakeholders. Phase six focuses on consolidation and reflection on the new practices as a result of a new society activity system which has been implemented for sometime. During this phase, the problems occurring after the implementation of the new activity system can be discussed and the new model can be adjusted and consolidated, if necessary. An example of expected interactions through UTT involving the university, industry, government and the society as interacting activity systems is presented in Figure 3.

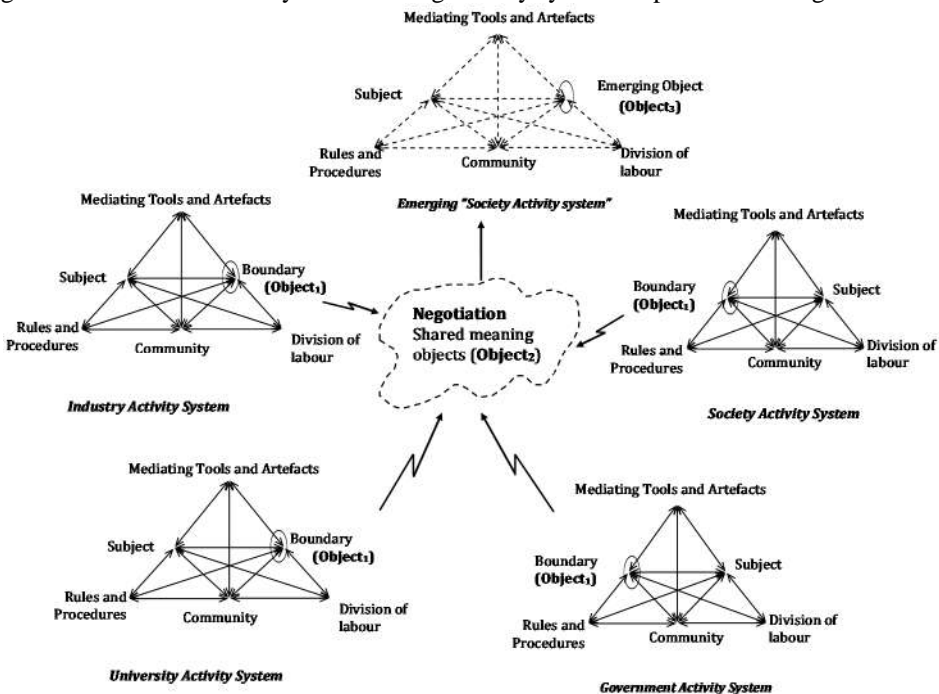


Figure 3: Interaction between the four stakeholders in the UTT process

With an expansive learning cycle, the interaction between participating stakeholders in the UTT process is a system where not only they fulfill their roles, but also learn in the process. In this process the creation of inclusive social innovation becomes a part of the transformation of the whole activity of technology transfer to solve its contradictions. Through resolving emerging contradictions among the participating stakeholders, collaborative relationships are built, the gap between diverse social groups is minimized and social exclusion is overcome and new ties across social groups are built.



Like it is with open innovation (Chesbrough & Bogers, 2015), in the DWR approach the university doesn't just rely on their own internal knowledge, sources and resources (such as their own staff or R&D for example) for technology transfer but also uses multiple external sources (such as society's participation and feedback), to drive inclusive social innovation. Universities create an initial platform for interaction and mutual learning between all UTT stakeholders. When the approach is adapted to local cultures and languages it can speed up development, be scalable and replicable within similar contexts.

V. Conclusion

To sum up, the paper proposed DWR as a useful approach to facilitate the creation of inclusive social innovation in UTT in Africa. This proposal is based on the review of literature on current UTT practices in relation to social innovation in Africa. The existing models on UTT practices assume the interaction between the involved stakeholders will naturally happen, while it differs substantially from practice. The open innovation approach is an important contribution and it resembles the DWR approach in the sense that they all promote an information-sharing mindset instead of proprietary research or technology. However, the DWR through the expansive learning cycle provides a systematic methodological language and a set of practices that allow the exploration of human beings' capacity to influence their own development through their use of the artefacts, including discourses, which they and others create or have created (Daniels, 2004).

Inclusive social innovation is very important for Africa where exclusiveness exists in many areas of development. Also the increased importance of the inclusion of societal based innovation users in development initiatives requires specific approaches that can activate, foster and utilize the innovation potential of the whole society. For universities in Africa to be able to create inclusive social innovation through technology transfer, there is a need to understand how to involve and make use of the participation of the society. It is not only the matter of appropriate support from the government and industry, but also new participation and collaboration structures that empower society users, increase their capacities to meet social needs and giving them sustainable 'agency' in addressing societal challenges. DWR provides an approach for UTT that is necessary in order to unlock the potential of the marginalized society and to enable their participation in addressing their social needs and challenges.

Given the existence of general UTT models and approaches that exists in the literature and the dynamic nature of UTT, researchers have argued for the importance of research to start focusing on the development of UTT approaches that can address the unique contextual features of African nations. This review has attempted to do so by illustrating the power of the DWR as an approach that provides the basis for analyzing distinct contextual trajectories and specific structural constraints and latent opportunities for knowledge based growth and innovation. However, there is a need for testing the described DWR approach empirically, specifically the 'expansive learning cycle' to enhance its applicability and adjust it through empirical studies on actual UTT practices.



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ENTREPRENEURSHIP AND INTELLECTUAL PROPERTY LAW AND POLICY: TWO FORGOTTEN INTERTWINED TOOLS FOR PROMOTING ECONOMIC DEVELOPMENT OF DEVELOPING ECONOMIES

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Abstract

The role of intellectual property and its various intricacies in particular intellectual property law, intellectual property rights, technology transfer, research and development, Intellectual property licencing, assignment, and the like to entrepreneurship and entrepreneurship incubation is a subject that has not received adequate international debate and research if any. The role of intellectual property to entrepreneurship and entrepreneurship incubation may need to be looked at from diverse angles including the following among others: historical perspectives, sector perspectives such as whether it's the sector of public health or textile industry, whether issues at stake emanate from the north or the south, from developed and developing or under developed and more importantly; the issue of intellectual property has in the past two decades been prominent in the perspectives of global and national jurisdiction agenda (GK Kazoba 2018, M Davison,2014).

The paper attempts to show a linkage between intellectual property and entrepreneurship from different perspectives including the interconnectivity of IP and entrepreneurship from the global scene and how it differs from the perspectives at national or domestic level. An attempt has also been made to define entrepreneurship and show first whether it relates to IP followed by an analysis as to what extent has IP affected entrepreneurship agenda at both domestic and global levels including at the levels of regional economic blocks or regional integration.

The study has concluded that there is an important linkage between entrepreneurship and intellectual property when not effectively addressed by way of integration the expected benefited expected to result under both IP legal system as well as entrepreneurial agenda are missed out. The study has also concluded that there is a need to create awareness of the importance of IP to various stakeholders so as to enhance the benefit of the two systems for national and regional economic development. Finally, the global trends have been found to have a potential challenging impact and hence it is suggested to promote the relationship as discussed for better outcome.

1.1 General introduction

The role of intellectual property and its various intricacies in particular intellectual property law, intellectual property rights, technology transfer, research and development, Intellectual property licencing, assignment, and the like to entrepreneurship and entrepreneurship incubation is a subject that has not received adequate international debate and research if any. The role of intellectual property to entrepreneurship and entrepreneurship incubation may need to be looked at from diverse angles including the following among others: historical perspectives, sector perspectives



such as whether it's the sector of public health or textile industry, whether issues at stake emanate from the north or the south, from developed and developing or under developed and more importantly; the issue of intellectual property has in the past two decades been prominent in the perspectives of global and national jurisdiction agenda (GK Kazoba 2018, M Davison,2014).

In this paper I will attempt to show a linkage between intellectual property and entrepreneurship from different perspectives including the interconnectivity of IP and entrepreneurship from the global scene and how it differs from the perspectives at national or domestic level. An attempt will also be made to define entrepreneurship and show first whether it relates to IP and if yes, go further to analyse to what extent has IP affected entrepreneurship agenda at both domestic and global levels including at the levels of regional economic blocks or regional integration.

Therefore the objectives of this paper are three fold namely: 1. To establish a linkage if any, between intellectual property and entrepreneurship and entrepreneurship incubation; 2. Highlight the need to differentiate the relationship between IP and entrepreneurship at global (including regional level) from the relationship between IP and entrepreneurship at national or domestic or national level and finally 3, to analyse economic strategies that have been undertaken especially in form of regional economic communities and what they mean in terms of entrepreneurship and intellectual property systems.

The methodology used in this paper to collect data is mainly desk top review through legal research and historical and content analysis methods.

1.2 Linkage between Intellectual Property and Entrepreneurship

1.2.1 Entrepreneurship

Undoubtedly, entrepreneurship loosely defined is understood to mean ability to start up business and establish a business venture especially when it is small business. Entrepreneurship is known for innovativeness, ability to establish a business venture and manage risks with a view of making profit. From the economics point of view, entrepreneurship is one of the five core factors whereas others being natural resources, labour, land and capital that when are taken together can produce profit. AK Yetisen et al (2015) and R Katila et al (2012) define entrepreneurship as the process of designing, launching and running a new business, which is often initially a small business. From the economics point of view, an entrepreneur may be understood as a person or business venture that has the capability to find and act upon potential avenues to translate "inventions" or "technologies" into products and services: "The entrepreneur is able to innovatively grip the unique commercial viability of the "invention" and organize the capital and other related resources so as to turn an invention into a commercially viable innovation (DB, Audretsch, 2002). Therefore from the economics point of view entrepreneurship is not necessarily limited to a new business or even to size of business as being small but rather extends to that art of exploration and landing on new inventions and expanding business, adapting to world economic and technological changes so as to maximize every opportunity to increase profit. In this context, entrepreneurship may range from huge pharmaceutical companies to small kiosk in the street. It should be understood as will be explained shortly that the term invention as



used in typical entrepreneurship discourse and/or economics is slightly different from how it is used and understood in intellectual property law.

However, by and large, it is common place to associate entrepreneurship with new start-ups of businesses mainly with sizeable volume of capital and investment characterized by limited funding, technology, small number of employees and inadequate experience. Thus the concept of entrepreneurship incubation comes into play. For instance, F Okyere (2017) argues that the two concepts: Entrepreneurship and small businesses are very much intertwined to the extent that more often than not, they are used interchangeably, as if they mean one and the same thing. Thus the author admits that entrepreneurship and Small, Medium and Micro Enterprises (SMMEs) play a significant role in employment, income and societal changes, particularly in emerging economies, but yet he argues further, they are not synonymous. The author concludes that entrepreneurship is a process leading to the creation of not only SMMEs but also to large business enterprises or venture.

Similarly, there is no universally agreed definition of the small and medium enterprises (SMEs) (WIPO, 2011). As a result, different countries prefer setting up their own criteria for determining the nature of a given entity whether, small, medium or big based on distinct circumstances. In Tanzania, the Small and Medium Sized Enterprises Development Policy of 2002 defines or describes categories of SMEs. This can be displayed as follows;

Table 1

Categories	Number of Employees	Capital investment (000,000Tsh)
Micro Enterprise	1-4	5
Small Enterprise	5-49	5-200
Medium Enterprise	50-99	200-800
Large Enterprise	100+	800+

WIPO, 2011, Tanzania.

The said Policy categorises the business as being small, medium or large basing on a number of employees each business has and the level of capital investment. The Tanzanian SMEs policy is to “stimulate development and growth of SME activities through improved infrastructure; enhanced service provision and creation of conducive legal and institutional framework so as to achieve competitiveness”. Thus competitiveness is key to all that the policy is focused at in the SMEs business in the country and this is achieved by improving infrastructure and creating appropriate legal framework including the legal framework of intellectual property rights protection. This following part highlights the relevancy of intellectual property law to entrepreneurship. It traces the historical background of granting intellectual property protections from medieval times to the full developed legal system for protection of intellectual property rights in modern times and shows why scholars must pay attention to this dimension.

1.2.2 Intellectual Property Law

Intellectual property law can be traced back to



Medieval Europe that lasted between 5th and 15th centuries. While the start of the Medieval Europe was marked by the fall of the Western Roman Empire, it merged into the Age of Discoveries. The government controlled the activities of various industries such as associations of artisans by granting authority to them to do their activities. The regulations issued by the government directed on types of items that could not only be imported but also put on market, produced as well as the manner in which inventions, devices and procedures that came up could be integrated to the various streams of commerce.

As the government recognized and gave authorities to associations known as guilds as described above as the regulation was also just on a select few, the said association ensured that they suffocated creativity and inventions than they did to encourage the same. This is because the authority from the government to the guilds was not earned by innovation, skill or creativity but rather intellectual property was instigated by political and religious preferences and motivations.

For instance, in order to ensure the printing industry was entirely under the control of Protestant Reformation movement's power, the Stationers' Company was established in 1556 in England with sole purpose and power to control the printing industry. It should also be remembered that by that time there was almost no distinction between government and church. Consequently the dissemination of ideas beyond what the church and government believed in or professed was under strict control (Schechter and Thomas, 2003). This makes copyright law to be the oldest type of intellectual property law.

Conversely, in the In the United States of America, it appears the development of intellectual property law started from the beginning with an incentive to reward innovation as a key overriding factor for intellectual property law protection system. Immediately after the colonies obtained their independence from England, each of them –former colonies (except Delaware) passed a distinct intellectual property law for that state in particular copyright law at that time as opposed to or not necessary the same as federal law. In a similar vein, even before the constitution of the United States of America was enacted, each of the 13 original colonies had already developed its own distinct body of patent law. As a result, intellectual property law in US (in particular copyright and patent law) became the victim of its own success. The multiplicity of distinct set of rules in each state which did not derive authority from federal law became useless for enforcement. This is because set of intellectual property law rules in one state could not be enforced in a neighboring state and hence the rights protected in one state could be infringed in just a neighboring state whereas there was no limitation on freedom of movement of persons.

It was out of this background that at the point of drafting US constitution it was decided that intellectual property law should be under the purview of the province of the federal government that is the national government as opposed to the separate state's government. Again, the overriding factor to this end was to reward innovation and greatly promote commerce among states. Thus Article 1 of Section 8 of US Constitution provided for intellectual property protection:

"To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."



- U.S. Const. Art. I, Sec. 8. The United States Constitution is considered as comprehensive and as robust enough to leave no room for lacuna that can be filled by state law. For instance, the the Supreme Court has once held in the case of **Bonito Boats v. Thunder Craft Boats** that Congress (US federal law), with its complex and detailed system of intellectual property laws, has developed a scheme which is “so pervasive as to make reasonable the inference that Congress left no room for the States to supplement it. Thus, as a rule of thumb, each intellectual property law of any state in US must comply with the text and spirit of federal intellectual property law of the federal government must be struck down.

The following part briefly describes the development of modern intellectual property law by discussing the key factors justifying the protection of intellectual property rights as well as the inherent obligation of any intellectual property rights owner or protection system.

1.2.3. Development of Modern Intellectual Property Law

In modern times, the core of intellectual property law is primarily derived from Article 15 of the United Nations Covenant on Economic, Social and Cultural Rights of 1966. Article 15 of the said Covenant provides as follows:

1. The state parties to the present covenant recognize the right of every one:
 - (a) to take part on cultural life;
 - (b) to enjoy the benefits of scientific progress and its applications;
 - (c) To benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.

Thus from the foregoing provision, first and foremost the provision refers to copyright type of intellectual property law. However, the provisions has been used to refer to all types of intellectual property rights and protection as system as the basis of key criteria and consideration in the development and protection of intellectual property system. The article, first and foremost emphasis the two limbs to be given paramount considerations namely (a) protection of public interests in relations to the outcome of intellect; that is the need to ensure that the public enjoy the outcome of inventions, artistic works and any other type of intellectual property such as trademarks and the like. Secondly (b), the need to protect the interests or rights of those who labour to come up with inventions or artistic designs or works as the case may be. The above two the key factors for any legal system for protection and regulation of intellectual property rights and system.

Intellectual property therefore refers to creations of the mind or work of intellect: these are inventions; literary and artistic works; and symbols, names and images used in commerce. Intellectual property is also divided into two categories namely: (a) Industrial Property that includes patents for inventions, trademarks, industrial designs and geographical indications. (b) Copyright that covers literary works (such as novels, poems and plays), films, music, artistic works (for instance, drawings, paintings, photographs and sculptures) and architectural design. Rights related to copyright include those of performing artists in their performances, producers of phonograms in their recordings, and broadcasters in their radio and television programs.



As discussed above, inherent in the intellectual property protection law system is the requirement not only to protect the rights of those who come up the product of intellectual labour but also to ensure that others who did not come up with such outcomes of intellect such as inventions or artistic works also benefit from those intellectual properties produced. A good example is a common legal requirement that for an invention to be protected it must not only be new or under an inventive step, but it must also have industrial application, meaning that it must have some usefulness to humanity.

Thus, on one hand, intellectual property rights are like any other property right. They allow creators, or owners, of patents, trademarks or copyrighted works to benefit from their own work or investment in a creation (investment here include mainly especially in case of patents to research and development that may take years for an inventor to come up with protectable or patentable invention. These rights are also outlined in Article 27 of the Universal Declaration of Human Rights, of 1948 which provides in similar terms as the UN Covenant discussed earlier, for the right to benefit from the protection of moral and material interests resulting from authorship of scientific, literary or artistic productions.

Prior to modern intellectual property law which emphasis on the two limbs discussed above and after the medieval times discussed earlier, the importance of intellectual property was first recognized in the Paris Convention for the Protection of Industrial Property (1883) and the Berne Convention for the Protection of Literary and Artistic Works (1886). Both treaties were and are still administered by the World Intellectual Property Organization (WIPO). Yet, as will be discussed later, intellectual property law has transgressed beyond the traditional legal system under WIPO system especially with the advent of the Trade Related Aspects of Intellectual Property law (TRIPS) under the auspices of the World Trade Organisation (WTO).

1.2.4 Why Intellectual Property Law and Entrepreneurship must be Considered as Multifaceted Tools for Developing Countries' Economic Development

There are several compelling reasons. First, the progress and well-being of entrepreneurial humanity rest on its capacity to create and invent new works including in the areas of technology and culture. Second, the legal protection of new creations (by entrepreneurs) encourages the commitment of additional resources for further innovation. Third, the promotion and protection of intellectual property (through rewarding the various efforts of entrepreneurs) spurs economic growth, creates new jobs and industries, and enhances the quality and enjoyment of life. Overall, the above results are generally regarded as the contribution of entrepreneurship to developing economies' development and this paper suggests that close linking of intellectual property with entrepreneurship and the latter's incubation will enhance and strongly contribute positively to efforts that has been made in the promoting of entrepreneurship as a development tool.

As aforesaid, Intellectual property rights reward creativity and human endeavor, which fuel the progress of humankind. For instance, while the multibillion dollar film, recording, publishing and software industries – which bring pleasure to millions of



people worldwide; while are also known as the entrepreneurial ventures, adding to it, protection of respective copyrights would strengthen their existence and flourishing.

Similarly, without the rewards provided by the patent system, researchers and inventors would have little incentive to continue producing better and more efficient products for consumers. A patent provides patent owners with protection for their inventions. Protection is granted for a limited period, generally 20 years. Patents provide incentives to individuals by recognizing their creativity and offering the possibility of material reward for their marketable inventions. These incentives encourage innovation, which in turn enhances economic development.

Furthermore, intellectual property law such as patent law is a key tool to enhancing entrepreneurship given its role of promoting and diversifying commerce and trade generally, technology transfer, and creativity among others. For instance, as much as a patent owner may enjoy exclusive monopoly over the patented product or process, yet, patent owner has the right to decide who may – or may not – use the patented invention for the period during which it is protected. Patent owners may give permission to, or license, other parties to use their inventions on mutually agreed terms. Owners may also sell their invention rights to someone else, who then becomes the new owner of the patent.

Once a patent expires, protection ends and the invention enters the public domain. The latter aspect is another very prominent aspect of the role of IP to spurring economic growth through entrepreneurship. This is because, while the IP system motivated innovation and creativity at a cost that would not be afforded by majority and/or without IP protection system, once IP system has provided all the incentive and the product or process is on the market, it becomes easy for other entrepreneurs to commercially take advantage of the freely available technology which was initially IP protected. This has been the easy entry point of many young and old entrepreneurs to different sectors which would otherwise be highly technology, capital and labour intensive to embark on without initial work of investors. One of the best examples on this is the generic drugs industry.¹ This is made possible by the inherent legal requirement in the area of patent law for instance where, all patent owners are obliged (at the time of applying for patent) to publicly disclose information on their inventions in order to enrich the total body of technical knowledge in the world. This ever-increasing body of public knowledge promotes further creativity and innovation. Patents therefore provide not only protection for their owners but also valuable information and inspiration for future generations of researchers and inventors.

In similar vein, trademark laws contributes to the flourishing of entrepreneurship by promoting trade and increasing demand for goods and services in the sense that consumers would have no means to confidently buy products or services without reliable, international trademark protection and enforcement mechanisms to discourage counterfeiting and piracy.

¹ As it can be noted, patented inventions have pervaded every aspect of human life, from electric lighting (patents held by Edison and Swan) and sewing machines (patents held by Howe and Singer), to magnetic resonance imaging (MRI) (patents held by Damadian) and the iPhone (patents held by Apple).



The following part discusses global and regional trends in particular the development of international IP legal system as well as regional IP legal system coupled with the emergency of Regional economic communities (RECs) and how such legal and economics landscapes affect entrepreneurship trends.

2. Global and Regional Integration and Its Impact to Intellectual Property law system and entrepreneurship

2.1 Introductory Remarks

The discussion above, highlighted the fact that intellectual property law protection system was associated with the sovereignty of a particular state in which it could be enforced for an effective system. However, the discussion also disclosed that since the 18th century there has been a desire for international system for protection of IPRs. However, as a matter of fact the international legal system for protection of intellectual property rights has never been very effective especially for developing countries. Time is not enough to discuss the principle of territoriality of IP law which requires establishment of a territory within which the IPR can be established and consequently protected. However, there has been always attempts to establish international as well as regional jurisdiction for protection of intellectual property rights. Apart from the regional attempts one of the closely successful attempt (despite its shortfalls) is the legal system established under the TRIPS Agreement. The TRIPS establishes a room for international jurisdiction under the World Trade Organisation (WTO) dispute settlement procedures, but also more importantly provides for minimum standards that all member states must comply with. As a result, by whether by default or by design, there has been created two distinct major legal systems for protection of intellectual property rights with their resultant effect to entrepreneurship terrain design namely: national and international intellectual property (IP) law systems. Therefore, this part will discuss the intricacies coming with the distinction of these two levels of the legal systems including the emergence of regional economics communities' proliferation and how the same may affect entrepreneurship agenda.

2.2 Challenges of Protecting Intellectual Property Rights and Promoting Entrepreneurship amidst National, Regional and Global Legal Systems of Intellectual Property law

The significance of the differences between national and international intellectual property (IP) law has gained increasing prominence² especially as a result of the

² See M Davison, 'International Intellectual Property Law' in Tania Voon et al. eds., *Regulating Tobacco, Alcohol and Unhealthy Foods: The Legal Issues* (Routledge, 2014) at 131-150; Enrico Bonadio, 'Interaction with Domestic Intellectual Property Law' in Tania Voon et al. eds., *Regulating Tobacco, Alcohol and Unhealthy Foods: The Legal Issues* (Routledge, 2014) at 151-180. This can be accessed from the Report of the Panel entitled: *European Communities – Protection of Trademarks and Geographical Indications for Agricultural Products and Foodstuffs, complaint by Australia*, WTO Doc WT/DS290/R (adopted 20 April 2005). In this dispute, the Republic of Dominic



provisions of the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement and the Technical Barrier to Trade (TBT) Agreement.³ These international treaties bring the World Trade Organisation's (WTO) law into play. An instance of the significance of WTO law is the WTO panel's confirmation that Article 16 of the TRIPS Agreement does not confer on the owner of Intellectual Property Rights (IPRs), in particular a trademark, a positive right to use a trademark.⁴ The panel stated that Article 16 confers on the IPR owner the negative right to exclude third parties from using the IP in question in certain ways. Claims against plain packing legislation⁵ (a regulatory measure that among other things is intended to control the way tobacco products are marketed) also intensify the need to pay attention to international as opposed to domestic IP law. The holding of the Panel demonstrates that approaches taken at domestic law in relation to the nature of the IP rights may be different how provisions of the TRIPS in particular may be interpreted.

Under international legal system of IP law especially under the TRIPS Agreement rules, there are factors that are usually given paramount considerations and that definitely must affect entrepreneurial thinking and designs for anything that is to be affected by International IP law. The key areas are those relating to protection of public health (refer for instance to discussion on Doha Declaration on TRIPS and Public Health of 2001, Decision on Article 6 of 2003 relating to Doha Declaration; and WHO Framework Convention on Tobacco Use). The TRIPS Agreement read together with the Doha Declaration provide guidelines and limit the way in which the owner IPR may wish to utilise his or her IPR for entrepreneurial purposes. The limitations include for instance conditions imposed on the right to licence or deny licence to a third party, a right which is otherwise potential for maximization of profit by the IPR owner as described above. IP law was for years solely regulated within different domestic and other territorial jurisdictions in accordance with what is known as the territoriality of intellectual

raised a complaint arguing that there had been a violation of as a result of a legislation. According to the Dominican Republic, the plain packaging legislation denied proprietors of trademarks the right of benefiting or enjoying the rights that the complainant believed was bestowed by the impugned provision to the trademark owners.

³ The Technical Barriers to Trade (TBT) Agreement aims at ensuring that technical regulations, standards, and conformity assessment procedures are non-discriminatory and are not crafted in such a way that may create unnecessary obstacles to trade. At the same time, it recognises WTO members' right to implement measures to achieve legitimate policy objectives, such as the protection of human health and safety, or protection of the environment.

⁴ *European Communities – Protection of Trademarks*, supra note 3.

⁵ See the legislation in issue in *Phillip Morris v Australia*; *British-America Tobacco v Kenya*, and *British-America Tobacco v New Zealand*.



property rights.⁶ With the signing and coming into force of the TRIPS Agreement, a minimum standard international IP law regime was created. At national level (even though all WTO Member States are required to comply with the minimum standards created under the WTO), each member states has freedom to determine its own IP legal regime.

The different legal frameworks under which intellectual property law can operate and challenges related to it are discussed in my other works. However, in this remaining part I would wish to briefly discuss the challenge posed above but in the context of RECs which are primary aimed at promoting economic development of the world economic blocks including their individual countries including through promoting entrepreneurship. The discussion is important because it looks like the design for this model of fostering economic design plans for its own demise.

2.3 African Continental Free Trade Area as a Case Study of RECs

The African continental Free Trade Area comes as an accomplishment of a long time dream reflected in the Abuja Treaty Establishing the African Economic Community of 1991. Some of the objectives of the Abuja Treaty were to promote economic, social and cultural development and the integration of African economies in order to increase economic self-reliance and to promote an endogenous and self-sustained development (see article 4 of the Treaty). Also African states aimed to establish, on a continental scale, a framework, mobilization and utilization of the human and material resources of Africa in order to achieve a self-reliance development (ibid.). Indeed, member states intended to contribute to the progress, development and economic integration of the continent. To achieve this, member states were mindful of the important role to be played by policies (including laws) of existing and future economic communities towards gradual fostering of the establishment of the community and hence determined to lay down a framework to coordinate and harmonise them.

It has not been easy for the African states to overcome different huddles towards the attainment of this dream. It has taken nearly 28 years down the line for the African continental Free Trade Area Agreement of 2018 to come into force on 30 May, 2019. It is undoubtedly a big mile stone to have 27 African countries having ratified or acceded to the Agreement and 54 out of 55 countries having signed it. As it was in 1991 when the Abuja Treaty was opened for signature, the AcFTA aims at, among others, to expedite the regional and continental integration processes. The spirit behind the Agreement can be gathered from the preamble of the Agreement, the Objectives and principles. From the preamble member, states of the African Union and to the Agreement determine to strengthen their economic relationship and build upon their respective rights and obligations under the Constitutive Act of the African Union of 2000, the Abuja Treaty of 1991 and where applicable, under the Marrakesh Agreement establishing the World Trade Organisation (WTO) of 1994. Thus, the AcFTA

⁶ Such legal frameworks include the World Intellectual Property Organisation (WIPO) system, and the African Intellectual Property Organisation (ARIPO) system, which is relevant to EAC member states, among others.



Agreement does not directly mention economic development or regional integration as its core objective but rather goes straight to addressing specific issues that will lead to achieving the dream set forth under the Abuja Treaty which is expected to be archived alongside the fulfillment of Agenda 2063 for a continental market with the free movement of persons, capital, goods and services. Again, under Agenda 2063, African states considered the free movement of persons, capital, goods and services (just as is the case under several treaties establishing different regional economic communities (RECs) as pillars of economic integration, promoting agricultural development, food security, industrialization and structural economic transformation.

The advent of the conclusion of the African Continental Free Trade Agreement signed in Kigali, Rwanda on 21 March 2018 spurred fire to an old discussion (Ulrike et al (eds), 2014) on two important aspects. One, is the position of Africa in international economic law on technology transfer in particular in relation to intellectual property (IP) law domain (UN, 2001), and second; the role of the principle of intellectual property rights (IPRs) territoriality in facilitating or limiting international economic law. On this first issue, this is important because the objective to foster economic growth including through technology transfer encompass the use of entrepreneurial strategies among others.

While research show that there is actually a small number of IPRs originating in Africa (Kazoba 2013), it is equally true that Africa hosts a multitude of IPRs, mainly originating from foreign countries especially the west. Be it as it may, IPRs once protected under a respective territory confer exclusive rights to respective proprietors against others. Within Africa, there are national and sub- regional IP territories. In recent years, the East African Community (EAC) for instance attempted to develop a sub-regional IP legal framework that would among others create a common IP territory for east African countries, to no avail alongside the creation of the EAC Customs Union. Had it succeeded, this would be second to that of the African French speaking countries of Western and Central Africa (Organisation Africaine de la la Propriete Intellectuelle (OAPI) under the Bangui Agreement. The same approach was taken by the European Union (EU) in recent years and with the influence of some European countries (ibid) is also existent in some African countries such as Tanzania.

Considering the fact that concept of entrepreneurship includes exploration and landing on new business ideas of an already existing and experienced business venture but also for developing and starting up new businesses, it is imperative to examine to what extent there is preparedness on part of entrepreneurial ventures to successfully integrate to and benefit from the emerging RECs which are primarily aimed at complementing the objectives of entrepreneurship concept.

The advent of development of global and regional intellectual property protection system with their resultants emerging RECs raise a number of questions as follows?

- (a) Whether small and medium enterprises are capable of being integrated and utilize the intellectual property protection system, which in itself struggling to cope with the



proliferation of REC with their intricacies. According to WIPO 2011 in a study that was conducted on Tanzania⁷ the study had the following findings:

The existing policy and legal framework governing SMEs does not have a clear cut intellectual property strategic intervention. This means, as much as there is a very clear and imperative relationship between entrepreneurship and its incubation on one hand and intellectual property on the other, there is no adequate legal and policy framework to cater and integrate this linkage so as to stimulate economic development as a result of entrepreneurship and IP protection system

(b) There are insufficient intellectual property support structures for SMEs in developing countries such as Tanzania. This can be understood to mean that SMEs or entrepreneurship entities in developing countries are still lacking requisite capacity in terms of capital for investment, technology which would enable them to fully benefit from global economic integration availing rooms for technological transfer. Studies show (Kazoba 2013) that there is a handful of patents for example emanating from Africa, leave alone from typical entrepreneurs. As discussed above, for patents for instance, for an invention to be accepted for patentability it must be proved that it is new, a has undergone an inventive step and it is capable of industrial application. Coming up with an invention (i.e something new) in the context of Intellectual property rights there is huge research and development for years that is invested in the process which might not be afforded by small and medium enterprises. However, where resources are available as discussed, intellectual property protection system may promote intellectual property through the encouraging of innovation.

c) There are signs that suggest the awakening of SMEs to protect their intellectual property assets through protection of trademarks, in particular.

d) The use of the patents system by SMEs is comparatively lower when compared to the use of the trademark system. This signified as was reported by Kazoba in 2013 that there were actually very low number of intellectual property rights emanating from Africa. The reason is that patentability is a technical issue and cost intensive than many members of SMS can comprehend. Had it have to be achieved it could stimulate entrepreneurship.

e) The low level of awareness on issues of intellectual property, coupled with the little usage of the intellectual property rights system by SMEs and research and development institutions in developing countries has given rise to a widening gap between R&D institutions and SMEs in Tanzania.

3. Findings of the Study

This study has established that there is a clear linkage between intellectual property and entrepreneurship and entrepreneurship incubation. This becomes clear where entrepreneurship is not considered in a narrow sense of just developing and establishing new and small business but rather when entrepreneurship is looked at in broader sense of landing on a business opportunity and innovatively and creatively introducing new

⁷ entitled “NATIONAL STUDY ON INTELLECTUAL PROPERTY AND SMALL AND MEDIUM SIZED ENTERPRISES IN TANZANIA, under the WIPO Development Agenda Project”



strategies and ways of doing business to the extent of positively changing existing business dynamics and volumes. The study has established that the narrow sense of entrepreneurship may not necessarily reflect or support the idea that there is a linkage between the two just as inventions and innovations are used to connote different things for IP system and narrow sense entrepreneurship. However, when entrepreneurship is taken in a broader sense as described above, the linkage becomes clear as IP become an important tool to foster entrepreneurship through incentivizing creativity, innovation, enabling transfer of technology, licencing of IPR and hence facilitating trade and commerce, creation of jobs, business start –ups, facilitating trade through providing confidence to consumers of trademarks brands etc etc.

Moreover, the study has examined the relationship between IP and entrepreneurship at global (including regional level) and national or domestic or national levels. This is important especially when considering entrepreneurship in broader terms to include larger businesses which venture on competition across borders and are affected by national as well as regional and international rules of intellectual property. Such effect of the intermingling between domestic and international landscapes may affect Small, Medium and Micro Enterprises where they happen to infringe international rules of play which they may not be aware of due to lack of exposure to international terrains.

Finally, the paper has successfully analysed the potential the economic strategies that are adapted by different regional economic blocks in particular members of the Africa Union through the African Continental Free Trade Are under the respective Agreement might have to entrepreneurship agenda in the error of technology. In particular, the paper has highlighted to principle of territoriality and how it may hardly be effectively utilized to support entrepreneurship agenda of promoting economic development in particular for developing countries.

4. Conclusions and Policy Implications

This paper has made an attempt to demonstrate how intellectual property protection system is an essential consideration in the whole debate of entrepreneurship and entrepreneurship incubation. It has argued that entrepreneurship should not be considered as synonymous to a crippled business idea that is suffocated under effort to exist. The paper has argued that entrepreneurship may include developing and starting up new businesses but also may including venturing on use of new technology which may be patented for instance, including operating under the licence of an existing intellectual property right. It may also include engaging in research and development and hence coming up with new patentable inventions or changing ways of doing businesses by adopting new technologies. The paper has also argued that entrepreneurship agenda is likely to be more beneficial to countries and economic blocks if it is integrated to IP protection systems which is known for years to have an incentive scheme for stimulating c creativity, innovations, competition and also regulating how the society at large benefits from the said creativity and creativity.

From the foregoing firstly it is important to develop sector specific intellectual property law and policy targeting each sector with consideration of how the said IP legal policy is likely to positively stir up entrepreneurships for that particular business.



Secondly, it is important to analyse rules of intellectual property law and consider the extent they should apply to specific types of entrepreneurial ventures depending on certain criteria such as volume of investment.

Thirdly there is a need for developing countries to embark on awareness creation on how the IP legal system works to sector based entrepreneurs so as to promote the integration of entrepreneurship discourse and application of intellectual property rights rules for effective economic development of developing economies.

Finally, a study should be done on the effectiveness of creation of regional economic communities and their potential to contribute economic development of respective regions together with their respective member states. A special attention must be paid how to best structure rules of intellectual property law.



IMPACT OF HR PRACTICES ON THE ATTITUDE OF DIFFERENTLY- ABLED EMPLOYEES

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Abstract

While organizations are making conscious efforts towards inclusion by helping people with disability, finding the right job and issues such as better infrastructure, training costs and other facilities remain a challenge. Disability, more often than not, is associated with incapacity, inadequacy, negative imagery and stereotypes. With such social attitudes, people with disabilities (PwD) find it difficult to break this vicious circle of lack of education, skills, low confidence, low employability and poor economic status. However, advancements in technology have given a strong sense of hope to PwD, and companies are becoming more conscious of the need to create a diverse and inclusive workplace. Assistive technological solutions have been a game-changer for PwD. They have opened up job opportunities for the differently-abled, something that was not viable earlier. Non-profit organizations such as Enable India, Nabet India, and v-Sesh, have created a dedicated PwD referral programme and built strong partnerships with various organizations. This paper aims at studying the impact of the HR practices on the attitude of differently abled employees and how it might pave way towards bringing up inclusive workplaces. The concept of Inclusive HR Practices needs to be emphasized in terms of Physical, Structural, Communication and Compliance factors, in order for inclusiveness and equality to become a true success. Measuring employee attitude of PwD in relation to the HR practices followed in an organization will give a better insight of the real picture.

Key words: Employee attitude, HR Practices differently abled, inclusive workplace

Introduction

According to the Census 2011, disabled people occupy 2.21% of the Indian population which is around 2.68 crores. India is travelling in an era where **Inclusion** is given utmost importance as one of the sustainable goals. When looked at the micro level, the approaches to inclusion look so positive and



successful that PwD have notable participation in almost all sectors of the economy. There is increased awareness and enforcement of laws in favor of the PwD. But, the larger picture seems not so real as there are still differences that need to be addressed and disability is still all about the abled persons.

Now, coming to the main consideration of the study, 'employment of PwD', the statistics reveal that almost 76.3% of the disabled population of India is unemployed. There is a big lack of opportunities being offered to the PwD. The National Centre for Promotion of Employment for Disabled People (NCPEDP) reported that the average percentage of employment of persons with disabilities in India was 0.54% in the public sector, 0.28% in the private sector, and 0.05% in multinational companies. There are few corporates that have made proactive measures to employ differently abled persons in their organizations and most companies do adhere to the law of reservation enforced through the Rights of the Persons with Disabilities Act, 2016. Even though all put together, the concept of Inclusivity in Workplaces is still a destination to reach. The study was carried out in employees of the

Research Design

The HR practices that were considered for the study are as follows:

- Creating barrier free environment
- Training & Development
- Performance Appraisal

The above three practices are specifically selected because the attitude of the employees who are PwD gets more influenced in terms of availability of friendly and barrier free environment for them, training given specific to their abilities and most often there is a bias when the performance of normal employees and that of the PwD employees are appraised.

The survey includes 60 samples of PWDs across several sectors like Bank, Educational Institutions, Government offices and Private companies. The samples were selected based on purposive sampling and an instrument on attitudinal factors was given. The results based on mean score value is discussed and it is on a five point scale.

Impact of HR Practices on Attitude of Persons with Disabilities

The results obtained from the study are discussed below. This can be referred from Table 1.



Table No.1 Impact of HR practices on Attitude based on Mean Scores

Factors	Mean Score
Creating Barrier Free Environment	
Infrastructure	1.81
Assistive Technology	1.64
Training & Development	
Frequency of training	2.53
On the job training	2.66
Off the job training	2.50
Enhanced Personal growth	3.06
Satisfaction of training programmes	3.60
Performance Appraisal	
Increases productivity	3.42
Improves understanding of Strength & Weakness	3.83
Opportunity to discuss work problems	3.05
Creates positive impact on self development	3.67

It is evident from the table given that the HR practices do not have a negative impact on the attitude of the PWDs but the results cannot be considered highly positive altogether. The mean score obtained for 'creating barrier free environment' as a HR practice leaves behind a unsatisfactory view as the interpretation shows that the employees who are PwDs are not so satisfactory. The employees were asked about the infrastructure facilities provided exclusively for them like:

- Braille enabled lift
- Accessible routes
- Ramps/Rail lighting facilities Good
- Accessible Transport -Low level Foot Board Facilities Accessible
- rest rooms

And by assistive technology, the employees were enquired about the various technology provided for them to carry out their job in a convenient and effective manner like

- Text D Braille embosser Braille Printer
- Magnifier Screen reader
- Voice reader Read
- easy machine



Hearing aid

Wheel

Chairs/crutches

But from the results it could be interpreted that the infrastructure facilities and assistive technology have not been provided at the adequate level to the employees. Hence it could be considered as a not so influential factor and needs to be addressed.

The score values under Training & development gives a hint that there is a moderate level of satisfaction in the training programmes offered, but the frequency of conducting programmes, on the job training offered and off the job training offered are not so satisfactory as the mean scores range from 2.53, 2.66 and 2.50 respectively. Also, the chances of enhancing personal growth seem to be moderate at 3.06. Hence, as far as training and development is considered as a HR practice, it can be concluded that the impact is moderate.

While considering Performance appraisal as a HR practice and its impact on the attitude of the PwD employees, there is an expression of good understanding levels of their own strengths and weaknesses as the mean score is high with 3.83, next to which there is an evidence of positive impact on self development. There is a moderate chance of increasing their productivity by way of performance appraisal, but the opportunity to discuss work problems seems to be comparatively low.

Inclusive Workplaces:

From the interpreted results, it is evident that we are at a highly crucial time to institute viable workplaces at our organizations that will be **inclusive** in a holistic manner. It's not only important to vouch for policy decisions and propaganda for empowering the differently abled employees, but also to address the primary needs of the employees in terms of infrastructure facilities, assistive technology and other HR practices that impact on the attitude of such employees and thereby lead to the well being of the organization.

The benefits of promoting Inclusive Workplaces are as follows:

- Productivity of the organization will increase
- Employee morale will be high and hence, employee turnover will be minimized.
- Employee commitment will be increased and hence the organization will travel towards success.

Executives at the top management levels can make assured efforts on these factors to further improve the Attitude of PWDS and work for better work place culture. It can be concluded that the attitude of the employees will be moderate as there is a less than positive impact of the HR practices on the attitude of the differently abled employees.



Conclusion

When companies can exhibit a better leadership picture that entrusts confidence on the employees, the level of commitment of the employees will be high. The emerging generation of employees is new and futuristic and hence the companies must function more inclusive and trust oriented than the past decades. It is vital for the organizations to act more proactively towards betterment of the differently abled employees and hence the attitude of such employees should be safeguarded with the required factors that govern the welfare of the employees

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RETHINKING MODELS OF INNOVATION AND INCUBATION- CHANGING ECONOMIC SCENARIO IN DEVELOPING NATIONS

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Abstract

Unemployment is very vital problem in our Nation. Every year huge youngsters passed out in Arts and Engineers etc. But most of the people expects only white scholar jobs, some more people likes to earn the money through easiest way. So due to this mind set, makes unemployment problem in the world. Also the world invents new technologies day by day, people's needs and expectation multiple more and more. But there is many opportunities existing in the world to fulfil the New Business Opportunities in all fields, such as mobile technologies, costume and design technologies and more and more opportunities in the field, when compare with other fields i.e. situation business, seasons business. There are many new business ideas burning s every second, in the current scenario. Also regarding of the educational technologies proofreading is very vital job in the educational technologies and food technologies. Nowadays huge people eats baker items different types of snacks and bakery items are selling large amount of cost.

Key words: New Business Ideas, Technologies Business

Objective of the New Business Opportunities

- To aware entrepreneurship scheme for youngsters
- To aware various schemes about new business opportunities
- To obtain financial balancing activities through new business opportunities
- To aware various State / Central Govt. Aids to starts entrepreneurship

Automatic Iron machine

Automatic iron machine booms in foreign successfully, nowadays all are wearing ironing the cloth for going to function, college students and officers. Some time our regular laundry man also may refuse to iron during our emergency time. So in this manner, now new Automatic iron machine has invented in foreign



country. The machine can be irons quickly and consuming very low electrical power only. So these types of business now booming in various countries.

Craft Works

Hand craft work makes some financial problem, also some cultural hand craft may remembers our ancient culture activities and bring their activities livelihood from heritage. Nowadays craft works booking through online sales, always more welcome to hand craft in the world.



Template / Photography

The world is shrinking through technology day by day, some nature, meadow, waterfall, and peculiar photography still demanding in the technological world. Regularly we can click some nature images and upload in the websites, this image may view by the end user in the world, a good quality images to sell upto \$ USA dollars. We need one quality camera with our own ideas enough to earn the money through photography.



Proofreading / Document composure

Nowadays most of the research scholar's thesis and journals papers have to read proof reading cum document composure task is very latest job opportunity. This type of opportunity creates to earning methodology.

Balanced Diet Advisor

Diet is very important in our life, because most of the people fail to diet right time at the right diet, so those types of people facing lots of problem and disease in their life, some time it makes serious health disease and problem. During pregnancy period all women should follow some diet at the time, not only them, also patient and aged people who are under treatment people are follow right diet, such as sugar patient, low blood patient needs diet advise.

Yoga / Relaxation Activities

Yoga is health Excellency, now huge people gets short temper, frustration, anxiety due to their office critical work, pressure from their Boss and superiors, even school children and college students suffers from stress and frustration. Continues stress / tension leads to raging activities. Some people are thinking to consume the alcohol, for forget their worries, but they do not know alcohol never support to forgot their worries, instead of boosting to more tension in their life. Real relaxation may avail through the yoga / meditation.



Cloth Printing (Bag, Emblem)

Our Nation strictly restricted plastic bags in our country due to pollution, so huge cloth bags needs and printing their shop's name on the cloth bags, textile shops, cloth carry bags etc. These types of printing works support to fulfil our financial problems. These types of printing many shops such as readymade shops, backers, Maligai shops etc, if we use some business technique, we can earn lumpsum gain through this work.



Bike Rentals

Due to more population of the people, people have to wait long time for buses, also buses are not coming in right time, so we have to vain our time to wait for the bus also very crowed of the people in all business. New business opportunities may start Bike Rentals, the charge will be collected according to the kilometres wise, when we rent a bike, collect their Aadhar card for address proofing for our safety purpose.

Lawn Maintaining Service

Lawn grows and maintains are new business opportunities to earn the money, still many colleges, some MNC companies maintains, but huge companies, hospitals, institutions, bungalows not an idea to maintain a Lawn their house. So the Lawn maker aware about the lawn growing purpose and it's benefits to the customer.



Benefits of Lawn

Everyday greenish seeing is good for eyes and mind, even little bit of lawn growing habit avoids



to tension and stress in our day to day life. Everyday few seconds simply sit near the lawn, can get the freeze air through the lawn and its leads to good health conditions.

Open a food / coffee truck

There are 95 % of the adults age, middle age, younger, Childs are drinking tea / coffee, huge people are entered coffee / tea shop , they instruct to tea master to less sugar, medium or light tea / coffee, what is the reason for this, most of the people suffering from cholesterol / sugar patients, also they can not avoid the tea / coffee. According to the doctor's advice, generally sugar is not good for health. But sugarcane (Nattu Sarkarai) is best for heart beat and health. So only sugarcane tea / coffee are better for health.

Government Aids to Business

Central and State Government supports and motivate to youngster to become a good entrepreneurship for the purpose of to eradicate unemployment problem in our Nation. So the Government facilitate and subsidy for newly start business opportunities.

Women's India Trust (WIT)

The trust was established in 1968 for purpose of helping to women development and smoothly runs their family and balancing their financial status. Established by Kamila Trust in UK in 1994 to market the products of WIT members of shop in London under the name " Kashi" and extended export activities to Australia , Europe and Germany from 1995.

SIDBI

SIDBI (Small Industries Development Bank of India) is started for objectives to supports small scale industries and it concentrates some special scheme ie. Mahila Udayam Nidhi. It provides equity to women entrepreneurs and Mahila Vikas Nidhi to provide development assistance for pursuit of income generating activities to entrepreneurs.

SIDO (Small Industries Development Organization)

SIDO organise various programme for business maker and entrepreneurship. Most of the people illiterate, so the Govt. Sector planned to them lending money with subsidy to become a an entrepreneur, such as TV repairing, printed cloths bags, leathers goods selling and screen printing etc.

NABARD (National Bank of Agriculture and Rural Development)

This bank is an autonomous financial instituting supports liberal credit to rural entrepreneurs. Also provides low credit methods to the newly business starter for develop the business and balancing their financial position.

Central and State Government Schemes

State and Central Government have come out with several to development entrepreneurship development and children in rural area (DWCRA) this



program was designed by the state government for purpose of the rural women entrepreneurship and to eradicate poverty in our Nation.

Conclusion

Unemployment problems may solve through some new business opportunities through entrepreneurship. There are plenty of opportunities existing in the world to start new business. But most of the people are still not aware of the scheme. Also many Govt undertaking Financial sector motivates new entrepreneurs to start new business such as Beauty parlour. Bridal make up, costume designer, Balancing diet advisor, Yoga instructor and counselling and guidance for the Drug addiction people, also the govt should take necessary steps to awareness of the scheme among the rural people and privilege for credit system and relaxation from their terms and condition with surety activities. These types of activities more awareness of among the public sector and chances to increase to become youngster's entrepreneurship in Our Nation.

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BUSINESS ANALYSIS, BUSINESS INTELLIGENCE, BUSINESS ANALYTICS, DATA ANALYTICS, BIG DATA ANALYTICS AND DATASCIENCE FOR ENTREPRENEURS

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Abstract

It is the data-era, as data is the new oil. The aim of this paper is to help new-age entrepreneurs to have a clear understanding of different kinds of analytics and how it is used in the business front. Business analysis, business analytics, data analytics, big data analytics and data science are discussed. Here it is clearly specified when a business intelligence can be used and how it differs from data science and business analytics. Further, structured data, semi-structured data and unstructured data are explained in a simple manner. Only through the understanding of data structures, the analyst can perform analysis with different techniques. This paper concludes new-age entrepreneurs' decision making should be more of data-driven than the traditional approach. A new model business plan is conceptualised.

Keywords: Business Analysis, Business Intelligence, Business Analytics, Data Analytics, BigData Analytics, Data Science, Entrepreneur, Start-up

1. Introduction

When compared to the past two decades the amount of data available at present is enormous. Entrepreneurs should move from the traditional approach to data approach to gain new insights about their ventures, customers, business trends etc. New-age entrepreneurs can scale up efficiently by implementing with the right mix of business analysis, business intelligence, business analytics, big data analytics and data science in their projects. According to Nasscom's prediction, by the year 2025, the analytics industry in India will generate \$ 16 billion in revenue annually. Currently, it is \$2 billion.

2. Business Analysis

The business analysis is more of functions and processes. It starts with the identification of business needs and provides solutions. There are three types of business analysis. They are tactical, operational and strategic. Tactical business analysis will give a clear picture of the defined projects and initiatives taken.



The operational analysis will provide insights into daily changes that happen in a change process. It is more focused on improvement in the existing operations. Strategic business analysis is also known as enterprise analysis, is done before a project starts to identify business problems and opportunities and then a business case is developed and recommendations are given like whether to initiate the planned project or not. Some of the business analysis techniques are (i) PESTAL (political, economic, social, technological, environmental and legal); (ii) Heptalysis, is a seven-factor analysis usually performed at the budding stage of a new start-up or enterprise. This technique is predominantly used in venture capital funding. Entrepreneurs with a novel business idea can make use of this analysis. Various components of this technique include a) market opportunity, b) product/solution, c) execution plan, d) financial engine, e) human capital, f) potential return and g) margin of safety. (iii) STEER technique includes Social, Technological, Economic, Ecological and Regulatory analysis. (iv) MOST technique is used to analyse the internal environment of an enterprise, the attributes are mission, objectives, strategies, tactics. (v) SWOT technique focuses on strength, Weakness, Opportunities and Threats. (vi) CATWOE, a six-element technique which comprises of the customer, actor, transformation process, world view, owner and environmental constraints. (vii) Five Whys is a root-cause analysis done to identify the cause and effect relationship. Entrepreneurs can redefine their strategies with business analysis visual models. Notable business analysis models are activity diagrams, feature mind maps, product road maps, SWOT, organizational charts, MoSCoW, user interface wireframe, PESTAL, process flow diagram, entity-relationship diagrams. Some of the very interesting business analysis roles are business analyst, operations analyst, functional analyst and strategy consultants.

3. Business intelligence (BI)

In Business intelligence (BI), it is the analysis of the past data, which is backwards-looking. BI tools will generate a report, chart, summary, dashboard, graph, map etc by performing data analysis. It helps in the identification of key performance indicator. With BI, entrepreneurs can know much details about the nature of business. BI is done using data mining, process analysis, performance benchmarking and descriptive analytics. Many software tools are available which are customized for end-users. Some of the notable BI tools are SAP business intelligence, Microstrategy, Sisense, SAS business intelligence, Yellowfin BI, QlikSense, Zoho Analytics, System, Microsoft Power BI, Looker, Clear analytics, Tableau, Oracle BI, Domo, IBM Cognos Analytics.

A study was conducted at North African SME's to identify the effect of different devices of BI and entrepreneurial competitive intelligence towards international competitiveness and found SMEs which applied all devices of



entrepreneurial competitive intelligence are those with the highest export intensity compared to other categories of SMEs. Entrepreneurial competitive intelligence stimulates more significantly the international competitiveness of SMEs. Entrepreneurial competitive intelligence which is a guarantor of good practice of business intelligence (Tarek & Adel, 2016).

4. Business Analytics

At present, there are four kinds of Business Analytics.

Descriptive analytics: This analytics will project what had happened. It brings the clear picture of the data distribution and it can find the outliers and typos from the data set. And also tells about the association among the variables.

Diagnostic analytics: This analytics is advanced when compared to descriptive. Here methods like data discovery, drill-down, data mining, correlation are used. Thus we can diagnose any business situation and bring out answers like why did it happen? Entrepreneurs can be benefitted by using these analytics to find reasons for a failed project. For instance, by using this technique they can discover why a loss has occurred either due to wrong timing of product launch or by cost estimation or there could even be target audience mismatch.

Predictive analytics: This analytics is used to predict unknown events in the future. This is done by analysing the present data. This analysis is a combination of data mining statistics, modelling, machine learning (ML) and artificial intelligence (AI). For instance, historical data pattern and the transaction data can be analyzed to predict future opportunities and risks for the businesses. Thus this analytics will explain, What is likely to happen? Entrepreneurs can make better decisions in areas like investment, business trends, return on investment, etc. Predictions can be made even to identify the defaulters. Because payment defaulters are an important element in every business.

Prescriptive analytics: This analytics is a combination of descriptive and predictive. By data monitoring, this analytics can provide solutions or actionable insights. Here it can say what, when and why and can also suggest decisions. Here optimization and simulation algorithm is used whereas in descriptive it is data mining and in the predictive, statistical model and forecasting techniques are used. For instance, entrepreneurs by using prescriptive analytics can efficiently do production optimization through proper scheduling and inventory.

5. Data Analytics

Data analytics is done to provide a visual representation of the data. Firstly data analyst will perform explanatory analysis thereafter they do experiment through data mining processes. A data analyst will find patterns and correlation with the given data set and then they build the model and they will check how their data



respond to the model. Whereas the job of a business analyst is to help the organization by providing key performance indicators, trends from the data. Data analytics can tell accurate predictions based on events. Business analytics helps organizations for overall business planning, performance and it also supports continuous improvement in technology and processes. Business analytics is done for strategic business decisions. Thus data analytics is utilised in business analytics for making data-driven business decisions.

6. Big Data Analytics

“Big data is high-volume, and high-velocity or high-variety information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision making, and process automation” (Gartner_Inc). The data types involved in big data are (i) structured (eg: temperature data); (ii) unstructured (eg: Twitter data); (iii) geographic data (eg: transportation routes); (iv) real-time data (eg: youtube data); (v) natural language data (eg: verbal data from mobile phones, it is a human-generated data); (vi) Time series data (eg: stock exchange data); (vii) event data (eg: accident data); (viii) Network data (eg: webpages, routers and hubs); (ix) linked data (eg: DBpedia, this is a repository which will have the Wikipedia’s extracted data). Thus big data is characterised with 4 V’s. The scale of data is represented as volume. Different forms of data are known as variety. The speed at which data generation is happening is termed as velocity. The uncertainty of the data is termed as veracity. Nowadays fast-food giant companies are using big data analytics, based on the database information, predictions can be made for no. of customers in a specific time in a day, type of food preferences etc thus it helps in food preparation according to demand. Some of the big data tools are Apache Hadoop, Cassandra, Kaggle, RapidMiner, Hive, Spark.

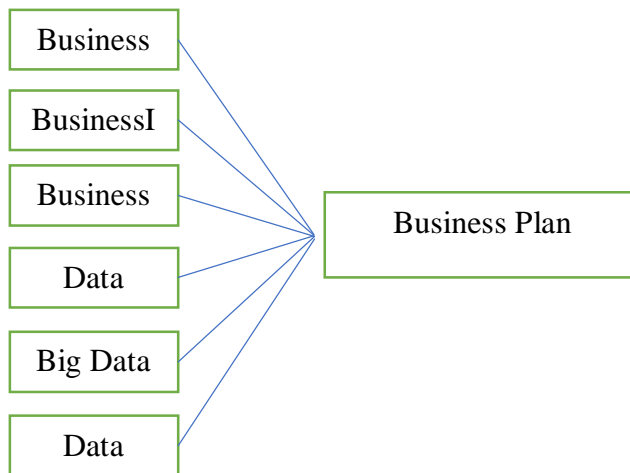
7. Data Science

In business intelligence and business analytics, it can use only small size data or structured data. Data science can analyse even unstructured and semi-structured data. Semi-structured data will be in the form of CSV, XML and JSON documents, NoSQL database, HTML, EDI and RDF (Forsey). These semi-structured data are non-organised structured data (Forsey). Data without any pre-defined data model is said to be unstructured data. social media data, mobile data, website content, satellite images, audio files and video files are some examples for unstructured data. Some of the prominent software used in data science are TensorFlow, RapidMiner, BigML, Weka and R. With advanced machine learning algorithms, predictions and pattern discovery are possible with huge volume and variety of data. Data science involves the preparation of data to the cleaning of data and to data analysis. Here they use statistics

knowledge along with mathematics, problem-solving and programming abilities. With advanced algorithm and machine learning principles, data science discovers a hidden pattern from raw data. In big data, firstly data is inspected, transformed, cleansed and modelling is done. The basic concept of big data is handling large data, In data science, it is analysing the data. Big data developer will give insights from the huge volume of data. But data scientist is involved in decision making by understanding the pattern within data. Thus data science has a broader scope than big data. By using the NavieBayes technique a study was conducted to identify potential MSMEs, this was done to help the government of Indonesia. Data was collected from Tangerang region. The attributes used in their study was (id, name of entrepreneur, business name, business address, telephone number, business form, and business fields) and found 9 data integrity (id, name of entrepreneur, business name, business address, telephone number, sub-seconds, business forms, business fields, and business classifications) policy and business assistance based on potential business fields in areas that have high business productivity was recommended (Amalya & Widyaningsih, 2018).

8. Conceptual Framework

Fig 1: Conceptual framework of new components in the business plan.



9. Conclusion

To conclude future entrepreneurs can stand ahead of the competition with the help of data-driven decision making. Entrepreneurs can either recruit an



analytics team or outsource data analytics. Inclusion of analytics and data science in the business plan helps in predictions of the future event and also diagnosing reasons for issues. Big data brings new dimensions of thinking with a combination of various variables. This helps in the strategic decision.

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WHAT ARE THE SKILLS REQUIRED FOR A SUCCESSFUL STARTEPRENEURS? – AN ANALYSIS

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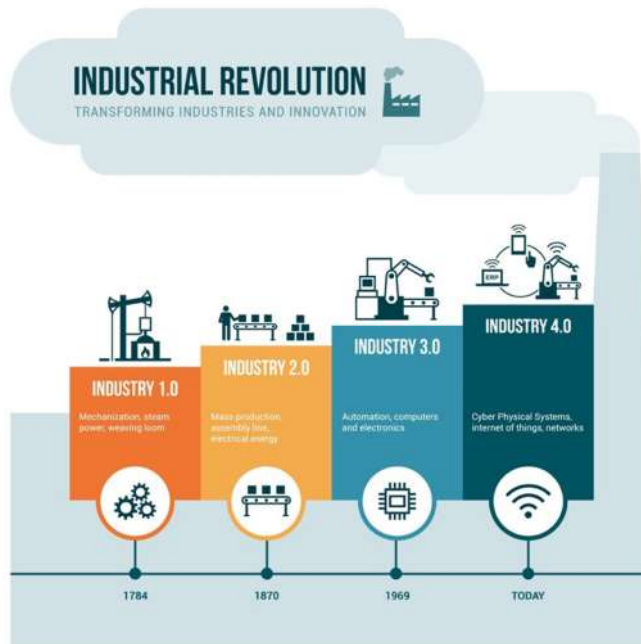
Abstract

Successful Entrepreneurs are professionals who are highly motivated, self confident and can take right decisions in the right time. The art of taking a right decision on a critical issue specifically in a changing environment requires a specific skill. In a dynamic business industry, it is essential to understand the valuable skill set and to nurture them in order to manage the business with good profit. Acquiring those skills need time, but the one who develops it quickly and applies it in reality would achieve success. The requirement for the specific skills that are not taught by any academic institutions evolves based on the prevailing trend in the market. Hence, this paper concentrates on identifying the skills that are specific to the stratepreneurs to manage well their start-ups and to bring those skills into the limelight.

Keywords: Startpreneurs, skills, Start-ups & entrepreneurs.

Introduction

The importance of investing in themselves, from building valuable skills to improving their strengths over time, is familiar to most of the entrepreneurs and motivated professionals. The abilities that are significant develop with time and are unique in relation to what may have been most significant a decade or two ago. The primary world is moving towards the Fourth Industrial Revolution. Characterized as the combination of advances which obscure the lines among the computerized, physical and natural circles. With progresses in apply autonomy, man-made brainpower, nanotechnology, quantum figuring, biotechnology, The Internet of Things (IoT), 3D printing and self-ruling vehicles portraying it.



The current scenario, often referred to as the Information Economy—employers are not recognised either for their productivity on the assembly line, or for their ability to work productively as a gear-tooth inside a bigger machine. Instead they are recognised for their capacity to improve quickly to outpace their competition. From the year 1955 to 2016, only 12% of the Fortune 500 industries have maintained their place on the hierarchy. The organisations no longer on the list were improved by the newer competitors. Schumpeter coined this process in his 1942 paper “Capitalism, Socialism, and Democracy”—Creative Destruction. The new eating the old. The process in which innovation deconstructs long-standing arrangements and frees resources to be deployed elsewhere is accelerating. The expenses of entrepreneurship have declined by a factor of 10, twice over the most recent couple of decades. From an estimated \$500,000 decades ago to \$50,000 during the dot com era, and now to \$5000. This, in any case, does not mean more organizations are succeeding, indeed, entrepreneurship characterized as the quantity of new organizations as a share of US business, is declining quickly.

CHARTING THE STARTUP DECLINE

According to Census Bureau data reported by the Kauffman Foundation and the Brookings Institution, the number of new companies as a share of all U.S. businesses has dropped 44 percent since 1978.



The push-pull of these meeting patterns is making a fascinating chance. We are at a point where anybody with monetary steadiness can begin another organization. However less and less organizations are as a rule effectively initiated. Why?

The World Economic Forum 2016 “Future of Jobs Report” provides an answer for the above question. This new period requires new abilities from workers, abilities which our education systems are in certain regards, neglecting to give. The most fascinating ramifications of this exploration lies in identifying the opportunity available to any individual who can develop these new abilities in themselves.

Review Of Literature

According to Andrew James Walls the following skill sets are essential for a successful entrepreneur.

1. Complex Problem Solving

The number of variables or inputs into a system is defined as Complexity for example, managing a team. Each extra team member includes his/her very own



wants, abilities, work examples and viewpoints to the group which makes the team progressively complex. This complexity is not simply because of the extra information given by the new individuals but also as a result of the connections of their contributions with the current contributions of the group. Fundamentally every new factor makes an issue exponentially more complex. Skilled people can think about this complexity and can get methodologies and output from them.

Nobel Prize winner H.A Simon defines complex problem solving as:

The limit of the human mind for detailing and taking care of complex issues is exceptionally little when contrasted with the size of the issue whose arrangement is required for impartially discerning conduct in reality or in any event, for a sensible guess to such target objectivity.

Jim Collins defines complex problems as Big, Hairy, and Audacious Goals that have semi-viable solutions and even understanding them is incredibly complex. Having heuristics, or systems to tackle comprehending, solving and implementing answers for complex issues is, and will keep on being, basic to business people who want to have an effect.

2. Critical Thinking

Critical thinking is similar to that of complex problem solving. The simple definition for critical thinking is that it is a clear, logical argument construction done through clearly defining our statements and then organizing them into arguments or conclusions. When solving problems, simplified models or abstractions of reality, which help us to process the critical elements of some scenario, are created. One does not have the power to handle all the variables (A, B, C etc) that come from real life.

3. Creativity

Creativity is defined in The Innovators DNA as:

“Your ability to generate innovative ideas is not merely a function of the mind, but also a function of five key behaviours that optimize your brain for discovery.”

The following are the five key behaviours:

Associating: drawing connections among questions, problems, or ideas from unrelated fields.

Questioning: posing queries that challenge common wisdom.

Observing: scrutinizing the behavior of customers, suppliers, and competitors to identify new ways of doing things.

Networking: meeting people with different ideas and perspectives.



Experimenting: constructing interactive experiences and provoking unorthodox responses to see what insights emerge.

This model is fascinating for the following reasons.

It shows the leaps human uniquely make, once one i) understands the problem ii) and finds the patterns and enables us to iii) synthesize solutions. Each of these individual activities can be done by anyone, and creativity is then being done in aggregate, which means creativity can be **trained**.

A 2012 Adobe study on creativity shows only 1 in 4 people believe they are living up to their own creative potential. This is a key indicator of why falling rates of entrepreneurship mirror falling creativity rates.

Globalized business is quickening the complexity of our issues, and we lack the abilities to comprehend these systems, and to integrate answers for them. However if we figure out our creativity, and further to actualize the developments we produce. We can make adventures which have an exponential effect over what was conceivable in the more nationalized past.

4. People Management

The two components of people management are **People** and **management**. People refers to EQ, inspiring, motivating, encouraging, and leading and management refers to hiring, firing, training, disciplining, evaluating, and directing.

These two components may seem at odds, yet a successful manager proficiently balances both as they move their group towards their objective. This might be as an agent of an organization endeavouring to meet some vital objective or as an individual business person driving everyone around them towards some desired end state.

5. Coordinating With Others

People management naturally has power imbalances; for example, Manager and employee, and Team leader and team member. The most powerful entrepreneurs know how to work when they are on either side of the condition, and when they are balanced with their peers, who could be a fellow manager, or entrepreneur, or could also be an investor, partner, or stakeholder in their field.

6. Emotional Intelligence

Emotional intelligence refers to understanding and managing the emotions of oneself and others which includes the following three skills:

Emotional awareness—awareness of the feelings present in us and others. It also includes emotional literacy, which labels these emotions and thus act upon



them. At its highest level, one can anticipate emotions from external and internal stimulus and thus regulate them over time.

Harnessing emotions—action on emotions to enable healthy relationships with others, and within ourselves. Once we are in a position of controlling our emotions, we can lead interactions with others, diffuse tense situations, and generally lead those around us in a mutually beneficial way.

Managing emotions— The conclusion of the previous two skills is being able to anticipate, understand, harness and then manage emotions proactively. Rather than responding, we react with the suitable feelings. One needs to quiet oneself in order to concentrate on some task? The emotionally intelligent manager can balance their internal state to create that emotional presence.

7. Judgement and Decision Making

A combination of complex-problem solving, critical thinking, creativity, people management, coordination and emotional intelligence are referred to as Judgement and Decision making. It analytically assesses a situation, understands the implications, recognizes the scope and possibilities, harnesses your organizational resources both internally and externally, and oversees the implementation of solutions.

8. Service Orientation

Service orientation is defined as: “The ability and desire to anticipate recognize and meet others’ needs, sometimes even before those needs are articulated.”

From the perspective of an organizational leader, I think the conversation around service orientation should focus on servant leadership.

. The CEO is responsible for MOST of the people. Employers are required to help every other person in their organization: self actualize, support their families, and rise above their economic station. Those appointed at the junior most position have many people to encourage them, and also have many people to render help to them. Thus, they hone their skills to become better servants themselves as they grow and flourish.

9. Negotiation

Negotiation is the process by which parties mediate differences. These differences may cause arguments and disputes which can be overcome by compromises or agreements. The principles driving negotiation are: Fairness, Mutual benefit and maintaining relationships. To effectively negotiate, a leader needs a clear understanding of both their current position, and their desired outcome. The path connecting these two creates their strategy.



10. Cognitive Flexibility

The two components of Cognitive flexibility are the ability to switch between thinking about two different concepts and the ability to think about multiple concepts simultaneously.

An entrepreneur constantly switches among different tasks, and deals with different variations of similar problems. The more they reduce their cognitive “switching cost”, the better they synthesize new solutions from varying fields and disciplines. They are better equipped to operate in an environment of uncertainty and speed. As most entrepreneurs do.

Each of these skills can be acquired through training which involves dedication, self-confidence and trust in others.

Statement of the Problem

In a highly competitive scenario, it is tough to be a successful entrepreneur and to sustain the business. Current business demands a new skill set which is not taught by any academy. Startpreneurs should possess the skills that are necessary to manage their business. Identifying and implementing the right skill for the improvement of business lies in the hands of the young entrepreneurs. It is high time to find out the right skills which will help them to excel in their venture and gain the competitive advantage.

This paper focuses on the various skills required for a startpreneur in different perspectives based on the inputs received and based on the analyses of the stories of the budding entrepreneurs.

Objectives of the Study

- ✓ To know the various skills required for a startpreneur.
- ✓ To identify the most important skills necessary to manage a startup.
- ✓ To find whether there is any other specific skills required for a startpreneur to be successful in their venture.

Methodology

The study is descriptive in nature. Both primary and secondary data have been used for the study. Analysing the various skills set that are required for an startpreneur to be a successful was gathered from budding entrepreneurs from different places and sectors by interaction on a continues basis as and when they were met by the authors which has been the primary data for the study and the secondary data was collected from the telecast media, internet, documentary films, books, Journals and websites.



Analysis and Findings

After having a discussion and through analysis of the different skills required for a startepreneur it was found that the following list of skills was shared personally by the entrepreneurs which would help them in building their project.

Adaptability

As a startepreneur adapting to the various situations when the business is in the incubation phase is highly important. It is not as an individual alone, this mind set have to be brought among all employees, family members etc. Sustaining the no revenue phase of the business, managing less revenue and high cost is a challenge.

E.g. Ready to have the mind set to Move out from the comfort zone (AC office to Non AC and Using Car for travel to an old bike etc.)

Leveraging the existing resources

Let it be finance, Human resource, trade name/ brand name or infrastructure where leveraging the existing resources will minimize cost. Maintenance of the available resources and its effective usage will be an advantage. Start your business with what is available.

E.g. Start small with the likeminded people who vest in your success around you. Use the resource available an office space shared by others or furniture purchase from second hand market etc.Nurturing friendship and building mutually beneficial relationships may result in avenues for potential gain in future.It's important to be a member of the community's business organizations, Chamber of commerce, councils etc. and collaborate to understand the current trends. It could be interacting or consulting with a local design firm when creating your new business's logo, seeking out opportunities for cross-promotion with businesses that overlap with yours in some way, and sponsoring community organizations which give you indirect benefit of promotion and publicity.

Providing right environment

A comfortable work environment will maximize productivity. Parking, light, work timing, salary, recognition, incentives etc should be provided always by systematic approach with or without the usage of technology. It's not that always the physical presence is a must to manage employees you can sit at San Francisco and manage a business in India.

Motivating the employees/ celebrate success

Celebrate success immediately which is of interest to the employees with a party, dinner, trip etc. In formal get together will pave way for collaboration and



innovation inside the organization. The other benefits of this are it keeps the morale of employees up and helps them to understand others better which adds value to the organization with highly motivated employees.

Identify the right way/source/analyzing options

Employees should be trained to get the right path of moving ahead. Identifying the right source and Interacting with the right person to achieve the objective in a specified time is a essential skill required for an startepreneur. Untiring efforts and ability to connect the dots will result in achieving success.

In a start-up, it's is better to involve few people who will be reliable and trustworthy. They should share your vision and wish to see it come in to reality. While such scenarios aren't always realistic, it's vitally important to surround yourself with a strong core of employees from which you can build a staff. This might represent only a couple of people, but they should fully understand what you're trying to accomplish and complement your own skills well. Trust these first few core employees to do their jobs and surround them with talented staff.

Young energetic employees are looking for flexibility in their hours and their work locations, and recruiting the best talent often means being able to provide this. With the technological advancement If employees can work a portion remotely. This can improve morale and efficiency of the workforce with minimal overhead costs

Retaining the employees

The biggest hurdle in retaining employees in a start-up organization is their mindset. They enter with the idea of gaining experience for one or two years and move to the larger organization with appreciable employable skills for a better pay package. The cultural hindrance of relatives, neighbors etc will also have its influence on employee's mindset. As a owner it is necessary to give him the assurance for growth and development in the career.

Valuing the intangible assets

An Startepreneur cannot always look for a lucrative financial benefit rather he should identify ways of gaining the intangible benefits which adds value to his project.

For. E.g. Identifying the opportunities to access the assets, brand image, name of organization and the interaction / mentorship of the masterminds when you collaborate with institutions, business community and centers may provide the most possible benefits.



Personal visit/observation

Making a personal visit to all the branches of the organization and encouraging participation of the employees will create a supportive environment. Good personal observation of the people and place will give an extra mileage in managing the human resource.

Publicizing Right image

Projecting the company image among the public and customer is important in the current scenario. Positioning the company product or service will be easily done with using the right opportunities available like interview in the telecast media, creating blogs and websites in the internet and effective usage of the social media.

Best usage of technology

While business owners themselves do not need to be experts in using information technology, they do need to invest in employees or consultants who have that expertise. Usage of technology for one advantage will give a competitive edge. Websites also need to be mobile-friendly in addition to being desktop-friendly to reach potential customers accessing the site through their smart phones. Knowing how to take advantage of social media trends is vital to any business trying to establish itself in a market. Social media evolves rapidly. Entrepreneurs with the skills to stay on top of these changes and know how to use them as an opportunity to get ahead of the competition have a greater chance to be successful.

Find new revenue streams

Any business venture should understand their customer well for long term sustainability. An effective market research will help in getting the customer needs and also identifying the niche in the market. A strong Unique selling proposition of your product should be registered in the minds of the customers. A difference in product, flavor, taste, price, varieties etc which increases the demand should be looked after.

Don't give up easily

Initially the start-up should have short term goals that are broken down quarterly or even monthly. Step by step execution plan for financing, staffing, marketing, and any other relevant activities of your business should be very clear. A detailed SWOT (strengths, weaknesses, opportunities, threats) analysis always is a good way to get yourself and your team members to start thinking strategically. As you move through your beginning months and years in operation, it's always a good idea to revisit strategies on a regular basis to make



sure they are still appropriate based on any changes with your business or the marketplace.

New businesses hit speed bumps and struggle at times. No matter how well you've planned or how great the people you've hired, an unexpected twist will create problems that need to be overcome. Knowing this is likely; you can budget for unexpected expenses and mentally prepare yourself not to panic. When you respond quickly and calmly to a crisis, your management team will follow your lead, and their staff will follow your managers, better enabling your business to navigate any storm you may encounter

Sacrifice to achieve the dream

Having passion to achieve, will drive to move ahead even in a worse phase. Learn to sacrifice to achieve the goal should be nurtured within the employees. Employees should be encouraged and motivated to work extra time and effort as a start-up.

Protect yourself but not hurt

Though trusting all the staffs is a must for a start-up. It is equally important to protect yourself well all situations in terms of finance, legal IPR, etc well. Unpredictable causes may upset the business at any point of time. Blaming or hurting others will not help to manage the scene in anyway. It is always better to be prepared for the worse by being responsible for all the actions and any move related to the business.

Align shareholders with customer needs

Planning how to manage and multifold your finances is essential. In managing the business and concentrating in it is a must to develop it. So it is better to hire an expert in managing your finance if required to minimize the loss of money or to avoid a wrong step even before you build your brand and reputation. It is always better to have a finance support or backup to cover the early losses if any. Even after earning good profits it is essential to plan where those profits will go. Depending on the nature of your business, you might wish to expand, open additional branches, or invest in developing new products. Whatever your priority, have a plan for getting there and how you are going to fund it with the concern of the shareholders for a smooth run of the business

Knowledge gives credibility

Continuous updating of the business to suit the recent trends will help in getting the market leadership position or the trend setter in your industry. This will improve the company image and build credibility in the minds of the customer.



Improving the knowledge about the business in all means from various sources like newsletters visits, conferences, collaboration with institutions trade fairs etc should not be

Conclusion

Venturing a new business itself requires extraordinary skills. To sustain as a profitable project further needs identifying the most valuable skills which evolve with the changing trends in the environment. An entrepreneur has to understand the requirements to update his skill set and strengthen that for his advantage. Failing which he will have a negligible chance of success.

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CSR FUNDS, BUSINESS INCUBATORS AND START-UP VENTURES - THE POSITIVE LINK

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Abstract

Every business, irrespective of its size, contributes to the economic development of a nation. Small businesses, predominantly Startups in the form of online apps for various utilities like food, groceries, travel, learning etc, play a vital role in restructuring India into a technology-driven nation. According to the Startup India Action Plan, 2016, most startups end up in failure during the initial stages of business due to the major reasons of either lack of funds or lack of managerial skills. Hence, it is the responsibility of the nation to protect such startups by facilitating a conducive environment to back them up during the crucial initial years. This responsibility may be taken care of by the Business Incubators who lend in helping hands to the entrepreneurial intention of the young generation, by way of equipping them with the necessary skills and abilities required to shine as successful startup entrepreneurs. On the other hand, the financial well being of the upcoming ventures may be handled by the corporate through their CSR funds which is being insisted by the Government also. This paper intends to provide insight on how the CSR funds of corporates can come to the rescue of supporting and promoting Startup ventures, by associating with business incubators. There is also a special light on CSR regulations that govern such activities. The positive link between all the three is highlighted.

Key Words: CSR funds, Business Incubators, Startups, Entrepreneurship Development, Companies Act 2013

Introduction:

Start-ups are being looked at in a new dimension of addressing the needs and challenges of a society, in this globalized era. In consideration of this fact, India aspires to become a Start-up nation by magnetizing the young and vibrant



population of the country who dream to become Business Wizards. **India is at the top of the ladder positioning 17th rank in the Global Start-up Ecosystem Ranking as published by Startup Blinks Global Reports 2019.**Hence, our nation can be identified as one of the fast growing ecosystems for startups among the countries of the world which is indicative of the fact that there is presence of a healthy environment for the startups to grow.

Business Incubators:

The number of startups in India is expected to cross 11,500 by 2020. Business Incubators are regarded as one of the highly successful media to kindle the entrepreneurial spirit among the young aspiring entrepreneurs, along with accelerating the growth of startups. Business Incubators are at their growth stages in countries like India and have been a trustworthy source of contribution towards the global economy in terms of innovation and job creation. They have now become an integral part of value creation to the balanced and sustainable development of nations.

In India, their role in supporting and developing startups has been awarded a centre stage and as an impact of this, the Government has implemented various initiatives that are directed towards their prime objective. The Ministry of Science and Technology, has recommended the setting up of Technology Business Incubators (TBIs). TBIs are instituted within academic institutions in the country with a motive of rendering service to the tender innovative ideas of the budding entrepreneurs when they are young. The vision of such initiatives is directly in line with the vision of the country, at par with other countries of the world: “to boost entrepreneurship in the nation”.

However, it is only over the last few years that the number of incubators in India has increased significantly. There are over 120 TBIs in India that are promoted by the DST, Ministry of Information and Communication Technology, and other private companies, institutions, banks and government departments

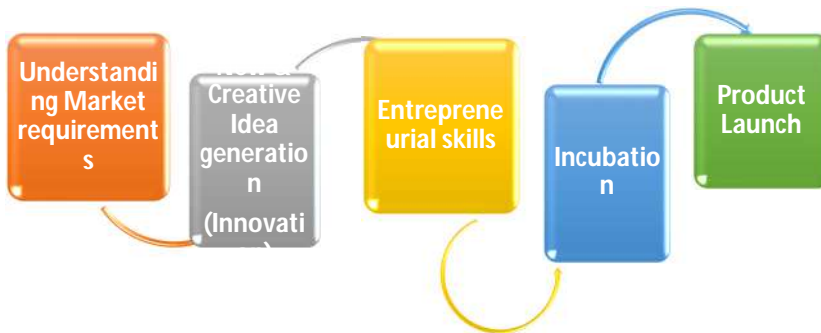
How do Incubators function?

Incubators may be of two categories: Non Profit and For Profit categories, which differ only in the financial interest. Incubators have the primary goal of nurturing start ups at their crucial stage which is their initial phase of growth. An incubate- as the Entrepreneur or Start Up associated with the Incubation centre is called as, spend an optimum time of two years with the incubator, during which they are enhanced with a holistic skill development required for them to become successful.Incubators are intended to assist start-ups in taking their ideas and business plans to the market place. During this period, start-ups acquire various services in the form of technical and personality insights/advisory services from experts, and may also be provided with office

space and other infrastructure. This infrastructure could be in any form pertaining to operational requirements of start-ups, such as using research laboratories and technical support.

Besides necessary infrastructure, incubators also provide access to capital and markets, business services, as well as required guidance and mentorship to start-ups, which may otherwise be unavailable to these companies. In India, technology business incubation efforts have grown over the last two decades.

Innovation and Incubation- The Knot:



CSR Funds in the picture:

Recently, the Government has introduced several provisions under the Companies Act, 2013, which insists corporates to contribute their Corporate Social Responsibility (CSR) funds to approved TBIs and registered not-for-profit entities that involve in start-up supporting. It is believed that CSR funds would support startups by addressing to their funding concerns, which would pave the way for generating innovative ideas and adopting new technologies to scale up in the field and create a positive impact on the society.

Villgro, the Centre for Innovation Incubation and Entrepreneurship (CIIE) and the Society for Innovation and Entrepreneurship (SINE) are some examples of incubators that are supporting start-ups/social enterprises in India and are receiving CSR funds from Mahindra & Mahindra Financial Services, SAP, Tata Motors and Bajaj Electricals, Castrol, etc

CSR Regulations:

The CSR Regulations is a collective term which constitutes the **Sec.135 of the Companies Act, 2013, Schedule VII of the act and the Companies(CSR) Rules, 2014** put together. It is highly essential to know which are all the corporate that come under the mandatory bracket of the regulations. The corporate that fall under any of the following criteria are eligible for the mandatory spends:



- Net worth of INR500 crore or more; or
- Turnover of INR1,000 crore or more; or
- Net profit of INR5 crore or more

There are specific scenario which qualify the contributions of the corporate, to a fund or an entity which has been dedicated to promote startup enterprises, in the list of mandatory CSR spends as spelt out by the regulations. This is as follows:

- Contributions are provided to a TBI [located within an academic institution and approved by Central government through the Department of Science and Technology (DST)];
- Contributions are provided to a not-for-profit entity registered under Section 8 of the Act [Section 8 Company] or registered as a society or trust (collectively called as ‘Start-up Supporting Entity’).

Regulations have mandated that the qualifying corporates have to spend a minimum of 2 per cent of their average net profits on eligible projects, and thereafter undertake required compliances. Accordingly, a corporate can spend the 2 percent as per its discretion — it can either contribute the full 2 per cent or partial share of this amount to a TBI. The remaining funds may be dedicated to the conventional projects that are eligible in the areas of education, poverty alleviation, health, sanitation etc.

How the Positive Link works?

Corporate Linkage with Incubators

When a company decides to invest its CSR spends in an approved Business Incubators or TBIs, it shall acquire a recommendation from its CSR Committee and an approval by the CSR board which, usually constitutes of, three or more directors, and that which governs the CSR Policy of the company. Further to the approval, the company will enter into an MoU/agreement /contract with the chosen incubator. The CSR spends of the company may then be invested in the incubator as stated by the CSR policy of the company. Various aspects such as selection of incubatees and utilization of CSR funds by incubator in consultation with the company and other decisions should be mutually exercised.

CSR Funds and Start up Ecosystem

The CSR funds dedicated to the incubators are utilized by the incubators in assisting the start up ventures and the aspiring entrepreneurs in various stages as follows:

- ✓ Generating innovative ideas
- ✓ Early stage funding
- ✓ Co-working spaces
- ✓ R& D Centres
- ✓ Knowledge generation
- ✓ Skill training& Mentoring
- ✓ Product development



- ✓ Product testing
- ✓ Launch
- ✓ Review and action

Reverse benefits to Corporates:

The support rendered to social impact start ups will exhibit a multiplier effect in scaling up the developmental impact created by corporate rapidly. The startups will carry out intensive market research which will facilitate the corporate access new markets that will be potential for their business and will also help in developing business specific knowledge. Besides, the corporate will have light on how to respond to changing demands promptly so as to remain competitive in the economy which is dynamic most of the times.

Associating with startups will create an impact of innovation within the organizations and will thus lead to growth of the business. Further, the corporate will be exposed to advance technologies and methodologies by way of engaging with start ups. This will help them find solutions to various problems within organization. There will be additional knowledge and awareness on the current industrial trends by way of the researches carried out by the startups. This will help them increase their reach in business ecosystem and improve the chances of their collaborations and partnerships with relevant companies and stakeholders. Therefore, the goodness of funding the start-ups does not return only in the form of financial merits but also in the form of other benefits mentioned above. This will lead to a healthy economic climate in the country as the CSR funds contributed to start ups through the business incubators is mutually beneficial for the startups as well as the corporate.

Reporting requirements:

For Incubators

There is not an exclusively reporting procedure prescribed for the Business incubator, either by the CSR regulations or by the TBI guidelines issued by DST. But, as a best practice of the TBI, the following reports or documents may be submitted by the TBI to the corporate:

- Reports on the progress of the incubator
- Audited statements of the accounts relating to the amount invested
- Utilization certificates

For Corporates:

The corporate that invest CSR funds in incubators need to follow certain reporting procedures as mentioned below:

- Reporting of CSR spending in Board of Directors' report in the format prescribed under the CSR regulations



- Reporting of the CSR policy on the companies' websites, including the intention of contributing to an incubator and/or the areas specified in Schedule VII that the company intends to address.
- A broader goal/vision may be included, but this is not mandatory according to the CSR regulations
- Reporting of reasons for not spending the CSR amount in the Board of Directors' report, if the company fails to spend the mandated amount of CSR expenditure.

Impact assessment

Corporate perspective

According to the CSR regulations, corporates are mandatorily required to disclose contributions made in their annual reports (as mentioned in Section 3.4), regulations do not require companies to undertake the impact assessment exercise of contributions made.

Incubator perspective

To identify the impact of individual contributions received by a TBI from different corporate is a practical challenge as the funds are mostly pooled from various corporate. The diverse and complex nature of the incubator ecosystem hinders the development of a framework for the assessment of impact created on the business environment. But few yardsticks that might be employed are:

- ❖ Number of Startup created
- ❖ Survival rate of the Startups
- ❖ Jobs generated
- ❖ Increase in the net worth of the startups after a specific period
- ❖ Profits generated and
- ❖ Products/ Technologies commercialized

Conclusion:

A deeper understanding of aspects in relation to Incubators, CSR funds, Start ups, CSR regulations and mandatory requirements explained in this paper, will serve as a viable resource. The link between CSR funds, business incubators and Startup ventures shows a positive impact which is a beacon of light to the economy that marches towards the mission of entrepreneurship development and tends to live in an economy which is filled with young and vibrant entrepreneurs, all around to set the path of the economy towards a developed phase. This positive link facilitates the nation to achieve its mission of sharing its status of a developed nation in line with the other countries of the world.



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VISITOR PERCEPTION ON ENVIRONMENTAL IMPACTS OF BOTANICAL GARDEN, OOTY FOR SUSTAINABLE PRACTICES

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Abstract

There has been a tremendous growth in the nature-based tourism industry during the past decade, but this growth has not come without problems. The growth in nature-based tourism numbers led to an increase in pressure on the environment. To counter this pressure, a 'greener' form of tourism emerged that aimed to reduce the environmental impacts caused by nature-based tourism on the environment by applying sustainable management approaches. Some of the prevailing negative impacts tourism has on the environment are soil erosion, littering, wildlife disturbance, water pollution, ground trampling and the overuse of water and energy. It is important that these impacts are managed in a sustainable manner in order to ensure conservation of the environment. However concerns have been raised regarding the relationship between the growing number of tourists and their effect on the environment, particularly in tourist areas such as botanical garden. The main aim of this study was therefore to determine the perceptions of tourists regarding the environmental impacts of tourism, and visitor satisfaction in Government botanical garden, Ooty. The important negative impacts of tourism on the environment include air pollution (air, water and noise), affects the balance of flora and fauna, littering in river basins, wildlife disturbance, and soil erosion. It is important that these impacts should be managed in a sustainable manner to ensure conservation of the environment. Hence the main aim of this study was therefore to determine the perceptions of tourists regarding the environmental impacts of tourism and tourists and to analyze their satisfaction level in the botanical garden, Ooty.

Key Words: Botanical Garden, Environmental Impacts, Visitor Satisfaction, Sustainable Development.

Introduction

The quality of the environment, both natural and human-made, is essential for tourism. However, the relationship of tourism with the situation is complicated. It involves many activities which will have adverse environmental effects. Many of those impacts are linked with the development of general infrastructures like roads and airports, and of tourism facilities, including resorts, hotels, restaurants, shops, golf courses, and marinas. The negative impacts of tourism development can gradually destroy environmental resources on which it depends. On the opposite hand, tourism has the potential to make beneficial effects on the environment by contributing to environmental protection and



conservation. It is a way to raise awareness of ecological values, and it can serve as a tool to finance the protection of natural areas and increase their economic importance. In this paper, we describe the effects of tourism on natural resources, environmental pollution, and physical environment. In addition, we explain the ecological impacts of tourism on a worldwide scale, industrial impacts on tourism and, finally, how tourism can contribute to environmental conservation. A botanic garden is a garden which is devoted to the gathering, cultivation, preservation, and display of a good range of plants labeled with their botanical names. It may contain specialist plant collections like cacti and other succulent plants, herb gardens, plants from particular parts of the planet, then on; there could also be greenhouses, shade houses, again with special collections like tropical plants, alpine plants, or other exotic plants. Visitor services at a botanical garden might include tours, educational displays, art exhibitions, book rooms, open-air theatrical and musical performances, and other entertainment. Ooty or Udhagamandalam is also known as 'the queen of hill stations' is a capital town of district Nilgiris in Tamil Nadu, India. It had been originally occupied by Todas, and ruled by East India Company before Independence of India. Ooty is alleged to be one among the most popular hill station in South India, located in the Western Ghats at the height of 2240 meter.

Botanical Garden, Ooty

The Botanical Garden in Udhagamandalam, near Coimbatore (Ooty), Tamil Nadu state, is one of the world's famous public gardens and attracts visitors from all over India and abroad. The garden was laid out in 1848. The Gardens, divided into several sections, cover a neighborhood of around 55 hectares and lie on the lower slopes of Doddabetta peak. The garden has a terraced layout. It is maintained by the Tamil Nadu Horticulture Department. This garden was laid out in 1897 by the Marquis of Tweedale and covers 55 acres. Lush green, well-maintained lawns, rare tree species (like the cork tree which is perhaps the sole such tree in India, the paperbark tree and therefore the chile pine tree-monkeys cannot climb this tree), a 20 million year old fossilized tree, an Italian-style garden bordering a transparent pool, a huge sort of flowering bushes and plants in myriad hues (exotic and ornamental), fern house with a huge range of ferns and orchids, are a number of the various highlights of this garden. A flower show alongside an exhibition of rare plant species is held per annum within the month of May at this garden.

Every year about 20 Lakh tourists, including Foreigners, visit the garden. The 'Queen of Hills' has seen a significant increase of nearly 50% in footfall of tourists in three years. While 23.4 Lakh tourists visited Ooty in 2014, around 32.69 Lakh visited in 2017, consistent with official records. Also, the increase in the number of tourists in 2017 is about 1.5 Lakh compared to 2016. The present Botanical Gardens are divided into six sections namely Lower Garden, New Garden, Italian Garden, Conservatory, Fountain Terrace, and Nurseries.



Need for the Study

Ooty is also known as Udhagamandalam which a major hill station for tourism in the Indian State of TamilNadu is. It is one among the fastest-growing tier-II cities in India. Ooty is a hub of a mixture of a variety of culture people and has variety of attractions. The study revolves around tourist's perception on Environmental Impacts and Visitors Satisfaction of Botanical Garden, Ooty, TamilNadu. Botanical Garden of Ooty is one of the most visited attractions of Ooty. Sustainable planning is highly essential for the garden. The study of current practice is necessary for the sustainable development of the garden. The research primarily focuses on Tourists perception about Environmental Impacts and satisfaction level, which is based on amenities and features of Botanical garden at the ecotourism destination. The study helps the stakeholders for better planning and management of the Botanical Garden. Not much of the study has been done on Visitors Perception about Environmental Impacts and Visitor Satisfaction of Botanical Garden in Ooty. Thus, this study has been undertaken to find out the Environmental Impacts and Visitors Satisfaction of Botanical Garden in Ooty.

Objectives of the Study

- To understand the visitor's profile of Botanical garden, Ooty.
- To Study the tourist's perception on tourism activities in the Botanical garden. Ooty.
- To understand the Environmental tourism impacts of Botanical garden. Ooty.
- To assess the tourist satisfaction level on ecotourism activities at the Botanical garden.

Scope for the Study

Generally, this study focuses on to understand tourist's perception of tourism impacts and visitor satisfaction and service quality of Botanical Garden in Ooty. Botanical garden in Ooty is one of the most visited attractions in Ooty. Hence sustainability is at higher risk in the garden. The present study can be considered as a step for periodical monitoring of the garden on the perception of tourists. Future study can involve locals and other service providers to collect a wholesome review of the botanical garden. The results of this study can be used for further researches and to reduce the negative impacts of tourists and tourism and also to improve the quality of services in Botanical Garden, Ooty.

Review of Literature

Ballantyne and all, (2008)Gardens' visitors were found to be less interested in and committed to conservation issues, and less motivated to learn, than visitors to other free-choice learning settings such as museums, zoos, aquariums, heritage sites, natural areas and wildlife tourism activities. The implications for interpretive practice in botanic gardens were discussed in the study. Kneebone (2006); Jensen (2014). Education activities in collections-based institutions, such as botanic gardens and zoos, can take many different forms, with many gardens coordinating workshops, guided tours and activities for the public to learn about the natural world.

Donaldson (2009). Traditionally botanic gardens have focused on developing the fields of taxonomy and horticulture but have more recently begun to address wider



conservation issues, with particular strengths in ex situ conservation and education. Many Australian plant species and communities appear to be threatened by tourism (Kelly et al., 2003). A review of management plans, recovery plans and a survey of experts found that tourism was considered to be a direct or indirect threatening impact for 72 plant taxa. This is one fifth of threatened species for which threats have been identified. Another study was implemented by Pickering and Hill (2007) in Australia. This paper reviews recent research into the impact of recreation and tourism in protected areas on plant biodiversity and vegetation communities. Australia's unique flora is of international significance and this has significantly contributed to increasingly high levels of tourism and recreation use of protected areas. The review highlights the need for more recreational ecology research in Australia. There are many threats to vegetation in Australian protected areas from tourism. Greater recognition needs to be given by protected area managers. Kumble and Houston (2009) studied the status and importance of ecotourism in Belize Botanic Garden. The garden is one that evolved in response to the conservation desires and requirements of local cultures. This paper discusses the role of a conservation botanic garden, and specifically how it can function as a destination for eco tourists. The paper proposes planning and design guidelines that demonstrate the principles of a conservation botanic garden. Another study on sustaining visitor use in protected areas was accomplished by (Monz et al. (2010). Recreation ecology is a relatively new field of scientific study having emerged over the last 50 years. (Buckley, 2001) Impacts on biodiversity are particularly severe for large new tourism developments in relatively undisturbed areas, such as those in and around conservation reserves and other Protected Areas. These developments involve clearing vegetation, major disturbance to fauna through loss of habitat, noise, barriers etc. (Buckley, 2002) In some destinations, tourism can produce a local economic boom leading to uncontrolled high impact private development, high resource consumption, waste generation beyond the capacity of local waste treatment disposal systems, if any, and land clearance and harvesting with major impacts on biodiversity. In addition, infrastructure built for tourism may be used for illegal collection of endangered plant and animal species.

Research Design and Methodology

Research Design used for the study is Descriptive Research Design. In order to address the research aim the participants were selected using a convenient sampling method. For the purpose of the study, tourists visiting Botanical Garden, Ooty were selected as population.. The sample volume of the study is 520, the visitors who visited the garden during november 2018 to april 2019.



Table 1 Visitor profile of majority of respondents on Demographic and travel attributes

Majority of tourists are youngsters with friends and relatives,not particularly coming for

Variables	Particulars	Percentage
Gender	Female	56.0
Age Group	16 to 25 years	41.5
Place of Origin	Tamilnadu	41.3
Education	HSC	34.2
Occupation	Student	31.0
Marital status	married	53.8
Other Family Member Working	Father	46.0
Family type	Nuclear family	52.1
No of Children	None	46.2
Monthly Income	20,000-40,000	43.1
Mode of Travel	Bus	33.8
Know about Tourist Destination	friends and relatives	65.4
Accompanying with Tourist Destination	Friends	30.8
Times Visited the Destination	visited 2-5 times	69.4
Reason for Visiting the Destination	leisure	50.8
Part Visited in the Attraction	new garden	55.8
Visiting Other Attractions	Yes	76.0
Frequently Visiting Other Attractions	not frequently or only occasionally	34.6
Frequency of Revisiting Botanical Garden	yes	64.4
Activities engaged in Botanical Garden	natural education	53.5
Tourists Presence Having any Negative Impacts in Botanical Garden	no	60.0

garden it is a part of their leisure visits.

Table 2 Descriptive statistics for Attributes

Attributes	Mean
Nature and Ecology	4.75
Small Number of visitors	3.77
Free entrance into the garden	3.73
Recreation activities	3.88
Facilities provide in the garden	3.97

The values in the table ranges from 4.75 to 3.73 which shows that the above mentioned activities are considered as important attributes in the garden by the tourists.

Table 3 Descriptive statistics for General Management

General Management	Mean
Level of Litter is minimum	4.45
Insufficient management of waste	3.64
Lack of energy saving measures	3.68
Inadequate water saving measures	3.30
Level of noise in the garden is low	3.69



The general management of the garden is good	3.77
Inappropriate waste management- absence of recycling waste bins	3.58
Too many tourists in the garden at a given time	3.65
Not printing brochures and information booklets on recycled paper	3.46

The values in the table ranges from 4.45 to 3.30 which shows that the general mangement of the garden is good, at the same time tourists feel overcrwding in the park.

Table 4 Descriptive statistics for Tourist Routes

Tourist Routes	Mean
Damage to natural vegetation due to uncontrolled tourist behavior	4.28
Erosion along routes due to tourists	3.64
Impacts of plant collecting along tourists routes	3.68
Introduction of alien plants and species due to tourism	3.46
Interference of breeding of wildlife due to tourism	3.69
Lack of environmental-friendly transport	3.77

The values in the table ranges from 4.28 to 3.46, hence the tourists feels that the routes in the garden are damaged due to some tourists behaviors.

Table 5 Descriptive statistics for Rest Camps and Campsites

Rest Camps and Campsites	Mean
Damage to natural vegetation (in tourist areas) due to trampling	4.32
Erosion due to tourism development	3.60
Human made structure that are not eco-friendly	3.76
Wildlife attracted to rubbish bins	3.55
Camp layout not fitting into natural setting of the environment	3.65

The values in the table ranges from 4.32 to 3.55, hence the tourists feels that the natural vegetaion in the garden is damaged in tourists areas due to some tourists activities .

Table 6 Descriptive statistics for Trails

Trails	Mean
Speeding of tourists on routes	4.32
Dust caused by tourist vehicles along routes	3.74
Tourists using too much artificial lights	3.68
Erosion along trails	3.69
Impacts of flower collecting by tourists	3.60
Introduction of alien plants and species	3.54
Design of track and trail does not fit into the surrounding and natural environment	3.57

The values in the table ranges from 4.32 to 3.54, hence the tourists feels that there are some of the negative impacts in the routes of the botanical garden.

Table 7 Descriptive statistics for Tourist Facilities

Tourist Facilities	Mean
Waste spillage around waste bins by tourists	4.25
Interference of wildlife due to noise, cars, people	3.68
Overcrowding of people	3.71
Visual Pollution (for ex: signs and directions)	3.54
Use of non-renewable sources (for ex: plastics) by tourists.	3.51

The values in the table ranges from 4.25 to 3.51, hence the tourists feels that there are enough facilities available in the garden .

Table 8 Descriptive statistics for Garden Maintenance

Garden Maintenance	Mean
The garden is clean and well maintained.	4.59
The garden does not show sign of Vandalism.	3.96
Restrooms are clean and in proper working order.	3.87
The natural environment of this garden is being protected.	3.92

The values in the table ranges from 4.59 to 3.87, hence the tourists feels that the garden is clean and well maintained.

Table 9 Descriptive statistics for Garden Personnel

Garden Personnel	Mean
The staff members were prompt and helpful.	4.30
The staff members were courteous and friendly.	3.83
The staff members were available.	3.75

The values in the table ranges from 4.30 to 3.75,hence the tourists feels that garden personnel were friendly and shows good hospitality

Table 10 Descriptive statistics for Garden Annoyances

Garden Annoyances	Mean
I was not bothered by pets that other visitors brought to the garden.	4.32
I was not bothered by inconsiderable people (rowdy, noisy)	3.85
The garden was not too crowded	3.72
I was not bothered by nuisance wild animals in the garden such as squirrels, insects were not a bother.	3.78

The values in the table ranges from 4.32 to 3.72 which shows that the visitors are getting annoyed with some of the tourists behavior.

Table 11 Descriptive statistics for Garden Facilities

Garden Facilities	Mean
There is adequate parking.	4.20
Trash containers are available.	3.77
Recycling containers are available.	3.95
Telephones are convenient.	3.64

The values in the table ranges from 4.20 to 3.64 which shows that there are enough facilities available in the garden

Table 12 Descriptive statistics for Visitor Satisfaction

Visitor Satisfaction	Mean
Overall, I am satisfied with my garden visit.	4.44
I would like to visit this garden again.	4.12

The values in the table ranges from 4.44 to 4.12 which shows that the visitors are overall satisfied with their visit to the botanical garden.

Table 13 Place of Origin Vs Environmental Impacts and Visitor Satisfaction

H₀. There is no significant difference between the factors of Environmental Impacts and Visitor Satisfaction with the place of origin of the respondents.

		Df	Mean Square	F	Sig.	Null Hypothesis
Attributes	Between Groups	6	33.217	3.681	.001	Rejected**
	Within Groups	513	9.024			
	Total	519				
General management	Between Groups	6	115.127	4.287	.000	Rejected**
	Within Groups	513	26.852			
	Total	519				
Tourist routes	Between Groups	6	40.292	2.742	.012	Rejected**
	Within Groups	512	14.697			
	Total	518				
Rest camps	Between Groups	6	14.047	1.242	.283	Accepted
	Within Groups	513	11.312			
	Total	519				
Trails	Between Groups	6	98.007	4.674	.000	Rejected**
	Within Groups	513	20.969			
	Total	519				
Tourist facilities	Between Groups	6	30.528	2.347	.030	Rejected**
	Within Groups	513	13.006			
	Total	519				
Garden maintenance	Between Groups	6	23.948	4.167	.000	Rejected**

	Within Groups	513	5.747			
	Total	519				
Garden personnel	Between Groups	6	13.800	2.776	.012	Rejected**
	Within Groups	513	4.972			
	Total	519				
Garden information	Between Groups	6	4.958	2.503	.021	Rejected**
	Within Groups	513	1.981			
	Total	519				
Garden annoyances	Between Groups	6	21.491	2.903	.009	Rejected**
	Within Groups	511	7.402			
	Total	517				
Garden facilities	Between Groups	6	24.795	3.147	.005	Rejected**
	Within Groups	513	7.879			
	Total	519				
Visitor satisfaction	Between Groups	6	5.375	3.565	.002	Rejected**
	Within Groups	513	1.508			
	Total	519				

From the table it is interpreted that there is a significance difference between people of different origin with environmental Impacts.

Table 14 Education Vs Environmental Impacts and Visitor Satisfaction

H₀. There is no significant difference between the factor of Environmental Impacts with the Education of the respondents.

		Df	Mean Square	F	Sig.	Null Hypothesis
Attributes	Between Groups	3	15.065	1.625	.183	Accepted
	Within Groups	516	9.270			
	Total	519				
General management	Between Groups	3	98.312	3.580	.014	Rejected**
	Within Groups	516	27.463			
	Total	519				
Tourist routes	Between Groups	3	159.983	11.307	.000	Rejected**
	Within Groups	515	14.149			
	Total	518				
Rest camps	Between Groups	3	95.308	8.780	.000	Rejected**
	Within Groups	516	10.856			
	Total	519				
Trails	Between Groups	3	192.768	9.238	.000	Rejected**
	Within Groups	516	20.866			
	Total	519				
Tourist facilities	Between Groups	3	34.142	2.609	.051	Accepted
	Within Groups	516	13.086			
	Total	519				
Garden maintenance	Between Groups	3	5.588	.938	.422	Rejected**
	Within Groups	516	5.959			
	Total	519				
Garden personnel	Between Groups	3	20.046	4.020	.008	Accepted
	Within Groups	516	4.987			
	Total	519				
Garden information	Between Groups	3	3.024	1.505	.212	Accepted
	Within Groups	516	2.010			
	Total	519				
Garden annoyances	Between Groups	3	45.667	6.219	.000	Rejected**
	Within Groups	514	7.343			
	Total	517				
Garden facilities	Between Groups	3	46.653	5.943	.001	Rejected**
	Within Groups	516	7.850			
	Total	519				



Visitor satisfaction	Between Groups	3	3.892	2.529	.057	Accepted
	Within Groups	516	1.539			
	Total	519				

From the above table, it can be interpreted that there is a significance difference between different level of educational qualification of the respondents with environmental impacts .

Table 15 Occupation Vs Environmental Impacts .

H₀. There is no significant difference between the factors of Environmental Impacts with the Occupation of the respondents.

		Df	Mean Square	F	Sig.	Null Hypothesis
AttrIBUTES	Between Groups	5	17.570	1.905	.092	Accepted
	Within Groups	514	9.223			
	Total	519				
General management	Between Groups	5	142.269	5.316	.000	Rejected**
	Within Groups	514	26.760			
	Total	519				
Tourist routes	Between Groups	5	91.408	6.415	.000	Rejected**
	Within Groups	513	14.249			
	Total	518				
Rest camps	Between Groups	5	58.771	5.401	.000	Rejected**
	Within Groups	514	10.882			
	Total	519				
Trails	Between Groups	5	73.316	3.433	.005	Rejected**
	Within Groups	514	21.359			
	Total	519				
Tourist facilities	Between Groups	5	64.717	5.093	.000	Rejected**
	Within Groups	514	12.707			
	Total	519				
Garden maintenance	Between Groups	5	21.049	3.623	.003	Rejected**
	Within Groups	514	5.810			
	Total	519				
Garden personnel	Between Groups	5	13.548	2.714	.020	Rejected**
	Within Groups	514	4.991			
	Total	519				
Garden information	Between Groups	5	10.980	5.694	.000	Rejected**
	Within Groups	514	1.928			
	Total	519				
Garden annoyances	Between Groups	5	26.574	3.601	.003	Rejected**
	Within Groups	514	1.928			
	Total	519				

	Within Groups	512	7.380			
	Total	517				
Garden facilities	Between Groups	5	28.452	3.613	.003	Rejected**
	Within Groups	514	7.876			
	Total	519				
Visitor satisfaction	Between Groups	5	3.283	2.138	.060	Accepted
	Within Groups	514	1.535			
	Total	519				

From the above table, it can be interpreted that there is a significance difference between different level of occupation of the respondents with environmental impacts

Table 16 Purpose of visit Vs Environmental Impacts

H₀. There is no significant difference between the factors Environmental Impacts with the purpose of visit.

From the above table, it can be interpreted that there is a significance difference between

		Df	Mean Square	F	Sig.	Null Hypothesis
Attributes	Between Groups	3	47.474	5.228	.001	Rejected**
	Within Groups	516	9.081			
	Total	519				
General management	Between Groups	3	46.673	1.681	.170	Accepted
	Within Groups	516	27.763			
	Total	519				
Tourist routes	Between Groups	3	9.063	.603	.613	Accepted
	Within Groups	515	15.028			
	Total	518				
Rest camps	Between Groups	3	8.910	.784	.503	Accepted
	Within Groups	516	11.358			
	Total	519				
Trails	Between Groups	3	35.298	1.621	.184	Accepted
	Within Groups	516	21.781			
	Total	519				
Tourist facilities	Between Groups	3	9.499	.718	.542	Accepted
	Within Groups	516	13.230			
	Total	519				
Garden maintenance	Between Groups	3	6.304	1.059	.366	Accepted
	Within Groups	516	5.955			
	Total	519				
Garden personnel	Between Groups	3	8.548	1.691	.168	Accepted
	Within Groups	516	5.053			
	Total	519				
Garden information	Between Groups	3	9.633	4.886	.002	Rejected**
	Within Groups	516	1.971			
	Total	519				
Garden annoyances	Between Groups	3	7.305	.965	.409	Accepted
	Within Groups	514	7.567			
	Total	517				
Garden facilities	Between Groups	3	26.248	3.294	.020	Rejected**
	Within Groups	516	7.968			
	Total	519				
Visitor satisfaction	Between Groups	3	6.676	4.385	.005	Rejected**
	Within Groups	516	1.523			
	Total	519				

different purpose of visit of the respondents with environmental impacts

Table 17 Timing of Visit Vs Environmental Impacts

H₀. There is no significant difference the factor Environmental Impacts with timing of visit to the tourist attraction of the respondents.

		Df	Mean Square	F	Sig.	Null Hypothesis
Attributes	Between Groups		25.587	2.779	.041	Rejected*
	Within Groups	516	9.209			
	Total	519				
General management	Between Groups	3	57.382	2.071	.103	Accepted
	Within Groups	516	27.701			
	Total	519				
Tourist routes	Between Groups	3	47.642	3.218	.023	Rejected*
	Within Groups	515	14.803			
	Total	518				
Rest camps	Between Groups	3	29.048	2.584	.053	Accepted
	Within Groups	516	11.241			
	Total	519				
Trails	Between Groups	3	16.877	.771	.511	Accepted
	Within Groups	516	21.888			
	Total	519				
Tourist facilities	Between Groups	3	17.903	1.358	.255	Accepted
	Within Groups	516	13.181			
	Total	519				
Garden maintenance	Between Groups	3	22.321	3.808	.010	Rejected*
	Within Groups	516	5.862			
	Total	519				
Garden personnel	Between Groups	3	10.897	2.162	.092	Accepted
	Within Groups	516	5.040			
	Total	519				
Garden information	Between Groups	3	21.876	11.513	.000	Rejected*
	Within Groups	516	1.900			
	Total	519				
Garden annoyances	Between Groups	3	17.995	2.398	.067	Accepted
	Within Groups	514	7.505			
	Total	517				
Garden facilities	Between Groups	3	98.713	13.080	.000	Rejected*
	Within Groups	516	7.547			
	Total	519				
Visitor satisfaction	Between Groups	3	7.228	4.758	.003	Rejected*
	Within Groups	516	1.519			
	Total	519				

From the above table, it can be interpreted that there is a significance difference between different timing of visit of the respondents with environmental impacts .

Table 18 Part Visited Vs Environmental Impacts

H₀. There is no significant difference between the factor of Environmental Impacts with part visited on the tourist attraction of the respondents.



		Df	Mean Square	F	Sig.	Null Hypothesis
Attributes	Between Groups	5	26.050	2.850	.015	Rejected**
	Within Groups	514	9.140			
	Total	519				
General management	Between Groups	5	74.849	2.730	.019	Rejected**
	Within Groups	514	27.416			
	Total	519				
Tourist routes	Between Groups	5	71.232	4.931	.000	Rejected**
	Within Groups	513	14.445			
	Total	518				
Rest camps	Between Groups	5	30.722	2.754	.018	Rejected**
	Within Groups	514	11.155			
	Total	519				
Trails	Between Groups	5	62.039	2.890	.014	Rejected**
	Within Groups	514	21.469			
	Total	519				
Tourist facilities	Between Groups	5	28.986	2.220	.051	Accepted
	Within Groups	514	13.055			
	Total	519				
Garden maintenance	Between Groups	5	27.155	4.722	.000	Rejected**
	Within Groups	514	5.751			
	Total	519				
Garden personnel	Between Groups	5	15.027	3.019	.011	Rejected**
	Within Groups	514	4.977			
	Total	519				
Garden information	Between Groups	5	1.517	.751	.586	Accepted
	Within Groups	514	2.021			
	Total	519				
Garden annoyances	Between Groups	5	14.400	1.920	.089	Accepted
	Within Groups	512	7.499			
	Total	517				
Garden facilities	Between Groups	5	24.264	3.065	.010	Rejected**
	Within Groups	514	7.917			
	Total	519				
Visitor satisfaction	Between Groups	5	11.001	7.533	.000	Rejected**
	Within Groups	514	1.460			
	Total	519				

From the above table, it can be interpreted that there is a significance difference between different part visited with environmental impacts

Suggestions

Based on the present study, the following suggestions were made to reduce the negative impacts of tourism and tourist on environment and to improve the visitor satisfaction in Government Botanical Garden, Ooty

- i) Tourists and staff should receive more environmental education regarding the impacts of tourism on the environment and methods to be used to minimize these impacts. Furthermore, as a conservation priority, training and education should be offered to both staff and the tourists with regards to proper waste disposal and recycling.
- ii) Effective waste management should be implemented in Botanical garden through the encouragement of recycling. The opportunity of a recycling plant in Botanical garden should be explored to manage the waste generated by tourists more effectively. Recycled waste products can then be sold to tourists in garden shops and Recycled papers can be used for printing brochures.



iii) Water consumption should be taken more seriously in Botanical garden. Leaking taps and water pipes should be repaired. Recycling systems for waste water should be installed in new developments to conserve water usage.

iv) Tourist carrying capacity limits for Botanical garden must be determined and managed accordingly.

v) Cleanliness of this entire attraction can be maintained properly and neat accessible washrooms can be provided.

vi) Many tourists are not satisfied with information details providing at entrance of the garden and many tourists are not aware of the areas inside the garden. Service providers can adopt promotional strategies like providing brochures about the garden at the entry station.

vii) Service providers should take some promotional strategies and improve their website to provide updated information about botanical garden.

viii) Low impact battery vehicles should have been available for older people to visit the place completely.

Conclusion

Ooty is no doubt a fascinating destination. People friendly approaches and beauty of Ooty keep tourist hooked towards this Queen of Hill Stations in South India. This has created much loyalty and attachment of the visitors towards Ooty resulting in the increase in tourist arrivals and the positive and negative impacts on the ecology and environment.

This research was conducted in order to study the environmental impacts of tourism and visitor satisfaction in Botanical garden, Ooty. Botanical garden is quite popular among the tourists and tourists are coming here because of its picturesque views and beautiful nature. Therefore there is a certain danger to the natural environment of the area. Different areas of impact, such as air and water quality, natural and vegetation and wildlife, as well as man-made environment, were examined in order to reveal the existing impacts. This was done to find out, what kind of influence the area experiences from the tourists and tourism.

Observation of the area was done in January to May to collect the primary data for the analysis. Pictures were taken as an evidence of the observed facts. The results of the observation showed that there were clear impacts. Among the other impacts, there were littering and damage of natural vegetation. These were negative impacts but there were positive as well. Raising awareness about nature conservation, increasing visitors' well-being, and collecting finance that can be used for maintenance and protection were all of a positive nature.

During the study it was observed tourists are not satisfied with the garden maintenance and garden information facilities like restroom cleanliness and not providing enough information about the garden at the entry station. It is also concluded that, regardless of the outcome of any particular step in the VIM process, continuous monitoring is essential for understanding the current status of the environment of the site and predicting when unacceptable impacts may occur and in order to retain their Visitors in the attraction, the service providers have to ensure tourists satisfaction among their patrons. The study provides insight into the aspects of attraction which need to consider



in order increasing tourists satisfaction and to support Botanical Garden to ultimately be sustainable and prosper in future.

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TITLE OF THE PAPER: PROBLEMS FACED BY WOMEN THROUGH CYBER SPACE

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Abstract

The rapid technological advancements like open and unregulated nature of the internet and the irrelevance of geography means that the internet also provides futile ground for criminal enterprise. Cyber-crime has become a reality in India, difficult to detect, seldom reported and even difficult to prove. Computer related crime lacks a traditional paper audit, is away from conventional policing and requires specialists with a sound understanding of computer technology. Paperless contracts, digital signatures, online transactions and cyber-crimes have taken the legal world by surprise. With this background the study throws lights on problems faced by women through cyber space in Coimbatore city was undertaken with the following objectives to study the characteristics of women internet users in Coimbatore City; to analyze the awareness about Cyber Crimes among Internet Users and to identify the problems faced by women on Cyber Crime. The study revealed that the young women (students) were more addicted to Internet for their day to day activities and the major problems faced by them were Hacking, Defamation, Stalking, security issues.

Keywords: Cybercrime, Women, Victims, Internet and Technology

Introduction

The convergence of computer network and telecommunications facilitated by the digital technologies has given birth to a common space called 'cyberspace'. This cyberspace has become a platform for a galaxy of human activities which converge on the internet. The cyberspace has, in fact, become the most happening place today. Internet is increasingly being used for communication, commerce, advertising, banking, education, research and entertainment. There is hardly any human activity that is not touched by the internet.

As of 2015, India had 319 million Internet and 213 million mobile Internet users. Reported security breaches raise major concerns about privacy and security of confidential data over the web. As India continues to increase its leadership in information technology (IT) in the world, Indian citizens, political organizations, public sector, and government websites have been systematically targeted for cyber-attacks and cyber security incidents. These incidents are increasing. Cybercrimes in India almost doubled in 2017, according to statistics released by the National Crime Records Bureau (NCRB). The data comes in the backdrop of India aspiring to become a trillion dollar digital economy. Interestingly, cybercrimes accounted for less than a percentage (0.43%) or 21,796 cases of a total of 50,07,044 cognizable crimes in 2017. According to



NCRB, which released the statistics late on Monday, "During 2017, 56.0% of cyber-crime cases registered were for the motive of fraud (12,213 out of 21,796 cases) followed by sexual exploitation with 6.7% (1,460 cases) and causing disrepute with 4.6% (1,002 cases)."

With the Centre scrambling to fortify India's cyber operations amid growing warnings of malware attacks on personal and organizational devices, intelligence and cyber law experts have said much like crimes against women, India suffers from dismal under-reporting of cybercrimes.

India recorded 9,622, 11,592 and 12,317 cases of cybercrime in 2014, 2015 and 2016 respectively. The data for 2017 comes after a two-year delay, with the Centre blaming states for the delay in providing statistics for compilation. "Data is now being collected in greater detail for several categories of crimes. For example, under Cyber Crimes against Women & Children, NCRB is collecting crime statistics under crime heads such as Cyber Blackmailing / Threatening, Cyber Pornography, Cyber Stalking, Defamation / Morphing, Fake Profile, Internet Crimes through Online Games, etc," the NCRB report said.

With the Centre setting up the NIC-CERT--National Informatics Centre-Computer Emergency Response Team--to combat cybercrimes and the home ministry proposing to set up the Indian Cyber Crime Coordination Centre (I4C), the government is hoping to beef up India's cyber security network.

The Indian Computer Emergency Response Team (CERT-In) coordinates efforts on cyber security issues and is tasked with responding to cyber attacks, the National Technical Research Organisation is the elite technical intelligence agency. The National Democratic Alliance government has set a goal of making India a \$5 trillion economy by 2024. With a growing economy, the number of cyber-attacks has also gone up. A case in point being India's power sector that is facing cyber attacks, with at least 30 events reported daily. A majority of the attacks originate from China, Singapore, Russia and the Commonwealth of Independent States countries (Utpal Bhaskar, 2019).

A state-wise breakup of cyber-crime cases registered in 2013 under various sections of the IT Act shows Maharashtra at the top with 681 cases, Andhra Pradesh with 635 cases and Karnataka with 513 cases. As many as 426 persons were arrested in cases registered under IT Act in Maharashtra, as compared to 296 in Andhra Pradesh and 283 in Uttar Pradesh. Among the cities, Bengaluru accounted for the highest incidence of cyber-crimes with 399 cases, followed by Visakhapatnam with 173 cases, Hyderabad with 159 cases and Delhi with 131 cases. In terms of arrests made under IT Act across various cities in 2013, Visakhapatnam led with 86 arrests, followed by Hyderabad with 83 arrests, Jodhpur with 69 arrests and Indore with 59 arrests. The maximum cases under IT Act registered countrywide were related to hacking at 2,516. Another set of interesting data relates to age profile of cyber-crime suspects booked under IT Act. Of the total 2,098 persons arrested under IT Act in 2013, as many as 1,190 were in 18-30 age group and 722 aged 30-45 years. Interestingly, as many as 45 minors, including 17 in Maharashtra alone and 9 each in Andhra Pradesh and Kerala, were arrested under the Act.

Coimbatore City recorded less number of grave and violent offences during 2012 but crimes against women, besides rape and dowry deaths, were more when



compared to Madurai and Tiruchirapalli City Police Commissionerates. Coimbatore city recorded less number of kidnapping and abduction cases in 2012 (offences under sections 363, 369, 371 and 373 of IPC). Coimbatore city had 20 cases contributing 0.09 per cent, while Chennai had 87 cases with 1.10 per cent with Madurai reporting 65 cases accounting 4.4 per cent and Tiruchirapalli 22 cases contributing 2.2 percent. Similarly, the numbers of murder cases in Coimbatore were 29 contributing 1.3 per cent while Chennai reported 180 cases (2.1 per cent). In crimes against children, number of cases in Chennai last year was 108 contributing 1.1 per cent to the national crime graph, while it was 23 in Coimbatore recording 0.2 per cent. Therefore, the study throws lights on problems faced by women through cyber space in Coimbatore city was undertaken with the following

Objectives

- To study the characteristics of women internet users in Coimbatore City
- To analyze the awareness about Cyber Crimes among Internet Users
- To elucidate the problems faced by women on Cyber Crime

Hypothesis

- Internet users are young and highly educated
- The problems in Cyber space are the same for the victimized and non-victimized respondents
- There is no association between Awareness on Cyber Culture among Indian Internet users among the Victimized and Non-victimized respondents.

Review of Literature

DuyguSolak and Murat Topaloglu (2014) examined the differences among the Cyber-Crime perceptions of undergraduate students at Trakya University in terms of demographic factors. The method of the study were questionnaire that was given to lecturers and students at Trakya University sample and it was designed to measure and assessed the levels of interest in technology, the severity of Cyber Crimes and the individuals' perceptions of Cyber-Crimes in terms of ethics and law. The study defined level of common perception of Cyber-Crimes and the meaningful differences between separate groups.

Jaspreet Singh (2015) mainly focused on violence against women through Cyber space and internet; he outlines the condition of Indian women in Cyber space and the factors leading to Cyber victimization against women. The study used both primary and secondary resources like book, reports, articles, news, web and electronic sources, etc. The study concludes that the visibility to overcome the Cyber Crimes against women as a whole is challenging and the only way is to understand Cyber Crimes. Government needs to strengthen the legal system to lower Cyber Crimes, because criminals consider it much easier than traditional Crimes due to less chance of being caught and fewer penalties. Secondly, the needs to be changed are the sense or attitude of the society towards women, not to consider woman as a commodity. People have to understand that violence against women is nothing but a manifestation of gender discrimination and inequality in gender power relations. Thirdly, women should understand that the time has come to reject the silence or reticence and come forward for fighting against Cyber Crimes and for their rights. Fourthly, it requires that the



regular research and attention on Cyber Crimes needs to be studied in detail which should be funded by government. Fifthly, police personnel must be given training in order to tackle and handle Cyber Crimes. For this purpose, workshops and seminars on Cyber space education must be organized and women should also participate in such type of activities.

Sankhwar & Chaturvedi (2018) examined that India stepped toward digitalization which brought technological power. People explore using internet and made life easy and comfortable. They explore the unknowns and communicate with virtually anyone, anytime, anywhere across the world. Digital space has opened doors to cyber criminals and mostly woman is their target. Cyber-crime has emerged as a major challenge facing law enforcement agencies in the country, women and children remain at risk. Offenders are gradually misusing Cyber platforms to harass and abuse women and children for voyeuristic pleasures in India. A call for modernization of the preventive, conventional set up and equipped police personnel with knowledge and skills is for prevention and control of cyber-crime. The paper throws light on Cybercrime and legislative intervention measures. A model is proposed and gives preventative initiatives specifically to curtail cyber-crime against woman and children.

Aggarwal & Shruti (2018) discussed with the advancement of technology, the way of conducting crime is becoming more sophisticated, complex and there had been a significant change in the outlook of world in human perspective. Cybercrime is real threat to the fast technology development. This technologies advent not only redefined the human life but also redefined cybercrimes. The rapid growth of internet users and dependence drastically increased the risks of commission of crime. Cybercrime is also categorized into violent and non-violent cybercrime like cyber-squatting, stalking, morphing, plagiarism, email spoofing, cyber bullying, piracy, vandalism, cyber fraud, etc. Though crime against women is on a rise in all fields being a victim of cybercrime could be most traumatic experience for a women. To protect women from this Information Technology Act, 2000 is made and cyber cells are also formed. In the above backdrop, the paper deliberately attempted to define cybercrime which is a real threat to women and some suggestions and measures required to fight against cybercrime and it also covers the first reported case relating to cybercrime against women i.e. Ritu Kohli's case.

Methodology

The population of the study consisted of Women Internet Users in Coimbatore city. From these selected areas 100 samples were selected by adopting incidental purposive sampling technique. The interview schedule was first pre-tested to check for clarity and specificity and the necessary modifications were made on the basis of the experience gained during pre-testing. The field investigation and data collection for the study was carried out during the period December- March (2017).

Results and Discussion

Socio-Economic Profile of the Selected Respondents

In the traditional and structured society, socio-economic factors play a significant role in shaping the personality and characteristics of an individual. Hence, to develop a proper

perspective analysis, all the components of social and economic environment must be considered. The general notion is that, the social environment is a combination of factors such as Age, Marital Status and Number of Members in the Family, while economic environment is made up of factors such as Education, Occupation and Income. A total of 100 Women Internet users were surveyed, of which 65 were Victimized by Cyber Crime and 35 were Non-Victimized by Cyber Crime. The socio-economic characteristics of the respondents were presented in the table.1

Table.1
Socio-Economic Profile of the Respondents

Socio-Economic Status	Characteristics	Victimized	Non-Victimized	Total
Age	15-20 Years	3(4.6)	2(5.7)	5(5.0)
	20-30 Years	33(50.8)	16(45.7)	49 (49.0)
	30-40 Years	28(43.1)	14(40.0)	42(42.0)
	40-50 Years	1(1.5)	3(8.6)	4(4.0)
Marital Status	Married	27(41.5)	9(25.7)	36(36.0)
	Unmarried	29(44.6)	23(65.7)	52(52.0)
	Separated	7(10.8)	1(2.9)	8(8.0)
	Widow	2(3.1)	2(5.7)	4(4.0)
Family Members	2 Members in a Family	10(15.4)	7(20.0)	17(17.0)
	3 Members in a Family	29(44.6)	14(40.0)	43(43.0)
	4 Members in a Family	25(38.5)	13(37.1)	38(38.0)
	5 Members in a Family	1(1.5)	1(2.9)	2(2.0)
Education	Secondary Level	4(6.2)	2(5.7)	6(6.0)
	Diploma Level	17(26.2)	7(20.0)	24(24.0)
	UG	18(27.7)	19(54.3)	37(37.0)
	PG	24(36.9)	7(20.0)	31(31.3)
	Professionals	2(3.1)	0(0.0)	2(2.0)
Occupation	Student	34(52.3)	13(37.1)	47(47.0)
	Private Employees	27(41.5)	17(48.6)	44(44.0)
	Government Employees	4(6.2)	5(14.3)	9(9.0)
Income	Zero income	34(52.3)	13(37.1)	47(47.0)
	Below Rs.10000	2(3.1)	3(8.6)	5(5.0)
	Rs.10001- Rs.20000	14(21.5)	13(37.1)	27(27.0)
	Rs. 20001- Rs.30000	10(15.4)	5(14.3)	15(15.0)
	Rs.30001- Rs.40000	4(6.2)	1(2.9)	5(5.0)
Above Rs.40000	1(1.5)	0(0.0)	1(1.0)	

Source: Field Survey, Figures within parentheses indicate percentage

Age: The table revealed that the majority of the respondents (both victimized and non-victimized) were belonged to 20 to 30 years categorized as Young adults using Internet facilities for their day to day purpose. **Marital Status:** of the individuals is quite



important in any socio-economic study. There is a change in the life style of the individual after marriage, which is more pronounced in the case of women. Majority of them were unmarried among victimized and non-victimized respondents i.e 45 percent and 66 percent respectively. Hence, the study found that, majority of the Women Internet users were Unmarried Women. **Size of the Family:** Women Internet users were found from the survey that majority of them had small size of the family. **Education:** Internet users are generally dominated by the educated people. The study revealed that, Majority of the Victimized respondents were educated who were affected by Cyber Crime. **Occupation:** Employment is central in determining the well being of the individual or households. Being time savvy, Internet is becoming very popular among Businessmen, Professionals and Students. The study revealed that, majority of the respondents were belongs to Students and Private Employees who were Victimized. **Monthly Income:** The existence of inter-personal variations in income among a large size of sample is well organized. The study revealed that majority of the Victimized belonged to no income category (i.e.) Students.

Problems Faced By Women in Cyber Space

ANOVA Test

ANOVA was done to determine whether the problems faced by women in Cyber Space differed across Victimized and Non-victimized respondents. The hypothesis framed was:

H₀: There were no significant differences in the Problems faced by Women in Cyber Space across Victimized and Non-victimized respondents of Cyber Crime.

H_a: There were significant differences in the Problems faced by Women in Cyber Space Users across Victimized and Non-victimized respondents of Cyber Crime.

The results are presented in table.2

**Table.2
Problems Faced By Women in Cyber Space**

S.No	Variables	F Value	Significance
1	Experienced Hacking (either directly/indirectly)	324.020	.000
2	Reported to authorities	305.609	.000
3	Feels Woman are Phone to Cyber Attacks	296.143	.000
4	Received hate message in their inboxes/message boards	287.245	.000
5	Victim of Defamatory statement/activities involving him/herself in the cyber space	277.245	.000
6	Experienced Cyber Stalking	271.559	.000
7	'Cloned' Profile/email id's	193.211	.000
8	Victimized by their own friends	180.225	.000
9	Received abusive/dirty mails in inboxes from known/unknown sources	164.616	.000
10	Experienced bad in the Social Networking Sites	60.420	.000
11	Experienced flaming words from others	51.412	.000
12	Impersonated by E-mail account/social networking Profiles/Websites, etc	37.901	.000
13	Bullied	2.347	.129
14	Experienced Phishing Attacks	.794	.375
15	Seen her Morphed pictures	.005	.944



Source: Estimation based on field survey

The results reveal that, there is significant differences across the victimized and non-victimized respondents of cyber crime with respect to experienced hacking (either directly/indirectly), reported to authorities, feels woman are phone to cyber attacks, Received hate message in their inboxes/message boards, victim of defamatory statement/activities involving him/herself in the cyber space, experienced cyber stalking, ‘cloned’ profile/email id’s, victimized by their own friends, received abusive/dirty mails in inboxes from known/unknown sources, experienced bad in the social networking sites, experienced flaming words from others, impersonated by email account/social networking Profiles/Websites, etc.

With regard to other pattern of problems like bullied, experienced phishing attacks and seen her morphed pictures had no difference across victimized and non-victimized respondents of cyber crime. Thus, victimized women deferred from the non-victimized women in terms of experienced hacking (either directly/indirectly), reported to authorities, feels woman are phone to cyber attacks, received hate message in their inboxes/message boards, victim of defamatory statement/activities involving him/herself in the cyber space, experienced cyber stalking, ‘cloned’ profile/email id’s, victimized by their own friends, received abusive/dirty mails in inboxes from known/unknown sources, experienced bad in the social networking sites, experienced flaming words from others, Impersonated by email account/social networking profiles/websites, etc.

Awareness of Cyber Culture among Indian Internet Users

ANOVA Test

ANOVA was done to determine whether the awareness on Cyber Culture among Indian Internet Users differed across Victimized and Non-victimized respondents of Cyber Crime.

The hypothesis framed was:

H₀: There were no significant differences in the awareness on Cyber Culture among Indian Internet Users across Victimized and Non-victimized respondents of Cyber Crime.

H_a: There were significant differences in the awareness on Cyber culture among Indian Internet Users across Victimized and Non-victimized respondents of Cyber Crime.

The results are presented in table .3

Table.3
Awareness of Cyber Culture among Indian Internet Users

S.No	Variables	F Value	Significance
1	Do not allow others to use one’s own mail id/ profile id/ password, etc	52.753	.000
2	Share personal information with virtual friends/chat room partner etc whom you don’t know in real life	34.062	.000
3	Mail back to unknown senders of spam/pornographic/erotic/phishing mails	31.689	.000



4	Use pseudo names	7.779	.006
5	Read policy guidelines of social networking sites, etc	7.666	.007
6	Knowledge of minimum age to join Cyber communities.	3.181	.078
7	Use safety tips filtering emails, locking personal albums and information, personal walls of social networking sites, etc	.630	.429
8	Believe in controlling free speech while communicating in the Cyber Space	.024	.877

Source: Estimation based on field survey

The results reveal that there were significant differences across the Victimized and Non-victimized respondents of Cyber Crime with respect to Awareness of Cyber Culture among Indian Internet Users on ‘Do not allow others to use one’s own mail id/ profile id/ password, etc, Share personal information with virtual friends/chat room partner etc whom you don’t know in real life, Mail back to unknown senders of spam/pornographic/erotic/phishing mails, Use pseudo names, Read policy guidelines of social networking sites, etc’.

With regard to other pattern of awareness like, ‘Knowledge of minimum age to join Cyber communities, Use safety tips filtering emails, locking personal albums and information and Believe in controlling free speech while communicating in the Cyber Space’ there was no difference across Victimized and Non-victimized respondents of Cyber Crime. Thus, Victimized respondents deferred from the non-victimized respondents with respect to Allow others to use one’s own mail id/ profile id/ password, etc, Share personal information with virtual friends/chat room partner etc whom you don’t know in real life, Mail back to unknown senders of spam/pornographic/erotic/phishing mails.

Conclusion

As technology continues to move forward, making our lives easier and more connected, cyber criminals are developing more sophisticated techniques to exploit technology for their benefit. Hence, the study concluded that the young women (students) were more addicted to Internet for their day to day activities and further the study revealed the major problems faced by them were Hacking, Defamation, Stalking, security issues, etc.

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CROWD FUNDING

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Abstract:

Crowd funding is an emerging practice of funding a project or venture by raising small amounts of money from a quite large number of people, typically via the Internet. Crowd funding is a form of crowdsourcing and is considered as an alternative form of finance. In 2015, over US\$34 billion was raised worldwide by way of crowd funding. The concept of Crowd funding has been used to fund a wide range of for-profit, entrepreneurial ventures such as artistic and creative projects, medical expenses, travel, and community-oriented social entrepreneurship projects. There are more than 600 crowd funding platforms around the world, with fundraising programs reaching billions of dollars annually, according to the research firm Massolution

Keywords:Campaigns, Crowd Funding Platforms, Phases, Equity

1. Introduction

Crowd funding is a way of raising money by asking a large number of people each for a small amount of money to finance businesses and projects. Traditionally, financing a business, project or venture involved asking a few people for a large sum of money. Crowd funding switches this idea around, using the internet to reach thousands – if not millions – of potential funders via online platforms. The first online crowd funded project is thought to have occurred in 1997. Rock band Marillion were unable to afford to tour after the release of their seventh album so American fans used the then fledgling internet to raise \$60,000 so they could play in the US. Although the band wasn't involved in the first round of fundraising, they have since used the same techniques to successfully fund the production of their following three albums. Since then, this marketplace has grown substantially. **Crowd funding** is most often used by startup companies, growing businesses, inventors, entrepreneurs, musicians, filmmakers, artists and by charities to raise money. Crowd funding can be treated as a way of accessing alternative funds. It works through individuals or organizations who invest in (or donate to) crowd funding projects in return for a potential profit or reward. By way of posting details of their project a company or person can raise money through crowd funding, business or idea on a crowd funding website. This means they can avoid going to a bank. The 'crowd' in crowd funding refers to the people, or organizations that provide the money.

2. Different Types of Crowd Funding:

The various types of crowd funding are as follows:

➤ **Investment-based crowd funding.** Investing in a business and receiving a stake in return (normally shares). Equity based **Crowd funding** is illegal in **India** and is considered as “unauthorized, unregulated and illegal” by SEBI. As it is a high risk method of fundraising, that requires proper legislation and regulation to minimize investor’s risk.

➤ **Loan-based crowd funding.** Lending money to individuals or companies in return for a set interest rate. It’s also called peer-to-peer or peer-to-business lending (P2P or P2B) Debt crowd funding is illegal in India.

➤ **Reward-based crowd funding.** Individuals donate a sum of money, and in return they may get a reward in the form of a gift, a free sample, free tickets or invites to events etc.

➤ **Donation-based crowd funding.** Individuals donate a sum of money for no tangible reward or return.

➤ It is a fundraising method usually used by nonprofit organizations, and people who are unable to afford medical treatment, education etc. Crowd funding in India is mostly done in the donations based method.

▪ donation-based crowd funding is usually employed by charitable causes, such as this campaign on Fundly to support a flood recovery project for the Happy Kids Center:

(2.1) AN EXAMPLE FOR DONATION BASED CROWD FUNDING IS GIVEN BELOW:



3.

GUIDELINES FOR CROWD FUNDING IN INDIA:

Crowd funding has come to be known as one of the fastest and easiest ways to raise money for any cause because of the easiness of the whole process.



The whole process is done through online through an existing crowd funding platform. The step by step procedure to start an online fundraising campaign is been given below:

1. **Choosing an online crowd funding platform** best suited to your needs.
2. **Select a category or Domain** that suits your crowd funding campaign. For example - medical crowd funding, education crowd funding, business crowd funding.
3. Create a crowd funding campaign that consists of:
 - A **target** fund
 - The campaign **duration**
 - A **headline**
 - A campaign story or a pitch
 - **Photos** and videos that supports your program.
 - A **call-to-action** button that enables visitors to click and make donations.
4. **Sharing your campaign** with friends, family and other target audience, through all available digital means.
5. Upon completion of the campaign, **have the funds disbursed** to you from the crowd funding platform.

4. PHASES IN RUNNING A CROWD FUNDING CAMPAIGN IN INDIA:

To make the campaign as simple and brief as possible, it has been divided into three phases:

1. Pre-launch campaign phase
2. Intra campaign phase
3. Post campaign phase

(4.1) Pre-launch phase

This phase is where you will create the most compelling campaign. You pre-launch phase should include the following vital elements:

1. **The creatives**
 - An attractive **title and tagline**
 - An emotionally strong **campaign story**
 - A campaign pitch **video**
 2. **Fund utilization plan**
 - Your **budget and schedule** for the campaign
 - Plan for the utilization of the donor's funds
 - Tax exemptions
 3. **Gather your supporters**
 - Reach out to **friends and family**
-



- Build an **online community** (Email, Whatsapp, Facebook, Twitter, Google+, Instagram)

- Pitch your project to the **press**
- Build associations with **influencers**

(4.2) Intra campaign phase

1. **Continue to share** your campaign regularly on all digital platforms and ask others to do the same.

2. Stay connected with your supporters and give them regular updates on the progress of your campaign.

3. **Reply to all messages** and comments on social media.

4. **Convey urgency** by having a count-down indicating the days left for the campaign to end.

5. Give social media **shout out to new donors**, especially those who've contributed a large sum.

6. Generate **referral contests** to grow your community

(4.3) Post campaign phase

Your campaign doesn't end when it reaches its goal amount. It's important to maintain the relations you've built with your community.

1. Send a personalized **thank you note**

2. Give them a **shoutout** on social media for their timely support and help

3. Share **progress reports** of your campaign frequently with them

4. **Invites** to offline fundraising activities

5. **Reply to all their messages** and comments of social media

All though this 3-phase process may seem overwhelming, it's actually quite easy and necessary and more importantly, it's worth the effort when you find the funds flowing in.

5. SEBI AND EQUITY CROWD FUNDING:

The Securities and Exchange Board of India (SEBI), the regulator for the securities market in India, aims to protect the interests of investors at its best, in the country and due to various risks associated with Equity crowd funding, it has classified the same as illegal. The risk associated with unregulated investments is high because the investor may lack skills and expertise of assessing the risk before investing. Small investors with limited savings may get attracted to such risky investments in expectation of high returns. However, in the absence of any regulations in place such securities are unsecured and could hamper the liquidity of the low risk appetite investors. Further, the investor relies on soft information and will not able to undertake due diligence to the extent that financial banks do with detailed information.



SEBI had proposed guidelines in 2014, via a 'Consultation Paper on Crowd funding in India' for crowd funding. This was aimed at improving access to funds for start-ups and small-to-medium enterprises.

The key issues in SEBI guidelines on crowd funding are:

1. Only "Accredited Investors" may invest
2. Qualified Institutional Buyers ("QIBs") to hold 5% of issued securities;
3. Retail Investor contribution: Minimum- INR 20,000 and maximum- INR 60,000
4. Maximum number of retail investors- 200
5. Start-ups which are less than two years old only, eligible to participate
6. Disclosure details on proposed business plan, intended fund usage, audited financial statements, management details etc.
7. Registered crowd funding platform to conduct regulatory checks and basic due diligence of start-ups and investors; and Constitution of 'screening committee' by each platform comprising 10 persons with experience in capital markets, mentoring start-ups etc.

6.STATUS OF CROWDFUNDING IN OTHER COUNTRIES:

Collectively, the US, UK and China make up to 96% of the overall FR (Financial Reward) crowd funding market, with USA accounting for 51%, China for 28% and UK for 17%.

Israel and Japan had prohibited P2P Lending and equity crowd-funding.

P2P Lending Status in other countries:

Unregulated in Brazil, China, Egypt, South Korea: Either the regulation has been classified as peer-to-peer lending as an exempt market or there is a lack of definition in legislation

Intermediary Regulation in Australia, Argentina, Brazil, New Zealand: This regulates peer-to-peer lending platforms as an intermediary. A Platform is normally required to be registered as an intermediary.

Canada: Crowd funding is divided into Non-Equity and Equity Crowd funding platforms in Canada. Equity Crowd funding includes issuance of securities and consists of peer-to-peer (P2P) lending and equity transactions.

There are registration requirements for Crowd Sourced Equity Funding Platforms, including Integrity, proficiency and solvency requirements and for the persons operating them.

United Kingdom: In March 2014 Financial Conduct Authority (FCA) came out with the regulations governing the crowd funding in Britain. The new



regime will be applicable to the firms operating on loan-based crowd funding platforms and investment-based crowd funding platforms.

Japan: Financial Services Agency (FSA), Japan has promulgated an amendment in Financial Instruments and Exchange Act on May 23, 2014 to facilitate and promote, Equity Crowd funding in Japan.

US Model: There is a two-tier system. This requires the registration of peer-to-peer lending platforms with the SEC, as well as applying for a license to conduct business on a state by state basis.

US scenario:

The US Securities and Exchange Commission (SEC) has come up with guidelines for crowd funding, The highlights of which are as follows:

1. A company could raise up to \$1 million for equity through crowd funding each year.
2. A company raising more than \$500,000 must file more detailed information to the SEC.
3. A company must provide educational information to investors, ensuring investors know what they are buying and understand their risks.
4. Investors with a net annual income of less than \$100,000 would be permitted to invest up to only \$2,000 or 5 percent of their annual income or net worth every year.
5. Investors with net income or annual income of more than \$100,000 would be able to invest 10 percent of that every year.
6. Securities would need to be purchased through online crowd funding portals - a new class created by the SEC.
7. Securities purchased through portals would have to be held a year before sold.

7. INDIAN SCENARIO:

In the next six months or so, many crowd funding platforms are expected to be operative in India. Worldwide, nearly a thousand such platforms would be launched. Recently, platforms such as Wishberry and Ignite Intent have been launched in India. Most of them are in the rewards and donation space, as there aren't too many regulatory issues around this model. There have been attempts towards crowd funding for events like the Goa Project and campaigns like Teach for India. Crowd funding is snowballing as an alternative funding channel for the film industry. Film Director Pawan Kumar from Karnataka recently raised Rs 51 lakh using Facebook and other platforms.



(7.1) STATUS OF CROWD FUNDING IN INDIA:

The sources of funding for Start-ups include private equity, angel investors and loan arrangements from financial institutions. Any offering of public equity can take place only after the product or business becomes commercially viable. However, in Equity based Crowd funding, funds may be solicited at an earlier stage, for instance, at the pilot development stage. Thus, equity based crowd-funding gives the Company an opportunity to access the funds beyond the traditional sources mentioned above.

It is essential to formulate a balanced crowd funding regulations in India that lower the cost of capital which also increases the liquidity while ensuring adequate investor protection and minimizing investment risks.

(7.2) CHALLENGES IN INDIA:

The idea of crowd funding is not new for India. Places of worship, for example, are built overnight using a quite large number of donations. However, the concept of online crowd funding is newer to the country. The fundraising industry is also not very investor-friendly. It seems people are still not ready for this concept. Low trust levels of doing the things via online is also a challenge. India's ecommerce space needs to be really matured before anything substantial can happen in this space. People need to be spending more and more online for them to even start thinking about backing online projects. The crowd funding platforms are not making any financial promises to the contributors also they should be theoretically safe to operate. However to build a credible case for the industry to grow in India, it would do help if these platforms proactively approach the regulators and work with them to build and increase the long-term credibility and transparency. E-commerce in India only got energized only when they initiated the concept of cash on delivery. Similarly, promoters in crowd funding will have to look at building an offline base to finally induce mass awareness and encouraging larger participation.

(7.3) LEGAL ISSUES:

There are legal issues surrounding crowd funding in India, since equity-based online crowd funding is not legalised in India yet. It was made legal in the US recently when the Jumpstart Our Business Startups Act (JOBS) act was passed.

Some of the key points of this Act are:

- The JOBS Act had put much restriction on the amount that can be borrowed via crowd funding.
- The Act has put an audit compulsion by certified public accountant in some cases of crowd funding.



- Disclosures need to be made by the company raising funds and utilising it.
- The company needs to explain everything about its project for which it is raising funds.
- The fund utilisation plan need to be disclosed.

Of the different crowd funding models, donation-based crowd funding is the most pragmatic approach as of now. Lending-based microfinance platforms like KIVA need approvals from the central bank. The Reserve Bank of India in 2011 approved Milaap, a non-profit microfinance institution to crowdfund from the overseas. Here in India, the concept is catching up in a fast pace and is posing a danger at the same time, as very soon these funds could scale up. Many money laundering schemes might run in the name of crowd funding via social media, pushing SEBI to set up a regulatory framework if it is found that such platforms involve large amounts of money or issuance of securities. A discussion is on to find a nodal agency for such activities following a talk with various stakeholders like banking regulator RBI, Finance Ministry and Corporate Affairs Ministry. An official from SEBI stated that apart from setting up new rules after discussions with the stakeholders, any crowd funding involving sale of securities can be either regulated under SEBI's existing norms for Collective Investment Schemes or Alternative Investment funds.

(7.4) FUND RAISED IN INDIA LAST YEAR THROUGH CROWD-FUNDING:

Nearly 200 companies have raised INR 35,057,840- INR 45,074,366 on these platforms over the past 18 months as per a Sep 2016 report.

Transaction Value in the Crowd funding segment amounts to \$ 2 mn in 2019. Transaction Value is expected to show an annual growth rate (CAGR 2019-2022) of 0.7% resulting in the total amount of \$ 1.8 mn by 2022. The average funding per campaign in the Crowd funding segment amounts to \$ 145 in 2019.

From a global comparison perspective, it is shown that the highest transaction value has been reached in China (\$ 5,572 mn in 2019).

Conclusion

Without a doubt crowd funding is rapidly being looked upon as a serious way of raising funds for startups and new businesses. The US and European agencies have already started implementing laws for this to function. There are serious concerns, which make it mandatory to bring this method under the scrutiny of laws of the land. India may soon bring in the requisite laws to support and control this in a big way, as efficient crowd funding system can



really play the role of catalyst in bringing the startup ideas into reality.

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IMPACT OF PRADHAN MANTRI MUDRA SCHEME ON NEW BUSINESS OPPORTUNITIES

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Abstract

There is a huge opportunity for new business in India. But there is a lack of finance for start-ups, NSSO survey (2013) reports that 4% of 57.7 million micro businesses were unable to get financial support from regular banks. New business opportunities need adequate and easy access of financial inclusions. To provide this ease to funding for business opportunities Pradhan Mantri Mudra Yojana (PMMY) was introduced in 8th April, 2015.

PMMY is a flagship scheme of Government of India to “fund the unfunded”. The idea behind the scheme is to provide the credit requirement to small business upto 10 lakh. So far 311811.38 crores were disbursed under MUDRA scheme through private and public banks. This has helped a total of 32% new entrepreneurs of which 41% are women entrepreneurs. This research paper includes an overview of PMMY, overall performance analysis, analysis based on utilization by new entrepreneurs, SWOT analysis and recommendations.

Keywords: PMMY, MUDRA schemes, NBFC, MFIs.

1. Introduction

New business and start-ups are the future of Indian economy. Start-ups and micro businesses contribute major portion to the economic growth. These businesses help to growth e economy of the country.Hencesmallentrepreneurs whenis helped to grow helps the economy to grow along with them.Unfortunately,4% of 57.7 million start-ups are unable to get finance from regular bank s(NSSOSurveyof2013).

Micro Units Development and Refinance Agency Bank (MUDRA Bank) is a public sector financial institution which was set up under the Pradhan Mantri MUDRA Yojana (PMMY) scheme. This scheme is launched to the development of small enterprises and where the normal banks are unable to reach. The reason for this scheme to get into action is that the current remote entrepreneurs are unable to get money from the institution. These people get their finance from money lenders at a very high interest rate and their



creditworthiness is very low, which in return effects the growth of the business.

2. Review of Literature

- Rudrawar, M. A. A. &Uttarwar, V. R. (2016) has explained that PMMY can bring a desired transformation. If it will be applied properly at the bottom level, it may act as a game changing idea and boost the Indian economy. It should include less documentation and easily accessible. In coming few years, MUDRA will play a crucial role for the development of entrepreneurship, increase in GDP and development of employment.
- R. Rupa (2017) has showed that the MUDRA scheme is very much successful in Tamil Nadu. It is found that the MFIs have contributed substantially to increase the number of accounts financed under the PMMY.
- Verma S. (2015) has explained that the design of MUDRA scheme will not only caters to the financial problems of MSMEs but also give moral support to a lot of young population to become an entrepreneur.

3. Objective of the Study

- To get the overview of PMMY scheme
- To analyze the performance of the scheme and its impact on new business opportunities

4. Summary of Mudrascheme

Pradhan Mantri Mudra Yojana (PMMY) is a flagship scheme of Government of India to “fund the unfunded” by bringing such enterprises to the formal financial system and extending affordable credit to them. It enables a small borrower to borrow from all Public Sector Banks such as PSU Banks, Regional Rural Banks and Cooperative Banks, Private Sector Banks, Foreign Banks, Micro Finance Institutions (MFI) and Non-Banking Finance Companies (NBFC) for loans uptoRs 10 lakhs for non-farm income generating activities. The scheme was launched on 8th April, 2015 by the Hon'ble Prime Minister.

Providing financial support to women entrepreneurs—for both financial inclusion and empowerment—was another prime objective of PMMY. Out of a total of 3.49 crore accounts a whopping 79 per cent (2.76 crore women) were funded under PMMY. Almost 99 per cent of the PMMY loans extended by MFIs were for women borrowers, which contributed significantly for the share of women borrowers under this programme.

4.1. Eligibility

Any Indian Citizen who has a business plan for a non-farm sector income generating activity such as manufacturing, processing, trading or service sector



and whose credit need is less than Rs 10 lakh can approach either a Bank, MFI, or NBFC for availing of Micro Units Development & Refinance Agency Ltd. (MUDRA) loans under Pradhan Mantri Mudra Yojana (PMMY).

4.2. Types of loans provided

Under the aegis of Pradhan Mantri MUDRA Yojana, MUDRA has already created the following products / schemes.

- **Shishu** : covering loans upto 50,000/-
- **Kishor** : covering loans above 50,000/- and upto 5 lakh
- **Tarun** : covering loans above 5 lakh and upto 10 lakh

The interventions have been named 'Shishu', 'Kishor' and 'Tarun' to signify the stage of growth / development and funding needs of the beneficiary micro unit / entrepreneur and also provide a reference point for the next phase of graduation / growth to look forward to. It would be ensured that at least 60% of the credit flows to Shishu Category Units and the balance to Kishor and Tarun Categories.

There is no subsidy for the loan given under PMMY. However, if the loan proposal is linked some Government scheme, wherein the Government is providing capital subsidy, it will be eligible under PMMY also.

4.3. Sectors covered

To maximize coverage of beneficiaries and tailor products to meet requirements of specific business activities, sector / activity focused schemes would be rolled out. To begin with, based on higher concentration of businesses in certain activities / sectors, schemes are proposed for:

- **Land Transport Sector / Activity** - Which will inter alia support units for purchase of transport vehicles for goods and personal transport such as auto rickshaw, small goods transport vehicle, 3 wheelers, e-rickshaw, passenger cars, taxis, etc.
- **Community, Social & Personal Service Activities** - Such as saloons, beauty parlours, gymnasium, boutiques, tailoring shops, dry cleaning, cycle and motorcycle repair shop, DTP and Photocopying Facilities, Medicine Shops, Courier Agents, etc.
- **Food Products Sector** - Support would be available for undertaking activities such as papad making, achaar making, jam / jelly making,



agricultural produce preservation at rural level, sweet shops, small service food stalls and day to day catering / canteen services, cold chain vehicles, cold storages, ice making units, ice cream making units, biscuit, bread and bun making, etc.

- **Textile Products Sector / Activity** - To provide support for undertaking activities such as handloom, powerloom, chikan work, zari and zardozi work, traditional embroidery and hand work, traditional dyeing and printing, apparel design, knitting, cotton ginning, computerized embroidery, stitching and other textile non garment products such as bags, vehicle accessories, etc.

5. Aim and Benefits Ofpmmy

Here are the key features and benefits of MUDRA loan:

- Banking and financial services can be availed in both rural and urban areas.
- Financial backing can be obtained by micro-small businesses and start-ups.
- Business loans can be taken for small amounts at affordable interest rates.
- The borrower's credit guarantee is taken by the government, so if a borrower is unable to repay the amount borrowed, the responsibility for the loss will be borne by the government.
- Food vendors, shopkeepers and other small business owners can make the most of this scheme.
- Financial aid is available through this scheme in areas where people have no access to basic banking facilities.
- The repayment period of the scheme can extend up to seven years.
- Women borrowers can avail the loan at discounted interest rates.
- Refinance schemes can also be availed with designated lenders.
- Individuals who wish to generate income through micro enterprise activities can avail the Micro Credit Scheme.
- The MUDRA loan scheme is in collaboration with the "Make In India" campaign which the government has initiated to foster innovation, facilitate investment, improve skill development, and build the best manufacturing infrastructure in the country.
- There is no need for collateral or security to avail this scheme.
- The funds borrowed through this scheme can only be used for business purposes.

6. DATA ANALYSIS - PROGRESS MADE UNDER PMMY

Government was set to disburse INR 122188 crore loans to micro businesses under the MUDRA scheme, it has been accomplished by March 2016. For the financial year 2016-2017 government was set focus of 180000 crore. The accomplishments and advancement of PMMY is seen on a week after week premise through a PMMY gateway. The below mentioned tabular column depicts the amounts sanctioned and disbursed from the commencement of the scheme till the financial year 2018-2019.

For The Financial Year	No. Of Loans Sanctioned	Amount Sanctioned	Amount Disbursed
2018-2019	59870318	INR 321722.79 CRORE	INR 311811.38 CRORE
2017-2018	48130593	INR 253677.10 CRORE	INR 246437.40 CRORE
2016-2017	39701047	INR 180528.54 CRORE	INR 175312.13 CRORE
2015-2016	34880924	INR 137449.27 CRORE	INR 132954.73 CRORE

TABLE 1: PRADHAN MANTRI MUDRA YOJANA (Progress as on 31/03/2019) [Amount Rs. in Crore] Source: MUDRA website

From Table 2, it is observed that the no. of loans sanctioned for the new entrepreneurs were highest during the financial year 2018-19 and was lowest during the financial year 2016-17. The chart 2, depicts the fall in no loans sanctioned during the financial year 2016-17 and drastic increase during the year 2017-18 & 2018-19. The data present in the Chart 1 shows that the scheme is mostly favored by the entrepreneurs.

For The Financial Year	No. of Loans Sanctioned (in Cr.)	Amount Sanctioned (In Lakhs)	Amount Disbursed (In Lakhs)
FY 2018-19	1,33,93,802	1,06,033	1,00,925
FY 2017-18	1,25,59,327	97,448	93,656
FY 2016-17	99,89,470	72,960	69,973
FY 2015-16	1,24,74,668	61,649	58,908

TABLE 2: PMMY Scheme sanctioned and utilized by new Entrepreneurs

Source: MUDRA website

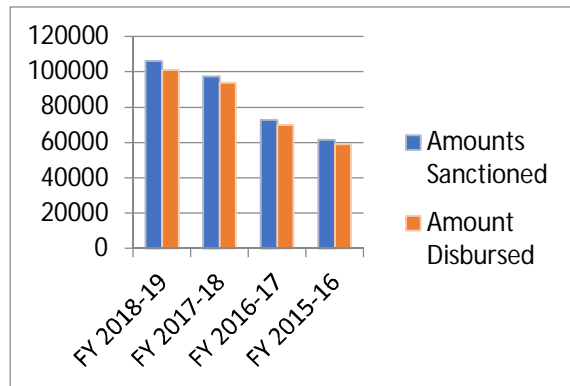


Chart 1

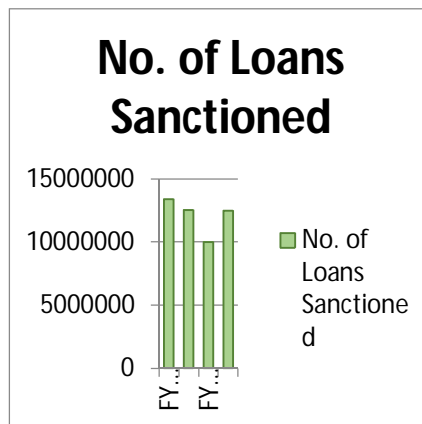


Chart 2

7. Swot Analysis

7.1. Strength

- An independent body looking after regulation, rules, finance, control and oversight of all micro-businesses in India
- This scheme provides an easy access to loan application.
- The scheme provides nominal Interest rates.



- The Govt. provides credit guarantee to the one who has taken the loan.
- The Committee has Consultants who guide on how to process a business with minimal risk.

7.2. Weakness

- A huge crowd in India is still unaware of this scheme.
- Several refinancing agencies pre-exist, which aim to meet the funding requirements of micro and small businesses.
- There can be a potential of conflict of interest due to the nature of roles and responsibilities of MUDRA Bank.
- There can be the promotion of shadow banking.

7.3. Opportunities

- There can be more focus on job creation which would eradicate unemployment in India.
- The scheme can be collaborated with more MFIs.
- The scheme can be extended to further more sectors that would increase new business opportunities.
- The scheme can be customized to encourage more women entrepreneurs.

7.4. Threats

- There are existing better solution to finance micro and small businesses.
- There are number of pre-existing refinancing agencies.
- Variable interest rates could cause confusion.

8. Recommendations

- Scheme can be extended to personal sector other than farms and factories.
- The scheme can concentrate more on the minority sector.
- A loan funding of less than Rs 50,000 can be provided as it would fulfill the gap of 0 – 50K.
- Young entrepreneurs and Women entrepreneurs should be more encouraged to wipe out the difficulties faced by them.

9. Conclusion

MUDRA has been created with the adage of “Funding the Informal by Funding the Unfunded”, by making micro, small business units to be string instruments for GDP growth and also employment generation. A typical aim is to help in improving the quality of life of these entrepreneurs but will also contribute substantially to job creation in the economy leading to income distribution and poverty alleviation. By this scheme youth entrepreneurs and



women entrepreneurs shall be encouraged and special schemes shall be designed for such entrepreneurs.

It perceives that because of dispatch of this plan, monetary consideration has expanded towards positive heading. So it can be say that if it is implemented properly, it may work as a game changing financial inclusion initiative of Government of India and may boost the Indian economy.

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PARTICIPATION OF WOMEN ENTREPRENEURS IN DIGITAL MARKETING

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Abstract

Entrepreneurship is a skill which can't judge with education qualification of that respective entrepreneur. Now a day's women are there in entrepreneur field and some of them made the significant mark over this field. But still there are some them who were choose business as their lively hood and they are not having any wide markets. Marketing are now experiencing new trends and great customer approaches through digital marketing. The entrepreneurs in frond stage are more exploiting digital marketing for their establishment. But in the case of Indian women entrepreneurs who all are running small and medium scale business were not so must established. In other hand most of the samples are not register under company acts. This study shows that most of the samples are not that much aware about the digital marketing sites and social media platforms used for sales. Some of them are using whatsapp and other social media for personal chat with customer, but it's also with few of their regular customer. Most of women are not ready to promote their business to digital marketing. To improve the financial status and development of women in society, they should get good awareness about importance of digitalization.

Key words: women entrepreneur, digital marketing, digitalization.

I. Introduction

Entrepreneurs are the job makers. Developing countries like India promotes entrepreneurship because they are making open marketing opportunity and international currency follow. Innovation and technology provide unprecedented opportunities, yet indicate a growing digital divide and women are under-represented in the field of science and Technology. It is vital that women's ideas and experiences equally influence the design and implementation of the innovations that shape our future societies (startup mission,2019)Entrepreneurship are refer to the "one who reform or



revolutionizes the pattern or production by exploiting an discovery, or, more generally, an untried technological possibility for producing a new commodity or producing an old one in a new way, by opening up a new source of supply of materials or new outlet for products, by rearranging an industry and so on” (Schumpeter, 1934, p. 132) Women entrepreneurs are those who have initiated businesses and have been actively involved in managing it; own at least fifty percentage of the firm, and have been in operation for one year or longer (Moore & Butter, 1997, p.13). Women Startup Summit will witness a community of inspiring and innovative visionaries whose ambitious actions are changing the world with unprecedented scale. Featuring dynamic panel discussions, chats and keynote conversations, Women Startup Summit will convey a diverse range of female luminaries from Technology, business, media and entertainment. The summit has designed in such a way that aspiring women entrepreneurs and startup founders will gain amazingly new insights through knowledge-based sessions, inspiring stories and one-on one interaction (kerala startup mission, 2019).

There are so many global marketing platforms for entrepreneur. Some are especially for women entrepreneur. But most of them are not aware about it and some are not dare to use these.

Objectives

- To find out socio-economic back ground of women entrepreneurs.
- To assess awareness and preference of marketing among women entrepreneurs.

II. Review of literature

Pai H.Akhila (2018) in the ‘Digital startups and Women Entrepreneurship: An study on status of women entrepreneur in India’ stated the concept of women entrepreneur as, “Women entrepreneur is any woman, who initiate, organize and run a business enterprise to achieve self economic independence either individually or in collaboration by keeping pace with her personal, family and social life. The Government of India has defined women entrepreneur as “an enterprise owned and controlled by a women having a minimum financial interest of fifty one percentage of the capital and giving at least fifty one percentage of the employment generation in the enterprise to women” ”.

Xaviera Roland Siri. Et al (2012), ‘Women Entrepreneurs: Making A change From Employment to Small and Medium Business Ownership’, in this research stated that “The benefits of networking will engage these women entrepreneurs in entrepreneurial activities such as scanning for, recognizing and exploiting business opportunities besides enhancing management and financial



skills. Additionally, these women need to have an accurate understanding of the entrepreneurial orientation in order for them to succeed in their ventures. These orientations included risk taking, creativity and innovativeness, manpower problem solving skills and multi-tasking. These can be gained through workshops, training programmes, mentoring or self-empowerment courses. The governments of Asia and associations in their respective countries should play an active role in nurturing these skills within these women to mould successful women entrepreneurs. Whether or not the businesses of these individual women entrepreneurs will come up and succeed is uncertain; but what is certain is that the governments of Asia can no longer avoid the growing importance of women within their economies”.

Tran Kim (2014), in ‘the impact of digital media on female entrepreneurship’ stated that, “The impact of digital media on female entrepreneurship also includes relieving financial burdens on women who wish to start their own businesses, with the majority of female entrepreneurs would be expensive to form and grow their businesses without digital media tools and platforms. The majority of women also opined that it would be very difficult for them to start and sustain businesses without any digital media tools or platforms, thus reinforcing the significantly helpful impact of digital media on helping women start and sustain their businesses”.

III. Methodology

The methodology adopted in the present investigation is explained in this chapter under the following headings. The aim of this research is to analyse the “**Participation of women entrepreneur in digital marketing**”. The area selected for the present study comprised of Coimbatore district, in Tamil nadu. And sample of the present study comprised of women in age group of above 18 years. The sample consisted of thirty women entrepreneur from the area of Coimbatore. Simple random sampling methods were used for the selection of respondents. An interview schedule is used in this study for collecting primary data from the women entrepreneurs in Coimbatore. Investigator collected data directly from the women entrepreneurs by a set of questions that have been prepared to serve as a guide for interviewers from interviewee. The data were collected from women entrepreneur in age group of above 18 years. The data for the present study was collected by investigator from the women. The data were classified, tabulation and presented after having appropriate statistical techniques to draw necessary inferences. In the present study only the respondents of each was carried out for drawing necessary conclusion.



IV. Result and Analysis

IV. a) socio economic status of women entrepreneur

The age groups of selected respondents revealed that majority of the respondents that is fifty three percentage between the age group of 31-35 years, twenty seven percentage of them are belong to 20-35 years, and the least percentage of them belong to 26-30 years. Marital status of the women entrepreneurs in this relative study shows that majority of them are married with eighty six percentage, others like single and divorced are six percentage. Place where most of them resides is rural with ninety three percentage, six percentage are residing in urban area. The castes of selected respondents relatively OBC are mostly high with eighty percentage, and only six percentage are SC/ST.

The educational status of selected respondents revealed that majority of the sample were qualified secondary school with fifty six, twenty percentage of samples are higher secondary qualified, thirteen percentage of them are diploma qualified, and ten percentage are college graduated. Annual incomes of the respondents were categorized into below 10,000 with six percentage of respondents, 11,000-20,000 rupees with thirty three percentage, 21,000-30,000 rupees with fifty percentage, and above 30,000 rupees with 10 percentage.

IV. b) Usage of digital marketing tools:

Most common digital marketing tools used by women entrepreneurs are Facebook which accounts for twenty percentage, Instagram with twenty percentage, WhatsApp with thirty seven percentage, and Google Shopping platform with twenty seven percentage. As well as eighty percentage of them are not using Facebook and Instagram for their business promotion, ninety percentage of them are not using Google Shopping market and cent percentage of them are not using Amazon sites. From this present study, it reveals that the entrepreneurs do mostly not prefer online sites for marketing but they are somehow using social media for sales.

IV. c) Reason for not using digital marketing

The reasons for not using digital marketing were listed out by the respondents are, not having network facilities for being in digital marketing were sixty six percentage, women entrepreneurs were not aware of technology are eighty percentage, some are not believing in online payments with eighty three percentage, and fifty percentage of them having some other reasons like



not thinking it's important for successful business, not enough confidence to handle digital marketing etc.

IV. d) More preferring marketing

Women entrepreneurs who believe in digital marketing are thirty three percentage and sixty six percentage do not prefer it. The selected respondents with sixty seven percentage are preferring traditional marketing. The selected samples are more preferring traditional marketing than digital marketing because of their lack of awareness and less interested in risk taking.

IV. e) Promoting online business in future

Promotion of business to the digital marketing in the future were analysed, were thirty three percentage of respondents were ready to accept the digital market in future and sixty seven percentage of them are not ready to promote their marketing to digital marketing.

Correlation between promoting online business in future and technical awareness in online marketing

Here the correlation analytical test shows the eligibility to handle internet and promotion of online business for future are not having relation. The correlation value is more than the standard value .05 and the study showing .705. There is no correlation between the eligibility and promotion of online business for future

IV. f) Factors hindering women entrepreneurs in digital marketing

Factors hindering women entrepreneurs in digital marketing are, hundred percentage of them having lack of technical knowledge, ninety percentage of them are believing that digital marketing have more formalities to regulate, eighty six of them believing that digital marketing have cyber crime , eighty percentage of them says that they have lack of awareness and not interest to take risk, seventy percentage of them having fear of cyber theft and sixty four percentage of them having other factors which hindering them from digital marketing.

IV. g) Opinion of women entrepreneurs about digital marketing

There were many opinions on digital marketing and each having their own opinion about it. In this study, opinions of women entrepreneurs about digital marketing are categorised in to two as favoring and against. Some of them have both opinions about the digital marketing. In favoring to digital marketing very common comments are: easy growth of business, business in wide area,



profitability, no influence of middle men. The opposing comments raised were need of knowledge in technology, not possible in rural area with low network connection and not ready to accept traditional methods.

V. Summary and Conclusion

Women entrepreneurs are the ones who setup business for financial stability and for full filling their needs. Most of the respondents in the present study is showing that they are not well educated to handle a business professionally. Women entrepreneur in Coimbatore are mostly middle aged one and they are small scale entrepreneurs.

The selected samples are more preferring traditional marketing than digital marketing because of their lack of awareness and less interested in risk taking. The correlation analytical test shows the eligibility to handle internet and promotion of online business for future are not having relation. The correlation value is more than the standard value .05 and the study showing .705. There is no correlation between the eligibility and promotion of online business for future.

Suggestions/ recommendations

- To improve and promote women entrepreneurs in to the digital marketing is essential for empower them.
- To make them aware about digital marketing they should get basic knowledge about net working.

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VII. Appendix

IV. a) socio economic status of women entrepreneur

SL.No.	Personal details		Frequency	Percentage
1	Age	20-25	8	26.6
		26-30	6	20
		31-35	16	53.4
2	Marital status	Single	2	6.7
		Married	26	86.7
		Divorced	2	6.7
3	Place of residence	Urban	2	6.7
		Rural	28	93.3
4	Caste	General	4	13.3
		OBC	24	80
		ST/SC	2	6.7
5	Educational status	Secondary school	17	56.7
		Higher secondary school	6	20
		College	3	10
		Diploma in vocational course	4	13.3
6	Annual income	Below 10,000	2	6.7
		11,000-20,000	10	33.3
		21,000-30,000	15	50
		Above 30,000	3	10

IV. b) Usage of digital marketing tools:

SL.No	Category	Yes		No	
		frequency	%	frequency	%
1	Face Book	6	20	24	80
2	Instagram	6	20	24	80
3	Whatsapp	11	37	19	63
4	Amazon	-	-	30	100
5	Google Shopping	3	10	27	90

IV. c) Reason for not using digital marketing

Sl.No.	Category	Frequency	percentage
1	Not having net work facilities	20	66.6
2	Not aware of technology	24	80
3	Not believing in online payments	25	83.3
4	Other	15	50

V. d) More preferring marketing

SL.No.	Marketing	Yes		No	
		frequency	%	Frequency	%
1	Digital marketing	10	33	20	66.7
2	Traditional marketing	20	67	10	33

IV. e) Promoting online business for future

Sl.No.	Digital marketing in future	Frequency	%
1	Yes	10	33
2	No	20	67

Correlation between promoting online business in future and technical awareness in online marketing

Relation between technical awareness and future promotion			
		Future promotion	
		Yes	No
Technical awareness	Yes	6	6
	No	7	11
Total		13	17
correlation		-.705	

V. f) Factor hindering women entrepreneurs in digital marketing

Sl.No.	Category	Frequency	Percentage
1	More formalities to regulate	27	90
2	Lack of awareness	24	80
3	Lack of technical knowledge	30	100
4	Cyber crime	26	86
5	Fear of cyber theft	21	70
6	Not interest to take risk	24	80
7	Others	19	64



. g) Opinion of women entrepreneurs about digital marketing

Sl.No.	Categories		Frequency	Percentage
1	Favoring	Easy growth of business.	24	80
		Business in wide area.	15	50
		Profitable	20	67
		No middle man.	27	90
		Other.	11	37
2	Opposing	Need knowledge in technology.	26	86
		Not possible in rural area with low network connection.	10	33
		Not ready to change traditional methods.	15	30
		Other.	3	10



INDIGENEOUS ENTREPRENEURIAL AVENUES IN WAYANAD

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Abstract

Entrepreneurship and enterprise are the two terms of current importance. The motivation strategy behind the entrepreneurship is the economical development. All kind of entrepreneurial activities leads to a common generation that economic development leads to the general benefits of global economy. This became need of the hour that these general benefits also focusing on the indigenous community of the state or nation. Indigenous people suffer with poverty, lower education and poor health as well as the indigenous people faces problems like shifting of economical forces, advancement in the technology, social acculturation and many more. The prominent goal of the indigenous people is the recovery, access and use of their traditional lands. Also they wish to reestablish a connection with the indigenous patrimony; these lands and the resources they include frequently represent a basis for the capacity to engage in entrepreneurship and development. It became the need of the hour that there need to a solution for all these issues. In order to bring the indigenous people to the economical forefront the best option is to develop the entrepreneurial characteristics of the indigenous people. In this study Indigenous Communities of Wayanad has been taken in general for the study and discussed certain indigenous entrepreneurship efforts taken by various Governmental and Non-Governmental Bodies in creating greater opportunities for the indigenous people to effectively and efficiently participate in modern economy through maintaining their cultural characteristics (indigenous cultures).

Keywords: Entrepreneurship, Indigenous Community, Indigenous Entrepreneurship

1. Introduction

Entrepreneurship is considered as the process of designing, launching, and running new business, which is initially a miniature form of business. The people that create businesses are called entrepreneurs. An entrepreneur is a person one starts and runs a business with limited resources and planning and is



liable for all the danger and rewards of his or her business venture. The business idea usually encompasses a new product or service instead of existing business model. Entrepreneurship and enterprise are based on the motivational strategy to contribute to economical development. In more generalized way it focuses on general benefits to the different sectors of economy. So the major question to be answered here is all the sects of the society are considered under this. The mainstream people are receiving the benefits more when compared to the communities who are labeled as local communities. More precisely if we say the indigenous communities.

1.1. Background

Indigenous people suffer lot of problems in the present era. The various issues faced by the people include shift in the economic forces, the influence of advanced technology, the shift the cultural characteristics of the community (social acculturation), and colonial expansion happened during the pre-independence era. Also the basic issues like extreme poverty, lower educations levels, poor health and sanitation (Peredo et.al, 2004). To overcome this situation and reconstruct their physical entity improvisation of the socio-economic circumstances are at par importance. Entrepreneurship became a best option for the indigenous people to stand with the current global economic scenario. Then the question arises who is considered as indigenous people? Indigenous or aboriginal peoples are called as indigenous because they were living on their lands before settlers came from elsewhere; they were the decedent of those who inhabited a country or region at the time when people of various cultures or ethnic origin arrived ,the new arrivals later becoming dominant through conquest, occupation, settlement or other means. (General Assembly United Nations, 1995). The indigenous people have the knowledge of resources than anybody else in the world.

1.2. Related works

Lands of great natural resources and beauty as a powerful asset for indigenous people: -The unexploited traditional indigenous land offers opportunities for SME business development, geo tourism, and economic growth in such a way that indigenous peoples are able to preserve their traditions, environment, and lives and escape from poverty

An example: Yachana Geotourism Lodge and faculty, a winner during a change maker's geo-tourism competition, is a regional residential school in Amazon, with 80% indigenous students. The curriculum includes geo-tourism, organic farming, conservation and micro-enterprise development. Founder Douglas McMeekin an Ashoka Fellow says, "We work with young people to teach and provide credit to those who complete the program and have a solid business



plan. If incomes in these communities aren't increased, rainforests don't have much of a future." (Mintz Sarah, Change Makers, 2019)

Indigenous knowledge + technology = business success -- Indigenous communities are creating unique entrepreneurial initiatives, like artisan and residential décor production from local sustainable sources, tourism that focuses on local traditions, and farming and cultivation of unique indigenous plants. These products have value in local and export markets, and put people to figure while retaining cultural traditions.

An example: Poloprobioin Brazil taps into the skills and traditions of indigenous rubber harvesters to create a modern, sustainable latex production operation that keeps the economic power squarely in the hands of the local Amazonian population. Founder Francisco Samonek, was an entrant within in the Business Challenge for Social Change Competition. (Mintz Sarah, Change Makers, 2019)

Supporting and promoting indigenous-led SMEs can reduce political instability – the extreme cultural and economic disparities can be reduced and indigenous-led SMEs helps to reduce gap between the society and political scenario.

An example: As per Agnes Dasewicz, Chief Operating Officer of the Grassroots Business Fund, an entrant within the G-20 SME Finance Challenge, "In Latin America there's an enormous economic gap between the upper class and indigenous populations, and with this disparity, countries are found out for all types of unrest like as we've seen in Bolivia and Venezuela. When indigenous people are left behind, it becomes dangerous for a country's political stability." (Mintz Sarah, Change Makers, 2019)

Indigenous SMEs are popular investment option– Increasingly; investors and financing firms are looking new at indigenous-led businesses. Though obstacles to their participation in formal financing are many (language, cultural, literacy, educational and regulatory barriers), indigenous-led SMEs are starting to find opportunities among conduits of "patient capital."

An example: Minlam Asset Management channels private institutional capital to SME lenders, including many indigenous entrepreneurs, via local currency loans. Managing Director Michael Hokenson, an entrant in the G-20 SME Finance Challenge extols the firm's success: "Our financial institutions and their clients overall have been able to achieve stable growth and maintain their asset quality over the last three years as global markets experienced an especially volatile period."(Mintz Sarah, Change Makers, 2019)

In this context entrepreneurship need to be defined with the indigenous people perspective. Indigenous entrepreneurship can be defined as "is the creation, management and development of new ventures by indigenous people for the benefit of indigenous people. Indigenous Entrepreneurship is often connected



with the notion of community based economic development (Hindle and Lansdowne 2005). Indigenous groups almost always involve individuals that have a close attachment to ancestral territories and natural resources in them. This is clear from above given examples. The prominent goal of the indigenous people is the recovery and access to, and use of their traditional lands. Apart from reestablishing a connection with the indigenous patrimony, these lands and the resources they include frequently represent a basis for the capacity to engage in entrepreneurship and development (Peredo et.al, 2004).

And mostly if we look into the scenario in the indigenous communities' individual entrepreneurial behavior is not included, this is actually viewed by the leaders and governments, as a component economic development, rather than individual initiative. These kinds of entrepreneurial enterprises support indigenous economic development. So, they are taken as an example for "Indigenous Entrepreneurship".

2. Wayanad a land of Indigenous Communities

Wayanad is that the least populated district of the state and its population constitutes 2.47 per cent of Kerala's total population (Kerala Census 2001) and covers 5.5 per cent of land. Adivasi communities constitute 17 per cent of the population (Kerala Census 2001) of the Wayanad district and roughly one third of all the Adivasi communities (indigenous) of the State. These communities form the poorest section of the population of the district and that they fall behind the other part of the population of Kerala in terms of literacy, income and health. Despite being an important section of the population of the district, they don't have a clear representation in decision-making bodies, including the local leadership of major political parties. Majority of the Adivasis of Wayanad are agricultural labourers or marginal farmers.

Main Adivasi (indigenous) communities of the district are Paniyans, Adiyans, Kattunaickans, Mullu Kurumans, Urali Kurumans and Kurichians. These communities are endogamous. They are heterogeneous in character and very diverse in terms of the many socio-economic indicators. While some communities were traditionally settled cultivators having considerable land holding, a majority of them were landless laborers who in some cases served as bonded laborers to the landed Adivasis. Another section of them was hunters and gatherers till recently, living inside reserve forest or in its fringes leading a comparatively isolated existence.

Almost a century back the Adivasi communities had formed the significant part of the population of the district. By the mid of the last century, due to large-scale migration of settler peasants from the plains, they were reduced to a minority in their own original habitat. In the process, a major section of the



Adivasis communities lost their land. Traditional agricultural crops were replaced by high input cash crops, altering crop pattern. Gradual reduction of area under paddy cultivation since 1970s resulted within the drastic reduction of employment for both the landless as well as landed sections of the Adivasis. This including with crash of cost for hill produce has further reduced their opportunities.

Any process of economic and social development cannot solely be addressed to one community or social group. It may be possible to develop plans for which Adivasi communities are the main beneficiaries. In other words, development of the Adivasi communities will have to be located in the overall development of the district.

2.1. Potential for Indigenous Entrepreneurship in Wayanad

In Wayanad the entrepreneurial potential of indigenous communities is connected with the rich natural sources. One such natural resource in abundance is availability Bamboo. The production of Bamboo related products being a good entrepreneurial activities for the indigenous communities. There are certain reasons for being bamboo and bamboo related products being a good entrepreneurial opportunity for indigenous people in Wayanad

- Bamboo is widely grown in Wayanad and it can be utilized for livelihood development of the communities.
- Tourism is an emerging sector in the district. A pro-poor tourism targeted predominantly for the income generation of Adivasi communities.
- Rehabilitation of existing projects meant for Adivasi communities, particularly, the Priyadarshini Tea Estates and Thirunelly Power loom.
- Animal husbandry and related activities, particularly production and marketing of organic milk and dairy products.
- Development of land distributed at Sugandhagiri and value addition of agricultural produce.
- Development of Rural Non Farm Sector (RNFS)

The majority of the indigenous population in Wayanad has some land and roughly a quarter of the Adivasi families have land holding to the extent of one acre and above. This land is often gainfully utilized for food security.

2.2. Integrated development of bamboo and bamboo based products

Bamboo is a crucial natural renewable resource on which around 2.5 billion people everywhere and the planet depend greatly for a good range of products and livelihood. Nearly 1000 documented uses of Bamboo have been identified internationally. It accounts for approximately 25% and 20% of the total biomass produced respectively in the tropics and the sub-tropical areas. Bamboo has



several unique advantages, namely: (i) ability to rejuvenate degraded areas; (ii) grows well in plantation models in balance with other species, and hence there is no need for mono-culture; (iii) short rotation cycle of 2-5 years; and (iv) widely known traditional resource having quicker acceptability.

Bamboo

- The fastest growing plant on this planet and can be harvested four times a year
- A critical element in the balance of oxygen and carbon dioxide in the atmosphere
- A viable replacement for wood
- An enduring natural resource
- Versatile with a short growth cycle
- An essential structural material in earthquake architecture
- A renewable resource for agro-forestry production.
- A natural controllable barrier
- Bamboo shoots provide nutrition
- Integrally involved in culture Indian Bamboo sector generates 432 million workdays annually
- 2.5 Billion people use bamboo for various activities relating to the day- to-day life
- 1 Billion people live in Bamboo houses
- Yields six times more cellulose than fast growing trees
- Suitable for afforestation in degraded land

Wayanad is rich in bamboo resources and it is the district having the second largest reserve of the forest bamboo of the State. It is estimated that Wayanad forests have 600000 tones of bamboo reserve, forming nearly a quarter of the total bamboo reserve of the state. More than fifty species of bamboo are grown in Wayanad, predominant of which is Bambusa bambos. This species is found abundantly in private land holdings also. Traditionally the Bamboo played a very important role for the Adivasi communities of Wayanad and the communities used it for a number of purposes that were closely associated with the rural life. Owing to its easy availability, vigorous regeneration, fast growth, high production, quick maturity, short rotation, the Adivasi communities in the District used it for the construction of houses, agricultural implements, mats and baskets.

Rationale for inclusion of Bamboo as a sub sector for livelihood development of Adivasi communities of Wayanad.

- Abundance of Bamboo as an underutilized resource



- A resource for direct / supplementary income
- Traditional association with bamboo
- Opportunities for semi skilled workers in extraction and primary processing
- Higher opportunities for women
- Opportunity for traditionally landless communities like Paniyan, Adiyar, Kattunaickan and UraliKuruman communities
- Minimum requirement of training input

Bamboo sector as a livelihood option for the Adivasi communities derives from the fact that:

- Wayanad has nearly 25% of the total bamboo reserve of the state
- Can be cultivated in waste lands and denuded forests
- The resource is easy to regenerate and causes no serious ecological damage
- Environment friendly production and value addition of Bamboo products
- It is labour intensive
- Governmental support for Bamboo sector through National and State Bamboo mission
- Demand for bamboo as a substitute for wood
- Production of bamboo plywood, bamboo flooring and other value added products
- Possibility for huge market outside, including export
- Possibility to link with to the emerging tourism sub sector
- Possibility for providing regular income
- Possibility for decentralized extraction and primary processing
- Possibility to link with PRI action plans.
- Bamboo shoot can be consumed as food
- Export potential of bamboo shoots
- Possibility to utilize every part of bamboo

Despite its cultural importance and its availability, bamboo has never gained commercial importance within the local economy. The major industrial



consumer of bamboo of Wayanad was the Grasim Industries Ltd., Kozhikode. It is estimated that nearly 40000 tones of Bamboo were extracted by Grasim industries Kozhikode annually for its pulp production when the factory was functioning. Though the district is rich in bamboo resources, it is an underutilized resource. Its potential has not been clearly tapped yet. This resource can be turned into manufacture of several value added products that can generate income for a large number of Adivasi families in Wayanad. Considering the major scope for development of bamboo in Wayanad both as a raw material for the traditional handicraft sector as well as for modern industry, special programmes can be developed with the appropriate skill development. Thus it can create greater employment opportunities at various levels, especially for ladies.

The traditional primary uses of Bamboo have been in the pulp-and-paper, construction, and energy sectors. Recently, however, it has become increasingly evident that a wide range of intermediate and finished products could add significant value to bamboo and would assist the domestic private sector in the creation of productive capacities, employment, and income. The qualities of bamboo culms - straightness, lightness, and strength, and hardness, high fiber content and straight forward workability - are ideal for various technological purposes.

A number of universities, institutes and business units in India have undertaken important research projects related to bamboo production and utilization. Marked achievements have been scored in bamboo integrated processing and utilization in an industrialization scale, especially bamboo plywood, bamboo flooring, bamboo mats and bamboo shoot, which is playing active and important roles in poverty alleviation. Processing techniques and machines have been studied and designed to meet the increasing demand for bamboo products, particularly bamboo plywood, particleboards and hardboards. Secondary processing techniques such as bending, moulding, costing, polishing and dyeing, which are important for furniture, artistic articles and other fine products, are also included in their research programmes. These all information's leads to the fact that indigenous communities have higher potential to be an effective entrepreneur by utilizing their natural resources in their natural setting.

URAVU, an NGO based in Wayanad is working in the bamboo sub-sector of the district. It is engaged in developing models for utilization of Bamboo. It has submitted an outline of the Bamboo Development Scheme for Adivasi communities of Wayanad district.



2.3. Modern Institutional forces and Indigenous Entrepreneurship

Indigenous entrepreneurship is mainly attributed to entrepreneurial activities of indigenous people in their indigenous setting. They may or may not be located in the native land- may have been displaced or relocated. But they situated in communities of shared social, economic, and cultural patterns that they qualify them as indigenous populations (Peredo et.al, 2004). Now the indigenous community has greater opportunity to efficiently and effectively participate in modern economy through maintaining their cultural characteristics (Anderson, 2006; Dana et al, 2005; Peredo et al, 2004, Hindle and Lansdowne, 2005; Galbraith et al, 2006). The actors of the global economic system come direct contact with indigenous people. The actors of economic system mainly include: 1). The external economic entity such as corporate with which they interact as supplies, customers and employees. 2). The 'state', local, national and international. 3). Non-Governmental agencies (NGO'S) such as Amnesty international, The world council of indigenous people, The Sierra club etc. 4). Global representations of bodies such as WTO, The UN, The World Bank, The European Economic Union and the NAFTA. Indigenous community those tries to 'fit to' the global economy not at the end of the process are at the beginning stage. For that they need to identify business opportunities, should possess enough knowledge about resources, and should develop organizations to realize the potential and also to satisfy their economical and developmental objectives.

In Wayanadan contest the two such bodies which support the indigenous entrepreneurship are URAVU, an NGO who is working on Bamboo Grove Project to support the indigenous communities, another such initiation from the Government side is Responsible Tourism Mission (RT) in Wayanad supports the indigenous communities to come to the forefront.

2.4. RT Mission and its role in Indigenous Community Development

RT Mission may be a nodal agency formed by the Govt. of Kerala to spread and implement the ideologies and initiatives of Responsible Tourism within the state. The mission has social, environmental and economic responsibilities. It mainly focuses on the tourism should support the development of village and local communities, eradication of the poverty and giving emphasis to women empowerment. The mission also tries to provide additional income to farmers, traditional artisans, marginalized people along with creating a social and environmental balance. The RT Mission in Wayanad tries to bring forefront all the indigenous communities for that they are taking some efforts include the Village Life Experiences of Responsible Tourism through the hamlet Nellarachal. The village life experiences are starting from offering native cuisines, making of indigenous tribal percussion instruments and handicrafts.



The historical significance of the Wayanad is connected to the legendary battles. Among them the famous guerrilla warfare led by Pazhassi raja are supported by the Kurichia Tribal Community of Wayanad. The Village Life Experience takes one to ascertain the old weapons and its usage also. Responsible Tourism in Wayanad offers a chance to visit spice plantations, Tribal Art Centre, Uravu Bamboo craft Village and other tribal settlements. Responsible Tourism Mission conducted training for quite 1060 people in Vythiri. Around 18 units were formed in Vythiri itself. These units perform sales worth around Rs.68 lakhs per annum .One major upcoming programme is that the making of a gift for Wayanad, “Chuthumani Kammal” (rosary pea). Training are going to be given for around 50 people from the tribal community within the near future. Tribes from the Paniya community do the performances in Vattakkali and Kambala Kali. The Mission successfully conducted training and awareness programs during this place to develop its tourism sector. Last year a complete of 300 people got trained in various sectors. Under the RT Mission many indigenous communities are involved the making of Bamboo products with the support of URAVU Bamboo craft Village. Around 50 families from the local community are benefitting from the production of Bamboo related products in Wayanad. Also focused on the Paniya Community of Wayanad the making of ‘Chuthumani Kammal’ is also a kind indigenous entrepreneurship to support the indigenous people. Through this RT Mission aims to support the economic, social and environmental development of the indigenous community.

2.5. URAVU and Indigenous Entrepreneurship Development

URAVU is an NGO established within the year 1996, the one nonprofit bamboo based developmental organisation that strives for rural empowerment through sustainable solutions. The URAVU is mainly tries to complete the following SDG's include No poverty, Gender equality, Decent work and Economic Growth, Responsible consumption and production, and Climate Change. URAVU may be a sustainable Developmental initiative supported bamboo functioned on the most key areas like natural resources, upgrading the local resources processing skills, introducing appropriate technologies, producing value added products from local resources and marketing of environment-friendly products and goods in various markets A sustainable development initiative supported bamboo, Uravu, is making unique success stories in Kerala on areas like enhancing the natural resources base, upgrading local resource processing skills, introducing appropriate technologies, producing value-added products from local resources and marketing environment-friendly products and goods in various markets. The inception of Uravu was supported the elemental notion that revitalization of



indigenous knowledge and consistent scientific up gradation of the productive skills of rural people through appropriate technologies were necessary for rectifying many mistakes within the lopsided, dominant development pattern and striving for sustainability in development. Uravu bases its developmental interventions on bamboo as a strategic staple that gives multiple benefits to underprivileged rural areas and communities, especially, rural women and indigenous people. Bamboo holds the potential for significantly altering and greening the course and content of national and global development. From its inception, the activities of Uravu were interventions aimed toward improving the lives of downtrodden social groups, the normal rural artisans and therefore the indigenous people, especially the ladies among them, in the hilly district of Wayanad. Re-establishing the control of rural communities over natural resources, production technologies and market processes and bringing back these marginalized social groups to the mainstream of the society is a critical development challenge. It is also essential that any effort during this direction should be truly participatory and supported continuous up gradation of local knowledge's, technologies and skills. It is with this vision that Uravu began its development interventions. "We are indebted to Uravu for the unique services it's offering for us. Working on bamboo may be a different experience compared to other ordinary labors. It enhances our creativity and provides us total work satisfaction. Our financial situation has positively improved after choosing this work and collaborating with Uravu especially in areas like product design and marketing." Said Ms. Kavitha Benny of Niravu in Kalpetta North, one among the Micro Enterprises centers that are collaborating with Uravu.

Mr. Sivaraj, Director, Uravu explains the rationale of selecting bamboo because the raw-material for the sustainable development of village communities: "Bamboo, the 'green gold', provides local solutions to many global challenges. It provides ecological security by conservation of forests through timber substitution, as an efficient carbon sink and as alternative to non-biodegradable and high energy-embodied materials like plastic and metals. The livelihood security of the people is additionally taken care through generation of employment in planting, primary and secondary processing, construction, craft and therefore the manufacture of several value added products. All parts of the bamboo plant are often utilized in rural livelihoods and industry - shoots for food, leaves for fodder and branches for creating over thousand traditional products also as a number of latest generation industrial products. Bamboo also provides shelter security through the supply of safe, secure, durable and affordable housing and community buildings. It provides pillars, walls, window frames, rafters, room separators, ceilings and roofs. Food security is guaranteed through bamboo-based agro-forestry systems, by maintaining the fertility of



adjoining agricultural lands, and as an immediate food source – example, edible bamboo shoots.”

Following are some of the programmes of URUVU which are functioning within the help of Government and Non-Governmental agencies.

- 1. Rashtriya Sam Vikas Yojana (RSVY) project for Establishing Micro Enterprises in the Bamboo Sector.
- 2. Bamboo Mission Training programme BMT-2005.
- 3. Ambedkar Hast shilp Vikas Yojna (AHVY) project for establishing bamboo craft cluster in Thrikkaipetta village.
- 4. National Bank for Agriculture and Rural Development (NABARD) assisted Project for Establishment of Mother Unit and Satellite Units for Development of Bamboo Craft and Products in Wayanad district, Kerala.
- 5. CAPART assisted project trainings programmes for skill up gradation, product development and style development, employment and entrepreneurship development programmes, planting programmes for eco-restoration and bamboo resource base enhancement, Promoting sustainable eco-tourism, marketing green products and supporting rural farmers and producer groups.

Uravu was also selected among three organizations within the country with which the Export-Import Bank of India (Exim Bank) has signed memoranda of cooperation through which these organizations get business building support also as opportunities to display their products using the Exim Bank network in several parts of the planet. Under the agreement, samples of Uravu’s signature product Script-O (a pen made from bamboo reeds and used widely as a present item) has found its thanks to showcases at the International Finance Corporation office in Washington. The Exim-Bank official disclosed that Uravu pens would be displayed at the Bank’s branches in African countries, the United Kingdom, Budapest and Milan among others. The pens were already on display at the Mumbai office of the Exim Bank.

3. Conclusion

From the study it is clearly understood that Wayanad has a higher potential of Indigenous Entrepreneurship and there are some modern institutional forces to support this indigenous entrepreneurship in the district. It is to mainly for the economic growth and development of the indigenous community and develop the entrepreneurial capacity of the indigenous community. The Adivasi Communities of the Wayanad who are called as indigenous communities need to be upgraded to the level of world economic forum. The efforts taken by the Responsible Tourism Mission and URUVU are commendable in this scenario.



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A SURVEY ON ARTIFICIAL NEURAL NETWORKS AND ITS REAL TIME APPLICATIONS

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Abstract

Nowadays Artificial Neural Networks (ANNs) are an additional tool that the engineers can use for huge amount of purposes. The primary task of ANNs is classification and regression. In addition to that prediction, control, modeling and forecasting are also its common tasks. Artificial Neural Network is implemented as an information processing paradigm which is inspired by its lookalike structure of biological nervous system. It is primarily composed of large number of highly interconnected neurons (processing elements) working together to solve specific problems. This paper summarizes about the structure of ANNs and its real time applications.

1. Introduction

Warren McCulloch, a neurophysiologist, and Walter Pitts, a young mathematician, took the first step towards artificial neural networks[1]. They wrote a paper on how neurons might work. At first they modeled a simple neural network that comprises of electrical circuits. Neural networks, with their notable ability to derive meaning from imprecise or complicated data that can be used to detect trends and extract patterns which are too complex that to be noticed by either computer techniques or humans. A well trained neural network can be considered as an "expert" in the category of information that has to be analyzed. Other benefits include:

- Adaptive Learning: Adaptive learning is an ability to learn how to do tasks based on the given data for initial experience or for training.
- Self Organization: ANN has its ability to create its own organization as well as representation of information during its learning time.
- Real time operation: The computation of ANN can be carried out in parallel an several specially designed hardware devices are manufactured that took advantage of this capability.
- Fault Tolerance: ANN has the ability that it may be retained even with severe network damages.

1.1 Working of Ann

Neural networks are the simple clusters of several neurons. This clusters consists of layers that are connected with each other in order to resolve real world problems.

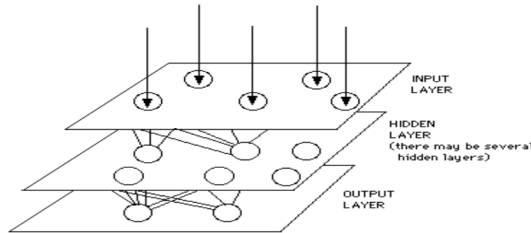


Fig 1. Simple Neural Network

Fig 1. Shows the basic structure of ANNs. In this structure some of the neurons interfaces with the real world and receive inputs. The rest of neurons provides output to real world. ANN comprises of three layers- input layer, hidden layer and output layer. The input layer receives input from files or from electronic sensors in real time applications. The output layer sends output to the real world or computer process or to other mechanical devices directly. There are many hidden layers are present between these two layers. These hidden layers consists of many neurons in interconnected structures. The inputs and outputs of these internal neurons go to other neurons. In many networks each neuron present in hidden layers receive signals from all of the neurons that presents in its above layer (input layer) and parses its output to the below layer (output layer).

1.2. Artificial Neural Network Training

While a network is designed for a particular application, that network is ready to be trained. To initiate this process the initial weights are randomly chosen. Next the training, or learning starts. It consists of two approaches to training, That is supervised and unsupervised.

Supervised training involves a mechanism which provides the network with desired output either by "grading" the performance of network manually or by providing the required outputs with its associated inputs. Unsupervised training is that the network has to make the sense of inputs without the outside help. Normally, the huge amount of networks utilizes supervised training. Unsupervised training is mainly used to perform some initial characterization of inputs.



2. Literature Survey

However Artificial Neural Networks allow modeling of several nonlinear processes, it may also serve as a very popular and useful tool for solving many real world problems such as classification, regression, dimension reduction, machine translation, decision making, computer vision, clustering, pattern recognition, structured prediction, anomaly detection, visualisation and others. In this section, various applications of artificial neural networks in Natural Language Processing Tasks (NLP) as well as convolutional neural networks were discussed. This NLP involves with a wide set of semantics, syntax, discourse and speech tasks.

3. Applications of ANNs and CNNs

3.1 Text Classification and Categorisation

Text classification is an essential step in various applications such as web searching, language identification, information filtering, sentiment analysis and readability assessments. Yoon Kim performs a series of experiments with convolutional neural networks for sentence classification and developed word2vec[2]. This suggested model was tested against lot of benchmarks. The primary task in Movie Reviews (MR) and Customer Reviews (CR) was to detect positive or negative sentiment. In this paper there are several more classes are to be predicted in Stanford Sentiment Tree bank (SST). That is, very positive, positive, neutral, negative and very negative. Similarly the Subjectivity dataset(Subj) can be categorised into two more classes like subjective or objective. In TREC, the main goal is was to classify the questions into six different types of questions.

Text understanding from scratch [3] proposed by Xiang Chan and Yann LeCun applies deep learning technique for text understanding from character level inputs using Convolution Neural Networks (CNNs). This model was tested on ontology classification dataset named DBpedia. DBpedia consists of dataset with 14 classes like company, artist, office holder, educational institution, athlete, mean of transportation, natural place, animal, village, building, village, plant, written work and plant. This system produces good training with 99.96% accuracy and good testing with 98.40% accuracy. The author also performs the sentiment analysis in Amazon Review Dataset also. In this work, the researchers generated sentiment polarity dataset with two positive labels and two negative labels and achieves 97.57% accuracy in training and 95.07% accuracy in testing. This systematic model was also tested in Yahoo! in questions and answers dataset with 10 classes namely society & culture, Health, Computers & Internet, Science & Mathematics, Education & Reference, Sports, Family & Relationships, Business & Finance, Politics & Government and Entertainment & Music.



Siwei Lai, Liheng Xu, Kang Liu, and Jun Zhao proposed a technique for text classification using recurrent convolutional neural networks[4]. The authors tested their model using four types of datasets namely 20Newsgroup, Fundan Set, ACL Anthology Network and Sentiment TreeBank. The 20Newsgroup consists of four categories like computer, recreation, religion and politics. Fundan Set, a Chinese document classification set, consists of 20 classes that includes energy, education and art. ACL Anthology Network comprises of five different languages such as German, Japanese, English, Chinese and French. Finally Sentiment Treebank consists of very negative, negative, neutral, positive and very positive. Once the testing was completed, the developed model was compared with the various existing classification methods such as Bigrams + LR, Bag of Words, SVM, Tree Kernels, CNN, LDA and Recursive NN and came into the decision that the proposed neural network approaches outrun traditional methods for all above mentioned data sets .

3.2. Named Entity Recognition (NER)

The primary task of Named Entity Recognition is to classify the named entities like Microsoft, Xiang Chen and London into its already defined categories like persons, Locations, Organisations, dates, time and so on. The paper “Neural Network for Named Entity Recognition” there are two models were proposed for NER. One model is on bidirectional LSTMs and conditional random fields. The second model uses transition based approach to construct and segment the labels that inspire shift reduce models. The proposed model depends on two information sources about words. They are character based word representations those were learned from supervised corpus and unsupervised word representation those were learned from unannotated corpora[5]. In this paper, the author Lampelle et al., conducted numerous tests using different data sets like CoNLL-2002 and CoNLL-2003 in Dutch, German, English and Spanish Languages. This team concludes that NER can be performed without the need of the resources, language specific knowledge like gazetteers.

3.3. Part of Speech Tagging

Part of Speech (POS) tagging was implemented in various real time applications like text to speech conversion, parsing, information extraction etc., Peilo Wng et al.,[6] applies an algorithm named Bidirectional Long Short Term Memory Recurrent Neural Network (BLSTM-RNN) for implementing Part of Speech Tagging.

The author tested this proposed model against Penn Treebank III WST dataset and 97.40% tagging accuracy was achieved. This approach yields better performance compared with existing Stanford POS tagger without using morphological features.[DIAGRAM]



3.4. Semantic Parsing and Question Answering

Question Answering systems provides answers for different types of questions those were asked in natural languages that includes biographical questions, definition questions, multi lingual questions etc.,. The usage of neural networks makes it possible for developing question answering systems. Wen-tah Yih et al., proposed a work on “Semantic Parsing via Staged Query Graph Generation Answering with Knowledge base [7]”and developed a semantic parsing framework for providing answers for a question using knowledge base. The authors proposed that this method uses knowledge base at an initial stage for pruning the search space and also the semantic matching problem was simplified. This system also imparts an advanced entity linking system. The convolutional Neural Network model matches the questions and its associated predicate sequences. This model was tested on a dataset named WebQuestions and it was observed that the proposed model outperms the previous methods considerably.

3.5. Paraphrase Detection

Paraphrase detection is one of the primary tasks in question answering system. The main goal of paraphrase detection was to find out whether the two sentences are present with same meaning or not. It is also possible to ask the same question in different manner.

Dasha Bagdonova et al., proposed a paper on “Detecting Semantically Equivalent Questions in Online User Forums[8]”for identifying semantically equivalent questions those are based on convolutional Neural Networks. In this system, the authors performed experiments using Meta Stack Exchange data and Ask Ubuntu Community Questions and Answers Site. The proposed approach shown that CNN model yields high accuracywhile the words are pretrained. The performance of this system was also compared with duplicate detection approach as well as Support Vector Machines and came into the conclusion that the proposed system outperforms those traditional methods.

Eric Huang proposed a study on “Paraphrase detection Using Auto Encoder[9]”. In this work, the architecture of a novel recursive autoencoder was presented. This autoencoder learns phrasal representations by using recursive neural networks. These representations are mapped into vectors of an n-dimensional semantic space in which phrases with same meanings are close to one another. English Gigaword Corpus and Microsoft Research Paraphrase Corpus were used for evaluating this system.

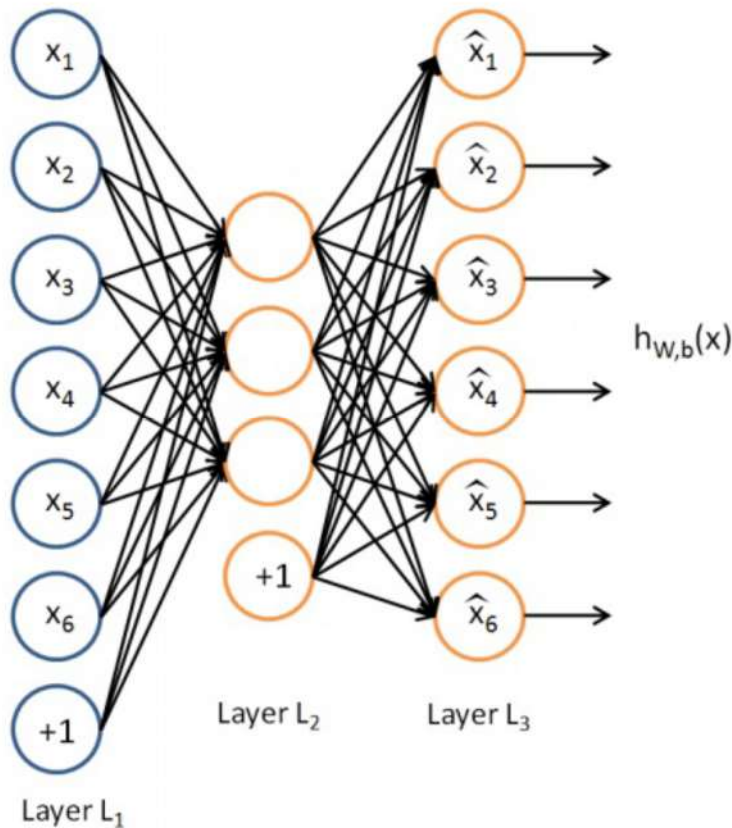


Fig 2. An Autoencoder

3.6. Language Generation and MultiDocument Summarisation

There are several applications for natural language generations like electronic medical record summarization, automated report writing, weather forecasts etc.,. Tarosav DS proposed a paper named “Natural Language Generation, Paraphrasing and Summarisation of user reviews with Recurrent Neural Networks[10]”. In this work, the database of 820,000 consumer reviews were evaluated. The design of this proposes network allows users to control the meaning of generated sentences. It is possible to guide the network to selecting sentence level features vector. This ability of language generation allows the production of summaries for multiple user reviews. The summary report is used to obtain the information presents in large cluster of documents.

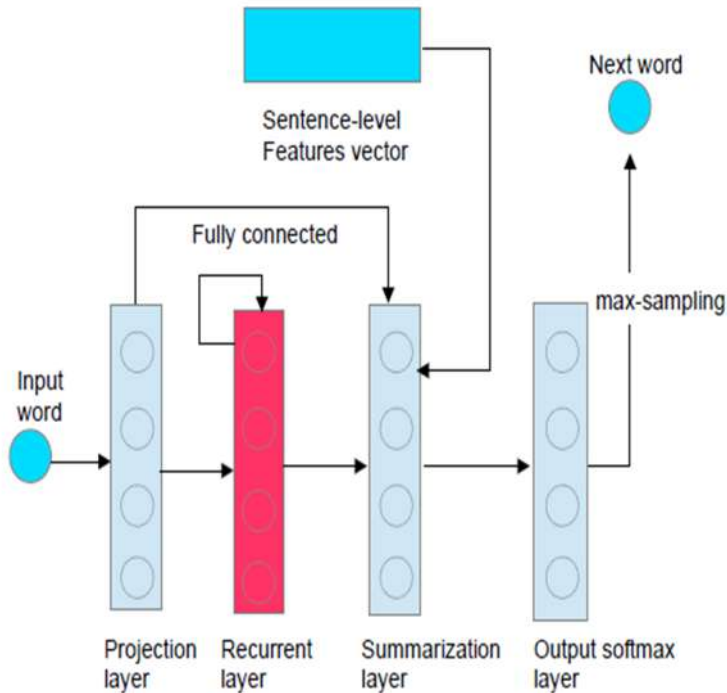


Fig 3. Architecture of Summarisation Recurrent Neural Network

3.7. Speech Recognition

Nowadays speech recognition system plays a vital role in mobile telephony, home automation, handsfree computing, virtual assistance, video games and so on. Ossame Abdel Hamid et al., proposed their work on “Convolutional Neural Networks for speech recognition[11]”. In this work, the structure of CNN directly accommodates various types of speech variability like changing speaking rate. A large vocabulary voice search and TIMIT phone recognition tasks were used. This experimental research shown that the CNNs can reduce an error rate by 6% to 10% compared with traditional deep neural networks (DNNs) on TIMIT phone recognition.

3.8. Character Recognition

Ankit Sharma et al., research a paper on “Character recognition using neural network[12]”. In this work an offline strategy was developed for english characters like A to Z and 0 to 9. This work uses feed forward back propagation



algorithm for classification of characters. The English characters were represented as binary numbers and they are fed into ANN as input. Back propagation algorithm were used for training. This novel method achieves 85% accuracy rate.[DIAGRAM]

4. Conclusion

In this paper, working and training of Artificial Neural Networks (ANNs) were described. The structure of convolutional Neural Networks was depicted. Artificial Neural Networks and Convolutional Neural Networks were used in several applications like text classification, speech and character recognition, paraphrase detection, Language generation etc., were studied. Comparatively the performance of proposed system was analysed with traditional methods and concludes that ANN and CNN yields better results.

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NO MORE BOSSES ITS ROBOSES

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Abstract

In today's competitive world, technology plays the important role in every business environment, because organizations have to stay on top to compete globally. Human Resource Management is very important in organization in attracting talents. Organizations with a powerful recruitment plan will be able to hire suitable talents in order to manage the digital world and also to develop the business environment. So the recruitment plan is considered as the main source for every organization in hiring skilled employees who could be more efficient and effective to fulfil the organization objectives. In this era, the most advanced technology has come to simplify the tasks which were done by the humans called "Artificial Intelligence". The Artificial Intelligence(AI) is the technology which is the model of human intelligence processed by machines especially computer systems. These models (AI) have been used in the recruitment industry for the hiring process. Thus the hiring process is getting automated. The current report(TOI) says by 2028, Robot Resources will rival Human Resources. This paper aims to review the applications of artificial intelligence (AI) in the hiring process and what are the realistic consequences and to assess how the technology AI influences the HRM especially in the recruitment process.

Keywords: Recruitment, Artificial Intelligence, Automation, Hiring

Introduction:

Organizations are influenced by the latest technology trends which are available in the market and also used by the other organizations to compete with them. Human Resource Management plays a significant role in an organization in attracting talents. Recruitment is considered as the most critical functions of an organization. When it comes to the business environment it is more relevant to hire suitable and potential talents with the right skills as per the requirement of the organization. On the technological aspect, artificial intelligence (AI) is becoming popular in the emerging trends in diverse fields. In India, AI is been used by few of the organizations which can perform multiple tasks without fatigue that human suffer. Artificial Intelligence in the recruitment process helps to simplify the tasks performed by the recruiter. The AI recruitment technology is considered as simpler, cost effective and time saving. AI is also shaking up



the recruitment industry. In future, AI will cause the job cuts as well because of multiple tasks are carried by AI itself.

Related Reviews:

Application of AI to HRM was one of the most 7 remarkable trends among recruitment professionals in 2018. The adoption of AI in Human Resource Management and in recruiting can be called as 'the new age of HR', since AI changes the recruitment industry by replacing routine tasks that have been conducted by human recruiters (Upadhyay and Khandelwal, 2018).

Artificial Intelligence Chatbots are New Recruiters, Artificial intelligence (AI) chatbots developed to make messages to provide assistants to the consumers for 24/7, to answer all queries and acting like FB messenger, webchat, but the competitive environment enthusiastically looking for new added features in artificial intelligence (AI) chatbots to handle all the raised complex problems, therefore artificial intelligence (AI) chatbots are much demanded in chatbot market (Nishad Nawaz , Anjali Mary Gomes, 2019).

The recruitment strategy is a major function of organization apparently takes help of data analysis for decision making process. The data analysis is called as "Artificial Intelligence" which plays a crucial role in recruitment decision. Artificial intelligence is a basic terminology and is a human develop intelligent machines. AI will work and react like human and its ultimate aim is to facilitate computers to carry out the work as normally done by people. AI leads with an incredible speed and accuracy (Geetha.R & Banu Sree Reddy,2018).

The application of Artificial Intelligence (AI) in Human Resource Management (Johansson Senja Herranen,2019). An exploration of how Artificial Intelligence is impacting Recruitment and Selection process (Karan Hiren Bhalgat, 2019).Recruitment Trends In The Era Of Industry 4.0Using Artificial Intelligence: Pro And Cons(Wan Mohd Rusydan Wan Ibrahim & Roshidi Hassan, 2019).

The recruiter of the future, a qualitative study in AI supported recruitment process (J. Dijkkamp, 2019). How Far Have We Come With The Study Of Artificial Intelligence For Recruitment Process.(Nishad Nawaz, 2019).

Research Methodology:

This paper is completely based on secondary data. The secondary data such as journals, websites and reports are used to prepare the entire paper. The collected literature data provided basic understanding of artificial intelligence and how it is streamlined in the recruitment process.

Artificial Intelligence in Recruitment Process:

AI is revolutionizing the recruitment and the hiring process. It is one of the fastest growing technology which is establishing itself as a game changer in the recruitment process. But using AI can help candidates missed by traditional screening, sourcing and recruiting methods. Once these candidates are



identified, recruiters can focus on the human element of the recruiting process as per the organization needs. The new AI software can help HR departments manage the massive resumes which they receive daily. AI is the application of artificial intelligence in recruitment, such as the learning or problem-solving that a computer can do, to the recruitment function. This new technology is designed to automate few parts of the recruiting workflow, especially repetitive, high-volume tasks.

Benefits of using AI for Recruiters :

1. Saving recruiters time by automating high-volume tasks.
2. Screening resumes is still the most time-consuming part of recruiting. AI for recruitment represents a new technology for recruiters if it can successfully automate time-consuming, repetitive tasks such as screening resumes or scheduling interviews with candidates.
3. Improving the quality of hire through exact job fit - Matching the data between candidate's experience, knowledge, skills and the requirements of the job.
4. No Disruption in the work flow
5. Increase in Performance

Challenges of applying AI in Recruitment :

1. AI requires a lot of data - In general, AI requires a lot of data to learn how to accurately immitate human intelligence. For example, AI that uses lot of data to learn how to screen resumes as perfectly as a human recruiter.
2. AI could learn human biases - AI for recruiting promises to reduce unconscious bias by ignoring information such as a candidate's age, gender, and race. Any human bias that may already exists in recruiting process – even if it is unknown it could be learned by AI.
3. Uncertain of new technology - Recruiting and talent acquisition folks are not sure of any technology that promises to make their jobs easier.

Innovations in AI for Recruitment:

Intelligent Screening (AI Screening Software uses feedback to get Smarter)

Intelligent Chatbot (Eliminate the need of the calls, focuses on qualified candidates)

Intelligent Rediscovery (Strong Past Candidate would be great fit for a new Job)



Conclusion :

The recruitment industry is undergoing a big transformation and artificial intelligence has been considered as one of the biggest drivers behind this change. Artificial Intelligence, the fastest growing technology where the computer system works like a human brain in an effective way. AI helps the recruitment system to be automated. This human built software helps to do the work easier and cost effective. But at the same time, if the robots take up all the tasks which are done by the humans will impact in job cuts in future. The current report(TOI) says by 2028, the robot resources rival the human resources. If this process is carried out in the organization then may be in future there might be a possibility that employees have to report to the virtual bosses.

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STORE ATTRIBUTES AS STRATEGIC MEASURE IN RETAIL APPAREL STORES

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Abstract

The phenomenal growth in textile and apparel industry has reflected an increase in retail apparel stores. Though different strategy is followed by retail apparel stores in order to fulfill customer expectation and satisfaction, store attribute is one of the key factor in retail apparel stores. This paper is focused on store attributes adopted by retail apparel stores and store attributes as strategic measures in retail apparel stores. Data collected from the owners of retail apparel stores through interview schedule. Data were analyzed using descriptive statistics, factor analysis and multiple regressions. Results reveal the importance of store attributes in retail apparel stores this seized attention of retailers in return store attributes are adopted in their retail apparel stores.

Keywords: Store attributes, retail apparel stores, customers' attraction

Introduction

Retail apparel stores was popularized when companies separated into multi divisional product based organizations from centralized organization .Retailing business activities is involved in selling of goods and services to their consumers according to their needs. When need are fulfilled from physical store or place it is referred as store retailing. People's purchasing power in India has enhanced with an increased in income this replicated in enlargement of retail stores. Stores in order to attract customers follow many strategies. Store attributes is one of the strategies used by the apparel stores. Store attributes is concentrated on physicality of the store. It includes both exterior and interior, which forms a good impression about the store and increase the purchase action of the shoppers (Farah.S.Choudhary 2016) Store attributes have to focus significantly on both visual and the marketing functions of the store environment to develop the store image and to increase sales. Store atmospheric which helps the shoppers to make decision of store selection and patronage. (Piyali Gosh 2010). Since store attributes plays a vital role in decision making



from customers sight and attracting customers in retail owners sight, it is essential to study store attributes as strategic measure in retail apparel stores.

Review of literature

According to **Lizhu Davis & Hongtao Yue**(2017) store attribute significantly affect respondents' retail format preferences. Over all merchandise/convenience and shopping environment are most important store attributes that affect respondents apparel retail format preference. **Elizabeth Newcomb Hopfer & Cynthia Istook**(2016) reveals that majority of attributes are very important in apparel purchases, with intrinsic attributes rated higher overall than extrinsic attributes. Attribute importance varied by garment type most significantly in the purchases of pants and dresses, suggesting that consumers have unique processes and expectations based on garment type. **Patrick & Christie**(2016) shows that female university students of fashion clothing were highly stimulated by high fashion style and fit. **Farah.S.Choudhary** (2016) conclude that store atmospherics of customers is positively significant towards store image. Store atmospherics, store image and patronage intentions are also positively related to each other. **Ramanathan.V Sonia.C** (2018) stated that retail store and brand image among the organized jewelry retailers in Kanchipuram town has influenced patronage behavior of customers. **Ramakrishna Prasad.Y** (2012) prove that attributes like style ,value , diversity , demand , credibility , concern ,referral groups have influenced the apparel consumers' buying behavior. **Frikkie Herbst and Christiaan Burger**(2002) implies that price sensitive young consumers are willing to switch from one brand to another. Therefore, marketers of the other brands should be cautious about any price change, small change in price bring s big change in demand . **Riaz HussainI & Mazhar AliI**(2015) indicates that consumers' purchase intention have positive influenced on atmospheric variables such as cleanliness, scent, lighting, and display/layout have a; whereas consumers' purchase intention have insignificant impact on music and color. **Ernest J North, Retha B de Vos and Kotzé T** (2003) indicate that women consider style as important purchase decision and price being the second most important attribute. **Balanaga Gurunathan.K & Krishnakumar.M** (2013) show that the important dimensions of apparel buying behavior is store attribute promotion and and reference groups. **Shailesh Kumar Kaushal**(2013) indicate that teenagers consider fashion as important attribute when making purchasing decisions, brand is considered as second most important attribute. After reviewing about store attributes on retail apparel store statement of problem were identified.



Problem statement

Retail apparel stores have well known brands, style and fit , attractive price offers in regular intervals. According to Mckinsey Global fashion index there is a increase in fashion industry from 3.5 to 4 percent in 2019. Though retail apparel stores had focused to satisfy their customer need , they have to give more importance to store attributes to attract new customers. As customers plays the major role in success of any business it is essential to study how far store attributes have played as strategy for the growth of retail apparel store.

Objectives of the study

The objectives of the study are:

- To identify store attributes adopted by respondents of retail apparel stores
- To examine strategic relevance of store attributes in retail apparel stores

Hypothesis

H0: There is no significant difference in strategic relevance of store attributes used in retail apparel stores

Research methodology

The study was conducted in Coimbatore City. Coimbatore is an industrialized city in Tamil Nadu, known as the textile capital of South India. Since retail apparel stores are emerging, it is essential to follow a strategy to sustain and develop in the competitive market The sample consists of 78 respondents from retail apparel sector who have registered in District Industry Centre. The data was collected from November 2019 to December 2019. Random Sampling technique was adopted for the selection of sample respondents, resulted with sample size of 78 respondents who have own retail apparel stores. The Cronbach's alpha value (0.873) indicates the data resulted on store attributes in retail apparel stores .Primary data were collected through Interviewed Schedule, while secondary data were collected through different sources like periodicals, journals, internet and magazines. Descriptive statistics, factor analysis and multiple regressions are used to analyze the collected data.

Results and Discussion

The results of the study are presented below

Respondents' demographic profile

Of total 78 owners of retail apparel stores, 21 percent of retail store owners are in the age group of 21-30 years, 55 percent owners of retail store are in the age group of 31-40 years, 24 percent of retail store owners are in the age group of 41-50 years. 70 percent owners of retail store are male and 30 percent are female. 66 percent owners are married and 44 percent are singles. 11 percent of owners have completed their SSLC, 50 percent have completed their bachelor degree and rest 36 percent has completed their PG course. 31 percent of owners age of business is 1-2 years, 47 percent of owners age of business is 2-3 years

and 22 percent of owners age of business is more than 3 years.25 percent of owners of retail apparel stores average investment is Rs 10 lacs – Rs 15 lacs, 29 percent of respondents average investment is Rs 16 lacs to 25 lacs and 46 percent of respondents average investment is more than Rs 25 lacs. 15 percent owners of retail apparel stores have an experience of 1- 5 years, 33 percent of owners have experience of 6-10 years and 52 percent of owners have more than a decade experience in retail apparel stores. It’s observed that most of retail apparel stores owners are male in the age group of 31-40 years and have completed their bachelor degree. Who have gained and experience in this field for more than 10 years running the business for 2-3 years with an average investment of more than Rs 25lacs

Store Attributes adopted by respondents of Retail Apparel Stores

Store attributes is a key element of segregation in apparel and lifestyle industry (Farah.S.Choudhary 2016) The respondents have used many store attributes to attract the customers. To identify store attributes adopted by retail apparel stores factor analysis is done. Kaiser- Meyer _ Olkin (KMO) Measure of Sampling Adequacy (MSA) and Bartlett’s Test of Sphericity were applied and the appropriateness of data for factor analysis was tested and the result were presented in table 1

Table 1

KMO and Bartlett’s Test

Kaiser-Meyer-Olkin Measure of sample adequacy		0.709573
Bartlett’s test of Sphericity	Approx. Chi-square	2971.462
	DF	276
	Sig	.000

Kaiser-Meyer-Olkin (KMO) Measure of sample adequacy was found to be good (.709) and the estimated chi-square value of KMO and Bartlett’s test was 2971.46. It was statistically significant at one percent level (p<0.001). The varimax orthogonal rotation for factors, whose Eigen value was greater than 1.0 was employed in the analysis.

Table 2

Store Attributes adopted by Retail Apparel Stores

VARIABLES	FACTORS							COMMUNALITY
	1	2	3	4	5	6	7	
Lighting	0.024	0.101	0.880	0.061	0.118	0.014	-0.019	0.804
Temperature	0.275	-0.021	0.737	0.066	0.023	0.152	0.148	0.668
Background music	-0.097	0.099	0.849	-0.010	0.156	0.071	0.224	0.819
Variety style	-0.019	-0.039	0.171	0.193	0.747	0.130	0.257	0.710



suited to age								
Size range available	0.015	-0.091	0.251	0.477	0.269	0.207	0.646	0.713
Size of building	0.205	0.111	0.286	0.167	0.165	-0.067	0.760	0.773
Well-known brands	0.102	0.132	0.335	0.612	0.317	-0.003	0.287	0.697
Cleanliness	0.135	0.374	0.163	0.390	0.614	-0.219	0.033	0.762
Product display	0.103	0.304	-0.072	0.791	0.188	-0.015	-0.006	0.770
Ambience	-0.015	0.660	-0.044	0.299	0.042	0.022	0.327	0.636
Staff behaviour	0.102	0.593	-0.036	0.478	0.080	0.337	0.099	0.723
Location	0.112	0.801	0.019	0.058	0.334	0.035	-0.008	0.770
Store amenities	0.158	0.616	0.298	0.392	-0.049	0.305	0.015	0.629
Sale service	0.334	0.721	0.337	-0.042	-0.102	0.067	-0.028	0.762
Rest areas	0.201	0.287	0.398	0.027	-0.060	0.604	-0.102	0.661
Layout	0.167	0.050	0.050	0.115	0.256	0.802	0.142	0.775
Parking facility	0.233	0.223	-0.019	-0.124	0.163	0.458	0.611	0.729
Trial room	0.221	0.164	0.038	0.062	0.628	0.362	0.161	0.632
Lawns and gardens	0.645	0.300	-0.056	0.531	0.028	0.153	0.068	0.700
Space design	0.820	0.256	0.083	-0.043	-0.015	-0.017	0.298	0.836
Flooring and carpeting	0.641	0.092	0.198	0.205	-0.049	0.349	0.183	0.658
Credit facility	0.642	0.109	-0.077	0.341	0.272	0.259	0.114	0.701
Scents	0.488	-0.171	0.109	0.697	0.026	0.403	0.057	0.692
Waiting rooms	0.645	0.068	0.118	-0.003	0.447	0.066	-0.209	0.683
Eigen value	2.944	2.878	2.806	2.653	2.109	2.082	1.831	17.302
% of variance explained	12.267	11.990	11.690	11.052	8.787	8.676	7.629	72.093
Cumulative % of variance explained	12.267	24.257	35.948	47.000	55.787	64.463	72.093	

Computed data

The factors generated had Eigen value between 1.831 and 2.944. The communalities values ranged from 0.546 to 0.820 for various statements which means that factor analysis extracted a good amount of variance in the statements. Factor 1 resulted with variables of layout and design. Factor 2 resulted with human variables. Factor 3 resulted with in- store esthetics Factor 4 resulted with point of purchase Factor 5 resulted with point of purchase and in- store esthetics. Factor 6 resulted with layout and design Factor 7 resulted with external variables.

The seven factors presented in the table accounted for 72.093 percent of explained variance which is higher than the normal value of 50 percent. This shows that majority of retail apparel stores have given importance for store attributes. Further attention on store attributes will help in growth of retail apparel stores

Strategic Relevance of Store Attributes in Retail Apparel Stores

The key store attributes resulted in factor analysis was carried to regression analysis. The resulted attributes were grouped into three categories. External variables were comprises of size of building, parking facility ,lawns& gardens and store locations. Second variables layout and design comprises of space design, waiting areas and trial rooms. Third variable namely in store esthetics comprises of lighting, flooring carpeting, music, scent, temperature and cleanliness . which frames as independent variables and the dependent variables being the strategic importance of variables. To examine strategic relevance of store attributes in retail apparel stores multiple regressions was done and result are presented in the table 3

Table 3

Strategic Relevance of Store Attributes in Retail Apparel Stores

Variables	Regression coefficient	Standard error	“T” value	R²
Constant	0.643436	0.477155	1.348482	0.440
External variables	0.295895	0.107448	2.753849*	
Layout and design Variables	0.710604	0.101032	7.033423*	
Interior variables	0.163652	0.075824	2.158302*	

Computed data

Table 3 reveals that multiple regression of strategic relevance of store attributes in retail apparel stores. When all other variables are remain constant external variables influence dependent variables at 29.58 percent. Layout and design influence dependent variable at 71.10 percent and strategic relevance of variables is influenced by in- store esthetics at 16.36 percent. The value of R² 0.44 indicates 44 percent influence the explanatory variables on the dependent variables. Thus there is a significant difference in strategic relevance of store attributes used in retail apparel stores

Conclusion

This empirical study on store attributes in retail apparel stores demonstrate the profile of owners who are experienced in retail apparel stores and well aware about the customer’s needs and their expectations are ready to adopt key element store attributes to attract customers. Store attributes includes variables namely external variables, human variables, point of purchase, in-store esthetics and layout and design. While measuring the strategic relevance of store



attributes in retail sector it's found that external variables, in-store esthetics and layout & design are the important strategy in retail apparel stores. From the results it understood that owners of retail apparel stores have focus on store attributes as a tactic to attract new customers and retain them. It concludes that owners of retail apparel stores adopt store attributes as one of the strategy due to competition and to increase their growth of business and to retain in the market.

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ANOVERVIEW ON BEHAVIOURAL FINANCE

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Abstract

Behavioral finance is the study of the influence of psychology on the behavior of investors or financial analysts. It also includes the subsequent effects on the markets. Behavioural finance emphasizes on the point that investors are irrational sometimes, have limits to their control, and are influenced by their own biases. In this paper, we briefly described about what is behavioural finance, why it is needed, how it is emerged, its nature, branches.

“People in standard finance are rational. People in behavioral finance are normal”-Meir Statman

1. Introduction: Behavioural Finance

Behavioural Finance denotes the study of finance based on credible assumptions about how people behave, often confirmed by psychological experiments. Shefrin (2005) in his book on behavioural asset pricing states ‘Behavioural finance is the study of how psychology phenomena impact financial behaviour’.



Figure1

Investors take irrational decisions notwithstanding high performance technology platforms that enhance the probability of rational decisions. Investors have repeatedly been making the mistake of ignoring the supply response to rising prices in every market. An irrational investor is a normal

human being - his/her utility contains benefits that cannot be understood or programmed into a computer (Statman, 2011).

The basis of traditional theory is linked with the modern portfolio theory (MPT) and the efficient market hypothesis (EMH). Modern portfolio theory is a portfolio or a stock's standard deviation, expected return and its association with the other stocks or mutual funds held within the portfolio (Ricciardi and Simon, 2000).

From the academic perspective, investor's behavior is not only related to finance, but also influenced by a combination of psychological, sociological and financial variables making "behavioral finance" truly interdisciplinary (Figure 2). The what, why, and how of finance and investing,

viewed from a human and a social perspective is the scope of behavioral finance. It provides explanations to many market anomalies, speculative market bubbles and crashes.

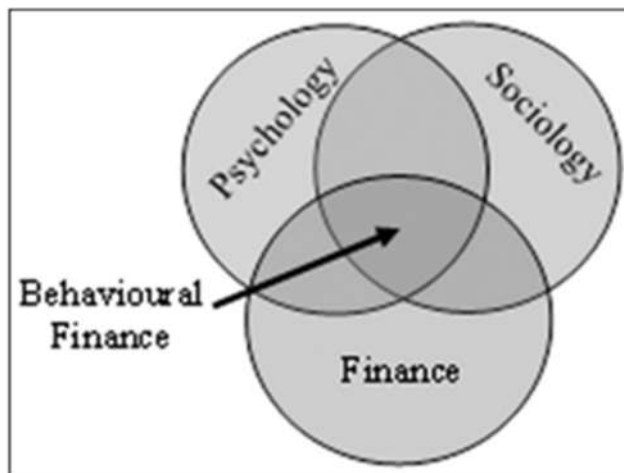


Figure2

1.2. DIFFERENCE BETWEEN TRADITIONAL STANDARD FINANCE AND BEHAVIOUR FINANCE

A study on human behavior about the investment decision-making process helps to explain various market anomalies and inconsistencies that challenge the traditional standard theory



Behavioral finance is a study of human psychology and the rationality of making financial decisions minus the traditional assumptions of expected utility maximization in efficient market.

In Standard theory, investors are rational beings. Consider all information and accurately assess its meaning. Few agents or individuals may act irrationally or against expectations, but in the cumulative they become extraneous. Markets are quickly incorporating all known information. It represents the true value of all securities.

In Behavioral Finance, investors are not totally rational. They often act based on imperfect information. There are organized patterns or mental errors that do not go away in the cumulative, such that there is a positive possibility that the 'marginal investor' will exhibit a cognitive bias. Markets may be challenging to shatter in the long term. In the short term, there are differences and excesses.

Traditional finance attempts to explain the process of financial decision-making on the basis of rationality of markets and its players. However, investors act irrationally, particularly veterans, because inadvertently decisions are influenced by state of mind, emotions, trading theories, beliefs and interpretation of information. Behavioral biases do impact the actual process of investment decision-making.

Behavioral finance theory has developed to clarify how cognitive errors and emotions influence investors during the decision-making process and for improved understanding.

1.3. EMERGENCE OF BEHAVIOURAL FINANCE

- In 1896, Gustave le Bon wrote "The Crowd: A Study of the Popular Mind", one of the greatest and most influential books of social psychology.
- In 1956 the US psychologist Leon Festinger introduced a new concept in social psychology: the theory of cognitive dissonance.
- Tversky and Kahneman (1973) introduced the availability heuristic.
- Two brilliant psychologists Amos Tversky and Daniel Kahneman in 1974, defined three heuristics that are employed when making judgments under Uncertainty. psychologists Kahneman and Tversky, in 1979 presented a critique of expected utility theory .
- Thaler (1985) developed a new model of consumer behaviour. Kahneman, Knetsch and Thaler (1991) discuss three anomalies: the endowment effect, loss aversion and status quo bias.
- Banerjee (1992) develop a simple model of herd behavior.

- Shleifer (2000) published the “book Inefficient Markets”. An Introduction to Behavioral Finance. Shleifer (2000) wrote Beyond “Greed and Fear”, an excellent book on behavioural finance and the psychology of investing.
- Another book on the title “Your money and your brain” in 2007 by Zweig, Jason.
- In 2017 Nobel prize in economics was awarded to Richard H. Thaler, an American economist at the University of Chicago, for his contributions to behavioral economics.

These researchers have utilized the theories of psychology and other social sciences to shed light on the efficiency of financial markets as well as explain the root cause of many stock market anomalies such as bubbles, depression, scams and market crashes.

These researchers have revolutionized the way financial decision-making process is viewed and the factors impacting it. The evolution and the behavioral finance framework are depicted in Figure 3.

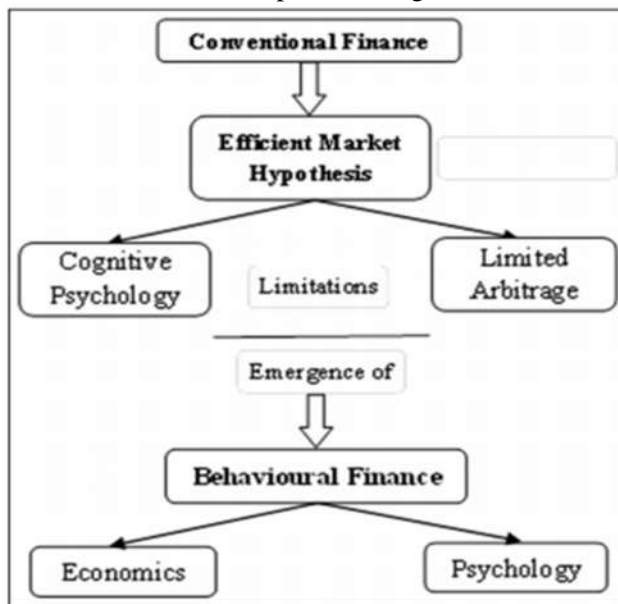


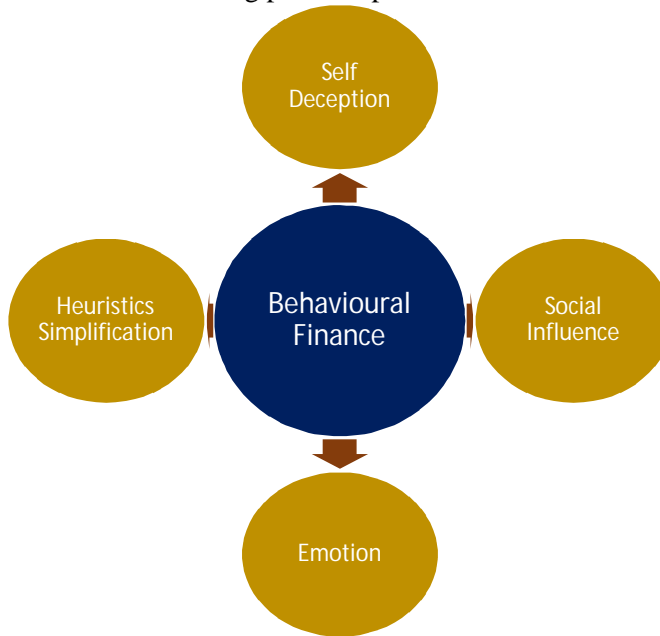
Figure3

1.4. NEED OF BEHAVIORAL FINANCE.

The basic assumption driving these are that people behave rationally, allocate their funds optimally and process all available information in the market while making an investment decision. However, this idea is flawed as there have been many instances in the past showing the markets to be behaving irrationally.

Basic human behavior towards finance varies from individual to individual and a lot of financial decisions are made emotionally, rather than rationally.

We can pause the decision-making preconceptions and errors as follows.



- **Self-Deception:** Self-deception is a process of disagreeing or justifying away the relevance, significance, or importance of opposing proof and rational dispute. Self-deception includes convincing oneself of a truth therefore one does not expose any self-knowledge of the deception.
- **Heuristic Simplification:** Heuristic processes can easily be confused with the use of human logic, and probability. While these processes share some characteristics with heuristics, the assertion that heuristics are not as accurate as logic and probability misses the crucial distinction between risk and uncertainty.
- **Communal Social Impact:** Social impact denotes to the way in which persons change their conduct to see the demands of a communal atmosphere.
- **Emotion:** Thinking way holds that the mental process of decision-making is sensible, a proper process based on optimizing utility. Rational thinking and decision-making does not permit much scope for emotions. They are often considered irrational occurrences that may misrepresent thinking.



1.5. NATURE OF BEHAVIOURAL FINANCE

Behavioral Finance is just not a part of finance. It is something which is much broader and wider and includes the insights from behavioral economics, psychology and microeconomic theory. The main theme of the traditional finance is to avoid all the possible effects of individual's personality and mindset.

1.5.1. BEHAVIORAL FINANCE IS A SCIENCE AS WELL AS AN ART:

1.5.2.

Behavioral Finance as a Science:

- Science is a systematic and scientific way of observing, recording, analyzing and interpreting any event.
- Behavioural Finance has got its inputs from traditional finance which is a systematic and well-designed subject based on various theories.
- On this basis behavioural finance can be said to be a science.

Behavioral Finance as an Art

- In art we create our own rules and not work on rules of thumb as in science.
- Art helps us to use theoretical concepts in the practical world.
- Behavioural finance focuses on the reasons that limit the theories of standard finance and also the reasons for market anomalies created.
- It provides various tailor made solutions to the investors to be applied in their financial planning.
- It can be said, based on the above said that behavioural finance is said to be an art of finance in a more practical manner.

1.6. BEHAVIOURAL FINANCE – BRANCHES

Behavioural Finance is divided into two branches. Micro behavioural finance and Macro behavioural Finance.

1.6.1. Micro Behavioral Finance:

This deals with the behaviour of individual investors. – In this the irrational investors are compared to rational investors (also known as homo economicus or rational economic man)

1.6.2. Macro Behavioral Finance:

This deals with the drawbacks of efficient market hypothesis. – EMH is one of the models in conventional finance that helps us understand the trend of financial markets.



1.7. SIGNIFICANCE OF BEHAVIOURAL FINANCE

- To understand the Reasons of Market Anomalies: (Like creation of bubbles, the effect of any event, calendar effect etc.)
- To Identify Investor's Personalities: Various new financial instruments can be developed to hedge unwanted biases created in financial markets.
- Helps to identify the risks and their hedging strategies
- Provides an explanation to various corporate activities: Effect of good or bad news, stock split, dividend decision etc.
- To enhance the skill set of investment advisors: Done by better understanding of investor's goal, maintaining a systematic approach to advise.

1.8. Conclusion

Behavioral finance emphasizes on what way investors make conclusions to buy and sell securities, and how they select between options. Behavioral finance attempts to explain and improve people's awareness about psychological processes and the emotional factors that influence the investment decisions. It augments the traditional finance theories that dominated the realm of academics, which assumed speculators behave safely and efficiently, thus missing the irrationality of human behavior. The interdisciplinary nature of investment behavior has attracted many scholars and professionals. Thus behavioral finance has important allusions for both intellectuals and practitioners. It provides the groundwork for evolving theories for a deeper understanding of the psychological processes involved in financial decision-making. In fact the behavioral finance research is quickly spreading to other markets investigating multiple variables involved in decision-making. The effectiveness and forecasting power of investors' conduct is expected to improve through the rapid developments in behavioural finance in the years to come. Behavioral biases have been and will continue to influence human judgment in financial decision-making. As it is still evolving, both theoretical analysis and pragmatic testing are required.

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REFORMS IN THE REGULATORY FRAMEWORK TOWARDS EASE OF DOING BUSINESS IN INDIA

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The growth and prosperity of economy depends on the entrepreneurs. Ease of doing business attracts domestic and foreign investments in business. It will also encourage the growth and prosperity of the startup ventures. Certain provisions of acts, rules and regulations have become obsolete over the period of time and area cause of concern for the entrepreneurs and the corporate. They are perceived to stifle the growth of industry. To remove this menace the central government has been bringing out various reforms during the past two years. Payment of wages and bonus has been streamlined by the Code on Wages 2019. Towards ensuring speedy adjudication of contract disputes, The Commercial Courts, Commercial Division and Commercial Appellate Division of High Courts (Amendment) Act, 2018 was enacted. To encourage settlement of disputes through conciliation and arbitration, the Arbitration and Conciliation (Amendment) Act, 2019 was notified. The Registration of the Goods and Services Tax, Employee State Insurance, Employees Provident Fund under Companies (Incorporation) Third Amendment Rules, 2019 have made the registration compliances simpler. The reforms will encourage entrepreneurs and startup ventures to contribute significantly to the growth of Indian economy.

Key words: Arbitration Compliance Commercial Courts Incorporation Registration Reforms Wages

1. Introduction:

The growth and prosperity of economy depends on the entrepreneurs. To encourage them to start and succeed in their ventures the country needs to have an entrepreneur friendly environment. The ease of doing business will attract foreign and domestic investments in business. It will ensure the success and growth of start-ups in the Country. The regulatory environment in India needs to be changed with the changing times. Certain provisions of the existing acts and rules have become obsolete. There are regulations which became obsolete and need amendments. The government has identified such menace and has brought regulatory changes in several fronts. Legal reforms during the years 2018 and



2019 pertaining to contract enforcement, alternate dispute resolution, registration of company for statutory obligations and taxes namely are discussed. An analysis of changes brought in the regulatory environment by the Code on Wages, 2019, the Arbitration and Conciliation (Amendment) Act, 2019, The Commercial Courts, Commercial Division and Commercial Appellate Division of High Courts (Amendment) Act, 2018 and the Registration of the GST, ESI, EPF under Companies (Incorporation) Third Amendment Rules, 2019 are presented herein under the heads Wage reforms, Alternate Disputes Resolution reforms, Contract Enforcement reforms & corporate registration reforms.

2. Analysis & discussion:

2.1. Wage Reforms:

There are four¹ central acts dealing with labour and employment besides the state level acts. Companies found it difficult to comply with the large number of acts and certain provisions of the acts became obsolete with changing time. Hence there is a need to consolidate, merge, streamline and codify the laws governing labour and employment. The laws pertaining to wages is a priority area for reforms. The minimum wages act and payment of wages act applied to specific employments only. Further they were applicable subject to a wage ceiling. Hence the scope of coverage of the said laws is very much limited.

There were difficulties in interpreting and implementing law related to wages because different labour laws defined the terms 'wages' in different manner. This resulted in twelve² different definitions for the term wages. Besides difficulties in implementation, this leads to litigations.

The Code on Wages, 2019 was enacted to benefit all workers in all employments irrespective of the sector and wages drawn. Subsequent to the presidential assent the code was notified³ by the Government of India on 8th August 2019. The code has subsumed four Acts. According to clause 69(1) of the code on wages, after the enactment of the Code on Wages, The Minimum Wages Act, 1948, The Payment of Wages Act, 1936, The Payment of Bonus Act, 1965 and The Equal Remuneration Act, 1976 stand repealed.

The Code on Wages has considered the interests of both the employer and employee and aims to balance the same. Substantial provisions under the repealed acts have been retained. Obsolete provisions of the repealed acts have been replaced.

Previously, the wage ceiling was a major limitation under the Payment of Wages Act, 1936. The said Act read with Ministry of Labour and Employment Notification⁴ No. S.O. 2806 (E) dated 29th August, 2017, was applicable only to



employees drawing wages below Rupees twenty four thousand per month. However, the Code on Wages does not mention any such threshold. Thus it covers all employees irrespective on the amount of monthly wages drawn by them.

Clause 2(k) of the Code on Wages, 2019 defines the term 'worker' while clause 2(z) defines the term 'employee'. The definition of 'employee' is wider when compared to the term 'worker'. The term employee includes persons carrying out managerial and administrative work. The definition of 'worker' is narrower but specifically includes sales promotion employees and working journalists.

The Code has rationalised the various definitions of wages which were given under the four repealed legislations. According to the simplified definition under clause 2(y), wages is a broad term which includes all remuneration whether by salary or allowances. The definition also mentions the list of items including certain allowances such as conveyance and house rent allowance which is excluded from the ambit of 'Wages'. The clear and unified definition will allow consistent interpretation of the term.

Through the clause 50(1), the code provides for maintenance of a single register for different purposes of payment of wages, payment of bonus and employee records. This will ease the work pertaining to maintenance of records.

Clause 51 (1) provides for the appointment of Inspector-cum-Facilitators to carry out inspections and provide information to employers and employees for better compliance. Under the previous laws, they were just Inspectors who enforce the law. Now they also perform the role of providing information and advice to employers to effectively comply with the requirements under the code on wages.

Clause 51(2) makes provisions for an inspection scheme which may also provide for generation of a web-based inspection and calling of information relating to the inspection under this Code electronically.

Clause 54 deals with penalties for offences. Unlike the provisions of the Minimum Wages Act, 1948, the Code on wages has decriminalised the penalty provisions at first instance. In terms of clause 54(1) (a), an employer who pays to any employee less than the amount due to such employee under the provisions of this Code shall be punishable with fine which may extend to fifty thousand rupees. Previous law has prescribed imprisonment for such offence



The above provisions are made with the intention of effective implementation and compliance of the law pertaining to wages.

2.2 Contract Enforcement Reforms

The success of any business depends on the performance of contracts. If the promisor breaches the contract, the promisee can enforce the contract. The promisee can file suit for damages, injunction or specific performance. But contract enforcement is a big challenge because of the delay involved. The party in breach was emboldened by the weaknesses in the contract enforcement mechanism. This affects the ease of doing business. The Economic Survey 2018-19⁵ in Chapter 5 titled 'Ending matsyanyaya: How to ramp up capacity in the lower Judiciary' says that "3.5 crore cases pending in the judicial system. Much of the problem is concentrated in the district and subordinate courts where 87.5 percent of cases are pending. Delays in contract enforcement and disposal resolution are arguably now the single biggest hurdle to the ease of doing business in India."

The above issues can be addressed by making reforms in the judicial administration system. In this regard, reforms are brought on law pertaining to commercial courts. In India, Commercial Courts were established by the Commercial Courts, Commercial Division and Commercial Appellate Division of High Courts Act, 2015 for resolving commercial disputes speedily. Under this Act, the specified value of commercial disputes was fixed as rupees one crore. This was a disadvantage as the disputes of lesser value were kept out of the jurisdiction of commercial courts. To reform this, the Commercial Courts, Commercial Division and Commercial Appellate Division of High Courts (Amendment) Act, 2018 was enacted⁶. The definition of Specific Value under Section 2(1)(i) has been amended thereby reducing the pecuniary jurisdiction of commercial courts from one crore rupees to three lakh rupees. Further, the state governments are empowered to constitute commercial courts at district level even in territories where high courts have ordinary original civil jurisdiction

2.3 Alternate Disputes Resolution reforms

Litigation is a process of resolving disputes through Courts. The cases are decided following the strict rules of procedure and rules of evidence. This consumes time and cost. The substitute for litigation is Arbitration. In general, flexibility and low cost are the advantages of Arbitration. Arbitration is a method of alternate dispute resolution. But much to the dismay of the parties to the dispute, Arbitration in India suffers from high cost and undue delays. Hence parties to the commercial dispute hesitate to go for arbitration.



To remove these difficulties, the enacted the Arbitration and Conciliation (Amendment) Act, 2019 which came into effect on 8th August, 2019⁷. With the intention to make India a hub of both international and domestic arbitration, the amendment act contained provisions which would pave way for faster resolution of commercial disputes.

As per the newly introduced Section 23(4), the statement of claim and defence shall be completed within a period of six months from the date of appointment of the arbitrator(s). Arbitral award will be made by the arbitral tribunal within a period of twelve months from the date of completion of pleadings. This provision has been made to fasten the entire process of arbitration.

Part 1A has introduced the concept of an Arbitration Council of India for promotion of arbitration, mediation, conciliation and other alternative dispute redressal mechanisms. The council will have its headquarters in Delhi. The Arbitration Council will frame policy and guidelines for the establishment, operation and maintenance of uniform professional standards in respect of all matters relating to arbitration. The Council will also frame policies governing the grading of arbitral institutions and arbitrators and recognise professional institutes providing accreditation of arbitrators.

The above provisions are aimed at improving the speed and quality of arbitration. When this is achieved, more number of parties will opt for arbitration and thereby reduce the burden on courts.

2.4 Corporate registration reforms:

Entrepreneurs have always sought easy and simultaneous registration with various government agencies. Currently, the form SPICe (Simplified Proforma for Incorporating Company Electronically) is required to be filed for incorporation of a Company with Ministry of Corporate Affairs. Application for registration of Goods and Service Identification Number (GSTIN), Employees' Provident Fund Organisation (EPFO), Employees' State Insurance Corporation (ESIC) are to be made with respective departments separately. Taking up multiple registration procedures with various departments consumes time, labour and cost. In this regard, Government of India, Ministry of Corporate Affairs brought the the Companies (Incorporation) Third Amendment Rules⁸, 2019 on 29th March, 2019. By this amendment to the Companies (Incorporation) Rules, 2014, a new rule 38A has been inserted to the effect that, the application for incorporation of a company under rule 38 shall be accompanied by e-form AGILE (INC 35) containing an application for registration of Goods and Service Identification Number (GSTIN), Employees' Provident Fund Organisation (EPFO), Employees' State Insurance Corporation (ESIC). The New Form



AGILE is a linked & mandatory form with spice form, and both forms will be uploaded together. It is not mandatory but taking these registrations is completely optional at the time of incorporation of the company. The AGILE E-form would act as a single window clearance helping company incorporation and various other regulatory formalities simultaneously.

3. Benefits

3.1. Benefits of the Wage Reforms:

The definition of wages has been simplified. There is a single definition in place of multiple definitions given by previous laws. This is expected to reduce litigation. Registers, returns and forms can be electronically filed and maintained. This will reduce the cost of compliance.

The Code encourages technology adoption in matters such as mode of payment of wages, inspection procedures. The code enables web based randomised computerised inspection scheme, jurisdiction-free inspections, calling of information electronically for inspection, composition of fines etc. All these changes will be conducive for enforcement of labour laws with transparency and accountability.

3.2 Benefits of Contract Enforcement Reforms: Commercial courts being specialized courts will decide the disputes with speed. Further they will have jurisdiction even for disputes as small as rupees three lakh.

3.3. Benefits of the Alternate Disputes Resolution reforms:

The effect of the amendments is that the claim statement and defence should be completed within six months from the date the arbitrator receives the notice of appointment. This will speed up the Arbitration process.

Prior to the amendment, when a dispute arises regarding appointment of arbitrators, the parties will approach the Supreme Court or High Court for appointment of Arbitrators or to resolve the dispute. Courts are already burdened with pending cases. Arbitration Council of India will share the burden of the court. Arbitrators can be appointed in short time. This will lead to speedy resolution of disputes

The Arbitration Council of India will improve the quality of arbitration in India by conducting trainings and workshops. It will frame policies, guidelines and norms to ensure effective functioning of arbitrations, arbitral institutions and the arbitrators.



The amount of fees to be paid to arbitral tribunal and the manner of payment will be determined by the arbitral institution in accordance with the rates specified in the fourth schedule of the Arbitration and Conciliation Act, 1996

3.4 Benefits of Corporate Registration Reforms: The main benefit of the AGILE form is its applicability. The will act as the single window clearance system and incorporation of new companies along with taking registration under various other authorities will become easier and faster.

4. Issues

4.1 Issues pertaining to Wage Reforms:The Code attempts to unify the definition of 'wages', which is a step towards providing better clarity. However, the provision of separate definitions for 'worker' and 'employee' and their usage within the Code leaves room for confusion

4.2 Issues pertaining to the Alternate Disputes Resolution Reforms:The Act provides a blanket provision of confidentiality of arbitration proceedings without considering adequate exceptions to the obligation of confidentiality. In this context, it remains to be seen how arbitration related court proceedings (such as seeking interim injunction) may be initiated, how criminal proceedings (along with the arbitration) may be initiated, how anti-arbitration injunction proceeding.

4.3 Issues pertaining to Contract Enforcement Reforms:In India there are adequate and efficient legislations. But the problems arise in the implementation. To overcome these problems, adequate number of judges must be appointed and vacancies in courts must be quickly filled.

Introduction of digital systems, particularly in the lower courts, is another important step to improve the productivity of the courts. If these things are done, entire system will become very efficient.

4.4. Issues pertaining to Corporate Registration Reforms:

The application for registration using the spice and AGILE INC-35 is unlikely to reduce the number of days taken for registration. The application is submitted to the Ministry of Corporate Affairs (MCA). MCA will act as a facilitator only. The applications have to be processed by the respective departments.



5. Conclusion

The several positive steps mentioned above are aimed towards simplifying compliances under various regulations. The reforms discussed above are bound to improve the confidence of investors and allow ease of doing business in India. The above initiatives will encourage entrepreneurs and startup ventures to contribute significantly to the growth of Indian economy.

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THE IMPACT OF VISUAL MERCHANDISING ON CONSUMER DECISIONS IN PURCHASING

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Abstract

In today's highly competitive era of marketing, it is becoming increasingly difficult for marketers to market their goods. The marketers are forced to resort to various promotional strategies in order to lure customers to increase their overall sales volume. Visual merchandising is one such promotional strategy that aims at maximum utilization of store space for the purpose of effective display of the merchandise to create an ambience conducive to enhancing the total sales of the store. This strategy advocates convenient marketing. Visual merchandise is a tool to achieve sales and targets, a tool to enhance merchandise on the floor, and a mechanism to communicate to customer and influence his decision to buy. Visual merchandise uses season based displays to introduce new arrivals to customers, and thus increase conversions through a planned and systematic approach by displaying stocks available. In this study, convenient sampling method used. 120 respondents were chosen for the study. Under convenient sampling whoever is available, willing and whose co-operation is fully available were taken as respondents for the study. Tools like chi square tests, Regression and Interpretation. It is found that Visual merchandising provides abundant opportunities to buyers to carry comparative analyses of various products and make their own judgmental purchase decisions. The technique of visual merchandising is bound to deliver results in terms of sales volume and customer satisfaction.

Introduction

Visual merchandising is consumed by all the people and their main expectation is good display. The ultimate aim of any marketer is to enhance sales volume and thus the profit. Visual merchandising is one promotional strategy that helps the marketer to successfully increase the sales volume of his product. It is all about organizing the retail store such that the visual impact thus created is capable of attracting customers and making their shopping experience a real pleasure. It prompts the buyers to go for quick comparative analysis of the products and make immediate decisions regarding their purchases. This article



discusses some aspects of visual merchandising which play a vital role in attracting customers to the store.

Visual Merchandising Intention

- A tool to achieve sales and targets.
- A tool to enhance merchandise on the floor.
- A mechanism to communicate to a customer to a customer and influence His/her decision to buy.
- Use season based displays to introduce new arrivals to customers.
- To increase conversions through a planned and systematic approach by Displaying stocks available.
- Educating the customers about the product/service in an effective and Creative way.

Significance of a Display

Retail stores make a display to enhance the shopping experience by making it more comfortable, convenient and customer friendly. This can be achieved by:

- Making it easier for the shopper to locate the desired category and merchandise;
- Making it easier for the shopper to self-select;
- Making it possible for the shopper to co-ordinate and accessories;
- Providing information on sizes, colours and prices; and
- Informing about the latest fashion trends by highlighting them at strategic Locations.

Literature Review

Retailers are facing a keen competitive market place and as a consequence of that they find many difficulties to differentiate their stores on the basis of product, place, people, price and promotion. Retail store elements such as colour, lighting and visual merchandising have always been considered as having immediate effects on the buying decision making process. The emphasis has moved away from in-store product displays, towards elements that excite the senses of shoppers such as flat screen videos or graphics, music, smells, lighting and flooring that tend to capture the brand image or personality. The physical in store environment has been examined in relation to various elements, for example: orienting factors (Davies and Ward, 2002); signage (Bitner, 1992); Spatial factors and ambient conditions (Davies and Ward, 2002), which Kotler termed “atmospherics”. The work regarding physicality of in-store environment focuses on the “communication” of elements through cues and



stimuli that the consumer digests through a number of sensory modalities (visual, aural, olfactory, haptic and taste). Therefore, all literature commonly recognized as in-store environment depends on visual merchandising and other in store promotions. Visual simulation and communication have long been considered important aspect of retailing by practitioners and academic alike (McGoldrick, 1990, 2002). This interest in the visual has – at one level within the retail context – coalesced to from the practices of “visual merchandising”. This is defined as the activity, which coordinates effective merchandising selection with effective merchandising display (Wolters and White, 1987, p.238). Visual merchandising is therefore concerned with both how the product and/ or brand are visually communicated to the customer and also whether this message is decoded “appropriately”. In this context, it will be affecting to a positive psychological or behavioural outcome, ultimately leading to purchase.

Objectives

- Impact of Visual Merchandising on purchasing Decision of consumer
- To know the usage of visual merchandising
- To know the future expectation of consumers about visual merchandising

Research Methodology

In this study, convenient sampling method used. 120 respondents were chosen for the study in Coimbatore district to constitute the sample of consumers for the study. A semi-structured interview schedule is designed. It is kept as a rough guideline and depending on the respondent’s nature of response, the sequence of questions and the number of sub-questions for probing the respondents mind-varied. 120 customers from various places in the study are interviewed. The interpretation of the data is made using simple percentage, Chi Square Analysis, tabulation.

Impact of Visual Merchandising on purchasing Decision of consumer.

Table 1

Model	R	R.Square	Adjusted R square	Std Error of the Estimate
1	.903	.816	.779	.008065

Table 2

Model	Unstandardized Coefficients		Standardized coefficients	t	sig
	B	Std Error	Beta		
constant	2.670	.035		75.458	.000
	.062	0.13	.903	4.703	.005

In the table, R is the correlation having value 0.903 and R square is the degree of determination having value 0.816. R square shows the extent to visual

merchandising on purchasing Decision of consumer. The Beta value 0.903 and The significance value is .005 .The Regression results say that there is an association between frequency of purchasing decision and Visual Merchandising.

Window Displays Attract Foot Traffic.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.114 ^a	9	.427
Likelihood Ratio	10.000	9	.350
Linear-by-Linear Association	.163	1	.687
No of Valid Cases	120		

The Chi square results say that there is an association between Window display and Visual Merchandising.

Communication

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	38.628 ^a	15	.001
Likelihood Ratio	42.197	15	.000
Linear-by-Linear Association	1.240	1	.265
N of Valid Cases	120		

The Chi square results say that there is an association between Visual Merchandising and communication.

Future expectation of consumers

		Value	df	Asymp. Sig. (2-sided)
Green Living The Technologist Traditional look Benjamin shine of shop	Pearson Chi-Square	26.966 ^a	12	.008
	Likelihood Ratio	30.878	12	.002
	Linear-by-Linear Association	.371	1	.542
	N of Valid Cases	120		

The Chi square results say that there is an Expectation of future expectation of consumers on visual merchandising

Findings

- 25.83% of the respondents said that they are attracted in product display.



- 40.83% of the respondents are shopping to change the mood.
- 38.33% of the respondents are sense of excitement in impulse purchase.
- 50.83% of the respondents are feel regret in impulse purchase.
- 43.33% of the respondents are controlling urge to buy when see a good offer.
- 48.33% of the respondents are seeing a good deal tend to buy more.
- 40.83% of the respondents are attraction based on attraction of eye catching.
- 51.67% of the respondents are interesting in window display.
- 61.67% of the respondents are eye catching in window display.
- 56.67% of the respondents are looking through store get an idea.

Suggestions

- When designing the product display, shop managers should pay special attention on category layout, canola (Light ceiling), colour separation, lighting box, category name of product shells.
- Damaged items on the shells and dust will make bad image towards the supermarket outlets and design of floor tiles can make significance influence to feeling of pleasure at shopping time.
- Majority of customers respond to the lighting more positively. They specially mentioned that lighting helps to select correct products, reduce the time wasted and feel relaxation during the shopping tours. Therefore managers can select appropriate lighting system that creates satisfaction of psychological needs of customers.
- Used in the store. If marketers change the fragrance strategically and use more favourable fragrance, it will be more significant to patronage customers towards supermarkets and maintain the freshness within the supermarket premises.
- The background music will also encourage customers to spend extra time in supermarkets. However, it has low significance relative to the other elements of in-store environment. It will help to encourage customers to make impulse purchasing decisions in shopping. And also customers will consider the shopping in such a shops is one of entertaining exercise. The soft and classic music are highly recommended than other type of music.



Conclusion

Visual merchandising provides abundant opportunities to buyers to carry comparative analyses of various products and make their own judgmental purchase decisions. Visual merchandising is definitely a step ahead of traditional merchandising. The limitations of traditional merchandising as it provide more satisfaction to the buyers. It also provides abundant opportunities to buyers to carry comparative analyses of various products and make their own judgmental purchase decisions. Visual merchandising leaves the buyers with a feeling of content and pleasure. It endows the buyers with a great feeling of satisfaction acquired from self-decision making regarding the purchases. Visual merchandising also helps enhance the overall image of the store. With certain limitations, the technique of visual merchandising is bound to deliver results in terms of sales volume and customer satisfaction.

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RETENTION STRATEGIES OF TEACHING FACULTY IN ENGINEERING INSTITUTIONS AT COIMBATORE CITY

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Abstract

Faculty retention refers to the ability of an institution to retain its faculty. Retaining faculty is cost effective and especially in today's education system it is most effective result oriented aspect, the increasing rate of faculty attrition is forcing education sector to retain their faculty. Retaining faculty particularly highly qualified and talented faculty paves the way for quality outcome of the department. Resulting in staying ahead with sustained quality education and result driven even in a challenging role. This requires putting their best practices and efforts forward, which would delight and build loyalty of their faculty ultimately leading to faculty retention.

The study focuses on discussing the concepts, strategy, practices and applications of faculty retention management, at large, the core part of the study presents various applications and solutions across different institutional sectors through illustrative examples and cases. It also offers insights into successful strategies and solutions adopted by various colleges and institutional sectors.

Key Words: Learning Relationships, Mass Learning, Education Hub, Retention Strategies

Introduction

Faculty retention is the process by which the faculty has to extend his / her service tenure in the institution for a longer period of time. There are some drivers of retention in which an engineering institution can take action to increase the probability of keeping their faculty for long term.

(a) Institutional Management Factors

Many institutional and management factors influence individuals' job satisfaction also the outcome of department and student's career is mainly depending on the performance of the department faculty. The reasonable HR policies, straight and instant disciplinary actions and allocation of duties, work assignments and opportunities to faculty who is keen to focus on Academic development, effective contribution towards research, grades and accreditation,



external support, relations association, primary resource management, strategic focus and dynamism and all lead to faculty retention.

(b) Managing Retention

The focuses turn toward to the key to managing retention as part of effective HR management. Managing faculty retention effectively involves giving increased benefits to faculty. So that they are optimally satisfied and get motivated to work for the management. On the other hand, developing 'learning relationships' with the students and other employees helps colleges to practice "mass teaching – learning customization" and one to one knowledge sharing through various career development program and so on , so that individual faculty are satisfied and retained, while highlighting the relation between career development programs and faculty retention. It also dwells on various ways and practices for boosting faculty retention. (viz., offers awards and rewards for the achievements towards funded projects, publications and filling of patents, higher cadre and position of dean, HOD) and so on.

(c) Retention Assessment and Metrics

Calculating both job satisfaction through employee benefits and statistics of retention provides a better picture of the flexibility of faculty from the perspective of engineering faculty. Management can take numerous actions to address with retention issues.

Review of Literature

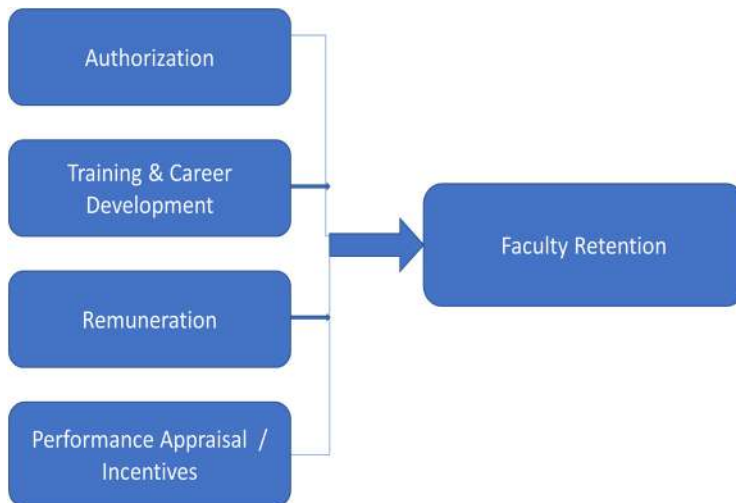
- **Bhavna et.al., (2012)** evaluated faculty commitment towards the institution under two factors namely absenteeism and employee job dissatisfaction. From the analysis it was identified that employee turnover is highly correlated faculty commitment, non monetary incentives and disrespectful treatment are the fundamental reasons for employee turnover
- **Kwenin (2013)** suggests in his study that the top management should provide valuable and beneficiary elements in their job profile also good working environment with necessary facilities will make the employees satisfied, hence makes a way for employee retention.
- **Mittal & Rajkumar (2017)** examined the factors of faculty retention of faculties working in engineering and management institutions at New Delhi & Uttar Pradesh, the data for the study was collected through questionnaire, the statistical tool Exploratory Factor Analysis (EFA) was taken to find the factors related to retain faculty, the outcome of the study shows the following factors such as working condition, financial benefits, personal factors influence job shift intention among faculties. Hence the study shows

that attracting & retaining the talented faculty is a great challenge to the department of Human Resource and Management.

Objectives of the Study

- To determine various factors that influence in retention of faculties in engineering institutes
- To understand the various facilities an engineering institution should have in order to retain talented faculty
- To determine the career viability for engineering graduates in academics

Proposed Research Methodology & Framework



Research Methodology

The present research study will be carried out in Coimbatore region, since Coimbatore is famous for education especially in Engineering and Medical Sciences and Technologies, The questionnaire for the study will be framed based on the factors such as Authorization, Training and Career Development, Remuneration and Performance Appraisal & Incentives. This study focused to present the relationship / positive influence of these factors with faculty retention. In future this study will be developed for further research process such as collection of articles from relevant data bases, Preparation of questionnaire and validity, pilot study and so on.



Summary & Conclusion

Coimbatore is one of the very important educational city in South India, hence it is called as Education Hub and it's the Boston city of India. The city is also endowed with large number of engineering goods, textiles, foundries, agro-based industries and educational institutions. The personal benefits provided to the faculties differ from government & private institutions, therefore employee rate is more in private institution due to job dissatisfaction, and hence the present research study is focused to study about the relationship between job satisfaction and faculty retention.

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CHALLENGES FACED BY STARTUP ENTREPRENEURS

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Abstract

Entrepreneurship is the key parameter for economical growth and development of all countries and it is most relevant to transitional countries such as India. Entrepreneurship aims at making an individual to be a job provider rather than a job seeker. according to a survey there are 100 million startup in each year. The fast growth rate of startup's create great competition within the nation, which clearly explains that one who is ready to take risk, wants to make changes, and fulfils the demand of consumers make great entrepreneurs. This ability of becoming an entrepreneur is not an easy task. They are lots of challenges faced during startup's. They tend to face challenges when they set unrealistic goals, hence a better choice is to start from baby steps. This helps them to change their challenges into opportunities for their success. Remember success is short lived and expectations never end. startups should have realistic goals, which helps in reaching and succeeding them easily. In this paper, the challenges faced by two entrepreneurs in the field of food industry is taken as a case study to understand how they face this competitive business world.

1.Introduction

When a problem arises, people tend to talk about it, but nobody consider finding a solution for it. They feel no obligation in addressing the problem until and unless they are personally affected by it. For many, this is entrepreneurship. Anyone who wants to work for himself or herself is considered to be an entrepreneur. The word "entrepreneurship" has taken leaps and bounds and has gone through a huge transformation in all these years and still continuing, especially when technology continues to enable innovation. Nothing is more challenging than starting and growing a business. It is the ability to understand that imagination is more important than knowledge, which guides an entrepreneur to turn his dream into reality. Basically, entrepreneurship is the process that a person identify new opportunities for setting up an enterprise to make his or her dream come true. Entrepreneurship is more than the mere creation of business. Entrepreneurship is a name given to the factor of production which performs the function of enterprise. It is a creative and innovative response to the environment. Such responses may take place in any field of social endeavour may be business, agriculture, social work



and education etc. simple way to define entrepreneurship is doing new things or doing things which are already being done in a new way. Entrepreneurship could satisfy status and social needs and leads to self-satisfaction and actualisation.

2.Characteristics Of a Successful Entrepreneur

- Willingness to work hard even if the business is in the verge of failure. Having a strong desire to achieve high goals in business.
- Long term future plans
- Follow your own path and strategy
- Independent and not guided by the current problems
- Good foresight to visualise the likely changes in the business and taking timely actions.
- Ability to bring together all the resources required for starting the enterprise.
- Optimal use of the resources and obtain higher profit
- Initiating research and development activities to meet the changing needs of customers.

3.Important of Entrepreneurship

One of the important inputs in any economic development of a country is entrepreneurship. More the entrepreneurship activities, better the development. Entrepreneurship is the life blood of any economy and it applies more to a developing economy like India. The areas of development are:

- Taking to higher rate of economic growth by creating value.
- Speeding the process of industrial production.
- providing employment opportunities.
- Dispersal of economic activities to different sectors of economy and
- identifying new avenues of growth.
- Better social changes.
- Improvement of the standard of living
- Bring socio - political change in the society.

4.Pros and Cons of Entrepreneurship

4.1.Pros of Entrepreneurship

4.1.1Flexible Work Place

One of the best things and biggest advantages of being an entrepreneur is you can work from home and also from your enterprise. Currently every work can be done through calls and mails from your phone itself

4.1.2.job Giver

Since you are the boss, you are viewed in the eyes as a leader. You have the freedom to change the strategy according to the plans in your mind. And if you are doing it right, you would end up in a great deal



4.1.3.Learning Opportunity

Being an entrepreneur, he or she should be aware of all the activity undergoing in the company. Knowledge about your product and service, employee skills, computer skill, web designing to an extend, cash management etc. Coming from any background, entrepreneurship helps the individual to grow in all the field as its his responsibility.

4.1.4.Earning and Salary

Even though initially it is you have have invested the capital, later on when the return on investment cross the break even point, it is the owners decision to re invest, or procure profit. Even though re investment is the best option, he or she can utilize the returns when they are in need

4.2.Cons of Entrepreneurship

4.1.Highly Responsible

Owning a company is like having a responsibility of the head of family. You should take care of all the members, handle stress and risk, generate income as every member depend on you. One should be responsible for all the mistakes and losses, and still motivate the entire team members to not feel low.

4.2.Always at work

It is true you can work anywhere. But mostly the fact is you would be working the entire day, anywhere and everywhere. Not being a job seeker means, not having a proper working hours too. 9 to 5 becomes 9 to 9 for an entrepreneur. Family life and time for fun might be not as much as the usual job employee.

4.3.Work - life balance

This is a tricky job while doing business. A part it is very true that you cannot draw a line between work and life. Your house at times becomes office, personal phone becomes work phone. Even Sundays your bedroom, living room get chances to work on your business.

4.4.Time for fun

Holidays are long lost gone for many entrepreneurs. The day of holidays for the employees is like the day the owners are on toes. Every work has to be managed by the owner. An entrepreneur do not have a definite leave days. Even if on a holiday after long time, there are many chances to be busy on phones that enjoy the holiday.

5. Myth about Entrepreneurs

5.1.All you need is luck to be an entrepreneurs

Being at “the right place at right time” is always an advantage. But “luck happens when preparation meets opportunity” is an equally appropriate adage. Prepared entrepreneurs who seize the opportunity when it arises often seem “lucky”. They are, in fact, simple better prepared to deal with situations and turn



them into successes. What appears to be luck really is preparation, determination, desire, knowledge, and innovativeness.

5.2.A great idea is the only ingredient in a recipe for business

In reality, a great idea may stay just that if it is not backed by adequate finance, demand for the product, and most importantly, good management.

5.3.I can start making lots of money immediately

In reality, it is often months, if not years, before an entrepreneur starts making money.

5.4.Entrepreneurs are doers, not thinkers

Although it is true entrepreneurs tend towards action, they are also thinkers. Indeed, they are often very methodical people who plan their moves carefully. The emphasis today on the creation of clear and complete business plans is an indication that thinking entrepreneurs are as important as “doing” entrepreneurs.

5.5.Entrepreneurs are academic and social misfits

The belief that entrepreneurs are academically and socially affective is a result of some business owners having started successful enterprises after dropping out of school or quitting a job. In many cases such an event has been blown out of proportion in an attempt to “profile” the typical entrepreneur. Historically, in fact, educational and social organizations did not recognize the entrepreneur. They abandoned him or her as a misfit in a world of corporate giants. Business education, for example, was aimed primarily at the study of corporate activity. Today the entrepreneur is considered a hero-socially, economically, and academically. No longer a misfit, the entrepreneur is now viewed as a professional.

5.6.Having no boss is great fun

In reality, entrepreneurs are far from independent and have to work with various stakeholders in the business, including partners, investors, suppliers, customers, creditors, employees, and various other agencies involved in a business. They have to work longer hours and handle many complex situations.

6.Documentation about Startup Entrepreneurs-Case to Point

Building a business is like climbing a mountain. You need to break and challenge your limits and make them as an opportunity to reach success. Following are few young entrepreneurs who are successfully running their startup business within short period overcoming their struggles.

6.1.Aravindh.K and Navaneetha Balaji.K Founder of Ocb

Mr. Aravindh K and Mr. Navaneetha Balaji was born and brought up in Tirupur, the textile hub. Either of them completed their under graduation in costume designing and fashion under the compulsion of their parents. Their parents assumed that being in a textile background family, kids would excel in



textile industry. But their dream was in a different path. A dream they developed in their hearts during their college life, which they wanted to pursue in their life – begin an own business in food industry. It can acquire a profitable job because food is an essential commodity of every human and a growing field, where demand is high. After a year of experience in their educational field, together they started to walk into the dream path. Facing so many challenges finally they started their own cafeteria. Now it's 4 months and they are now earning fair profit. Both the young entrepreneurs are now planning to begin another outlet in another location.

6.2.Tamil Selvan K and Vasanth Kumar Franchise - Zawarma

Another business started with college friendship. Mr Tamil Selvan and Mr Vasanth Kumar completed their mechanical engineering in the year 2017 and as any engineer graduate started looking jobs for a career. After a very long struggle, Mr Tamil joined his fathers occupation in garment industry. He understood it is not his cup of tea and was seeking jobs. That's when during a conversation with Mr Vasanth they decided to take their friendship into a business partnership. Through references and phone calls, they came with this franchising idea of zawarma. Zawarma is a snack shop with dishes like shawarma and chicken items. They have now reached 4 months of experience in this food industry.

7.Challenges Faced

7.1.Location

Every business require a proper location which exactly suites the business. Talking about food industry location is the initial and the most important factor to be considered in the priority list. To attract customers they need to choose a location which includes parking, and visibility of the restaurant to target audience, an ambience that is comfortable and soothing to eat. Most of all, all these features should be within the budget. So finding a location is a challenge for startup's.

7.2.Customer Satisfaction

“A satisfied customer is the best business strategy of all” said by Michael leboeuf explains that the word customer satisfaction is the key way to create profit. For restaurants the ultimate challenge is winning the customers heart by filling their tummy with delicious food and gaining their trust on quality product. These entrepreneurs ensure the best quality of food and deliver mouth-watering taste which make customers return to their stores. Creating loyal customer is very hard is what they say. A new strategy that helps is providing changes based on the customer feedback that creat a mutual bound with the



customer. They explain that considering customer feedback has helped them in more customer foot and also in achieving their monthly turnover.

7.3.Family Support

Getting permission from the family is a difficult task. These entrepreneurs had to convince their parents who are occupied in garment industry to allow them choose a career which has to start from scrap. It was until they could show up some fine results, their family supported for the business.

7.4.Competitors

The food business is quite wild. There is heavy competition in this industry in this fast growing economy. This competitive environment keeps the startup's on their toes. It is the duty of the owner to always be updated on the current demand and perception of the customer. It is mandatory to know A to Z about food industry. Just like fashion, even restaurants has to forecast the day to day demand of the customer and prepare on the push and pull process. So facing and overcoming the competitors is a big risk for this business.

7.5.Financial Issues

Nowadays nothing happens unless you have penny in your pocket. People say money, is the answer for everything. To start a business anyone need a capital to fund the basic requirements. In these two cases both set of entrepreneurs faced so many financial issues. It was a hard time for them initially without even family support. The ways they used to manage money was through loan, by selling out their assets and friends lend a hand too. To be a better entrepreneur one should be a great leader. As DAVID ROTH said "Being a leader, it's our job to manage the time and money needed to get to the next level without running out of either one". So planning the financial budget is very important before starting any business.

8.Conclusion

Self employment is not entrepreneurship, Thinking out of box is entrepreneurship. For a business to grow we need certain activities happening consistent bases, for example – we need marketing consistently to generate leads. Sales should happen consistently to generate revenues. Operation capacity should be fully utilized so it will be profitable. Research and development of new product, new services, new opportunity should be ongoing, we can explore the next level of growth. Accounts need to be done intimate are compliant to the tax authority. Manage the business proactively so that we can be on top of everything. Entrepreneur should be able to overcome the challenges. We should be bold enough to convert the challenges as opportunity in business. Entrepreneurship is scaling up and growing.



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SELF PERCEIVED TRANSACTION COSTS IN DIGITAL MARKETING – A THOUGHT FOR DECISION MAKING

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Abstract

The era of Digital Marketing has changed the entrepreneurial world to a different platform. It has enhanced the scope for marketing to a different perspective and the reachability towards consumers in a very fast phase. On the other side it has intensified the competition further and therefore the entrepreneurs has to think about the factors which daunts the consumers reachability through digital marketing has to be assessed.

Introduction

The World Wide Web can be considered as the most popular medium for communication and providing information throughout the World. It promotes the whole e-Commerce system and has a great influence on marketing at present days. E-shopping method is a very popular way of shopping among the consumers of the developed as well as the developing countries. India is one of the largest countries using online shopping. In the scenario of fast world time advantage in online shopping is the most expected every online shopper. The present study focuses on the self-perceived transaction cost of shoppers from time perspective such as time spent on line shopping and the uncertainties.

Need for the study

The Analytical study was done to appreciate the various issues regarding online shopping behavior of the customers. Among the various issues it is found that transaction cost is one of the factors which is to be considered and therefore web store would help the marketers to identify the needs and critical success characteristics in the online portals. The present study highlights the focus on self-perceived transaction cost in online shopping by the customers. An analysis on the overall online shopping aspects of the customers on the basis of e shopping essentials for self- perceived transaction costs would help in formulation of strategic and tactical planning in e-marketing.



Literature Review

An analytical review on empirical researches gave an insight on deciding the variables on e shopping essentials and related aspects for research. **Khan, A. R., Md. A. Islam** (2017) in his study to identify the effect of digital marketing on increasing customer loyalty by analyzing various factor which have been derived from literature review and questionnaire feedback. The Exploratory Factor Analysis method was used to find out the core factors that drive the customers to be loyal in digital market place. The study revealed that Value added attributes have ranked top in case of increasing customer loyalty in the presence of digital marketing. Content Attribute, Customer Service Attribute and 24/7 appearance have ranked second, third and fourth respectively in this regard. **Ugonna et.al.** (2017) empirically assessed the influence of efficient online marketing, effective communication and on-time delivery on the regularity of visits and consumer patronage of the three selected online stores in Owerri, Imo State. Two sets of structured questionnaire were used for data collection with a sample of 300. The findings revealed that online marketing is a viable marketing communication channel which has significant effect on the regularity of visits and consumer patronage of online stores. They had recommended that companies should ascribe to market their goods and services via online shopping stores and develop and launch indigenous websites where customers can make purchases. **Kalpana, D.; Jothilata, S** (2017) furnished in her study a theoretical explanation for the online shopping intention, which brings a relation with e-purchase habit. Stratified random sampling method was used to pick out the potential unbiased respondents. The study revealed that “the preferential influences of online shopping intention, rating and reviews are ascertained to be the most pretermitted to e- purchase habit”. **Singh, R. R., Mittal, S., Kukreti, A.** (2018) studied to identify the various factors which influence online shopping. The authors had used exploratory factor analysis to determine the factor that put a significant impact on customer buying behavior during online purchase. They had examined 20 factors and tried to find out their impact on buying behaviour with 200 potential online customers. The study reveals that i) customer benefit includes website design, easy access of site, various brands comparability and fast delivery services, ii) economic and secured purchase includes all time connectivity of internet, fast surfing speed, secured return policy and economic data packs; trend with technology includes new fashion products available at very short time, cash less transactions, smart phone utility iii) easy availability includes data packs affordability for a middle class family, updations of website. **Teo, T. S. H., Leong, C.H., Wang, P.,** (2004) did a study entitled “Understanding Online Shopping Behavior Using a Transaction Cost Economics Approach” to test the hypothesis “consumer’s transaction cost of



online shopping is affected by six antecedents: Product uncertainty, behavioral uncertainty, convenience, economic utility, dependability and asset specificity". In turn, transaction cost has a negative relationship with consumers' willingness to buy online. The researchers had tested a model using data gathered from the USA and China. The results show that behavioral uncertainty and asset specificity are positively related to transaction cost whilst convenience and economic utility are negatively related to transaction cost among US consumers and those in China. Dependability is negatively related to transaction cost among US consumers but not consumers in China. Transaction cost is positively related to willingness to buy online among US consumers and those in China. US consumers perceived less product uncertainty, behavioral uncertainty, asset specificity, dependability, as well as more convenience and economic utility than consumers in China.

The above research reviews shows an insight on dimensions and various research perspectives of online shopping. It gave the scope for framing the hypothesis and selection of factors influencing transaction costs. They are e – shopping essentials for consumers which comprises access to internet, surfing experience and recurrent e-shoppingii) e -selling essentials for e-store which holds for high held recognition, web design, ease of purchase and assured quality of product. iii) E-marketing channel-related characteristics comprises self-perceived convenience, safety and security concern, contingency of environment iv) Transaction cost is viewed in the study from the perspective of time involved in getting information, getting familiar with the layout of the site, assessing the credibility of this online store, complete the online payment, waiting time to receive the product, contacting online store to check the reach of product and resolving post-purchase problems.

Hypothesis

Ho 1: There is no significant impact of e-shopping essentials for consumers on self- perceived consumer TC's of e-shopping

Ho 2: There is no significant impact of e-selling essentials for e-store on self-perceived consumer TC's of e-shopping.

Ho 3: There is no significant impact of e-marketing channel-relate characteristics on self- perceived consumer TC's of e-shopping.

Research Methodology

The research pertains to descriptive research. The data collected is from primary sources. A questionnaire consisting of the required information on demographic factors, general e-shopping essentials for consumers, e-selling essentials for e-store, e-marketing channel related activities and self-perceived consumer TC's

of e-shopping was distributed among 300prospective online buyers using convenient sampling.

Analysis and Interpretation

The formulated hypothesis was analysed using regression analysis and the results are presented below:

Table-1

Impact of e-shopping essentials for consumers, e-selling essentials for e-store, e- marketing related characteristics on self-perceived consumer TCs of e-shopping.

Model	Unstandardized Coefficients		Standardized Coefficients	F	Sig at 5% level
	B	Std. error			
Constant	.900	.183		4.905	.000*
E-Shopping Essentials for Consumers	-.040	.045	.333	7.186	.000*
E-Selling Essentialsfor E-Store	.358	.056	.439	6.436	.000*
E-Marketing Channel-Related Characteristics	.327	.060	.654	5.480	.000*
R Square	.644				
Adjusted R ²	.338				
F Value	53.033				
Sig at 5% level	.000*				

Dependent variable: Self-perceived consumer TCs of e-shopping

It can be interpreted from the above table 1 that 64.4% of variance in dependent variable ‘self-perceived consumer TCs of e-shopping’ is explained by e-shopping essentials for consumers. It could be found that the variable e-shopping essentials forconsumers explains 33.3 % of variance ‘self-perceived consumer TCs of e-shopping’ followed by e-selling essentials fore-store explains above 43.9.9% of variance in ‘self-perceived consumer TCs of e-shopping’ followed by the variables e-marketing channel related characteristics contribute to 65.4% of variance in dependent variable respectively. The result of regression analysis tested show a significant value of0.000 for e-shopping essentials forconsumers, e-selling essentials for e-store, and e-channel related



characteristic. The null hypothesis Ho1, Ho2 and Ho3 are rejected and could be concluded that there is an impact of e- shopping essentials for customers and self-perceived consumer TC's for e-shopping.

Conclusion

The study gave an analytical finding on e-shopping essentials for consumers which describe the access to the Internet, surfing experience and recurrent-shopping connotes significant impact on self-perceived transaction costs. E-selling essentials for e-store which holds for high held recognition, web design, ease of purchase and assured quality of product has significant impact towards transaction cost for e-shopping. E-marketing channel-related characteristics, self-perceived convenience, safety and security concern, contingency of environment assures higher contribution towards self perceived transactions cost on online shopping. The findings highlight that Transaction costs are affected by three-category antecedent factors, namely e-shopping essentials for consumers, online vendor and e-selling essentials for e-store and e-marketing channel related characteristics. Thus entrepreneurs should think from the perspective of consumers self perceive transaction costs in establishing e store for Digital Marketing.

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BRIDGING THE SKILL GAP FOR INDUSTRY 4.0: AN INDIAN CONTEXT

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Abstract

The fourth industrial revolution as it is called, is emerging globally as an influential force and is being pushed as the next industrial revolution across the globe. It is characterized by the increase of digitization and interconnection within and across various products, value chains and business models. Industry 4.0 is driven by an amalgamation of emerging technologies like data volumes, computational power, Internet of Things (IoT), business analytics, augmented reality, artificial intelligence, elemental design, simulation, advanced robotics, additive manufacturing, sensor-based technologies and cyber-physical systems. Industry 4.0 would mean the convergence of real and virtual worlds - the next phase in bringing together conventional and modern technologies in manufacturing. This will result in the “Smart Factory”, which is characterized by flexibility, resource efficiency, ergonomic design and direct integration with business partners of various sectors. This article will discuss about the skills required for Industry 4.0 and various initiatives that can be taken to bridge the skill gap for industry 4.0 in an Indian context.

Keywords: Industry 4.0, Skill Gap, Automation, Artificial Intelligence, Internet Of Things

1. Introduction

The fourth industrial revolution is on its way: a multitude of national initiatives is currently implementing what is called Industry 4.0. a coordinated push for automation, big data, and internet-of-things in the smart factory and other cyber-physical systems (CPS). This shift causes major disruption in the job market with the OECD predicting that at least 9% of all jobs could be automated already today.



Augmented Reality (AR) is considered one of the key disruptive technologies in the mix catering for Industry 4.0. Gaining momentum over recent years, AR branches out now beyond mobile apps with 3D-object superimposition for marketing purposes to rather complex use cases delivered by a rapidly growing innovation ecosystem of hard and software providers collaborating closely with R&D departments.

Technological change and innovation are key drivers of economic change. Industry 4.0 is a term given to the current wave of technological change, underpinned by advances in the connectivity between humans and machines. It is the fourth industrial revolution. The term is “applied to a group of rapid transformations in the design, manufacture, operation and service of manufacturing systems and products” (Davies 2015).

It originated in Germany and the German Chancellor Angela Merkel defined it as “the comprehensive transformation of the whole sphere of industrial production through the merging of digital technology and the internet with conventional industry” (Davies 2015). For the purposes of this report, Cambridge Econometrics defines Industry 4.0 as the future digitalisation of the economy driven by the latest technological changes in ICT, cyber-physical systems, network communications, simulation, big data and cloud computing, and AI.

Changes in operational and industrial technologies are reshaping the manner in which manufacturers produce goods in all industries. These changes, referred to as Industry 4.0, are hallmarked by the employment of big data, advanced analytics, human-machine interfaces, and the digital to physical transformation process in manufacturing (Bauer & Wee, 2015). For manufacturers, Industry 4.0 presents productive opportunities by ushering in new operational technologies and allowing for enhanced implementation of transformative LEAN cultures (Sanders, Elangeswaran, & Wulfsberg, 2016).

However, in order for the industries to capitalize on capital and labour productivity opportunities, a corresponding transformation within the workforce is required to ensure that the emerging skills needs are met. In response, manufacturers will need to employ updated training and workforce development strategies to match evolving industry trends (Longo, Nicoletti, Padovano, 2017)

Industry 4.0 will create new roles requiring additional skilled workers, while existing jobs will be vulnerable to automation. Hence, it is vital to train



the labour force to avoid high unemployment and to exploit the opportunities offered by Industry 4.0.

2. What is Industry 4.0

The term “Industry 4.0” means the smart factory in which smart digital devices are networked and they communicate with raw materials, semi-finished products, products, machines, tools, robots and men. This industry is characterized by flexibility, efficient use of resources and integration of customers and business partners in the business process.

Industry 1.0 began around the 1780s with the introduction of water and steam power which helped in mechanical production and improved the agriculture sector greatly. Next, Industry 2.0 is defined as the period when mass production was introduced as the primary means to production, in general. The mass production of steel helped introduce railways into the industrial system which consequently contributed to mass production at large.

During the 20th century, Industry 3.0 arose with the advent of the Digital Revolution which is more familiar compared to Industry 1.0 and 2.0 as most people living today are familiar with industries leaning on digital technologies in production. Perhaps Industry 3.0 was and still is a direct result of the huge development in computers and information and communication technology industries for many countries (Liao et al., 2017).

Industry 4.0 has brought change to many professions. People have always been obligated to learn new everyday tasks but now are also compelled to use hi-tech gadgets which are fast becoming the most important factor in their working life (Gorecky et al., 2014).

Industry 4.0 is being presented as an overall change by digitalization and automation of every part of the company, as well as the manufacturing process. Big international companies that use concepts of continuous improvement and have high standards for research and development will accept the concept of Industry 4.0 and make themselves even more competitive in the market (Marcos et al., 2017).

Industry 4.0 is likely to accelerate structural changes in the Indian economy. One of the most significant impacts of Industry 4.0 is expected to be automation and its consequences for the numbers and types of jobs. Some sectors and occupations are likely to be more impacted than others based on the

economic barriers to automation, the education level and skills of their workforce, the nature of the tasks and activities of jobs and how labour intensive the sector is. The pace of automation will depend on the relative costs of robots (including energy inputs, maintenance and repairs) relative to human workers, as well as their relative productivity.

In higher-cost western economies, Industry 4.0 is expected to accelerate the shift towards service-based economies, providing opportunities for India to benefit from further off shoring of manufacturing jobs from western economies. For those with suitable skills to be in employment, these structural shifts bring benefits in the potential gains to both productivity and average wages. Therefore, policy makers working with employers and education providers should invest in the types of education and training that will allow workers to adapt faster over time and reskill throughout their working life.

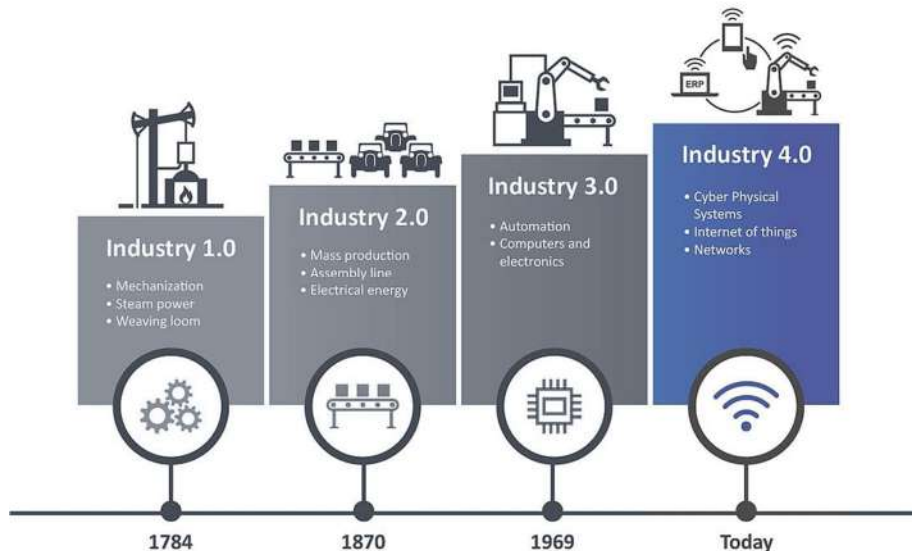


Fig 1: Timeline of Industrial Revolutions

3. Pillars of Industry 4.0

“Industry 4.0” is an abstract and complex term consisting of many components when looking closely into our society and current digital trends. To understand how extensive these components are, here are some contributing digital technologies as examples



1. Mobile devices
2. Internet of Things (IoT) platforms
3. Location detection technologies
4. Advanced human-machine interfaces
5. Authentication and fraud detection
6. 3D printing
7. Smart sensors
8. Big data analytics and advanced algorithms
9. Multilevel customer interaction and customer profiling
10. Augmented reality/ wearables
11. Fog, Edge and Cloud computing
12. Data visualization and triggered "real-time" training

Mainly these technologies can be summarized into four major pillars, defining the term “Industry 4.0” or “smart factory”:

1. Cyber-physical systems
2. IoT
3. Cloud computing
4. Cognitive computing

With the help of cyber-physical systems that monitor physical processes, a virtual copy of the physical world can be designed. Thus, these systems have the ability of making decentralized decisions on their own and reach a high degree of autonomy (for more information, see “Industry 4.0 characteristics”). As a result, Industry 4.0 networks a wide range of new technologies to create value.

4. Industry 4.0 Key Technologies:

Industry 4.0 brings together technology forces such as Internet of Things (IoT), cloud computing, big data analytics, additive manufacturing, Augmented Reality (AR), robotics, cybersecurity and Machine-to-Machine (M2M) communication. While some of these digital technologies are already in use in industrial applications, some others are still not ready for application at scale. Manufacturers need to carefully pick the right mix of technologies that would maximize returns on investment.

4.1 Internet of Things (IoT): IoT enables real-time machine-machine interaction by connecting them over a network and help establish a connected value chain



4.2 Big Data Analytics: Data analytic capabilities to support intelligent and real time decision making.

4.3 Augmented Reality: AR could enhance business operations by leveraging mathematical modelling, AI and virtual reality

4.4 Cyber Security: Cyber security helps establish secured communication protocols to ensure data security

4.5 Cloud Computing: Cloud computing offers a platform equipped with vast computational, storage and networking capabilities, which would facilitate the interaction amongst various technologies

4.6 Additive Manufacturing: Additive manufacturing helps production in small-batches in a cost-and-time effective way, by reducing the lead time from product designing to product release and improves customization

4.7 Robotics: Inter-connected robots to facilitate the automation of manufacturing processes, helping improve efficiency

4.8 M2M: Machine-to-Machine involves the use of industrial instrumentation and sensors to record and communicate data directly with software.

5. Skills requirement for Industry 4.0

Because Industry 4.0 is in the process of revolutionizing manufacturing and engineering all over the world, no conversation about its significance is complete without taking a look at the talent required to make it all work for us.

In the next five to 10 years, companies will have to adapt to or adopt Industry 4.0 technologies and principles if they want to survive and compete. Like it or not, that means investing in the right people and skillsets, today, to ensure a favourable position well into the future. The following rundown of four major skill groups is far from comprehensive, but it should serve as a solid blueprint for companies that want to create new positions and invest in their technology portfolio.

The major skills that are required for industry 4.0 are

1. Complex problem solving
2. Critical thinking
3. Creativity
4. People management
5. Coordinating with others



6. Emotional intelligence
7. Judgement and decision making
8. Service orientation
9. Negotiation
10. Cognitive flexibility

Some of the most crucial skills that will be needed to face the Industry 4.0 revolution include:

Virtual collaboration: The ability to effectively collaborate between virtual team members via technology.

Cognitive load management: The ability to filter information by importance and maximise cognitive functions.

Computational thinking: The ability to translate vast amounts of data into abstract concepts and to understand data-based reasoning.

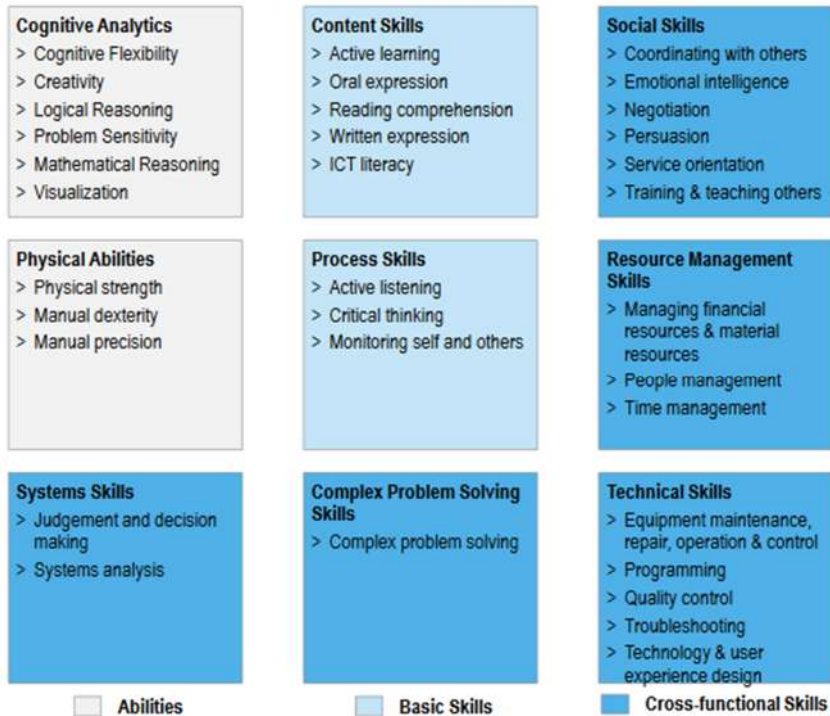
Design mindset: The ability to represent and develop tasks and to focus on the work process to achieve the desired outcomes.

Social intelligence: The ability to convey concepts to others deeply and directly and be able to sense and stimulate reactions.

Adaptive thinking: Demonstrating the proficiency of thinking and coming up with solutions, and the ability to determine the deeper meaning of what's being expressed.

The Fourth Industrial Revolution, which includes developments in previously disjointed fields such as artificial intelligence and machine-learning, robotics, nanotechnology, 3-D printing, and genetics and biotechnology, will cause widespread disruption not only to business models but also to labour markets over the next five years, with enormous change predicted in the skill sets needed to thrive in the new landscape.

Deloitte in their Preparing tomorrow's workforce for the Fourth Industrial Revolution For business: A framework for action, they provide the following chart that brings out the necessary and general skills that are required for the students and professionals towards industry 4.0.



Source: World Economic Forum, based on O*NET Content Model

Fig 2: Skills required for Industry 4.0

6. Addressing the Skill Gap

To keep up with the changes happening in the workforce, institutions must train students for the future. But that doesn't mean honing in on a highly specialized set of skills for a position that may soon no longer exist—rather, institutions should help their students build comprehensive skill sets that are applicable to a variety of roles that will eventually be in high demand, according LinkedIn's latest jobs report. That means placing a heavy focus on soft skills such as adaptability, culture fit and collaboration.

With the rise of automation, robotics and artificial intelligence, essential human skills such as empathy, strategic decision making, emotional intelligence and ethical thinking will become critical as employees increasingly work in tandem with machines, Deloitte's research revealed.

In order to close the skills gap and provide existing students with the knowledge they need to successfully navigate their careers, institutions must



prioritize learning development programs that enable students to refresh or gain new skills. Here's how they can do it.

6.1 Identify Skills Gaps Early

Before investing in a learning platform, start by identifying which skills students lack. A skills gap analysis can help pinpoint essential skills, compare them to skillsets of current students and diagnose gaps. Current skill levels can also be measured through surveys, assessments, student interviews or feedback from performance reviews. With data in hand, institutions can then develop an appropriate training approach that facilitates continuous skills development in a business.

6.2 Create a Learning Culture

Even the most innovative learning program won't go far if students don't recognize the value in it. By creating a learning culture and an environment that welcomes knowledge-seeking, institutions can help students feel comfortable about self-improvement. Plus, Bersin found that at institutions with strong learning cultures, students are 37 percent more productive.

A strong learning culture starts at the top, with company values dedicated to knowledge and improvement. The best way to ensure that this culture permeates the entire institution, however, is to align learning with strategic goals, and show how it makes a difference in the business.

For example, using predictive analytics tools, teams can demonstrate how addressing students' weakness and areas of potential through learning and development can lead to longer-tenured, higher-performing students, which benefits the company in the long run.

6.3 Promote Continuous Learning

In order to build top talent from within, improve retention rates and develop strong leaders, institutions must provide students with continuous learning opportunities. New hires should receive training that sets them up for success in their current position and tenured students should participate in up-skill training that prepares them to take on a new project or work towards a promotion.

Increase engagement in learning by investing in new technology and fresh approaches, such as video and mobile learning tools, microlearning and personalized learning paths. In a continuous learning environment, students will



feel empowered to experiment, actively participate in their own professional development and share knowledge across departments.

6.4 Assess Progress and Improve

It can be difficult to demonstrate the return on investment (ROI) of learning programs, which is why institutions are sometimes reluctant to budget for them. But remember, an investment in learning ultimately benefits your institution. Skill development is key for business growth and sustainability, and the right learning solution will help close skills gaps, increase productivity and improve business outcomes.

To deliver ROI to both to company leaders and students, track how your learning program affects specific business outcomes such as student productivity, retention and time to promotion. And as technology and skill requirements continue to evolve, keep evaluating learning programs to ensure they address pressing problems.

With the right culture and processes in place, institutions can create learning programs that make students eager to grow, thereby closing skills gaps and preventing them from forming again.

7. Institution Readiness for Industry 4.0

In order for the institutions to proactively address the skill gaps for Industry 4.0. They have to take the following important steps.

1. Skill Gap Assessment
2. Industry Institute Curriculum Development
3. Content Delivery
4. Bridge courses
5. Skill development for students
6. Capacity building for faculty
7. Joint venture with the State and Central Government

Though institution have undertaken skill development initiatives, the current system of vocational education is not efficient to train the students for the job of future. There exists an opportunity for the institutions to leverage their strengths to overcome challenges in skill development and collaborate to make their students Industry 4.0-ready.

1. Preparatory phase: Assessment of future skill demand
2. Infrastructure: Improving quality of course content and trainers



3. Implementation: Promote vocational education and increase its reach
4. Opportunity: Standardization for increasing mobility within and across institutions

8. Government Initiatives on Industry 4.0

In 2015, the Indian government launched an IoT Policy that aimed at skill development, technological upgrades, and building IoT products specific to Indian demands, thereby occupying a considerable share in the global IoT market. In addition, the government is formulating a National Policy for Advanced Manufacturing to enhance India's global manufacturing competitiveness. The government has recently announced the launch of a mission on Cyber-Physical Systems (CPS) and allotted an initial corpus of INR 100 crore for commencement. Once fully implemented, these plans would be key tools to enhance the contribution of manufacturing output.

1. National Manufacturing Policy, 2017: In July 2017, the government rolled out a new policy to push the manufacturing share to 25 per cent of the GDP by consolidating Make in India initiative, with focus on adoption of digital platforms for Industry 4.0.

2. Centre of Excellence (CoE) on IT for Industry 4.0: This CoE would act as a knowledge centre for entrepreneurs and startups, propagating the concept of IT and its application in Industry 4.0.

3. National Program on Artificial Intelligence: In the Union Budget 2018-19, the government announced that NITI Aayog will create a road map for national AI programme focusing on developing new AI applications.

4. Mission on Cyber-Physical Systems: As per the Union Budget 2018-19, the Department of Science and Technology will launch CPS mission to support establishment of CoE for training in robotics, AI, digital manufacturing, etc.

9. Conclusion

Industry associations could take a lead in Industry 4.0 adoption in India. Overall, widespread adoption of Industry 4.0 would require collaborative efforts of industry associations, academia, Government and the students themselves. Further, we need to train young talent and next generation leaders in research and industry for Performance Augmentation for Industry 4.0.



This will lead to a higher capacity for new R&D projects, driven by trans-European targeted research groups, to address the central research topics mentioned earlier. Finally, the provision of such a technology will help to improve employability in a sustainable way by providing access to better paid jobs. It will also have a positive effect on well-being, enabling more (especially young and old) people to keep their jobs through up-skilling, while job performance requirements increase.

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