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INCREASING RELEVANCE OF GEOGRAPHY AND ENVIRONMENTAL STUDIES: A CRITICAL STUDY

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ABSTRACT

Environmental literacy includes critical thinking, seeking and organising information, thinking ahead and planning. Environmental Education is considered as a vehicle for developing environmental literacy. It is necessary to develop knowledge and understanding of fundamental aspects of natural systems. Global climate changes, deforestation and loss of animal life, destruction of ecosystems, desertification and floods are becoming serious causes for concern. An increase in environmental issues led to a call for education to be part of the solution. During the last few decades there has been a massive growth in knowledge about the environment. The knowledge base of society is important in dealing with environmental issues.

The present paper is a review of current scenario of environmental issues and the efforts of world countries to achieve the goals of sustainable development. It is important to study the role of education in this regard. But its impact on the community's ability to tackle prevailing environmental problems is not as satisfactory as it should have been. Hence the subjects like Geography and Environmental Education play important roles in this situation.

Geography remained as a compulsory subject in school curriculum and Environmental Education has developed steadily in last three decades. However Internationally Environmental Education is considered a young field within a wider educational discipline. It has evolved as an increasingly gaining field. The literature reviewed is evident that in depth knowledge base of geography and environmental education is inevitable in today's world.

INTRODUCTION

Many problems that the world is facing today have geographic dimensions. Geographical knowledge helps them to understand *why* things happen and *where* they happen. This knowledge should be incorporated in EE as regional analysis and synthesis is necessary for understanding global issues. There is a need of looking at the environment in its totality, inclusive of various spheres such as economic, social, political, cultural and historical. The major environmental issues that the world is facing today should be examined from local, national, regional and global points of view.

Through the education learners would possess environmental sensitivity, problem solving approach and ethics to deal with natural resources. It is essential that every educational institution should encourage use of diverse learning environments with due stress on ***practical activities and first-hand experience***. Environmental Education is learner-centered, providing students with opportunities to construct their own understandings through hands-on, minds-on investigations, supports the development of an active learning community (Swarup et al., 1992).

Students must believe that their decisions actually do make a difference in problem solving. Environmental literacy may be used as a variable to evaluate the correlation between knowledge and behaviour of learners. It is considered as the paramount objective of Environmental Education programs (McCrea, 2011, EETAP-NAAEE, Weber et al, 2000).

The **Rio Declaration on Environment and Development** mentioned 18 principles of sustainability. The significant principles for promoting EE are,

- Environmental issues are best handled with the participation of all concerned citizens. Nations shall facilitate and encourage public awareness and participation by making environmental information widely available.
- Sustainable development requires better scientific understanding of problems. Nations should share knowledge and innovative technologies to achieve the goal of sustainability.

In 2002, at the World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa, commitment to sustainable development was reaffirmed (Hulse, 2007, Dresner, 2005, Basak, 2009). A declaration made at Bonn mentioned about a systemic and integrated approach to create resilient, healthy and sustainable societies through ESD. It brings new relevance, quality, meaning and purpose to education and training systems. It involves formal, non-formal and informal education contexts, and all sectors of society in a lifelong learning process (Bonn Declaration, 2009).

Teaching these subjects should actually be combined with guest lectures, activities, projects and field visits so as to create awareness about the current environmental issues among students. Films and documentaries featuring environmental issues may be used to enhance students' level of understanding of environmental issues. Schools may arrange screening of documentaries for students in their premises. It is evident from the relevant research that very few institutions are equipped with these facilities which would enable learners to get exposure to these activities.

Unless students know sufficiently about general environmental issues and they will not be able to sense the impact of it on their lifestyle. It is also evident from the studies reviewed that learners do not have sufficient knowledge about global warming and the concept of climate change.

The knowledge gained through formal education should make society at large environmentally conscious leading to inculcate environment friendly values. It is important to study the general attitude and concern of students about their environment. Their behavior while dealing with environment should be responsible. However the reality shows very few as a citizen act responsibly and do have concern for their immediate environment. The incidences we observe in our surroundings also show that practicing the sustainable lifestyle through conserving water, recycling resources and maintaining cleanliness is done by a small section of society. People will endeavor for clean surroundings only when they are convinced with its significance.

Geographical knowledge enables people to be sensitive towards the issue of man-environment relationship and consequences of it. The essence of Geography is mainly focused upon spatial elements which enable a learner to establish a link between human society and natural environment. How can one perceive the phenomena of global warming without an adequate knowledge of earth's atmosphere and climatic patterns prevailing on earth? Topics like distribution of resources, man-environment relationship, disasters and their frequencies need to be discussed with a spatial perspective which is an essence of geography.

Besides classroom teaching use of innovative methods is necessary for effective dissemination of knowledge. Computer laboratories may be used as a tool to prepare PowerPoint presentation on projects, to watch educational videos/documentaries and prepare report or to analyse findings of field survey, etc. This enables students to understand every concept thoroughly and create lifelong impact on their minds.

It is necessary to use outdoors and modern communication technology available in libraries and computer laboratories effectively. Project work may be assigned to students which would require use of computer technology. It is a challenging task for them to assign project work and provide attention and guidance to individual students. Projects are assigned to all students, but very rarely is an innovative approach attempted. Majority students mostly use internet to complete the project work. Students may be encouraged to prepare power point presentations on project topics. It is also necessary to train them to be selective while surfing the net. Because not everything published on website is authentic. Sometimes students may come up with information which is not scientific. This is my personal experience that students tend to copy the webpage as it is. The care should be taken while assigning topics of projects. Instead of assigning broad areas and problems like pollution or global warming students may be given the topics related to their local issues. This will serve the purpose of giving them exposure to various situations and problems.

However these activities are possible to be conducted with proper teacher student ratio. Organizing Field visits is challenging due to many difficulties such as teacher student ratio, selection of sites, financial constraints, security concerns and difficulty in convincing parents. Whenever organized, there is a repetition in selection of the site e.g. the same national park or sanctuary. Proximity to the institution is the basis for selection in most cases. Visits to environmentally interesting areas open new horizons and offer a wide range of perspectives in terms of understanding basic concepts and their application. Such areas serve as 'laboratories' for the subject. Fieldwork helps learners to enhance their geographical knowledge and understanding. It bridges the gap between the classroom and the real world. When students are taken to field visits they understand geographical terminology and processes in better manner.

Students are convinced that this subject is very important and relevant to everyday living. However, application of what is taught is hardly observed by them. It is important for students to understand the linkages of impact of their lifestyle on the environment. They probably need to pay a little more attention to the consequences of their actions e.g. how the purchase and use of product in a place could be linked with the impacts felt in a far off place. This calls for more innovative methods in addition to classroom teaching.

Besides this teachers' competencies also play a significant role in imparting education. Teachers' perception and understanding about the subject varies with their different field of specialization. Teachers can contribute positively in enhancing environmental awareness among student if they are specialized in the field of Geography or Environmental studies. It was noticed while studying this area that especially secondary and higher secondary level of education teachers with specialization in other subjects are asked to teach Environmental studies so as to fulfill their workload. This may lead to problems in teaching basic concepts and terminologies in depth. Teachers with specialization in Geography tend to have more optimistic approach towards Environmental studies than teachers specialized in other than Geography. These teachers have positive impact on students as training and education in environment, man-environment relationship and a holistic approach put them at an advantage as compared to others. Teachers appear to be more concerned about environmental issues and they occasionally participate in environmental protection drives too. But often they wish to acquire more knowledge from experts as they feel their knowledge is inadequate. They are highly motivated and expressed willingness to participate in training programs and workshops organized for updating the knowledge base. This is a very encouraging situation.

The situation in the education environment needs to be changed drastically. The teacher-student ratio is appallingly; to conduct any outdoor program which should be an integral part of Environmental studies and Geography is hence an arduous task. Educational institutions that have been established for long have adequate facilities with large playgrounds, well-equipped libraries and laboratories and ample space for cultural activities compared to newly established ones..

Every subject has its own framework and limitations. Curriculum should be planned in a graded manner. Planning a curriculum is a serious exercise that requires contemplation, brainstorming discussions and deliberations. Themes should be appropriately included in a logical order year to year considering the time required to teach and the level of understanding of students.

Through this, students achieve desired knowledge and competency in the particular subject over a period of time. Mere introduction of environmental studies paper into the formal education program for a year or two will not suffice. Experience has shown that such efforts have an inbuilt tendency to become passive, non-responsive and as a result lose hold in the long run. Only gaining a place in the national and/or school curriculum is not sufficient. The success of these papers lies not merely in developing awareness but also in ensuring positive reorientation in the attitudes of students by inculcating in them the desired environmental ethics.

The efficacy of subject will be felt when learning is translated into action, regular practice and gets incorporated into the value system of a student. The rapid erosion of value systems are resulting into rapid deterioration of the environment, especially in urban communities. Conservation values have always been inherent in our customary practices.

CONCLUSION

Our education system must be oriented to view the holistic nature of the environment with its finite resources as well as the dependence of humanity upon the environment. The present scenario of rising consumerism and a proliferating materialistic society needs to be controlled as resources and assimilation capacities are limited. Much could be achieved by efforts of individuals and spread of awareness. Environmental studies and Geography education is needed to bring the message of rational use of resources particularly to all who consume them recklessly. The teachings in geography and environmental education should help students to acquire skills and values to cope with the fast changing world and lead a sustainable lifestyle. The success of EE will depend upon the continued combined efforts of educational institutions and their stakeholders.

LIST OF REFERENCES

1. *Dresner S., 2005, 'The principles of sustainability', Earthscan publication Ltd, London, pp. 28-29, 34-35, 38-39, 41.*
2. *Hulse J. H., 2007, 'Sustainable Development at risk - Ignoring the past', Cambridge University Press India Pvt Ltd., New Delhi, pp. 74-78, 82, 84-85.*
3. Purvis M. and Grainger A., 2005, '*Exploring Sustainable Development - Geographical perspectives*', Earthscan Publication, UK, pp. 7, 8, 296-297.
4. Vishwanath H.N., 2006, '*Models of teaching Environmental Education'*, Discovery publishing house, New Delhi, pp. 141, 142, 149, 150.
5. Swarup R.S., Mishra S.N., Juahari V.P', 1992, '*Encyclopaedia of Ecology, environment and pollution control - 20'*, Mittal publication, New Delhi, pp. 145-147, 152.

ISSN 2394 - 7780

6. *McCrea E. J., 2011, 'Leading the way to EL and quality: National Guidelines for EE', EE and training Partnership EETAP, NAAEE, http://naaee.org/pages/ npeee/index.html*

7. Bonn Declaration, 2009, www.esd-world-conference-2009.org/.../ESD2009_BonnDeclaration.

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A NOTE ON EXTENDED BAILEY TRANSFORM

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ABSTRACT
Joshi and Vyas had given two theorems on Extended Bailey Transform(Theorem 2.1 and 2.2)[2]. In this paper an attempt has been made to establish certain transformation formulae for q-series by making use of these theorems, q-analogue of Dixon theorem and q-analogue of Watsons summation formula.

Keywords: q-shifted factorial,Basic hypergeometric series, Extended Bailey transformation ,summation formula.

AMS subject classification: 33D15

1.INTRODUCTION, NOTATIONS AND DEFINITIONS:

The basic hypergeometric series is defined as

$$ {}_A\phi_B\left[\begin{matrix}(a);\ q;\ z\\ (b);\ q^{\lambda}\end{matrix}\right]=\sum_{n=0}^{\infty}\frac{((a);q)_n\, z^n q^{\lambda n(n-1)/2}}{((b);q)_n\,(q;q)_n}, \quad (1.1)$$

for real and complex q (IqI< 1).

$$((a);q)_n=(a_1;q)_n(a_2;q)_n\ldots(a_A;q)_n \text{ and} \quad (1.2)$$

$$((b);q)_n=(b_1;q)_n(b_2;q)_n\ldots(b_B;q)_n.$$

The q-shifted factorial is defined as

$$(a;q)_0=1$$

$$(a;q)_n=(1-q)(1-aq)\ldots(1-aq^{n-1}),\ n=1,2,3\ldots \quad (1.3)$$

$$(azq^k;q)_\infty=\frac{(az;q)_\infty}{(az;q)_k} \quad (1.4)$$

(Chu W.dvi [1],p 65)

$$(a;q)_\infty=(aq;q^2)_\infty(a;q^2)_\infty \quad (1.5)$$

(Chu W.dvi [1],p 68)

We are also going to use q-Gauss summation formula stated as ,

$$ {}_2\phi_1\left(\begin{matrix}a,b;q;c/ab\\ c\end{matrix}\right)=\frac{\left(c/a,c/b;q\right)_\infty}{\left(c,c/ab;q\right)_\infty} \quad (1.6)$$

q-analogue of Dixon's theorem is ,

$$ {}_4\phi_3\left(\begin{matrix}a,-q\sqrt{a},b,c;q;q\sqrt{a}/bc\\ -\sqrt{a},aq/b,aq/c\end{matrix}\right)=\frac{\left(aq,q\sqrt{a}/b,q\sqrt{a}/c,aq/bc;q\right)_\infty}{\left(aq/b,aq/c,q\sqrt{a},q\sqrt{a}/bc;q\right)_\infty}$$

(slater[3] ,p.247,IV.5)

Put $q=q^2$ then substitute $b=q^{-n},c=q^{1-n}$ in above transformation formula ,we get

$$ {}_4\phi_3\left(\begin{matrix}a,-q^2\sqrt{a},q^{-n},q^{1-n};q^2;q^{1+2n}\sqrt{a}\\ -\sqrt{a},aq^{2+n},aq^{1+n}\end{matrix}\right)=\frac{\left(aq^2;q^2\right)_n}{\left(q^2\sqrt{a};q^2\right)_n} \quad (1.7)$$

q-analogue of Watsons summation formula is stated as

$$ {}_4\phi_3\left(\begin{matrix}a,c,-q^{-n},q^{-n};q;q\\ \sqrt{qac},-\sqrt{qac},q^{-2n}\end{matrix}\right)=\frac{\left(aq,cq;q^2\right)_n}{\left(acq,q;q^2\right)_n}$$

(V.K. Jain[4],eq 3.17)

Put $a = a^2 and\ c = b^2$ in above transformation formula, we get

$$ {}_4\phi_3\left(\begin{matrix} a^2, b^2, -q^{-n}, q^{-n}; q; q \\ ab\sqrt{q}, -ab\sqrt{q}, q^{-2n} \end{matrix}\right) = \frac{(a^2q, b^2q; q^2)_n}{(a^2b^2q, q; q^2)_n} \tag{1.8} $$

2.EXTENDED BAILEY'S TRANSFORM:

Theorem 2.1:If

$$ \beta_n = \sum_{r=0}^{n/p} \alpha_r u_{n-pr} v_{n+r} t_{n-r} w_{n+pr} \tag{2.1} $$

$$ \gamma_n = \sum_{r=pn}^{\infty} \delta_r u_{r-pn} v_{r+n} t_{r-n} w_{r+pn} \tag{2.2} $$

Then under suitable convergence condition

$$ \sum_{n=0}^{\infty} \alpha_n \gamma_n = \sum_{n=0}^{\infty} \beta_n \delta_n \tag{2.3} $$

where $\alpha_r, u_r, v_r, t_r, w_r, \delta_r$ are functions of r only .

put $r = r + pn$ in eq (2.2),we get

$$ \gamma_n = \sum_{r=0}^{\infty} \delta_{r+pn} u_r v_{r+pn+n} t_{r+pn-n} w_{r+2pn} \tag{2.4} $$

Theorem 2.2: If

$$ \beta_n = \sum_{r=0}^{n} \alpha_r u_{n-r} v_{n+r} t_{n+2r} w_{pn-r} z_{p'n+r} \tag{2.5} $$

$$ \gamma_n = \sum_{r=n}^{\infty} \delta_r u_{r-n} v_{r+n} t_{2n+r} w_{pr-n} z_{p'r+n} \tag{2.6} $$

Then under suitable convergence condition

$$ \sum_{n=0}^{\infty} \alpha_n \gamma_n = \sum_{n=0}^{\infty} \beta_n \delta_n \tag{2.7} $$

where $\alpha_r, u_r, v_r, t_r, w_r, z_r, \delta_r$ are functions of r only.

If we put $r = r + n$ in (2.6),we get

$$ \gamma_n = \sum_{r=0}^{\infty} \delta_{r+n} u_r v_{r+2n} t_{3n+r} w_{pr+pn-n} z_{p'r+p'n+n} \tag{2.8} $$

3. MAIN RESULTS: In this paper we have established the following main results.

1. $$ {}_4\varphi_3\left(\begin{matrix} \alpha, \beta, q\sqrt{a}, -q\sqrt{a}; q; {}^{aq}/_{\alpha\beta} \\ aq, qa^{1/4}, -qa^{1/4} \end{matrix}\right) = \frac{\left({}^{aq}/_{\alpha}, {}^{aq}/_{\beta}; q\right)_\infty}{\left(aq, {}^{aq}/_{\alpha\beta}; q\right)_\infty} {}_6\varphi_5\left(\begin{matrix} \alpha, \alpha q, \beta, \beta q, a, -q^2\sqrt{a}; q^2; \dfrac{a^{5/2}q^4}{\alpha^2\beta^2} \\ {}^{aq}/_{\alpha}, {}^{aq^2}/_{\alpha}, {}^{aq}/_{\beta}, {}^{aq^2}/_{\beta}, -\sqrt{a}; q^4 \end{matrix}\right) \tag{3.1} $$

2. $$ \frac{1}{(-q^2;q)_\infty (q;q^2)_\infty} {}_3\phi_3\left(\begin{matrix} a^2, b^2, q; q; q^2 \\ ab\sqrt{q}, -ab\sqrt{q}, q^2; q \end{matrix}\right) = {}_3\phi_2\left(\begin{matrix} a^2q, b^2q, q^2; q^2; q \\ a^2b^2q, q^4 \end{matrix}\right) \tag{3.2} $$

Proof for 1): Choose

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$$\alpha_r = \frac{\left(a,-q^2\sqrt{a};q^2\right)_r(\sqrt{a})^r q^{2r^2}}{\left(q^2,-\sqrt{a};q^2\right)_r}, v_r = 1, t_r = 1, u_r = \frac{1}{(q;q)_r}, w_r = \frac{1}{(aq;q)_r}, p = 2$$

Put all these values in eq(2.1) and using (1.8),we get

$$\beta_n = \frac{(aq^2;q^2)_n}{(q;q)_n(aq;q)_n(q^2\sqrt{a};q^2)_n} \tag{3.3}$$

From eq(2.4),we get

$$\gamma_n = \sum_{r=0}^{\infty} \frac{\delta_{r+2n}}{(q;q)_r(aq;q)_{4n}(aq^{1+4n};q)_r}$$

Choose $\delta_r = (\alpha,\beta;q)_r (aq/\alpha\beta)^r$ then by using (1.6), we find that

$$\gamma_n = \frac{\left(aq/\alpha, aq/\beta;q\right)_\infty (\alpha,\beta;q)_{2n}\left(aq/\alpha\beta\right)^{2n}}{\left(aq, aq/\alpha\beta;q\right)_\infty\left(aq/\alpha, aq/\beta;q\right)_{2n}} \tag{3.4}$$

Using (3.3) and (3.4) in (2.3),we get our final result (3.1).

Proof for 2): Choose

$$\alpha_r = \frac{(a^2,b^2;q)_r q^{r(r+1)/2}}{(q,ab\sqrt{q},-ab\sqrt{q};q)_r}, \quad u_r = \frac{1}{(q;q)_r(-q;q)_r}, \quad v_r = 1, t_r = 1, z_r = 1$$

P=2, $w_r = (q;q)_r$, $\delta_r = \dfrac{q^r}{(q^4;q^2)_r}$

Put all these values in eq(2.5) and using (1.9),we get

$$\beta_n = \frac{(a^2q;q^2)_n(b^2q;q^2)_n}{(a^2b^2q;q^2)_n} \tag{3.5}$$

Now by using (1.4),(1.5)and (1.6) ,equation (2.8) can be written as

$$\gamma_n = \frac{(q;q)_n q^n}{(q^2;q)_n(-q^2;q)_\infty(q;q^2)_\infty} \tag{3.6}$$

Using (3.5) and (3.6) in (2.7),we get our final result (3.2).

4) SPECIAL CASES

1) If $a \to \infty$ in (3.2) then

$$\frac{(a^2;q)_n q^{2n} q^{n(n-1)/2}}{(a^2b^2q;q)_n} \to q^n q^{n(n-1)/2}$$

$$\frac{(a^2q;q^2)_n q^n}{(a^2b^2q;q^2)_n} \to (q/b^2)^n$$

Therefore we get

$${}_2\phi_1\left(\begin{matrix} b^2, q; q; q \\ q^2; q \end{matrix}\right) = \frac{\left(q^2, q^3/b^2; q^2\right)_\infty}{\left(q^4, q/b^2; q^2\right)_\infty}. \tag{4.1}$$

2)Put $b = q$ in case (4.1),we get

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$$\sum_{n=0}^{\infty} q^{n(n+1)/2} = \frac{\left(q, q^2; q^2\right)_\infty}{\left(q^4, 1/q; q^2\right)_\infty}$$

Similarly we can obtain many results.

REFERENCES

[1] Chu W.dvi: Basic Hypergeometric series-core ,https://core.ac.uk/download/pdf/41162183.pd

[2] C. M Joshi and Y.Vyas(2005):Extensions of Bailey’s transform and applications.

[3] Slater, L.J. (1966): Generalized hyper geometric functions, Cambridge University Press, Cambridge.

[4] V. K. Jain:Some Transformations Of Basic Hypergeometric Functions II SIAM J.Anal.12(1981),957-961

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CLOUD SERVICE PROVIDERS: A COMPARATIVE STUDY

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ABSTRACT
Now a day's companies are providing many online services such as storage, database server, networking, software etc. The companies which are offering such services are known as Cloud Service Providers. These companies are charging according to usage of service. Some companies provide more security; some companies are having different charging policies. Some are very easy to understand and use. This paper is mainly focussed on different cloud service providers and their services.

The details of few companies are discussed and then the most popular cloud service provider – AWS, AZURE and GOOGLE are compared and analysed.

Keywords: Cloud Service Providers, Database Server, Storage Networking

INTRODUCTION
Cloud computing is a technology that usage internet and central remote server to maintain data and applications. More efficient computing is possible because of centralising data storage, processing and bandwidth. The cloud computing allows the user to use the software and to access his personal files on any computers without installing the application software. User can access their application from anywhere at any time through their connected devices securely. The application reside in the massively scalable data centers where computational resources can be dynamically provision and shared to achieve significant economies of scale.

Unknowingly daily we are using cloud services such as web based email service, watching movies through internet, storing pictures, editing of documents remotely. We can design and create new documents, applications, hosting the web sites, store and recover the data and many more easily by using cloud technology.

Cloud computing provides many services and they are broadly categories into three types –

Software as a Service (SaaS)
Different software are available online and user can connect the application without installing it on a subscription basis.

Platform as a Service (PaaS)
Cloud computing provides the platform for developing, testing, and maintaining of software also provides the additional tools like DBMS, BI services etc.

Infrastructure as a Service (IaaS)
Infrastructure like servers, operating system, virtual machines, networks and storage are provided as infrastructures to the individuals or organisations on rent basis.

The demand and importance of cloud computing is growing day by day. Because of increasing demand, the doors of more growth and opportunities of cloud service providers are opening. The few top cloud computing companies are

Amazon web services, Microsoft Azure, Google Cloud platform, Kamatera, Adobe, IBM cloud, VMware , RedHat, Oracle cloud, Verizon Cloud, SAP , DropBox, Salesforce, Navisite, Egnyte, Rackspace. To capture the market and to increase the business these companies are focussed to increase their services by reducing prices, now we will discuss the features of these companies in short.

Amazon Web Service (AWS)
Amazon offers wide set of infrastructure services like computing power, database services, networking etc .AWS provides safest and protected platform. By using AWS anyone can create static website. Also using services, we can build complicated applications which are trust-worthy, scalable and flexible. AWS provides hands on experience for free.

Google Cloud Platform
Google has its own servers, virtual machines, hard disks etc. at Google data centres. Google provides world scale infrastructure, more security and unique capability to innovate which helps to keep the organization secure & compliant. Google cloud takes a customer centric approach on protection, compliance & control.

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Microsoft Azure

Microsoft Azure provides incredible elastic computing, storage resources and wealth of sophisticated services on demand. It also helps us to build the applications and get the solution in shorten development time, on different languages. Also provides the facility to build the mobile apps, responsive mobile apps or next generation experiences like bots& mixed reality. Like this Azure provides more than 100 services which are comfortable & fast.

Kamatera

The main feature of Kamatera is in very low cost it provides the services. They charge only for what you use. It provides very high performance cloud infrastructure with low maintenance easily without penalty organisation can add or remove servers. It also provides 30 days free trial for all service and features.

Adobe

Adobe provides cloud services through Adobe creative cloud, Adobe Experience Cloud and Adobe Document Cloud etc. The SaaS is provided by Adobe. Creative Cloud where editing the videos, photography, graphic designing etc are possible easily. Mainly Adobe services are used for advertising, building campaigns & gaining intelligence on business. Hence, it’s a complete solution for digital documentation.

VMware

VMware is the pioneer in virtualization & an innovator in cloud & business mobility. Through cloud services it is possible to run, manage, connect, & secure applications in a common operating environment. Also helps to enhance the performance security & scalability It provides protected public cloud platform for networking, storage, disaster recovery & computing etc.

IBM Cloud

IBM provides public, private, & hybrid type of cloud environment. The three core objectives of IBM Cloud are – working to make networks, safer, helping, data become more protected and implementing built-in capabilities and open integration. IBM cloud gives the freedom to select & unite your desired tools, data models and delivery models in designing creating next generation services or applications.

Oracle Cloud

To modernise innovate and compete in digital world oracle helps the businesses. Oracle Cloud services allow the users to build, deploy and manage workloads seamlessly. Oracle cloud services include IOT, Big data, database, computes API management Integration, Chatbots and many more. Today customers use oracle technologies to seize the business opportunity and solve real tangible challenges.

COMPARISON BETWEEN AWS, AZURE, GOOGLE

AWS, Azure and Google are the three top public clouds who capture the market. So there is a computation between these three Cloud Service providers. All the three Cloud service providers supplies the resources like Database, Application, and Storage over the internet. Hence choosing one of the Cloud service is very difficult task. This study will help to compare these three clouds at a glance and helps to take right decision.

	AWS	**Azure**	**Google**
Service Providers	Amazon Web Services	Microsoft	Google
Years Completed	12 years	7years	6 years
Maximum processors in VM	128	128	96
Models	On demand, Spot & Reserved	On demand - Short Term Commitments	On demand - Sustained Use
Maximum memory in VM (GB)	3904	3800	1433
Operating Systems Supported	Windows, Linux, CloudLinux, CoreOS, OpenSUSE, FreeBSD, RHEL, Ubuntu	Windows, Linux, CloudLinux, CoreOS, OpenSUSE, FreeBSD, RHEL, Ubuntu	Windows, Linux, CloudLinux, CoreOS, OpenSUSE, FreeBSD, RHEL, Ubuntu
SLA Availability	1. Amazon EC2 : 99.95%	99.9% Uptime	99.95% Monthly Uptime

	annual uptime in service year		
	2.Amazon S3: Monthly uptime of at least 99.9% for any billing cycle		
Pricing(On the basis of Usage)	Per Hour	Per Minute	Per Minute
Object Storage Service for Use Cases	Simple Storage Service (S3)	Storage (Block Blob)	Cloud Storage
Archive Storage	S3 Infrequent Access	Storage (Cool)	Nearline
	Glacier		
	Data Archive	Storage (Archive)	Coldline
Hybrid Storage	Storage Gateway	StorSimple	Egnyte Sync
Bulk Data Transfer Solutions	Import/ Export Disk	Import/ Export Disk	Storage Transfer Service
	Snowball Edge	Azure Data Box	
	Snow Mobile		
Automatic Protection & Disaster Recovery	Disaster Recovery	Site Recovery	
Backup	Object Storage	Backup	
	Cold Archive Storage		
	Storage Gateway		
Authentication & Authorization	Identity & Access Management (IAM)	Active Directory	Cloud IAM
		Active Directory Premium	Cloud Identity - Aware Proxy
Protection with Data Encryption	Key Management Service	Storage Service Encryption	
Firewall	Web Application Firewall	Application Gateway	
Identity Management	Cognito	Active Directory B2C	
Cloud Services With Protection	Shield	DDoS Protection Service	
Merits	1. Extensive, mature offerings	1. More Fatures	1. Discounts & flexible contracts
	2. Enterprise - friendly services	2. First rank in Development and testing tools	2. Open source support and portable
	3. Global Reach	3. Hybrid cloud	3. DevOps expertise
	4. Open & flexible	4. Open Source Support	
	5. Strong Security	5. Broad features	
Demerits	1. Difficult to use	1. Less efficient management	1. Less data centers
	2. Cost management	2. Less enterprise ready	2. Fewer services and features
	3. Overwhelming options		

CONCLUSION

As we know requirement of cloud & its services are growing drastically. Many companies are providing cloud services. Deciding and adopting best services from the cloud service providers is essential but very confusing job. In this paper the few top most Cloud Service providers are discussed with their features. At the end the

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most popular companies among top all companies that is AWS, Azure and Google service providers are compared in detail with their features in terms of storage, databases, securities, backups, merits, demerits and so on. So that anyone can take the decision which cloud service provider is suitable for the business in terms of price as well as services to enhance the business.

REFERENCES

1. By Mark Kaelin , http://www.techrepublic.com/article/amazon-aws-microsoft-azure-and-google- cloud-platform-comparing-prices-for-basic-services/, October 2018
2. D. DI GIACOMO AND T. BRUNZEL, Cloud computing evaluation-How it differs to traditional IT outsourcing. Jönköping University, http://www.divaportal.org/smash/get/diva2:328402/FULLTE XT01. April 2014.
3. R.SALEEM, Cloud computing's effect on enterprises. Lund University, http://lup.lub.lu.se/luur/ download?func=downloadFile&recor dOId=1764306&fileOId =1764311, April 2012.
4. RESEARCHER'S BLOG, Cost benefits of cloud computing. Researcher's Blog, http://cleanclouds.com/ 2011/03/30/cloud-computing-cost-benefits July 2014.
5. M. SEAGRAVE, How cloud computing is shaping the IT job market. Guardian, http://careers.guardian.co.uk/careersblog/it-job-market-cloud-computing, April 2012.
6. K. ZUNNURHAIN AND S. V. VRBSKY, Security in cloud computing. University of Alabama, http://cerc.wvu.edu/download/WORLDCOMP'11/2011%20C D%20papers/SAM3725.pdf, December 2013.
7. S. BLEIKERTZ, EC2 storage types. Openfoo, http://openfoo.org/blog/amazon_ec2_underlying_ architecture .html, July 2014.
8. WIKIPEDIA, Cloud computing. Wikipedia, http://en.wikipedia.org/wiki/Cloud_computing
9. G. LEWIS, Basics about cloud computing. Software Engineering Institute, http://www.sei.cmu.edu/library/ assets/whitepapers/Cloudco mputingbasics.pdf, March 2012 .
10. WIKIPEDIA, Amazon elastic compute cloud. Wikipedia, http://en.wikipedia.org/wiki/ Amazon_Elastic_Compute_Cloud, July 2014.
11. AMAZON, Instances types. Amazon, http://aws.amazon.com/ec2/#instance, July 2014.

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A STUDY OF DIFFERENCE IN CONSUMER BEHAVIOR IN THE MALLS BASED ON EDUCATION

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ABSTRACT

Retailing is gaining momentum like never before in India. In recent times no other sector has seen growing exponentially like retailing and also retailers here can learn immensely from the mistakes and short comings of foreign players having global presence and there is a scope to explore full potential of this sector.

The sector which is dominated by local players has got the entry of prominent corporate. As a part of the rising organised retail modern formats of shopping have started promising and attracting.

Customers are getting newer and unique experience through varied services offered by malls. Shopping for food and grocery items have shown a revolution in retail market in India with the prominent changes in the people shopping behaviour driven by strong purchasing power, changing patterns of life styles and Education.

Malls are reshaping and rephrasing the standards and rules, developing a their own prescription and constitution and are transforming the basic need for entertainment and shopping experience into a unique factor or phenomenon for deciding one's lifestyle statement.

The current research is to study on Education affecting mall culture, and recommend workable attributes to promote mall culture among Mumbai shoppers. The research has done is on the basis of literature review and empirical study, it was organized in few selected malls in Mumbai and Navi Mumbai covering all parts to represent it as truly cosmopolitan city. The Primary sources of data is collected through research instruments - pre-tested structured questionnaire and interview schedule from mall developers / managers, retailers and shoppers from this region. Research analytical tool SPSS is used for the data analysis. The mall positioning factors and their influences are identified and made few suggestions about repositioning platform for few malls under.

The present study revealed that, Success of a mall is not just making it big and attracting foreign brands. A refreshing and pleasant environment is expected which makes the shoppers to forget all problems of the work and bring down their stress levels. Malls are bringing true smile on the face of mall visitor. All retailers of the mall try to maintain oneness with each other without losing their individual quality. This individual quality should be nurtured through continuous innovation that keeps the bar always high.

The study has come out with various path breaking results that propels the voluminous growth of mall culture in Mumbai, and elaborately discussed and presented numerous academic and managerial implications of vibrant and emerging mall culture. All the findings aroused through detailed analysis of the data followed by inferences and recommendations have been presented in the Paper.

Keywords: Retailing, Organized, ambience, Repeat Purchase, demographic

INTRODUCTION

The Journey of retailing turned out to be more organized and aided retail marketing to take a new path. Today's retailers are able to give range of products and services of fine quality and making it a delightful experience. The ever increasing demand and want of newness of customers have made the retailers run on toes, they have to anticipate and respond to the wants of consumers. It has become highly challenging to understand the consumer through the organized market in various forms like supermarkets, departmental stores, malls and discount houses. Three basic things that attract the consumer- quality, value for money and convenience, became the important choices.

To measure customer satisfaction gives an indication of how flourishing the organization is in providing products and services to the marketplace. Customer satisfaction with a shopping mall may be considered as an individual's sentimental reaction to personal assessment of the total number of experiences comes across at the shopping mall.

Major Challenges Faced by Mall Management in India are Limited Promotional Activities, Awareness & knowledge creation. The promotional activity conducted in majority of the malls is scarce. This is due to the notion of attracting crowd which results in heavy traffic rather than revenue to the mall.

One can visualize the future of the retail industry, in the next 10 years it is going to become very strong, vibrant and multidimensional sector in India, going to give great contribution in Indian economy.

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REVIEW OF LITERATURE

Diana and Julie (2004) observed the young girls shopping experience. A conjectural model built up from the findings such as mall ambiance, utilitarian and hedonic shopping motives; and numerous new factors like trend consciousness, education followers, safety, mall companion, comfort, freedom as a mall - investment motivation, and issues related to accessibility.

Rajgopal (2008) has identified that the perspective of shopping mall ambience and shopping satisfaction can effectively turn out as customer attraction a measure of retailing performance, and propensity to shop for urban consumers. This approach of shopper's orders force for change in the strategy of mall management and retailing. Hence they offer extended working hours, more recreational infrastructure, place for demonstration and shopper education on the innovative and high technology products and services.

Shopping behavior of today's mall patrons was investigated by **Nicholls *et al.* (2003)** which was opposed to those in the early 1990s. However many differences were not found between the demographics of the respondents, but significant differences were noticed in general.

Ana *et al.* (2006) found that the choice of malls depends on four variables i.e. shopping mall image, travelled cost, the 'first visit' factor, and 'Intertype competition', which relate to the competition between shopping malls and other kinds of commerce.

Hart *et al.* (2007) identified four dimensions: accessibility, environment, atmosphere, and service personnel, are central to an enjoyable shopping experience.

The factors that significantly influence the shoppers according to **Riteshkumar (2010**) are range of products, store layout, customer service, shopping comfort; product pricing, promotional schemes, employee behavior and store ambience.

Massicotte (2012) did a survey with 265 mall shoppers and observed that mall environment positively influences functional congruity in case of both adults and adolescent shoppers.

OBJECTIVES OF THE STUDY

To study the difference in consumer behavior on the road to the malls based on Education.

RESEARCH METHODOLOGY

The research methodology comprises sampling design, measurement of variables, methods of data collection, research instrument, the pilot study which directs to collection of primary data and testing the normal behavior of shop visitors under study and developing the proper bond among different constructs under consideration. The sample size was 68 shoppers visiting malls.

The survey design, using a standardized questionnaire, is considered to be most appropriate research design to collect data. As per survey method, the research design used in the study is descriptive. It accurately and systematically describes the behaviors and characteristics of a monitored phenomenon or a particular population. It also aids in exploring the correlations which may exist between various phenomena.

For analysis the Statistical Package for the Social Sciences (SPSS) will be used. The techniques used are, Correlation and other statistical techniques. The interpretation will be based on analysis, tables and other statistical tools.

In the chosen study, the focus is to observe the customer behavior in the age of mall culture. An attempt is made to locate the driving forces behind the purchases at commercial malls, perception of people about malls, the degree of contentment towards various aspects of mall services and in all shopping behavior in malls. This can help all the stake holders of mall management to design feasible strategies which can lead to win the confidence of shoppers and win their trust.

HYPOTHESIS: There is a noteworthy difference in consumer behavior on the road to the malls based on Education.

DATA ANALYSIS

Among the respondents education is an important demographic variable as it indicates many factors like, quality of response, characteristics of respondent, type of questions etc. This profile of the respondents gives researcher to know how the level education affects the behavioural changes in information search, evaluation and decision making of mall customers.

Table-1: Educational qualification of the respondents

Sr. No.	Education	No. of respondents	Percentage
1	School Level	93	27.2
2	Graduation	111	32.5
3	Post-graduation Level	60	17.5

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4	others	78	22.8
	Total	342	100

Source: Primary data

Above analysis shows the education wise sample distribution of the respondents. The primary data includes 27.2 percent of respondents who belong to school level, 32.5 percent belongs to graduate level, 17.5 percent belongs to post-graduation level, 22.8 percent are from others. It reflects that among mall visitors three fourth of respondents are having good education with minimum school level education. There is more inclination for educators to expose more to mall culture.

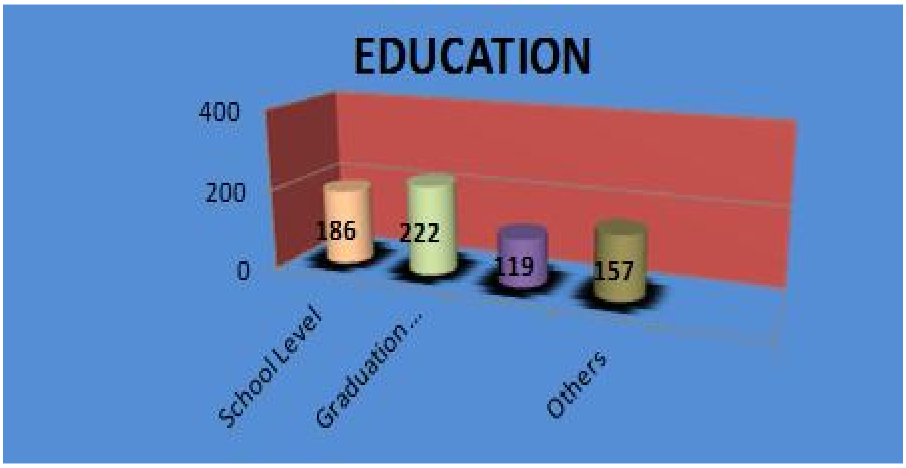

Chart - 1

The data collected from respondents has been presented in the form of tables and charts for analysis, simple percentages are calculated to meet the purpose and results are shown in the charts as below.

Table - 2

Demographic	Shopping Behaviour	Sum of squares	df	Mean square	F	Sig.
Education	Shopping day preference	148.256	3	49.418	92.548	.000
	Preferred time to visit mall	6.259	3	2.086	8.321	.000
	Mode of transport	4.521	3	1.507	6.214	.000
	Distance travelled	3.260	3	1.086	2.871	.325
	Number of visits per month	45.236	3	15.078	56.147	.000
	Shopping companion	41.256	3	13.752	45.698	.000
	Average number of stores visited per trip	2.654	3	0.884	2.654	.110
	Average time spent per trip	15.236	3	5.078	18.124	.000
	Average amount spent per visit	2.369	3	0.789	12.321	.000

For the research study objectives which are taken by the researcher and the associated hypothesis, the statistical tool applied to test the hypothesis related to demographic variable education is ANOVA. This test was used for comparing the difference in the average value of the dependent variable – consumer mall behavior related with the effects of the controlled independent variables- education.

To find the attitude and behavior of respondents towards shopping malls keeping in mind the education out of different demographics. For different gender groups the test applied is Analysis of Variance (ANOVA). The above table gives mean ratings by different education groups. The last column in the table (Sig.) is P-value. If P<= 0.05 the difference between age groups is significant.

In the above table factors- Shopping day preference (0.000), Preferred time to visit mall (.000), Mode of transport (.000), Distance travelled (.325), Number of visits per month (.000), Shopping companion (.000), Average number of stores visited per trip (.000), Average time spent per trip (.000), Average amount spent per visit (.000). People’s responses for the factor ‘distance travelled and ‘average number of stores visited per trip’ have no significance difference of all the above factors among various groups as far as education is concerned. The significance is tested at 5% LOS. Thus from the analysis the researcher came to a conclusion that the Education is significant factor that influences peoples mall behavior.

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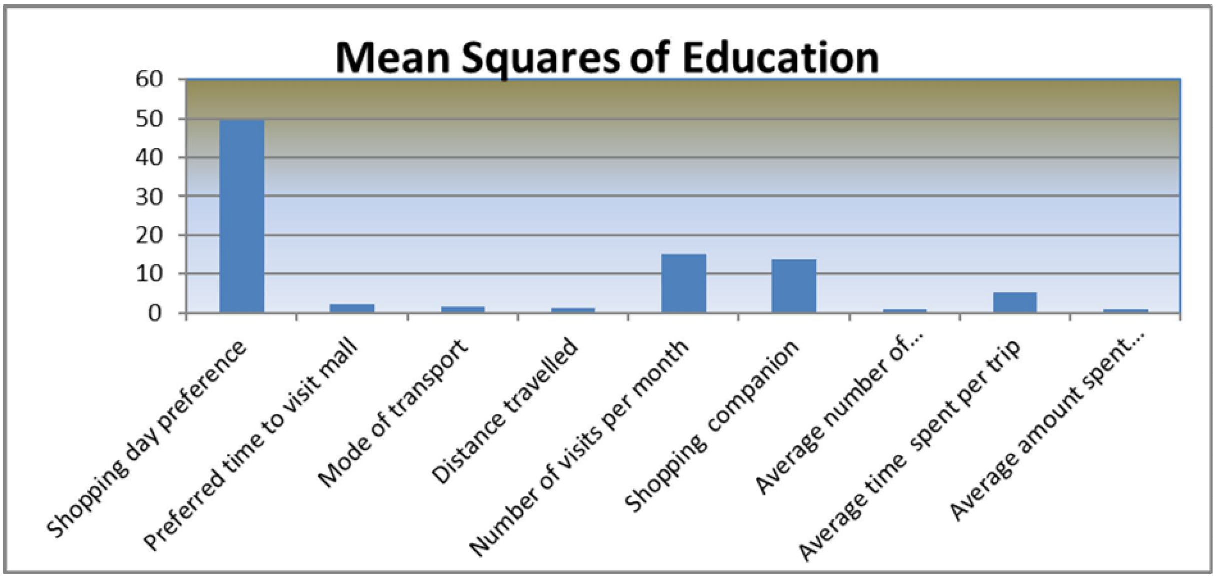

Chart 2

Hypothesis
'There is a significant difference in consumer behavior towards the malls based on Education variables' has been tested and accepted.

SCOPE OF THE STUDY

Research is a never ending progressive process. Every new study creates knowledge in respective areas and also raises new questions to be answered and investigated. Hence, it is important to every researcher to record findings of the study and also leaves the unresolved issues to the future researchers. The scope of the future research starts where the present research ends. Following are few areas/ issues present research throws up for future investigation.

1. A relative study of mall culture and customer behavior in Tier I and Tier II cities can also be taken up.
2. A thorough study on comparative study of the preferences of consumers for malls and other retail formats can be undertaken.

The study will also include the modern practices and sponsor improvements for the same by appreciating the aspirations of the consumers, mall promoters, mall retailers, mall managers and other stake holders. The focus is on to see macro and micro factors influencing consumer in relation to extensive mall culture abroad.

IMPORTANCE OF THE STUDY

Retailers should give due importance to loyal customers as they are cheaper to serve, act as ambassadors to the brands. Retail outlets should have membership programmes to encourage their regular customers and generate more revenues. Theses membership cards and rewards will change customer behavior significantly in favour of retailers. Different types of rewards offered by mall retailers are bonus points, free gifts, and providing regular updates on promotional schemes.

LIMITATION OF THE STUDY

Researcher has taken all measures to ensure that the study design optimizes the ability to achieve the research objective. However there are some factors and limitations that do not validate the study but made to be noticed.
1. This study is restricted to the city of Mumbai & Navi Mumbai only.

2. This study is conducted based on primary data produced through questionnaire and assembled from the respondents shopping across different malls and as such its observations relied on accuracy of data.

CONCLUSIONS

Major conclusion of the study is that mall developers have no precision in functional and psychological attributes of shopping mall. It was recognized that maximum of the retail outlets were frequently visited by students**,** followed by businessmen and those in private sectors**.** Hence this study is an attempt to provide distinctive service quality attributes expected by mall visitors, range of retail outlets, good ambience, demographic profiling of shoppers and aesthetic design. However apart from the above aspects, study also focused on various factors that promote loyalty behavior of mall visitors. Hence it is proved that, 'The loyalty of

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a customer in mall culture largely depends on satisfaction, Repeat purchase, and Recommendation' has been verified and accepted based on analysis.

REFERENCES

1. Abhigyan Sarkar, 2008, 'Current Trends in consumer purchase Behaviour in Lifestyle shops globally', *The Icfaian Management Journal* Vol. VII, No. 6, pp. 71-83.
2. Arora Sweta, Malhotra Vaishali, Ralhi Priya (2011). "Retail Revolution", Indian Journal of Marketing, Vol. XXXIV (11), November, pp 13-17.
3. Beijing / Shanghai, 6 Jun, 2012, 'Tracking consumer purchase attitude: Increasing focus on surveys in Thailand', *The global Times International Journal*, 11.44 AM IST.
4. Bennet Jeferry, Booz Allen & Hamilton Inc. CONS-003 3/01 3M, Challenges of a changing Retailing Industry. Vol I I*ssue I.*
5. Bilal Mustafa Khan, 2010, 'Brand Personality and consumer Congruity: Implications for Advertising strategy', *The Journal of Brand Equity*, Vol. VI, No. I1&2I, pp. 8-35
6. Gopalan K. and Ghosh A., 4th June 2006, 'Retail Rush ', *Business Today*, pp.96.
7. Gupta L.C., *Retail Management*, Delhi, Wisdom Publications.
8. Helen Woodruffe-Burton, Sue Eccles, Richard Elliott, 'Towards a practice of buying: A comprehensive framework', *Journal of consumer Behaviour*, Vol. 2, 5 pp. 254-259.
9. Hemantha Y, April 2012, 'Indian Consumers' Perception of Spanish Brand Zara', *Advances In Management*, Vol. V (4),pp. 52-58.
10. Mansi Batra Patney, 2010, 'Indian consumers and their pattern of mall patronage: Application and the theory of defined behavior to patronage intentions', *Iowa central University Amees, Iowa*, pp. 1-94.
11. N. H. Mullick Indian Journal of Marketing Strategy (Vol – 43April -2013) malls and its impact on consequence on the human rights of kirana shops in NCR Delhi, pp. 27-34.
12. Stuart Elliott, December 18, 2009, '1,300 Retailers Can't Be Wrong: The Future Is in shopping Behavior' *The New York Times retailing.*
13. Suman Tarafdar, 22 July 2012, 'Going cheap, again, will anew retail model, built on deep discounts, work?'*Business India, The Magazine of the Corporate World*, pp. 87.

MEET GENERATION Z: THE NEWEST MEMBER TO THE WORKFORCE- ARE *YOU 'COOL'* ENOUGH TO ATTRACT, ADAPT, ABSORB THEM?

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ABSTRACT

Just as we thought, we have figured out millennials, it is the time to be prepared for newest clan ready to jump into the working world: Generation Z! The earliest birth year of this most recent generation is commonly noted as 1995-96. This makes the oldest around 23 years old in 2019. Many of the Gen Zers are progenies of Generation X born between 1965 to 1976.

In common with millennials, Generation Z is comfortable with the technologies that are legitimately new for older generation. This new clan doesn't know a life without WiFi or having smartphone in hand. Millennials were digital forerunners of technology which helped them get work done faster. Well, Gen Z is a little ahead of this; they are always connected, they know what they want in future, they know how to achieve all that in the future and if they get wedged somewhere they instantly take help of online tutorials.

Keywords: Millenials, Gen Z, WiFi, Connected.

OBJECTIVES

1. To Understand and define Gen Z.
2. To Study Gen Z's values, expectations and motivators which will have implications on organizational employee acquisition, employee engagement, employee sustainability, leadership, customer relationship etc., implications on educators, implication on society as whole.

INTRODUCTION

From silent generation (born before 1945) to millennials (born 1977-1995) and now iGen (born after 1996), all these generations have different way of looking at life and things. They have different attitude and aptitudes. This difference is not only because of evolution of human kind but also because they have lived and survived in different era with varied encounters and occasions. These different classifications represent varied philosophies, approach, experience they prospectively to have in common.

As the last Generation Y- Millennials are settling down into their jobs, the time to welcome Gen Z (iGen or Selfie Generation) has also arrived very short of notice. The newest clan of Gen Zers are known as they are truly digital populaces are soon to complete their graduation and waiting to establishing their careers.

A generation after Millennials, is the first generation that has grown up in truly technology and digital driven world. They are the generation who hasn't known a time without smartphones. Global News survey, 2018 estimated that a young cohort of generation Z age group between 13-23 spend approximately 6 to 10 hours a day online. And enormous 96% own a smartphone. It is a way of life rather than addiction to them.

So, while the newest members are preparing for new life to start at the Workplace, it is important to ask employers a question – 'Are you 'Cool' enough to attract, adapt, absorb them?' It is necessary to understand what they are all about? And what they want? For that we need to know Generation Z a little better!

Key characteristics of Gen Zers: Below characteristics are as per survey and interviews

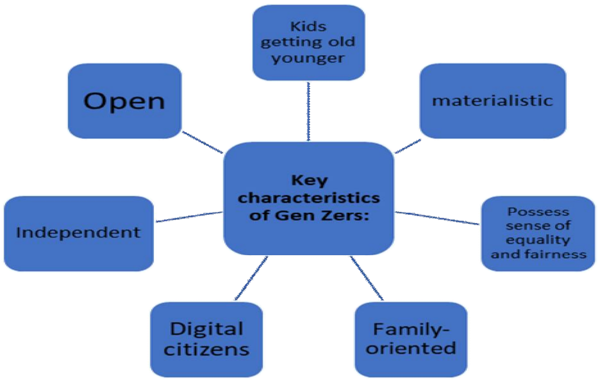

Figure-1: Key characteristics of Generation Z
Source: survey and Euromonitor International, webflyer.com

Key Characteristics	Reasons
Digital citizens	Born and grown up in technology driven world, highly tech savvy and always connected, always look to multitask, desire for instant outputs.
Independent	Unlike Gen Y (team oriented people) Gen Zers believe in free living, they do their own things, fortified to have own voice, opinion- express it freely on internet, at home or at schools.
Open	As compared to previous generations who valued privacy more, Gen Zers share and willing to give up personal information in return for free content.
KGYO	Kids getting young old- with technology, mobile phones and exposure to social media Gen Zers are starting to develop their sense of identity and are anxious to cultivate a sophisticated self-image. They are also smarter than ever before, with teenagers showing higher IQs and greater achievements than previous generations.
Materialistic	This generation is grown up in times of affluence, due to rapid economic growth; Gen Zers enjoy lifestyle that was only dreamt by generations before them. Also they are very Brand conscious; they see brands as status symbols. They are not seen compromising ‘cool’ and ‘must have’ items.
Possess sense of equality and fairness	This generation is less discriminatory, Save girl child, girl power, equal rights, Act 377, environmental awareness and acceptance of multiplicity is highest as compared to other generations.
Family- oriented	Constant and clear communication, sharing views, interest bring them together and closer to family.

Figure-2: Explanation Key characteristics of Generation Z,
Source: survey and Euromonitor International, webflyer.com

RESEARCH METHODOLOGY

The data is gathered from the ‘Generation Z’ age group from Mumbai. The results of survey are important for a wide-ranging of businesses, including educational institutions, government, private sector organizations, start-ups and society.

LITERATURE REVIEW

According to Hal Brotheim in Introducing Generation Z, (1) they will be better future employees since they have technological advancement and up gradation benefit, they can be significantly more helpful to ever changing company’s today who concentrate functions through high technological assistance. Brotheim claims that very significant individualities are their reception to new concepts and different commencement of freedom from the previous generations.

Additional significant annotation to point out is Generation Zers no longer wants just a job: they pursue more than that. They want a feeling of fulfilment and excitement in their job that helps move the world forward. (2)

Generation Z is keen to be a part of community and they are already keen to take assistance of appropriate professional opportunities that might give them knowledge for the future. (3) According to a Northeastern University Survey, 81% of Generation Z believes obtaining a college degree is necessary in achieving career goals. (4)

DATA ANALYSIS

The survey was carried out and questionnaire was shared with ‘Generation Z’ age group from Mumbai. The interviews were held for better understanding. The survey focused of 5 major aspects namely:

1. Education and learning
2. Employment and career expectations
3. Technology
4. Lifestyle
5. Social bonding

The data collected is ironic and insightful. Defining Gen Z and to understand their value systems, thinking, motivational factors and expectations from educational institutes, employers and society as whole.

PRELIMINARY FINDINGS, LESSONS LEARNED

Collected data from 100 respondents (60 Online and 40 Offline) of Gen Z across Mumbai. All respondents were born after 1995 and 81.7% are full time students and 1.7% are part time students. 16.7% are employed full time.

DATA ANALYSIS FOCUSING

1. Education and learning:

Gen Z has established the co-relation between capitalizing their knowledge and skill though formal education and the ability to achieve their goals. 90% of survey respondents believe that completing a degree is important to go ahead in life.

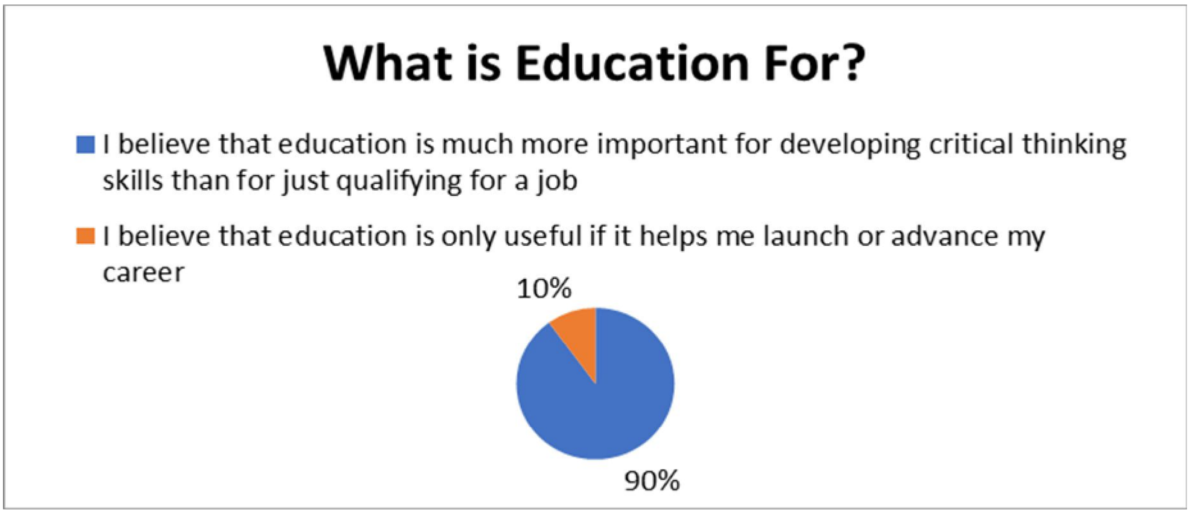

Figure-3: What is education for? Source: Survey conducted by author

This is absolutely a great new for educators, teachers, parents and society as a whole. Research shows each generation see more value in education that generation before them. Gen Zers are no exception. Education is seen as the pathway to a good job. Despite their natural independence, their ability to process massive amounts of information quickly qualifies them to be excellent students.

A sincere love of learning is also strongly present in Gen Z. Our respondents indicated they thrive when challenged and allowed to be more fully engaged in their education.

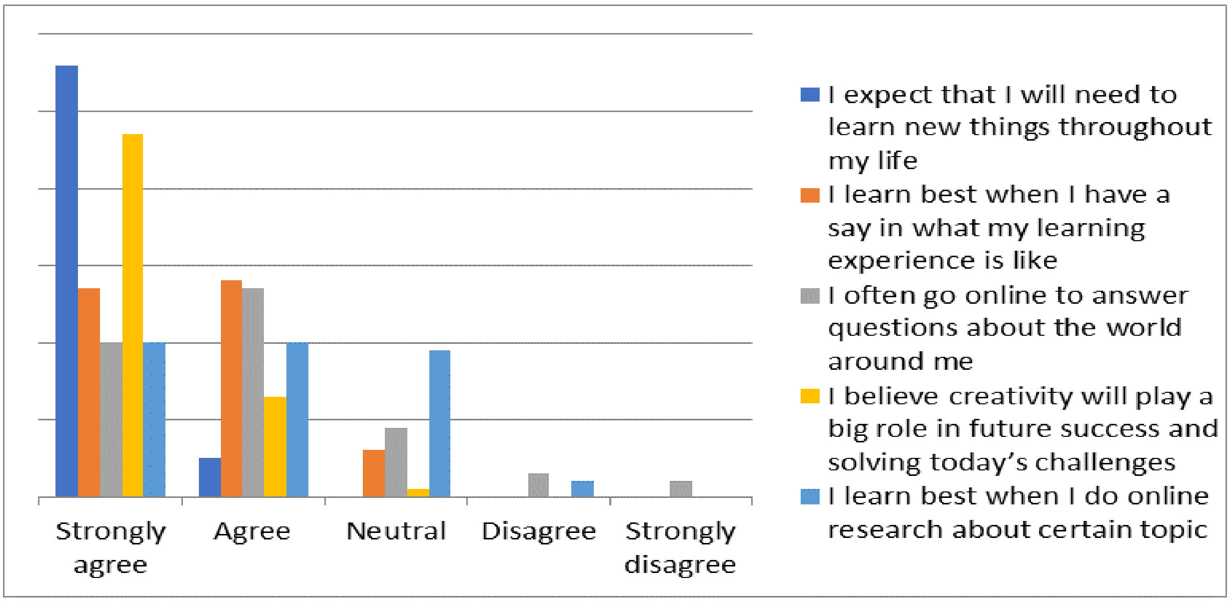

Figure-4: Education and Learning
Source: Survey conducted by author

2. Employment and career expectations

Gen Zers are realistic and logical, hence attracting and retaining this generation can be a concern. We explored in this section as in what this generation need to be successful. The top priorities were 85.2% feel being innovative and solving problems in a need of an hour, 80.3% feel having a vision is must, 68.9% feel ability to adapt change will make you survive. 49.2% having team spirit is a key to success.

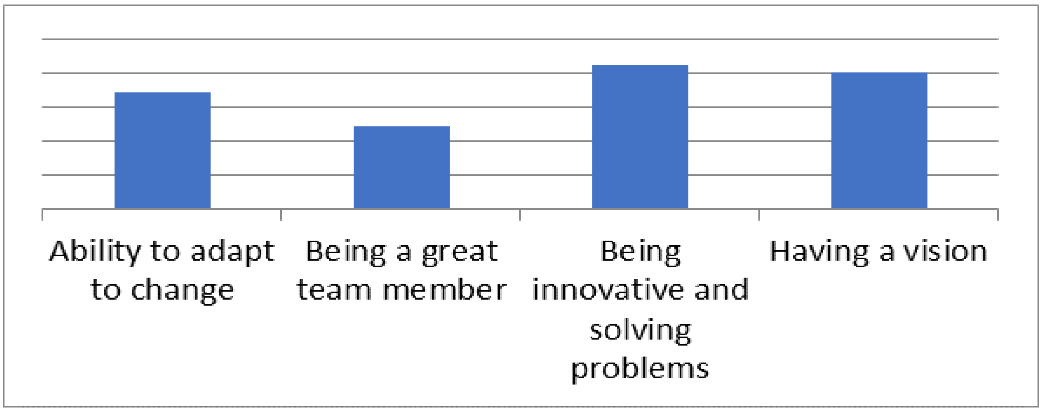

Figure-5: Employment and career expectations: **Source:** Survey conducted by author

The respondents were also asked what is more important to them. 73% respondents want a job where they can learn new skills. Surprisingly this is higher than the ration of higher salary (52%) and work from anywhere anytime (49.20%)

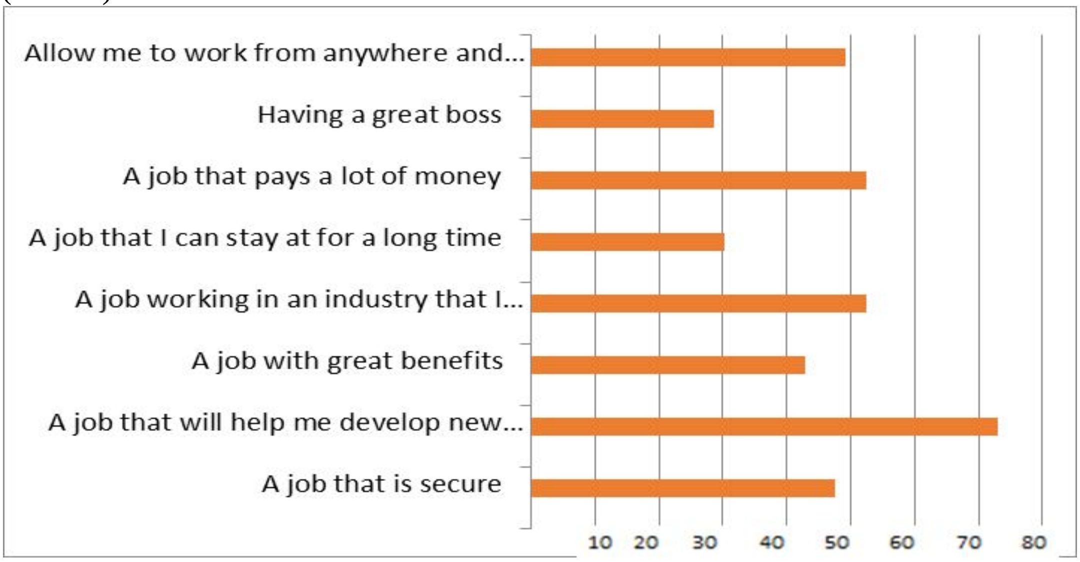

Figure-6: Employment and career expectations-Priority List: **Source:** Survey conducted by author

Great news for organizations and HRs is that Gen Zers care about job, job loyalty! This is a big positive impact of employee acquisition. This survey suggests that 47.60% Gen Zers would consider sticking with an organization for a longer period of time rather than 'hoping around' various organizations. If job is secure!

3. Technology

From birth many Gen Zers have had online presence, every life event is been captured, shared, posted and 'liked' with 3Fs (Family, Friends and Followers). This generation is living, expressing, experiencing, evaluating, and learning life through screen! The need to engage people face to face is replaced with live videos or group chats. Many social media apps are used on daily basis, highest being Instagram 90.2%

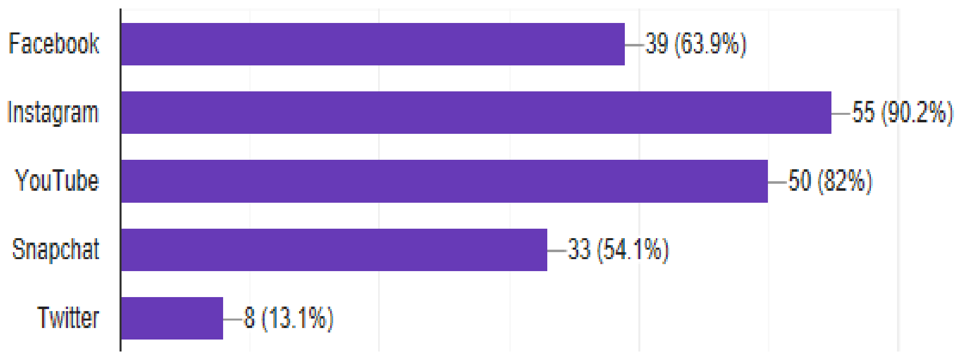

Figure-7: Social Media Presence

We asked respondents by what age they got their first smart phone. 74% got it when they were just 13-16 years old. 46% respondents send approximately 3-6 hours daily on phone.

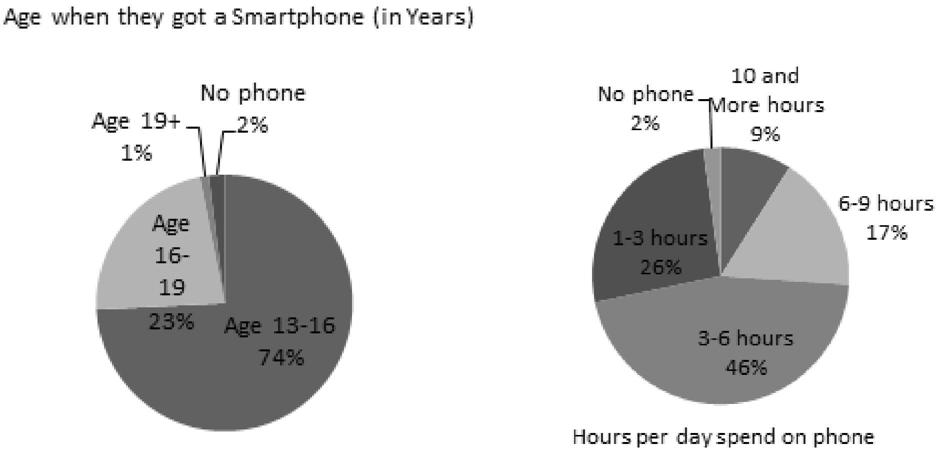

Figure-8: Smart phone usage

Gen Zers believe that because of their access to technology they can easily understand how technology works, problems are solved quickly, they become more independent!

There are some flip sides of too much exposure to technology as well

More than half of respondents agreed that due to greater exposure to social media has increased stress level and cybler bullying which impacts the mental health. Due to many social media apps and video games they feel comfortable sharing their feelings with 'virtual friends'. The social skills are decreasing with each day.

4. **Lifestyle:** Gen Zers enjoy a lifestyle which their past generation could never even dream of, which may include weekly trips to the cinema, a bowling alley, restaurants and clubs, shopping for new clothes, buying music and mobile phones and have possession of their own car.
5. **Social bonding :**Whereas Generation Y are said to be more group- and team-oriented, the new generation is more self-directed. In some cases, this is because parents are spending more time at home with their children, or leaving them with family members rather than putting them into day care facilities. At the same time, some psychologists say that with most of their communication taking place on the Internet, Gen Zers are lacking in verbal communication skills, interpersonal skills and confidence compared to their predecessors, Generation Y.

FINDINGS

There are some serious and alarming effects of social media and online life too, one of the respondent said *"For me, it has put up a constant pressure on me, to look good and if not thin then not perfect. Which through years have hampered my confidence, my ability to make friends and be me in a setting where people may like me, but i am too scared to be judged that i tend to avoid socializing. It has made me highly insecure and introverted which is not my normal personality."*

RECOMMENDATIONS

1. **Suggestions for organizational** employee acquisition, employee engagement, employee sustainability, leadership, customer relationship:
   It's one of the distinctive preferences and values Generation Z is bringing to the workplace. To successfully recruit and retain them, employer need to be aware of Gen Z characteristics that influence their career choices and attitudes.
   Here's what else the survey revealed:

a. Gen Z wants to grow and learn

b. Communication is key- The more questions you ask the fewer mistakes you will make.

c. Gen Z wants professional development and training opportunities

d. They take their careers very seriously

e. They're Pragmatic Entrepreneurs

2. **Suggestion for educators** to match up to Gen Zers expectations of learning experience, processing a curious mind-set, making learning and development a lifelong/ life changing process. This will need traditional instructional method and modern delivery for engagement of this generation. Self-directed learning which allows learners to have say and learn more.

3. **Suggestion for society**, to understand and accept their views. Support them since many time this 'Scree addict' generation grow up with impact of increased insecurities, cyber- attacks, reality show celebrities and all things digital. Educators, mentors, parents play a major role in developing and guiding Gen Z.

REFERENCES

1. Madden, Mary; et al. (21 May 2013). "Teens, Social Media, and Privacy". Pew Research Center. Retrieved 10 December 2015.
2. Jenkins, Ryan (9 June 2015). "15 Aspects That Highlight How Generation Z Is Different From Millennials". Business2Community. Retrieved 29 March 2016.
3. Borca, Gabriella; Bina, Manuela; Keller, Peggy S.; Gilbert, Lauren R.; Begotti, Tatiana (1 November 2015). "Internet use and developmental tasks: Adolescents' point of view". Computers in Human Behavior. 52: 49–58. doi:10.1016/j.chb.2015.05.029.
4. "Mobile and interactive media use by young children: The good, the bad and the unknown". EurekAlert!. Retrieved 1 December 2015.
5. Strauss, W., & Howe, N. (1991). Generation Z.

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TOWARDS ENERGY EFFICIENCY OF GREEN COMPUTING BASED ON VIRTUALIZATION

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ABSTRACT
Cloud computing is a dynamic field of information and communication technologies (ICTs), introducing new challenges for environmental protection. Cloud computing is a highly scalable and cost-effective infrastructure for running HPC, enterprise and Web applications. However, the growing demand of Cloud infrastructure has drastically increased the energy consumption of data centers, which has become a critical issue. The cloud computing revolution is redesigning modern networking, and offering promising environmental protection prospects as well as economic and technological advantages. These technologies have the potential to improve energy efficiency and to reduce carbon footprints and (e-) waste. These features can transform cloud computing into green cloud computing. In this paper, we discuss the green approaches for Cloud computing on virtualization.

Virtualization integrates some technologies like consolidation and resource utilization. Along with virtualization, Green Cloud architecture is presented which is the most suitable green approach and also addresses various level of management of system resources and power consumption in green computing.

Keywords: Virtualization, Data Centre, Power Consumption, green cloud computing, environmental protection, sustainability

OBJECTIVES
- The main **objective of this paper** is to improve the energy efficiency and reduce the power consumption.
- To find the Effect of good practice of **green data centers** to gas emission.
- To learn techniques deal with energy efficiency consumption like virtualization, hardware base, operating systems base and **data centers**

INTRODUCTION
The concept of green computing is gaining popularity as it has become the most essential weapon against global warming. Global warming is leading our planet towards eminent extinction and Green Computing is the safest path that leads towards earth's salvation from it. Production of electricity with thermal power plants, chemical plants and even nuclear power plants emits huge amount of carbon dioxide and many hazardous materials .Without electricity, the entire ICT world will come to a stop, without ICT mankind cannot sustain in this world anymore. With the growth of high speed networks over the last decades, there is an alarming rise in its usage comprised of thousands of concurrent e-commerce transactions and millions of Web queries a day. This ever-increasing demand is handled through large-scale datacenters, which consolidate hundreds and thousands of servers with other infrastructure such as cooling, storage and network systems. Many internet companies such as Google, Amazon, Flipkart and Yahoo are operating such huge datacenters around the world.


Figure (1)

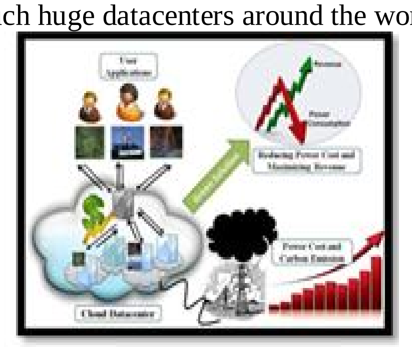
Figure (2)

CLOUD AND ENVIRONMENTAL SUSTAINABILITY
Clouds are essentially virtualized datacenters and applications offered as services on a subscription basis as shown in Figure(1) and Figure(2). They require high energy usage for its operation. Today, a typical datacenter with 1000 racks need 10 Megawatt of power to operate, which results in higher operational cost.

The main aim of this paper is to discover the best energy efficient approach for Cloud computing, in areas which include: data centre infrastructures, architecture, Cloud networking and content delivery to user.

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Sustainability is a long lasting welfare in terms of economy and environment. In this paper, we discuss the green approaches for Cloud computing in two parts; data centre as the most energy consumer component of Cloud would be investigated from IT and site infrastructure perspective consisting green techniques

Green computing applies new computing paradigms like Cloud Computing which use virtualized server infrastructure through virtual machine (VM) instances which was the main motivation behind the proposed method.

REVIEW OF RELATED LITERATURE

Governments, enterprises, societies, world organizations have started to adopt Green Computing as an environment friendly sound practice. Entire life cycle of a computer, from production, in use, and into its disposal has a severe impact on the environment.

According to this paper, data center servers consume 50 times more the energy per square foot as in office and this is one of the main energy consuming areas. Many major companies are building their data centers near seaside to use hydroelectric power and because it is more energy efficient and temperature near sea area remains about the same through put the year if not, gets colder and this helps with the cooling of components. Energy consumption occurs in various level of computers. This paper was concentrated on a specific area related to cloud computing that could be either under a private server or a public server and the consumption of energy occurs during switching and transmission as well as data processing and data storage

To improve cloud computing efficiency and for this system to be efficient it has to depend on a lot of variables and existing technology like the existing hardware based method of saving energy which is sleep scheduling, use of advanced cooling systems, consolidation of servers and virtualization of computing resources in cloud computing data centers. In addition, the power consumed by private servers is greater than power consumption of public servers. Internet usage has grown exponentially and the size of data stored has also increased, in order to maintain demand modern data centers has upgraded. Data centers nowadays contain tens of thousands of servers providing 24 hours service to millions of clients. Due to that power consumption has also increased, in 2006 datacenters and servers used in U.S. consumed 61 billion kilowatt hours of electricity which is 1.5% of consumed electricity of all US costing $4.5 billion. 100 million videos are viewed and uploaded on YouTube servers a day, while almost 400 million active Facebook users upload 3 billion photos every month. Such cloud based datacenters $9.3 million worth power per year. It has been estimated that worldwide expenditure is more than $30 billion on enterprise power supply and cooling. This is why; power management is of great importance to maintain a green ICT sector. Interest in studying the influence of cloud computing on the environment is on the rise due to the attention received by green computing from the computing community. It was a reaction to the report published by Gartner, which estimated that the global ICT industry accounted for approximately 2% of global CO_2. In 2009, Liu et al presented Green Cloud a new architecture which aims to decrease data center power consumption

NEED OF GREEN COMPUTING

With the increasing demand of online services in every area, the need of cloud computing is increasing rapidly. With this increase in demand, the need of more servers increases. Thus with more need of the servers, more will be the energy consumption. It is figured out that even an ideal server consumes 70% of the energy. Thus it becomes very important to use the energy in an efficient way.

The term green computing is used to use the services of cloud computing in efficient way. It refers to the art of utilizing computing resources in an eco-friendly and efficient manner. In the current trend in IT industries, ―going green has become an agenda for public relations and to reduce costs. One of In the current trend in IT industries, ―going green has become an agenda for public relations and to reduce costs.

GREEN COMPUTING VIRTUALIZAION MODEL (GCVM)

This paper proposes a Green Computing Virtualization Model (GCVM) which mainly focuses on reduction of power consumption which is an aspect of green computing through distributed system. A university Computer laboratory system is recognized as the field for implementing the model that is proposed in this paper. GCVM model will centrally control the entire VMs system to automatically Idle the entire system by checking the time frame frequently. System administrator remotely will select the time frame according to their efficiency. GCVM model will thoroughly go under some process or system to generate an efficient result of energy consumption rate. There are several reasons behind using GCVM. Some of them are mentioned below:

- GCVM will work with respect to Estimated Energy Consumption (EEC) which will allow visualizing the real-life impact on reserving energy directly.

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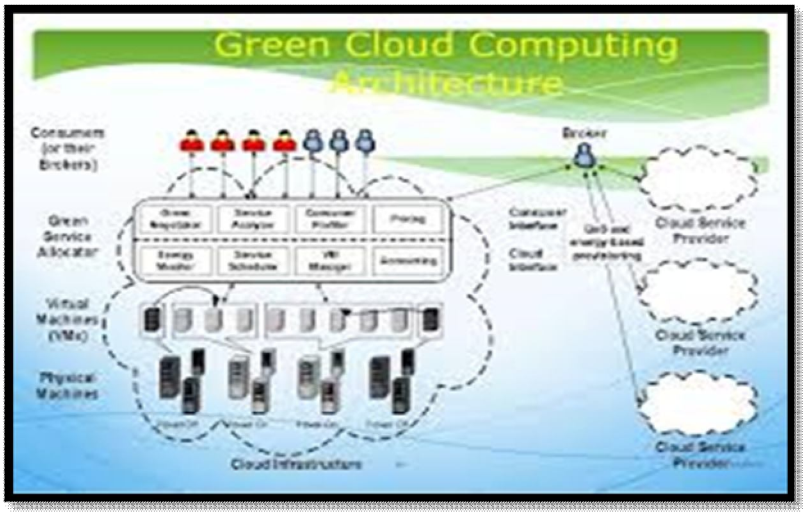
- GCVM is less expensive so it can be assembled into any system without any complexity.
- The proposed model can be monitored by any single authority, so user complexity will decrease.

GREEN COMPUTING ARCHITECTURE

A. Green Cloud Architectural Elements The aim of this paper is to addresses the problem of enabling energy-efficient resource allocation, hence leading to Green Computing data centers, to satisfy competing application‘s demand for computing services and save energy.



Above figure shows the high-level architecture for supporting energy-efficient service allocation in Green Computing infrastructure. There are basically four main entities involved:

Consumers/Brokers: Cloud consumers or their brokers submit service requests from anywhere in the world at the Cloud Datacenter. Off course, there is difference between Cloud consumers and users of deployed services. For instance, a consumer can be a company deploying a Web application, which presents varying workload according to the number of "users" accessing it and a user may be a single client request or it can be a group of devices connected in a network.

Green Service Allocator: It acts as the interface between the Cloud infrastructure and consumers. It requires the interaction of the following components to support energy-efficient resource management:

(i) Green Negotiator: Negotiates with the consumers/brokers to finalize the SLA (Service Layer Agreement) with specified prices and penalties (for violations of SLA) between the Cloud provider and consumer depending on the consumer‘s QoS requirements and energy saving schemes. In case of Web applications, for instance, QoS metric can be 95% of requests being served in less than 3 seconds.

(ii) Service Analyser: This Interprets and analyses the service requirements of a submitted request before deciding whether to accept or reject it. Hence, it needs the latest load and energy information from VM Manager and Energy Monitor respectively.

(iii) Consumer Profiler: Gathers specific characteristics of consumers so that important consumers can be granted special privileges and prioritized over other consumers.

(iv) Pricing: Decides how service requests are charged to manage the supply and demand of computing resources and facilitate in prioritizing service allocations effectively.

(v) Energy Monitor: Observes and determines which physical machines to power on/off. (vi). Service Scheduler: Assigns requests to VMs and determines resource entitlements for allocated VMs. It also decides when VMs are to be added or removed to meet demand.

(vii) VM Manager: Keeps track of the availability of VMs and their resource entitlements. It is also in charge of migrating VMs across physical machines.

(viii) Accounting: Maintains the actual usage of resources by requests to compute usage costs. Historical usage information can also be used to improve service allocation decisions.

VMs: Multiple VMs can be dynamically started and stopped on a single physical machine to meet accepted requests, hence providing maximum flexibility to configure various partitions of resources. Multiple VMs can also concurrently run applications based on different operating system environments on a single physical machine. In addition, by dynamically migrating VMs across physical machines, workloads can be consolidated and unused resources can be put on a low-power state, turned off or configured to operate at low-performance levels (e.g., using DVFS) in order to save energy. Physical Machines:

FEATURES OF CLOUDS ENABLING GREEN COMPUTING

There are several technologies and concepts employed by Cloud providers to achieve better utilization and efficiency than traditional computing. Therefore, comparatively lower carbon emission is expected in Cloud computing due to highly energy efficient infrastructure and reduction in the IT infrastructure itself by multi-tenancy. The key driver technology for energy efficient Clouds is “Virtualization,” which allows significant improvement in energy efficiency of Cloud providers.

Dynamic Provisioning: In traditional setting, datacenters and private infrastructure used to be maintained to fulfill worst case demand. Thus, IT companies end up deploying far more infrastructure than needed.

Multi-tenancy: Using multi-tenancy approach, Cloud computing infrastructure reduces overall energy usage and associated carbon emissions. The SaaS providers serve multiple companies on same infrastructure and software. This approach is obviously more energy efficient than multiple copies of software installed on different infrastructure. Furthermore, businesses have highly variable demand patterns in general, and hence multi- tenancy on the same server allows the flattening of the overall peak demand which can minimize the need for extra infrastructure.

Server Utilization: In general, on-premise infrastructure run with very low utilization, sometimes it goes down up to 5 to 10 percent of average utilization.

Datacenter Efficiency: As already discussed, the power efficiency of datacenters has major impact on the total energy usage of Cloud computing. By using the most energy efficient technologies, Cloud providers can significantly improve the PUE of their datacenters. Today’s state-of-the-art datacenter designs for large Cloud service providers can achieve PUE levels as low as 1.1 to 1.2, which is about 40% more power efficiency than the traditional datacenters.

TOWARDS ENERGY EFFICIENCY OF CLOUD COMPUTING

Applications

SaaS model has changed the way applications and software are distributed and used. More and more companies are switching to SaaS Clouds to minimize their IT cost. Thus, it has become very important to address the energy efficiency at application level itself. To achieve energy efficiency at application level, SaaS providers should pay attention in deploying software on right kind of infrastructure which can execute the software most efficiently. This necessitates the research and analysis of trade-off between performance and energy consumption due to execution of software on multiple platforms and hardware.

Cloud Software Stack: Virtualization and Provisioning

In the Cloud stack, the challenges at the IaaS provider level where researc h focus is on scheduling and resource management to reduce the amount of active resources executing the workload of user applications. The consolidation of VMs, VM migration, scheduling, demand projection, heat management and temperature-aware allocation, and load balancing are used as basic techniques for minimizing power consumption. VM migration [6] allows flexible and dynamic resource management while facilitating fault management and lower maintenance cost. Although the consolidation methods can reduce the overall number of resources used to serve user applications, the migration and relocation of VMs for matching application demand can impact the QoS service requirements of the user. Since Cloud providers need to satisfy a certain level of service, some work focused on minimizing the energy consumption while reducing the number of SLA violations.

Datacenter level: Cooling, Hardware, Network, and Storage

First level is the smart construction of the datacenter and choosing of its location. There are two major factors in that one is energy supply and other is energy efficiency of equipments. Hence, the datacenters are being constructed in such a way that electricity can be generated using renewable sources such as sun and wind. The main concern of Cloud providers is business, energy source is also seen mostly in terms of cost not carbon emissions.

Another area of concern within a datacenter is its cooling system that contributes to almost 1/3 of total energy consumption. two types of approaches are used: air and water based cooling systems. In both approaches, it is necessary that they directly cool the hot equipment rather than entire room area. Thus newer energy efficient cooling systems are proposed based on

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liquid cooling, nano fluid- cooling systems, and in-server, in-rack, and in-row cooling by companies such as SprayCool.

The power supply unit is another infrastructure which needs to be designed in an energy efficient manner. Their task is to feed the server resources with power by converting the high- voltage alternating current (AC) from the power grid to a low-voltage direct current (DC) which most of the electric circuits (e.g. computers) require. These circuits inside Power Supply Unit (PSU) inevitably lose some energy in the form of heat, which is dissipated by additional fans inside PSU.

Monitoring/Metering

To measure the unified efficiency of a datacenter and improve its' performance per-watt, the Green Grid has proposed two specific metrics known as the Power Usage Effectiveness (PUE) and Datacenter Infrastructure Efficiency (DciE) [7].

PUE = Total Facility Power/IT Equipment Power

DciE = 1/PUE = IT Equipment Power/Total Facility Power x 100%

The Total Facility Power is defined as the power measured at the utility meter that is dedicated solely to the datacenter power. The IT Equipment Power is defined as the power consumed in the management, processing, and storage or routing of data within the datacenter.

Network Infrastructure

At network level, the energy efficiency is achieved either at the node level (i.e. network interface card) or at the infrastructure level (i.e. switches and routers)[4]. The energy efficiency issues in networking is usually referred to as “green networking”, which relates to embedding energy-awareness in the design, in the devices and in the protocols of networks. There are four classes of solutions, namely resource consolidation, virtualization, selective connectedness, and proportional computing. Resource consolidation helps in regrouping the under-utilized devices to reduce the global consumption. Similar to consolidation, selective connectedness of devices consists of distributed mechanisms which allow the single pieces of equipment to go idle for some time, as transparently as possible from the rest of the networked devices. Virtualization allows more than one service to operate on the same piece of hardware, thus improving the hardware utilization.

CONCLUSION

In this paper, we discuss the green approaches for Cloud computing in two parts; data centre as the most energy consumer component of Cloud would be investigated from IT and site infrastructure perspective consisting green techniques. Virtualization as heart of energy efficient Cloud computing that can integrates some technologies like consolidation and resource utilization. Along with virtualization, Green Cloud architecture is presented which is the most suitable green approach and also addresses various level of management of system resources. Cloud computing promises many benefits, including reduced cost, increased storage, high degree of automation, flexibility, mobility. According to our knowledge gained, green computing is not very recognized in our environment in India yet because of our system still lacks proper knowledge about it. But it can be proved to be essential because of its’ easier flexibility and easier usability. Also, Green Computing can reduce the energy consumption in a very simple and efficient way. Software design is important for green cloud computing. Applications can improve energy efficiency and resource management. The communication between software components has to be efficient.

FUTURE SCOPE

This paper is about a proposal of a model which can reduce the energy consumption and save out a lot of assets and resources as well. For the shortage of time, just a virtual simulation of this model was created which was discussed before. But in near future, we are going to implement the whole model into a realistic one and assemble into a large infrastructure like our university. For this purpose, one laboratory will be taken for the observation and will be controlled by a central administrator PC.

REFERENCES

1) M. Armbrust, A. Fox, R. Griffith, A. D. Joseph, R. H. Katz, A. Konwinski, G. Lee, D. A. Patterson, A. Rabkin, I. Stoica, and M. Zaharia, “Above the clouds: A berkeley view of cloud computing,” University of California, Berkeley, Tech. Rep. USB-EECS-2009-28, Feb2009.

2) Buyya,R.,Yeo,C.S.andVenugopal,S.2008.Market-orientedCloudcomputing:Vision,hype, and reality for delivering it services as computing utilities. Proceedings of the 10th IEEE International Conference on High Performance Computing and Communications, Los Alamitos, CA, USA.

3) Md. Tanzil Shahriar1 , Md. Arifur Rahman2 , Nusrat Munzarin Methila3 and Jishan Faiyaj Rahman4 "An Effective Green Computing Virtualization Model to Optimize the Computer Operating Process by Lessening Energy Consumption" International Journal of Computer Applications (0975 – 8887) Volume 173 – No.4, September 2017.

4) Greenpeace International. 2010. Make IT Green http://www.greenpeace.org/ international/en/publications/ reports/make-it-green-Cloudcomputing/

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VIRTUAL TOUR

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ABSTRACT
Virtual Reality is basically an artificial environment or real-world simulation that is created with software and is presented to the user in such a way that the user suspends belief and accepts it as a real environment. As of now, VR technology is getting increasingly popular. There are various types of VR technologies such as 360-degree VR, Augmented Reality, Mixed Reality, etc. The proposed system is "Virtual Tour", which is a gaming application along with the simulation of real-world locations. It will allow one to play a game as well as to roam around different cities virtually and explore those places and gather information about those places.

Keywords: 360-degree VR, Artificial environment, Augmented Reality, Mixed Reality, Simulation, VR Technology.

INTRODUCTION
The term Virtual Reality means near reality. A person would experience a version of reality that isn't honestly there but would say to subsist in the real world as per his/her perception. Technically, Virtual Reality is a three-dimensional, computer-generated environment that can be sustained by a person. The person ideally becomes the part of the virtual world or is immersed in the virtual environment and hence can manipulate objects or perform a series of actions. As the name suggests "Virtual Tour" the idea behind this project is to create a game which would provide user with a virtual touring experience, i.e. the user can view around different cities of the world without even leaving their homes.

Virtual Reality is basically an illusion of something, and it seems so factual that one percept being present in that situation in-person. VR is believable, Interactive 3D computer-generated world that one can explore, so one feels that he/she is present there both mentally and physically. In other words, VR is essentially believable, interactive, computer-generated, explorable, and immersive.

FOR EXAMPLE
Military Training
Training is a substantial part of being in the military. From ammunition to survival skills to physical conditioning, soldiery is some of the most highly trained on Earth, but that training comes at a cost. Military training is an expensive, big-budget, and uninterrupted undertaking. Because of the all-inclusive nature of training all branches of the defense forces, militaries around the world have started implementing super practical uses for virtual reality, including flight and combat simulation, battlefield medical training, and driving simulations. Training officers find that virtually simulated training exercises are both affordable and safer than say, setting up a combat simulation involving explosives and gunfire that involves far more personnel than just the soldiers being trained.

EXISTING SYSTEM
Description
There are many virtual reality applications available for both android and iOS. These applications are replicas of the real world and are also used for business purpose. These applications use 360-degree VR technology; which is basically a panoramic view (panoramic photograph of the actual location).

Now, 360-degree Virtual Reality is an audio-visual simulation of an altered environment or substituted environment that surrounds the user, allowing them to look around in all direction, just as they can in real life.

There are number of types of 360-degree VR including live and previously captured video or real-time, real-time rendered 3-D games and pre-rendered Computer Graphic Images (CGI).

This technology is widely used for business purpose. More commonly it is used in real-estate industry, so that the buyer can view the property without having to visit the location in-person. Also, when one has to invest in a property which is under construction, the buyer can still view the sample flat through these applications i.e. how the flat will look like after constructed.

The following are the some of the VR applications available for android

a. Sites in VR: It has 360-degree virtual tours of Turkey, Egypt, Saudi Arabia, Syria, etc.

b. YAS island 360-degree virtual tour: It is a 360-degree map of YAS island in UAE which includes Ferrari world etc.

c. Dali Museum: It shows virtual tour of museum which shows career of Salvador Dali.

d. ETH Zurich: It shows 360-degree virtual tour of ETH Zurich, one of the international universities for science and technology.

But the existing system has some flaws such as

a. It is just a 360-degree panoramic view of the location.

b. Restricted to specific city/country.

c. To view around one must manually swipe around all directions.

d. It is not a continuous view, it is just a panoramic photograph.

Figures

Figure (1):360-degree VR.

PROPOSED SYSTEM

Description

The proposed system is 'Virtual Tour'. As the name suggests it will be a virtual touring application, but it will be a gaming application. Now, everyone is travel enthusiast and loves travelling but, it is not possible for everyone to travel every time and everywhere. Also, everyone likes playing game, and the proposed system would be a combination of touring and gaming.

The objective is to create fun infotainment i.e. informative as well as entertaining application. The proposed system will have different cities from around the world, which will provide information about that place such as streets, tourist spots, famous eateries, etc.

Specific number of cities will be included within the application and the user will be allowed to choose the city from it. Once, the city will be selected the game will start. Every city has some monuments, tourist spots, etc. The rewards which is an important part of any game will be placed at any these monuments, famous spots, etc. The user would have to collect these rewards, this will allow user to roam around the city and to get to know about same.

The following are the factors which makes the proposed system different from the existing one:

a. It would not be just a 360-degree panoramic view.

b. It won't be restricted to country/city but will include some definite number various of cities.

c. It will be fun for user to look around the place without having to swipe in all directions.

d. It will be a continuous view, not just a 360-degree panoramic photograph.

Functions and operations of the system:

1. Firstly "Welcome" page will be displayed and then the user will be redirected to login page.

2. There will be an option to login.

3. If the there is a new user, then there will be an option for registration.
4. After login/registration user will be redirected to the page where he/she can select the tour or click on the menu option.
5. If the user selects the menu option, then:

a. User can select the characters from the character option.

b. Settings options will be there to logout, adjust the volume, etc.

c. Back option will be there to go to previous page.

6. If the user selects the tour option, then the actual game will begin.

Flowchart of the system

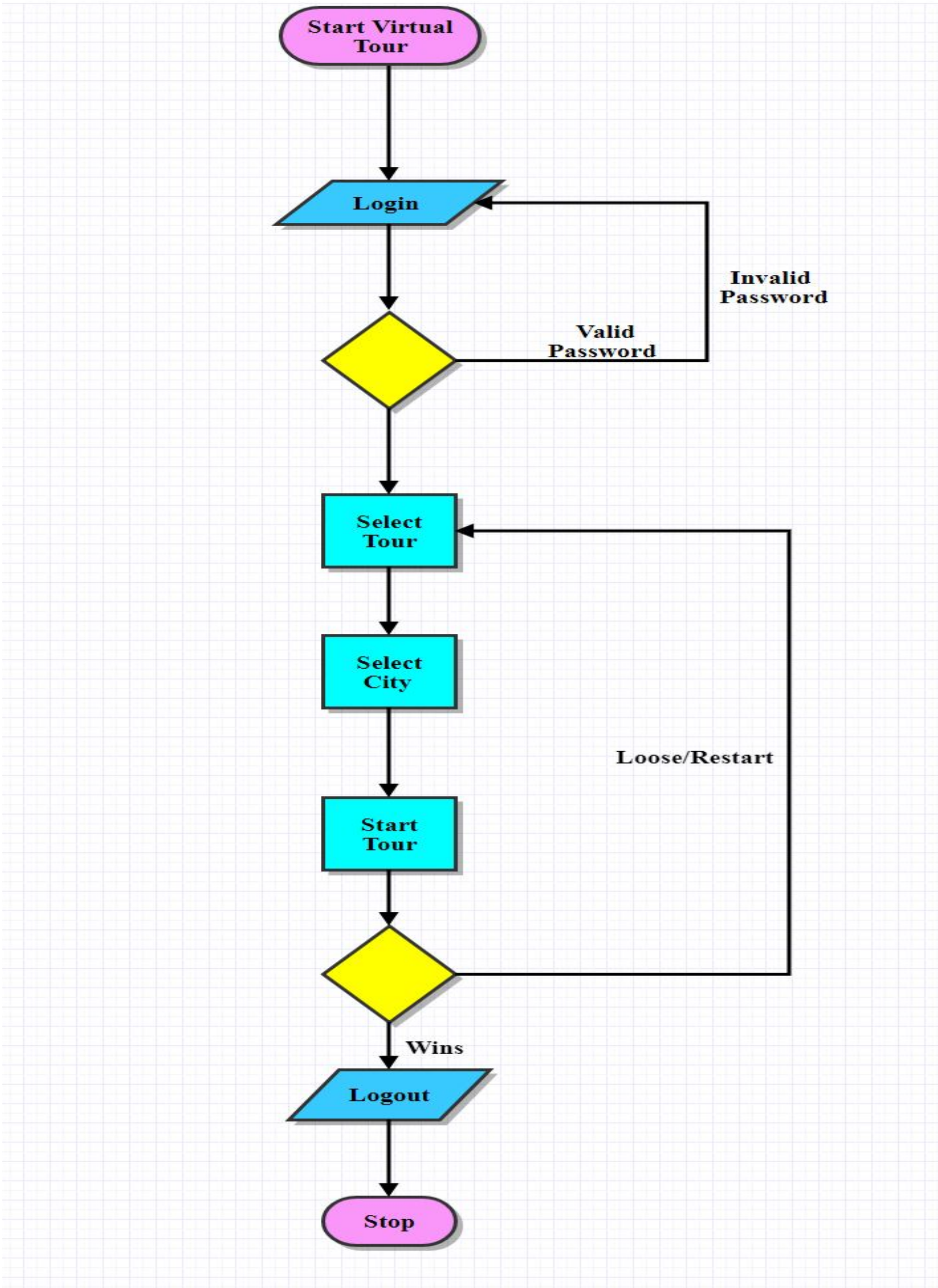

Figure (2): Flow of the proposed system.

GRAPHICAL USER INTERFACE

Figure (3): Welcome page

Figure (4): Login page

Figure (5): Register page

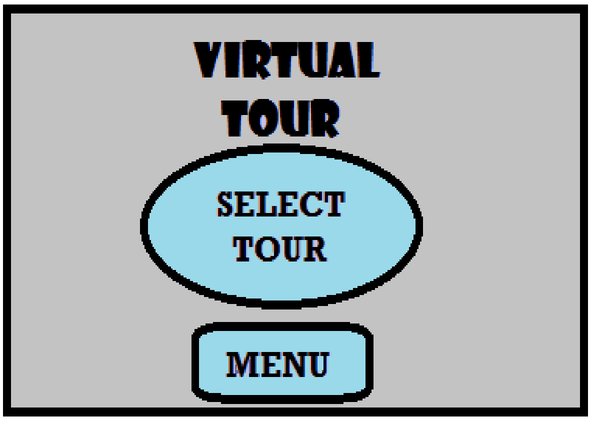

Figure (6): Home page

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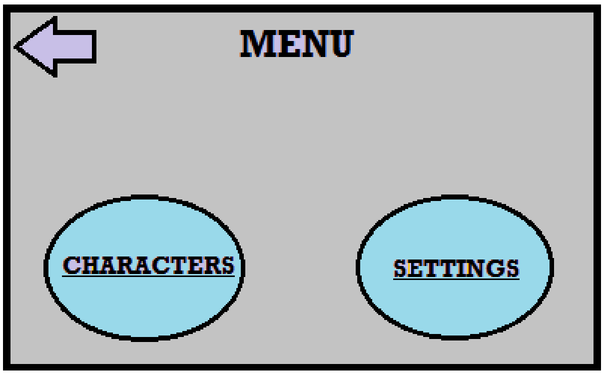

Figure (7): Menu page

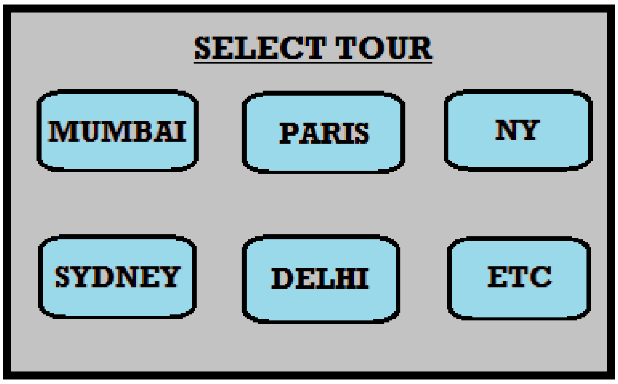

Figure (8): Tour page

Figure (9): Start Tour page

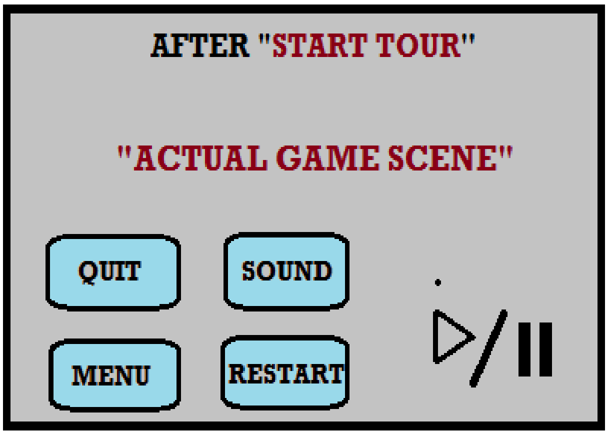

Figure (10): Game Scene

ALGORITHM

In programming creating a plan to solve a problem or execute a particular task is known as writing an algorithm. An algorithm is a step-by-step instruction that must be executed in order to solve a problem or

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perform a task. An algorithm is how we get computers to resolve difficulties. They tell computers what to do and how to do it.

In games probably, Path finding algorithms are used, of which A* (A star) is the common choice. **Pathfinding** is the plotting, by a computer software, of the smallest path between two points. It is a more empirical alternative on solving mazes. This field of fact-finding is excessively built on Dijkstra's **algorithm** for finding a shortest path on a weighted graph. For path finding various algorithms can be used but in game development A* is the popular choice.

A* ("A - star") is one of the most favored techniques for finding the smallest route between two locations in a mapped area. It was developed in 1968 to combine heuristic approaches like Best-First-Search (BFS) and formal approaches like Dijkstra's algorithm. It is alike Dijkstra’s algorithm in which it can be used to discover a shortest path. And like Greedy Best-First-Search in that it can use a heuristic to guide itself.

The heuristic used for estimating distances in A* is as follows:

$f(n) = g(n) + h(n)$

where

i. g(n) represents the cost (distance) of the path from the starting point to any vertex n, and

ii. h(n) represents the estimated cost from vertex n to the goal.

- The A* algorithm is fairly simple.
- There are two sets, FRINGE and CLOSED.
- The FRINGE set contains those nodes that are candidates for examining.
- Originally, the FRINGE set contains just one element at the starting position.
- The CLOSED set contains those nodes that have already been examined.
- Initially, the CLOSED set is empty.
- Graphically, the FRINGE set is the "frontier" and the CLOSED set is the "interior" of the visited zone.
- Each node also keeps a pointer to its parent node so that we can determine how it was found.
- There is a main loop that repeatedly pulls out the best node n in FRINGE (the node with the lowest f value) and examines it.
- If n is the goal, then it is done.
- Else, node n is removed from FRINGE and added to CLOSED.
- Then, its neighbours n' are examined.
- A neighbour that is in CLOSED has already been seen, so we don't need to look at it.
- A neighbour that is in FRINGE will be examined if its f value becomes the lowest in FRINGE.
- Else, we add it to FRINGE, with its parent set to n.
- The path cost to n', g(n'), will be set to g(n) + movementcost(n, n').

CONCLUSION

This research paper presented the approach of using virtual reality in gaming with real world simulations. “Virtual Tour” aims at developing a gaming application in order to provide a user with an amusing experience. This project will allow the user to play the game while wandering around some city and gain some information about the same. This will give user a virtual experience of roaming around various places while playing a game.

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REFERENCES

[1] Rasika Dilip Sonje, Revati Ravindra Lokhande, Vaibhavi Vijaykumar Joshi 2018, "Virtual Reality for Real Estates," IJESC Conference 2018, Volume 8, Issue No. 3.

[2] Yalong Yang, Bernhard Jenny, Tim Dwyer, Kim Marriott, Haohui Chen and Maxime Cordeill 2018, "Maps and Globes in Virtual Reality," Euro graphics Conference on Visualization (EuroVis) 2018, Volume 37.

[3] Majid Zare Bidaki, "Application of Virtual Reality Simulators and Virtual Labs in Medical Education," Interdisciplinary J Virtual Learn Med Science 2018.

[4] Keng Hua Sing and Wei Xie. 2016, "Garden: A Mixed Reality Experience Combining Virtual Reality and 3D Reconstruction," In Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '16), 180-183. https://doi.org/10.1145/2851581.2890370S.

[5] Tabitha C. Peck, Henry Fuchs, and Mary C. Whitton. 2010, "Improved Redirection with Distractors: A largescale-real-walking locomotion interface and its effect on navigation in virtual environments," IEEE Virtual Reality Conference (VR'10), 35-38. https://doi.org/10.1109/VR.2010.5444816.

[6] Prof. Dhananjay Gaikwad, Akash Chikane, Shrikrishna Kulkarni, Aishwarya Nhavkar, "Augmented Reality based Platform to share virtual worlds," IRJET vol. 5 e-ISSN: 2395-0056, p-ISSN: 2395-0072.

[7] Daniel Vogel, Paul Lubos, Frank Steinicke, "Animation-VR - Interactive Controller-based Animating in Virtual Reality,"

[8] Sebastian Marwecki, Maximilian Brehm, Lukas Wagner, Lung-Pan Cheng, Florian 'Floyd' Mueller , Patrick Baudisch, "Virtual Space - Overloading Physical Space with Multiple Virtual Reality Users".

[9] https://youtu.be/rcUkyUqolY0

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A STUDY ON MODELING AND ANALYSIS OF MODERN SOFTWARE DEVELOPMENT PROCESS FOR CLOUD ENVIRONMENTS

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ABSTRACT
Cloud computing is a paradigm shift over traditional way of developing and deploying of software. With increasing adoption of cloud computing there is a need to provide methodological and tool support for the development of enterprise applications that utilize cloud services. The development of cloud computing has triggered the changes of the system development activities. This will make software engineering more difficult as they have to interact with a third party called the "cloud provider". The amount of work required for developing software will reduce but there will be added communication and coordination requirement with the cloud provider which makes software development project more complex. Traditional approaches that assume that services are developed and deployed on-premise are not suitable for hybrid cloud environments, where a significant part of enterprise applications is delivered in the form of cloud services provided by autonomous cloud providers. The main focus of this paper is that the prevalent SW process models should incorporate this new dimension of interaction with the cloud provider and separate roles of SW engineers and cloud providers. Agile process model is best suited which includes the anticipated interaction requirement with the cloud provider which will mitigate all the challenges of software development on cloud computing platform and make it more advantageous to develop and deploy software on the cloud computing platform.

Keywords: Cloud Computing, cloud services, SDLC (Systems Development Life Cycle), Software Engineering, cloud provider, hybrid cloud environments, enterprise applications, cloud computing model, SW process models, agile process model, Planning, Development, Documentation, Testing, Deployment, Maintenance.

INTRODUCTION

Cloud computing is a complete new technology. It is the development of parallel computing, distributed computing, grid computing, and is the combination and evolution of Virtualization, Utility computing, Software-as-a-Service (SaaS), Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS). Cloud is a metaphor to describe web as a space where computing has been preinstalled and exists as a service; data, operating systems, applications, storage and processing power exist on the web ready to be shared. To users, cloud computing is a Pay-per-Use-On-Demand mode who can conveniently access shared IT resources through the Internet. To build a high quality software product that satisfies the client or end user needs, organizations must choose best software development life cycle (SDLC).Today, enterprise applications typically involve the use of both on-premise and cloud services resulting in hybrid cloud environments. As a result of the extensive use of cloud services, end-user organizations no longer control the entire System Development Life Cycle (SDLC) but rely on cloud service providers to ensure the quality and availability of enterprise applications. The objective of this paper is to discuss how system development activities will need to change to respond to the emergence of cloud computing model and the issues that are related with implementing cloud computing model.

2. What is Cloud Computing?

Cloud Computing is a new computing platform where hardware and software are delivered to users in a manner that resembles the way utilities such as electricity are delivered to households today. Cloud computing is the idea of renting out server, storage, network, software technologies, tools and applications as utility or service over the internet as and when required in contrast to owning them permanently. An important aspect of cloud computing is its utility-oriented approach. It focuses on delivering services with a given pricing model, in most cases as "pay-per-use" strategy. It makes it possible to access online storage, rent virtual hardware, or use development platforms and pay only for their effective usage, with no or minimal up-front costs. Cloud computing is gaining popularity because it addresses the problem of the traditional computing model, in which each business unit in an enterprise has dedicated IT resources. The traditional computing model usually leads to under-utilization and waste of IT resources due to resource fragmentation and unequal distribution of workload. Cloud computing is making our business applications mobile and collaborative.

3. Cloud Deployment Models

The cloud can be deployed and accessed in four types as private, public, hybrid and community cloud.

- A private cloud is built and managed within a single organization. It allows systems and services to be accessible within an organization. Organizations use software that enables cloud functionality, such as VMWare, vCloud Director, or OpenStack.
- A public cloud is a set of computing resources provided by third-party organizations and easily accessible to the general public. The most popular public clouds include Amazon Web Services, Google AppEngine, and Microsoft Azure.
- A hybrid cloud is a mix of computing resources provided by both private and public clouds.
- A community cloud shares computing resources across several organizations, and can be managed by either organizational IT resources or third-party providers. It allows systems and services to be accessible by a group of organizations.

4. Cloud Service Models

Depending on what resources are shared and delivered to the customers, there are mainly three types of cloud service models.

- In cloud computing terminology when hardware such as processors, storage and network are delivered as a service it is called infrastructure as a service (IaaS). Rather than investing money on the dedicated servers and networking equipments, IaaS customers can rent the hardware resources and computing power. One example of IaaS is Amazon Elastic Compute Cloud (Amazon EC2™) which is a web service that provides resizable compute capacity in the cloud. It can quickly scale capacity, both up and down, as the computing requirements change.
- When programming platforms and tools like Java, Python, .Net, MySQL and APIs are delivered as a service it is called platform as a service (PaaS). In the model of PaaS, cloud service vendors provide facilities to support the entire application development lifecycle including design, implementation, debugging, testing, and deployment of Web applications. One example of PaaS is CodeRun, which is a browser-based Integrated Development Environment (IDE). CodeRun is built on top of the Amazon Elastic Compute Cloud (EC2). It allows programmers to easily develop, test, deploy and publish code online, without requiring powerful hardware or complex software. Another example of PaaS is Google App Engine that lets customers run their web applications on Google's infrastructure.
- When applications are delivered as a service it is called software as a service (SaaS). In SaaS model, software applications are offered as services on the Internet rather than as software packages to be purchased by individual customers. SaaS model allows vendors to develop, host and operate software for customer use. Rather than purchasing the hardware and software to run an application, customers only require a computer or a server to download the application and internet access and utilize the software. One example of SaaS is that Salesforce.com offers its CRM application as a service. Another example is Google Web-based office application (such as word processors and spreadsheets).

5. What is SDLC?

SW development is an inherently complex procedure. The success or quality of a SW project is measured by whether it is developed within time and budget and by its efficiency, usability, dependability and maintainability. Software development life cycle (SDLC) is a method by which the software can be developed in a systematic manner and which will increase the probability of completing the software project within the time deadline and maintaining the quality of the software product as per the standard. The System Development Life Cycle framework provides a sequence of activities for system designers and developers to follow for developing software. All software projects go through the phases of requirements gathering, business analysis, system design, implementation, and quality assurance testing. Each SDLC has its strengths and weaknesses, and each SDLC may provide better functionalities in one situation than in another. Then the challenge is to decide which model should be selected to provide a particular set of functionalities under certain circumstances. In response to traditional approaches to software development, new lightweight methodologies have appeared.

6. Software Engineering Challenges in Cloud Environment

Traditional SDLC focuses on the implementation of on-premise services. In cloud context, enterprise applications consume externally provided cloud services. Service consumers are primarily responsible for the selection of suitable services, integration of cloud services into their enterprise applications, and ensuring the continuity of operation at runtime. Existing software process models and framework activities are not going to be adequate unless interaction with cloud providers is included. All the phases like planning, design, construction, testing and deployment need interaction with the representatives from cloud provider.

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Requirements gathering phase so far included customers, users and software engineers. Now it has to include the cloud providers as well, as they will be supplying the computing infrastructure and maintain them too. Resource accounting on cloud platform will be done by the cloud provider in the requirement gathering phase. Software architecture, software architecture to hardware architecture mapping, interface design, data types design, cost estimation and schedule estimation of the project all should be done in collaboration with the cloud provider. The cloud providers can help in answering these questions on:1) How many developers are needed, 2) Component Reuse, 3) Cost estimation, 4) Schedule Estimation, 5) Risk Management, 6) Configuration Management, 7) Change Management, and 8) Quality Assurance. Because of the component reuse of web services the size of the software to be developed by the SW engineer will reduce but complexity of the project will increase many folds because of lack of documentations of implementation details of web services and their integration requirements. Only coding and testing phases can be done independently by the software engineers on the cloud platform. This will reduce the cost and time for testing and validation. During the construction phase of the application if web services are integrated where many different enterprises are involved then error should be mitigated with the mediation of the cloud provider. Maintenance phase also should include the cloud providers. There is a complete shift of responsibility of maintenance of the infrastructure from software developers to cloud providers. In addition, protection and security of the data is of utmost importance which is under the jurisdiction of the cloud provider now. While plan-driven/traditional methodologies emphasize detailed planning, modeling and system documenting, agile methodologies emphasize rapid development and delivery of software that satisfies client requirements which changes frequently. Cloud computing is the ideal environment for agile development. It lets us get valuable functionality to our customers quickly, collect immediate feedback, and make rapid changes based on that feedback.

7. CONCLUSION AND FUTURE WORK

In this paper we examined software development challenges in cloud from the software development lifecycle perspective and all the challenges of each stage is discussed separately. It is crucial to understand the requirements and challenges of a Cloud application to be able to fully benefit from a Cloud environment. They are different from traditional development practices and norms because of the fundamental differences in Cloud architecture. Architects and designers must adapt to a new mindset to develop for the Cloud. Correspondingly, development processes and practices must also evolve to address the inherent expectations of agility and flexibility of a Cloud environment. As cloud computing industry keeps evolving, future researches could focus more on the changes of system development methodology that build information systems in virtual operating environment.

REFERENCES

1. Santosh Kumar and R. H. Goudar, “Cloud Computing – Research Issues, Challenges, Architecture, Platforms and Applications: A Survey,” in *International Journal of Future Computer and Communication*, Vol. 1, No. 4, December 2012.
2. Hong Thai Tran and George Feuerlicht, “Service Development Life Cycle for Hybrid Cloud Environments,” in *Journal of Software,*Volume 11, Number 7, July 2016.
3. Hind Benfenatki, Catarina Ferreira Da Silva, A¨ıcha-Nabila Benharkat and Parisa Ghodous, “Cloud Application Development Methodology” in *IEEE/WIC/ACM International Joint Conferences on Web Intelligence (WI) and Intelligent Agent Technologies (IAT*), 2014.
4. Dhanamma Jagli and Shireesha Yeddu, “CloudSDLC: Cloud Software Development Life Cycle,” in *International Journal of Computer Applications (0975 – 8887) Volume 168 – No.8,* June 2017.
5. Nitin Singh Chauhan and Ashutosh Saxena, “A Green Software Development Life Cycle for Cloud Computing,” in *IT Pro, Published by the IEEE Computer Society* January/February 2013.
6. Sajee Mathew, “Overview of Amazon Web Services,”*Amazon Web Services,* December 2018.
7. Muhammad Babar, Ata ur Rahman, and Fahim Arif, “Cloud Computing Development Life Cycle Model (CCDLC) ,” *ICST Institute for Computer Sciences, Social Informatics and Telecommunications Engineering J. Ferreira and M. Alam (Eds.): Future 5V 2016, LNICST 185,* pp. 189–195, 2017.
8. Dr. Jürgen Münch, “Cloud -Based Software Engineering,” *Proceedings of the seminar no. 58312107,* August 5, 2013.
9. Amy Y. Chou and David C. Chou, “Cloud Computing from the Perspective of System Analysis,” *https://www.researchgate.net/publication/265940486.*

 ISSN 2394 - 7780

10. Hanieh Kashfi , “Software Engineering Challenges in Cloud Environment : Software Development Lifecycle Perspective,” in *International Journal of Scientific Research in Computer Science, Engineering and Information Technology ,IJSRCSEIT* Volume 2, Issue 3, 2017.
11. B.J.D Kalyani, “Challenges in the Cloud Application Development” in *International Journal of Advanced Research in Computer Engineering & Technology (IJARCET)* Volume 2, Issue 1, January 2013.
12. Shehla Afzal, M. Faisal Saleem, Fahad Jan and Mudassar Ahmad, “A Review on Green Software Development in a Cloud Environment Regarding Software Development Life Cycle: (SDLC) Perspective” in *International Journal of Computer Trends and Technology (IJCTT)* **–** volume 4 Issue 9– Sep 2013.
13. Radha Guha and David Al-Dabass, “Impact of Web 2.0 and Cloud Computing Platform on Software Engineering,” in *International Symposium on Electronic System Design 978-0-7695-4294-2/10 IEEE*,2010.
14. Soojin Park, Mansoo Hwang, Sangeun Lee and Young B. Park , “ A Generic Software Development Process Refined from Best Practices for Cloud Computing” *Sustainability* 2015, *7*, 5321-5344; www.mdpi.com/journal/sustainability.
15. George Baryannis, Panagiotis Garefalakis, Kyriakos Kritikos, Kostas Magoutis, Antonis Papaioannou, Dimitris Plexousakis and Chrysostomos Zeginis, “ Lifecycle Management of Service-based Applications on Multi-Clouds: A Research Roadmap,” MultiCloud’13,Prague, Czech Republic,ACM 978-1-4503-2050-4/13/04,April 22, 2013.
16. “Cloud Computing Overview”, https://www.tutorialspoint.com/cloud_computing/ cloud_computing_ overview.htm

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DATA MINING AND ITS SECURITY

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ABSTRACT
Generally, data mining (sometimes called data or knowledge discovery) is the process of analyzing data from different perspectives and summarizing it into useful information - information that can be used to increase revenue, cuts costs, or both. Data mining software is one of a number of analytical tools for analyzing data. It allows users to analyze data from many different dimensions or angles, categorize it, and summarize the relationships identified. Technically, data mining is the process of finding correlations or patterns among dozens of fields in large relational databases.

Although data mining is a relatively new term, the technology is not. Companies have used powerful computers to sift through volumes of supermarket scanner data and analyze market research reports for years. However, continuous innovations in computer processing power, disk storage, and statistical software are dramatically increasing the accuracy of analysis while driving down the cost.

This paper focus on data mining applications in safety measures and their suggestions for privacy. After that we then inspect the idea of privacy and give a synopsis of the developments particularly those on privacy preserving data mining. We then present an outline for research on confidentiality and data mining.

Keywords: Data mining, security, safety, security suggestions, preserving data mining, data mining applications

INTRODUCTION
Data mining is primarily used today by companies with a strong consumer focus - retail, financial, communication, and marketing organizations. It enables these companies to determine relationships among "internal" factors such as price, product positioning, or staff skills, and "external" factors such as economic indicators, competition, and customer demographics. And, it enables them to determine the impact on sales, customer satisfaction, and corporate profits. Finally, it enables them to "drill down" into summary information to view detail transactional data. With data mining, a retailer could use point-of-sale records of customer purchases to send targeted promotions based on an individual's purchase history. By mining demographic data from comment or warranty cards, the retailer could develop products and promotions to appeal to specific customer segments. For example, Blockbuster Entertainment mines its video rental history database to recommend rentals to individual customers. American Express can suggest products to its cardholders based on analysis of their monthly expenditures. DATA mining is the procedure of posing questions and taking out patterns, often in the past mysterious from huge capacities of data applying pattern matching or other way of thinking techniques. Data mining has several applications in protection together with for national protection as well as for cyber protection. The pressure to national protection includes aggressive buildings, demolishing dangerous infrastructures such as power grids and telecommunication structures. Data mining techniques are being examined to realize who the doubtful people are and who is competent of functioning revolutionary activities. Cyber security is concerned with defending the computer and network systems against fraud due to Trojan cattle, worms and viruses. Data mining is also being useful to give solutions for invasion finding and auditing. While data mining has several applications in protection, there are also serious privacy fears. Because of data mining, even inexperienced users can connect data and make responsive associations. Therefore we must to implement the privacy of persons while working on practical data mining. In this paper we will talk about the developments and instructions on privacy and data mining. In particular, we will give a general idea of data mining, the different types of threats and then talk about the penaltytoprivacy[1].

DATA MINING FOR SAFETY APPLICATIONS
Data mining is fitting a key technology for identifying doubtful activities. In this section, data mining will be discussed with respect to use in both ways for non-real-time and for real-time applications. In order to complete data mining for counter terrorism applications, one wants to gather data from several sources. For example, the subsequent information on revolutionary attacks is wanted at the very least: who, what, where, when, and how; personal and business data of the possible terrorists: place of birth, religion, education, ethnic origin, work history, finances, criminal record, relatives, friends and associates, and travel history; unstructured data: newspaper articles, video clips, dialogues, e-mails, and phone calls. The data has to be included, warehoused and mined. One wants to develop sketches of terrorists, and activities/threats. The data has to be mined to take out patterns of possible terrorists and forecast future activities and goals. Fundamentally one wants to find the

"needle in the haystack" or more suitably doubtful needles among probably millions of needles. Data integrity is essential and also the methods have to SCALE. For several applications such as urgent situation response, one needs to complete real-time data mining [1]. Data will be incoming from sensors and other strategy in the form of nonstop data streams together with breaking news, videocassette releases, and satellite images. Some serious data may also exist in caches. One wants to quickly sift through the data and remove redundant data for shortly use and analysis (non-real-time data mining). Data mining techniques require to meet timing restriction and may have to stick the quality of service (QoS) tradeoffs among suitability, accuracy and precision. The consequences have to be accessible and visualized in real-time. Additionally, alerts and triggers will also have to be employed. Efficiently applying data mining for safety applications and to develop suitable tools, we need to first find out what our present capabilities are. For instance, do the profitable tools balance? Do they effort only on particular data and limited cases? Do they carry what they assure? We require a balanced objective study with display. At the same time, we also require to work on the large picture. For instance what do we desire the data mining tools to carry out? What are our end consequences for thepredictable future? What are the standards for achievement? How do we assess the data mining algorithms? What test beds do we construct? We require both a near-term as well as longer-term resolutions. For the future, we require to influence present efforts and fill the gaps in a objective aimed way and complete technology transfer. For the longer-term, we require a research and development diagrams. In summary, data mining is very helpful to resolve security troubles. Tools could be utilized to inspect audit data and flag irregular behavior. There are many latest works on applying data mining for cyber safety applications, Tools are being examined to find out irregular patterns for national security together with those based on categorization and link analysis. Law enforcement is also using these kinds of tools for fraud exposure and crime solving [2].

PRIVACY SUGGESTIONS

We require finding out what is meant by privacy before we look at the privacy suggestions of data mining and recommend efficient solutions. In fact different society-ties have different ideas of privacy. In the case of the medical society, privacy is about a patient finding out what details the doctor should discharge about him/her. Normally employers, marketers and insurance corporations may try to find information about persons. It is up to the individuals to find out the details to be given about him. In the monetary society, a bank customer finds out what financial details the bank should give about him/her. Additionally, retail corporations should not be providing the sales details about the persons unless the individuals have approved the release. In the case of the government society, privacy may get a whole new significance. For example, the students who attend my classes at AFCEA have pointed out to me that FBI would gather data about US citizens. However FBI finds out what data about a US citizen it can provide to say the CIA [1]. That is, the FBI has to make sure the privacy of US citizens. Additionally, permitting access to individual travel and spending data as well as his/her web surfing activities should also be provided upon receiving permission from the individuals. Now that we have explained what we signify by privacy, we will now checkup the privacy suggestion of data mining. Data mining provides us "facts" that are not clear to human analysts of the data. For instance, can general tendency across individuals be calculated without enlightening details about individuals?[3] On the other hand, can we take out highly private relations from public data? In the former case we require to protect the person data values while enlightening the associations or aggregation while in the last case we need to defend the associations and correlationsbetween the data.

GROWTH IN PRIVACY

Different types of privacy problems have been considered by researchers. We will point out the various problems and the solutions projected.

- **Problem:** Privacy contraventions that consequence due to data mining: In this case the way out is Privacy protecting data mining. That is, we perform data mining and give out the results without enlightening the data values used to perform data mining.
- **Problem**: Privacy contraventions that result due to the Inference problem. Note that Inference is the procedure of realizing sensitive data details from the lawful answers received to user inquiries. The way out to this problem is Privacy Constraint Processing.
- **Problem**: Privacy contravention due to un-encrypted data: the way out to this problem is to make use of Encryption at different levels.
- **Problem**: Privacy contravention due to poor system design. Here the way out is to build up methodology for designing privacy-enhanced systems. Below we will observe the ways out projected for both privacy constraint/policy processing and for privacy preserving data mining. Privacy limitation or policy processing

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research was carried out and is footed on some of her prior research on security restriction processing. Instance of privacy restrictions include the following.

- **Simple Constraint:** an aspect of a document is private. Content footed constraint: If document holds information about X, then it is private.
- **Association-based Constraint:** Two or more documents used together are private; individually each document is public.
- **Free constraint:** After X is freed Y becomes private. The way out projected is to augment a database system with a privacy checker for constraint processing. During the inquiry process, the constraints are checked up and only the public information is freed unless certainly the user is approved to obtain the private information. Our approach also contains processing constraints during the database update and design operations [8].
- Some early work on managing the privacy problem that consequence from data mining was performed by Clifton at the MITRRE Corporation [9]. The suggestion here is to avoid useful outcomes from mining. One could initiate "cover stories" to provide "false" outcomes. Another approach is to only build a sample of data existing so that a challenger is not capable to come up with helpful rules and analytical functions. However these approaches did not impression as it beatenthe idea of data mining. The objective is to perform effective data mining but at the same time guard individual data values and sensitive relations. Agrawal was the first to invent the word privacy preserving data mining. His early work was to initiate random values into the data or to bother the data so that the real data could be confined. The challenge is to initiate random values or agitate the values without touching the data mining results. Another new approach is the Secure Multi-party Computation (SMC) by Kantarcioglu and Clifton [3]. Here, each party knows its individual contribution but not the others' contributions. Additionally the final data mining outcomes are also well-known to all. Various encryption techniques utilized to make sure that the entity values are protected. SMC was demonstrating several promises and can be used also for privacy preserving scattered data mining. It is probably safe under some suppositions and the learned models are correct; It is assumed that procedures are followed which is a semi truthful model. Malicious model is also investigated in some current work by Kantarcioglu and Kardes .Many SMC footed privacy preserving data mining algorithms contribute to familiar sub-protocols (e.g. dot product, summary, etc.). SMC does have any disadvantage as it's not competent enough for very large datasets. (E.g. petabyte sized datasets); Semi-honest model may not be reasonable and the malicious model is yet slower. There are some novel guidelines where novel models are being discovered that can swap better between efficiency and security. Game theoretic and motivation issues are also being discovered. Finally merging anonimization with cryptographic techniques is also a route. Before performing an evaluation of the data mining algorithms, one wants to find out the objectives. In some cases the objective is to twist data while still preserving some assets for data mining. Another objective is to attain a high data mining accuracy with greatest privacy protection. Our current work imagines that Privacy is a personal preference, so should be individually adjustable. That is, we want to make privacy protecting data mining approaches to replicate authenticity. We examined perturbation based approaches with real-world data sets and provided applicability learning to the existing approaches[5]. We found that the rebuilding of the original sharing may not work well with real-world data sets. We attempted to amend perturbation techniques and adjust the data mining tools. We also developed a new privacy preserving decision tree algorithm[6]. Another growth is the platform for privacy preferences (P3P) by the World Wide Web association (W3C). P3P is an up-and-coming standard that facilitates web sites to convey their privacy practices in a typical format. The format of the strategies can be robotically recovered and appreciated by user agents. When a user comes in a web site, the privacy policies of the web site are communicated to the user; if the privacy policies are dissimilar from user favorites, the user is notified; User can then make a decision how to continue. Several major corporations are working onP3P standards.

DIRECTIONS FOR PRIVACY

Thuraisingham verified in 1990 that the inference problem in common was unsolvable; therefore the suggestion was to discover the solvability features of the problem. We were able to explain comparable results for the privacy problem [7]. Therefore we need to inspect the involvement classes as well as the storage and time complication. We also need to discover the base of privacy preserving data mining algorithms and connected privacy ways out. There are various such algorithms. How do they evaluate with each other? We need a test bed with practical constraints to test the algorithms. Is it meaningful to observe privacy preserving data mining for each data mining algorithm and for all application? It is also time to enlarge real world circumstances where

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these algorithms can be used. Is it possible to build up realistic commercial products or should each association get used to products to suit their needs? Investigative privacy may create intelligence for healthcare and monetary applications. Does privacy work for Defense and Intelligence purposes? Is it even important to have privacy for inspection and geospatial applications? Once the image of my home is on Google Earth, then how much isolation can I have? I may wish for my position to be private, but does it make sense if a camera can detain a picture of me? If there are sensors all over the position, is it important to have privacy preserving surveillance? This proposes that we require application detailed privacy. Next what is the connection between confidentiality, privacy and faith? If I as a user of Association A send data about me to Association B, then imagine I read the privacy policies imposed by Association B. If I agree to the privacy policies of Association B, then I will drive data about me to Association B. If I do not concur with the policies of association B, then I can bargain with association B. Even if the website affirms that it will not distribute private information with others, do I faith the website? Note: while secrecy is enforced by the association, privacy is strong-minded by the user. Therefore for confidentiality, the association will conclude whether a user can have the data. If so, then the association can additional decide whether the user can be trusted. Another way is how can we make sure the confidentiality of the data mining procedures and outcome? What sort of access control policies do we implement? How can we faith the data mining procedures and results as well as authenticate and validate the results? How can we join together confidentiality, privacy and trust with high opinion to data mining? We need to check up the research challenges and form a research schema. One question that Rakesh Agrawal inquired at the 2003 SIGKDD panel on Privacy “is privacy and data mining friends or rivals? We think that they are neither associates nor rivals. We need progresses in both data mining and privacy. We require planning flexible systems. For some applications one may have to hub entirely on “pure” data mining while for some others there may be a need for “privacy-preserving” data mining. We need flexible data mining techniques that can settle in to the changing environments. We consider that technologists, legal specialists, social scientists, policy makers and privacy advocates MUST work together.

CONCLUSION

In this paper we have examined data mining applications in security and their implications for privacy. We have examined the idea of privacy and then talked about the developments particularly those on privacy preserving data mining. We then presented an agenda for research on privacy and data mining. Here are our conclusions. There is no collective definition for privacy, each organization must clear-cut what it indicates by privacy and develop suitable privacy policies. Technology only is not adequate for privacy; we require Technologists, Policy expert, Legal experts and Social scientists to effort on Privacy. Some well acknowledged people have believed ‘Forget about privacy” Therefore, should we follow research on Privacy? We trust that there are attractive research problems; therefore we need to carry on with this research. Additionally, some privacy is better than nil. One more school of consideration is tried to avoid privacy destructions and if destructions take place then put on trial. We need to put into effect suitable policies and checkup the legal aspects. We need to undertake privacyfrom all directions.

REFERENCES

1. Agrawal, R., Srikant, R.: Privacy-Preserving Data Mining. In: SIGMOD Conference, pp.439–450 (2000)
2. Agrawal, R.: Data Mining and Privacy: Friends or Foes. In: SIGKDD Panel (2003)
3. Kantarcioglu, M., Clifton, C.: Privately Computing a Distributed k-nn Classifier. In: Bou-licaut, J.-F., Esposito, F., Giannotti, F., Pedreschi, D. (eds.) PKDD 2004. LNCS, vol. 3202, 279–290. Springer, Heidelberg (2004)
4. Kantarcioglu, M., Kardes, O.: Privacy-Preserving Data Mining Applications in the Mali-cious Model. In: ICDM Workshops, pp. 717–722 (2007)
5. Liu, L., Kantarcioglu, M., Thuraisingham, B.M.: The applicability of the perturbation based privacy preserving data mining for real-world data. Data Knowl. Eng. 65(1), 5–21 (2008)
6. Liu, L., Kantarcioglu, M., Thuraisingham, B.M.: A Novel Privacy Preserving Decision Tree. In: Proceedings Hawaii International Conf. on Systems Sciences (2009)
7. Thuraisingham, B.: One the Complexity of the Inference Problem. In: IEEE Computer Se-curity Foundations Workshop (1990) (also available as MITRE Report, MTP-291)
8. Thuraisingham, B.M.: Privacy constraint processing in a Privacy-enhanced database management system. Data Knowl. Eng. 55(2), 159–188 (2005)
9. Clifton, C.: Using Sample Size to Limit Exposure to Data Mining. Journal of Computer Security 8(4) (2000)

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A JOURNEY FROM CALCULUS TO FRACTIONAL Q-CALCULUS

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ABSTRACT

Calculus is the mathematical study of changes which focused on limits, functions, derivatives, integrals and infinite series. Calculus is developed by working with very small quantities say Δt (infinitely small and yet non zero). Calculus also called as Infinitesimal calculus. Differential and integral calculus are the two major branches of calculus, which are related to each other by the Fundamental theorem of calculus.

We know that a function can be represented by using infinite series. In 1655 John Wallis generalized the geometric series $1 \mid x \mid x^2 \mid x^3 \mid \ldots\ldots \mid x^n \mid \ldots\ldots$ to Hyper (above or beyond) geometric series and after that in 1812 C.F. Gauss introduced the Gauss hypergeometric series in its present form. This paper attempts to overview the representation of special functions in terms of hypergeometric series, the process of q-generalization of hypergeometric series and fractional calculus which is generalization of ordinary differentiations and integration to arbitrary order.

Keywords: Calculus, Hypergeometric series, Fractional calculus and Fractional q-calculus.

INTRODUCTION

Calculus is the mathematical study of continuous change in the same way that geometry is the study of shape and algebra is the study of generalization of arithmetic operations. Calculus has historically been called “the calculus of infinitesimals” or infinitesimal calculus which is developed by working with very small quantities. It has two major branches, Differential calculus (concerning instantaneous rate of change and slope of curves) and Integral calculus (concerning accumulation of quantities and the areas under the between the curves). These two branches related to each other by the Fundamental Theorem of Calculus. **The Fundamental theorem of calculus** states that differentiation and integration are inverse operations.

If a function f is continuous on the interval $[a, b]$ and F is a function whose derivative is f on the interval (a, b) then

$$\int_a^b f(x)dx - F(b) - F(a)$$

A function can be represented by using infinite series. An infinite series is simply the adding up of all the term in in infinite sequences. Consider the infinite series

$$\sum_{n=1}^{\infty} a_n - a_1 + a_2 + a_3 + \cdots \ldots\ldots\ldots\ldots + a_m + \cdots \ldots\ldots$$

The set of terms $\{a_n\}$ usually represents a set of real numbers, complex numbers or functions.

A sequence is said to be in geometric progression if the each term in the sequence is r times the previous term.

$a, ar, ar^2, ar^3, \ldots\ldots\ldots\ldots\ldots\ldots$

Geometric Series: Consider the geometric series

$a + ar + ar^2 + ar^3 + \cdots \ldots\ldots\ldots\ldots\ldots + ar^n + \cdots \ldots\ldots\ldots$

Where a and r are non-zero constants, whose partial sum is

$$S_n = \frac{a(1-r^n)}{(1-r)}, \qquad r \neq 1.$$

John Wallis in 1655 generalized the geometric series

$1 \mid x \mid x^2 \mid x^3 \mid \cdots \ldots\ldots\ldots\ldots\ldots \mid x^n \mid \cdots \ldots\ldots\ldots$

to ‘Hyper’ geometric series

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$1 + a + a(a+1) + a(a+1(a+2) + \cdots \ldots\ldots\ldots\ldots$

C.F. Gauss in 1812 introduced the Gauss Hypergeometric series

$$1 + \frac{ab}{c}\frac{z}{1!} + \frac{a(a+1)b(b+1)}{c(c+1)}\frac{z^2}{2!} + \cdots + \frac{a(a+1)\ldots.(a+n)b(b+1)\ldots.(b+n)}{c(c+1)\ldots.(c+n)}\frac{z^n}{n!} + \cdots$$

$${}_2F_1(a,b;c;z) = \sum_{n=0}^{\infty} \frac{(a)_n(b)_n}{(c)_n}\frac{z^n}{n!}$$

Some Hypergeometric functions are Exponential, Logarithmic, Trigonometric, the binomial, The Bessel functions, Chebyschew & hermit.
A Hypergeometric series $\sum_{n=0}^{\infty} t_n$ is one in which $t_0 = 1$ and the ratio of consecutive terms is a rational function of the summation index n.

The Generalized Hypergeometric Series

$${}_pF_q[a_1, a_2, \ldots \ldots.., a_p;\ b_1, b_2, \ldots\ldots\ldots, b_q; z] = \sum_{n=0}^{\infty} \frac{(a_1)_n(a_2)_n \ldots\ldots\ldots (a_p)_n}{(b_1)_n(b_2)_n \ldots\ldots\ldots (b_q)_n}\frac{z^n}{n!}$$

Pochammer Symbol

$$(a)_n = a(a+1)(a+2)(a+3) \ldots\ldots\ldots\ldots\ldots\ldots (a+n-1), \quad (a)_0 = 1, \qquad a \neq 0.$$

$$(-a)_n = 0, \ \ for \ \ n > a.$$

The Pochammer symbol$(a)_n$ is introduced by **Leo August Pochammer** where n is a non-negative integer.

$\binom{n}{r}$ is the number of the combinations of n taken r at a time and we can define

$$\binom{n}{r} - \frac{(-1)^r(-n)_r}{r!},\ 0 \leq r \leq n.$$

$\binom{1/2}{3}$ is not defined as a combination but it can be defined by using Pochammer symbol as

$$\binom{1/2}{3} - \frac{1}{16}$$

$$(a)_{n+m} = (a)_n(a+n)_m$$

The Gamma Function

The Gamma function (represented byΓ, the capital Greek alphabet letter gamma) is an extension of the factorial function, with its argument shifted down by 1, to real and complex numbers. If n is a positive integer,

$$\Gamma(n) = (n-1)!$$

The notation $\Gamma(z)$ is due to Legendre. The gamma function is defined for all complex numbers except the non-positive integers. For complex numbers with a positive real part, it is defined via a convergent proper integral

$$\Gamma(z) = \int_0^{\infty} x^{z-1}e^{-x}\,dx$$

The function $\Gamma(z)$ converges absolutely and is known as the Euler Integral of the Second kind.

$$\Gamma(z+1) = z\,\Gamma(z)$$

$\Gamma(z)$is also defined as

$$\Gamma(z) - \lim_{n\to\infty} \frac{n!\,n^z}{z(z+1)\ldots\ldots\ldots(z+n)}$$

$\Gamma(z)$ has poles at $z = 0, -1, -2, \ldots\ldots.$ and hence $\Gamma(z)$ is defined for all other values of z.

Gamma & Pochammer symbol

Whenever $\Gamma(a)$ is defined and when m is a non-ve integer,

$$(a)_m - \frac{\Gamma(a+m)}{\Gamma(a)}$$

$$\Gamma(a+m) = (a)_m\Gamma(a)$$

Beta Function
The beta function $B(p,q)$ is the name used by Legendre and Whittaker and Watson (1990) for the beta integral. It is defined by

$$B(p,q) = \frac{\Gamma(p)\Gamma(q)}{\Gamma(p+q)}$$

$$= \int_0^1 t^p (1-t)^{q-1} dt$$

Theorem: For $|z| < 1, Real(c) > Real(b) > 0,$

$${}_2F_1(a,b;c;z) = \frac{1}{B(b,c-b)} \int_0^1 t^{b-1}(1-t)^{c-b-1}(1-zt)^{-a}\, dt.$$

Proof: We know that

$${}_2F_1(a,b;c;z) = \sum_{n=0}^{\infty} \frac{(a)_n (b)_n}{(c)_n} \frac{z^n}{n!}$$

Now,

$$\frac{b_n}{c_n} = \frac{\Gamma(b+n)}{\Gamma(b)} \frac{\Gamma(c)}{\Gamma(c+n)}$$

$$= \frac{\Gamma(b+n)\,\Gamma(c-b)}{\Gamma(c+n)} \frac{\Gamma(c)}{\Gamma(b)\,\Gamma(c-b)}$$

$$= \frac{B(b+n, c-b)}{B(b, c-b)}, \qquad Real(c-b) > 0$$

$$= \frac{1}{B(b,c-b)} \int_0^1 t^{b+n-1}(1-t)^{c-b-1}\, dt$$

Hence,

$${}_2F_1(a,b;c;z) = \frac{1}{B(b,c-b)} \sum_{n=0}^{\infty} \frac{(a)_n z^n}{n!} \int_0^1 t^{b+n-1}(1-t)^{c-b-1}\, dt$$

$$= \frac{1}{B(b,c-b)} \int_0^1 t^{b-1}(1-t)^{c-b-1} \left(\sum_{n=0}^{\infty} \frac{(a)_n (zt)^n}{n!} \right) dt$$

$$= \frac{1}{B(b,c-b)} \int_0^1 t^{b-1}(1-t)^{c-b-1}(1-zt)^{-a}\, dt$$

Since the Binomial sum is,

$$\sum_{n=0}^{\infty} \frac{(a)_n (zt)^n}{n!} = (1-zt)^{-a}$$

Result:

$${}_2F_1(a,b;c;z) = \frac{\Gamma(c)}{\Gamma(b)\,\Gamma(c-b)} \int_0^1 t^{b-1}(1-t)^{c-b-1}(1-zt)^{-a}\, dt$$

Provided that $|z| < 1, Real(c-b) > Real(b) > 0$. This integral is known as **Pochammer's Integral.**

Basic Hypergeometric Function
The q-hypergeometric series is the q-analogue generalization of generalized hypergeometric series and in turn generalized by elliptic hypergeometric series. The basic hypergeometric series was first considered by Eduard Heine (1846). Heinrich Eduard Heine(1821-1881) was a German mathematician defined a basic number as

$$a_q - \frac{1-q^a}{1-q}$$

Where q and a are real or complex numbers, so that as $q \to 1$,

$$\frac{1-q^a}{1-q} \to a.$$

Heine defined the basic analogue of the Gauss function as the infinite series

$$1+\frac{(1-q^a)(1-q^b)}{(1-q^c)(1-q)}z+\frac{(1-q^a)(1-q^{a+1})(1-q-^b)(1-q^{b+1})}{(1-q^c)(1-q^{c+1})(1-q)(1-q^2)}z^2+\cdots \ldots\ldots\ldots\ldots\ldots$$

Where $|q|<1$. Heine Series is absolutely convergent for $|z|<1$.

$$(q^a;q)_n=(1-q^a)(1-q^{a+1})\ldots\ldots\ldots\ldots\ldots\ldots..(1-q^{a+n-1})$$

George Neville Watson (1886-1965) was an English mathematician who replaced the q^a in Heine series by a, so that

$$(a;q)_n=(1-a)(1-aq)\ldots\ldots\ldots\ldots\ldots\ldots(1-aq)^{n-1}$$

A q **–series** is series involving coefficients of the form

$$(a;q)_n=\begin{cases}1 & ,n=0\\ (1-a)(1-aq)\ldots\ldots\ldots\ldots\ldots\ldots(1-aq)^{n-1}, & ,n=1,2,\ldots\ldots\end{cases}$$

$$(a;q)_n=\prod_{k=0}^{n-1}(1-aq^k)$$

$$(a;q)_n=\prod_{k=0}^{\infty}\frac{(1-aq^k)}{(1-aq)^{k+n}}=\frac{(a;q)_\infty}{(aq^n;q)_\infty}$$

For $n\geq 1$, $\quad (a;q)_\infty=\prod_{k=0}^{n-1}(1-aq^k)$

The symbol $(a;q)_\infty$ is called **q-Pochammer symbol** (q-shifted factorial).

$${}_2\Phi_1(a,b;c;q,z)=1+\frac{(1-a)(1-b)}{(1-c)(1-q)}z+\frac{(1-a)(1-aq)(1-b)(1-bq)}{(1-c)(1-cq)(1-q)(1-q^2)}z^2+\cdots\ldots\ldots\ldots\ldots\ldots$$

$${}_2\Phi_1(a,b;c;q,z)=\sum_{n=0}^{\infty}\frac{(a;q)_n(b;q)_n}{(c;q)_n(q;q)_n}z^n$$

Where $|q|<1$ and $|z|<1$. Here a, b and c are the parameters, z is the variable and q is the called the base of the series. The general basic hypergeometric series is defined as

$${}_A\Phi_B(a_1,a_2,\ldots a_A;\,b_1,b_2,\ldots.b_B;\,q,z)=\sum_{n=0}^{\infty}\frac{(a_1;q)_n(a_2;q)_n\ldots\ldots\ldots\ldots(a_A;q)_n}{(b_1;q)_n(b_2;q)_n\ldots\ldots(b_B;q)_n(q;q)_n}z^n$$

$$((a;q))_n=(a_1;q)_n(a_2;q)_n\ldots\ldots\ldots\ldots\ldots\ldots(a_A;q)_n$$

$${}_A\Phi_B[(a);(b);q,z]=\sum_{n=0}^{\infty}\frac{((a;q))_n}{((b;q))_n(q;q)_n}z^n$$

CONCLUSION

In a letter to L 'Hospital in 1695 Leibnitz raised the following question: **"can the meaning of derivatives with integer order be generalized to derivatives with non-integer orders?"** L 'Hospital was somewhat curious about that question and replied by another question to Leibnitz: **"what if the order will be $1/2$?"** Leibnitz in a letter dated September 30, 1695- the exact birthday of the **fractional calculus**!- replied: **"it will lead to a paradox , from which one day useful consequences will be drawn."** The question raised by Leibnitz fora fractional derivative was an ongoing topic for more than 300 years. Many known mathematicians contributed to this theory over the years, among them Lioville, Riemann, Weyl, Fourier, Abel, Lacroix, Leibnitz, Grunewald and Letnkov. Fractional calculus has recently been applied in various areas of engineering, science, finance, applied mathematics, and bio engineering.

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REFERENCES

1. L. J. Slater, Generalized Hypergeometric Functions, Cambridge University
2. Press, Cambridge, London and New York, 1966
1. L. J. Slater, Generalized Hypergeometric Functions, Cambridge University Press, Cambridge, London and New York, 1966.
2. "Gamma Function" From Math World-A Wolfram Web Resource, Created by Eric W. Weisstein.
3. "Fractional Calculus" From Math World-A Wolfram Web Resource, Created by Eric W. Weisstein.
4. https://en.wikipedia.org/wiki/Hypergeometric_function

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ARTIFICIAL INTELLIGENCE IN BANKING AND FINANCE

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ABSTRACT

In the past decade, banking and finance has transformed itself through digitization. Mobile banking, net banking, ATM's, are all innovations that have eased the life of the consumers and brought about efficiency in daily functions. Similarly, AI is slowly transforming the banking and finance industry. AI in layman's terms, is when a machine can think by itself and can carry out a task without any human intervention. Innovations regarding AI have revolutionized traditional banking and finance processes since 2016. This paper aims to research the latest AI trends in the banking and finance sector, their impact on the consumer, industry and economy and to analyze the challenges faced in developing AI in the India. AI has been increasingly adopted by banks such as Canara Bank, SBI, HDFC etc. to improve customer service. This has led to ease in navigating through online procedures and faster addressing of queries. AI has also been adopted by banks to assess risk and credit, and automate monotonous and mechanical procedures. Predictive models of AI are increasingly being developed for suggesting products and services to the consumer. AI has manifold benefits to the consumer by providing personalized and value-based services. The industry and economy as a whole benefits with increased efficiency and optimum allocation of human resource. AI innovations are predicated to contribute $1 trillion to the economy by 2035. However, before that is achieved, there are certain challenges for developing AI in the Indian landscape. Non- availability of quality data, language barriers, data privacy are some of the concerns while developing AI. Lack of skilled engineers and data scientists is a problem hindering growth in AI. AI should supplement human intelligence and accordingly job roles must be modified. That will determine if AI has a positive and long lasting impact.

Keywords: Artificial Intelligence (AI), banking, financial services, innovation, challenges.

INTRODUCTION

The traditional banking functions of lending and borrowing have been revolutionized since 2016 with the introduction of artificial intelligence in the Indian Banking sector. The financial services industry has seen a boost in the use of AI to provide dynamic and personalized services to the consumer. In layman's terms. Artificial Intelligence (AI) is when machines can think themselves and can execute tasks without human intervention. It includes technologies such as machine learning, natural language processing, image analysis and so on. PriceWaterHouseCooper's report on Fin-Tech in India (2017) reported that the global investment in AI applications touched $5.1 billion in 2016 from $4 billion in 2015 (Mosby, 2018). Several commercial banks are now innovating AI to enhance customer experiences and provide value-added services. AI can also be seen improving operational productivity and mass data trend analysis. AI has been lately used in consumer support, automation and predictive analysis, credit analysis, stock trading and fraud detections. The scope of this research has been limited to the innovations in the banking and finance industry sector. The research paper aims to gather further intel as to the latest AI trends, their impact on the industry and consumers and the challenges and opportunities to develop AI in India.

AIMS AND OBJECTIVES

Through this research paper, the author aims

1) To identify the key innovations made using AI in the global Banking and Finance sector.
2) To determine the impact of those innovations on consumers, the industry and economy as a whole.
3) To analyze the challenges faced while developing AI in India.

REVIEW OF LITERATURE

The literature was selected based on the aims and objectives determined above. The research questions asked were regarding what innovations were introduced and by whom, the impact it created and the challenges faced in the Indian landscape. The literature included innovations in the banking and finance sectors and excluded the other sectors. The articles were well documented in understanding the innovations introduced and the impact they created. The first reference was taken from CEO's Speak, and covered Nitin Chugh's (Country Head – Digital Banking HDFC) view on AI. However, the articles lacked in understanding the impact of these

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innovations directly from the customers. The articles presented the statistical information which has been cited within the text. The selected references best represent the objective of writing this paper.

RESEARCH METHODOLOGY

For this research paper, the information has been collected using secondary sources including newspaper articles, websites and magazines available online. The analysis presented is solely based on the references mentioned for this paper.

DATA INTERPRETATION/ ANALYSIS

A) The key innovations using AI in the banking and finance sector

1) **Customer Services** – Customers are the kings in any industry and hence customer care plays a vital role in the success of a company. The Banking industry has introduced AI in this function through the use of voice and auto bots. Increasing number of banks worldwide now provide this service on their websites and mobile apps. The auto or voice bots use Natural Language Processing and voice recognition to understand the queries of the customer without any human intervention. The customer benefits with speedy and effective replies to queries and complaints. This also enables the customer to navigate formalities on the website in case they are unaware of the procedure or it is a lengthy one. Leading bank State Bank of India (SBI) has introduced SIA (SBI Intelligence Assistant), an AI based application which will help consumers carry out their routine bank transactions just as a bank representative would do (Economic Times, July 2018). It can handle 10000 queries per second, thus surpassing the capabilities of man. Similarly, HDFC bank has also introduced EVA (Electronic Virtual Assistant) which assists by providing information about the bank's services and products instantaneously. Bank of America has launched ERICA which recommends smart solutions to the banks customers (Mosby,2018). Government of India's MSME initiative Udyamimitra launched Enlight-Bot to help with the loan acquiring process.

2) **Lending and Payments** – The use of AI has also proved beneficial in calculating the creditworthiness of an individual. The need for capital is existent in any economy and hence to efficiently conduct a credit analysis is of utmost importance today. Traditionally endless documents and data had to be analyzed, but now with use of AI this process has become much simpler. Several alternative lending companies leverage Big Data, Data Science and Machine Language to analyze a consumer's spending patterns, behavioral data of over 10,000+ points available to determine creditworthiness (Chugh and Jaiswal,2018). Banks offering credit card services can evaluate a consumer's spending patterns, payment of dues, cards already in use to determine a customized interest rate. EMI options can also be suggested by studying past consumer behavior. This, saves a lot of time to the banks or lending agents and even allows students and self-employed people to have a credit score.

3) **Wealth Management –** Another great innovation in AI has been the predictive models through machine learning. Since AI can compute terabytes of data, it becomes easy to predict future behavior of variables. For example, AI can recommend what stocks you must add to your portfolio based on your goals and the type of returns you want and can predict price fluctuations. News and sentiment analysis can also help identify investment opportunities (Bhattacharya, 2018). AI can also track your salary and spending behavior and can calculate how much you need to save every month to continue your monthly expenses. Thus, AI can help consumers to have personalized suggestions and save time in gathering data.

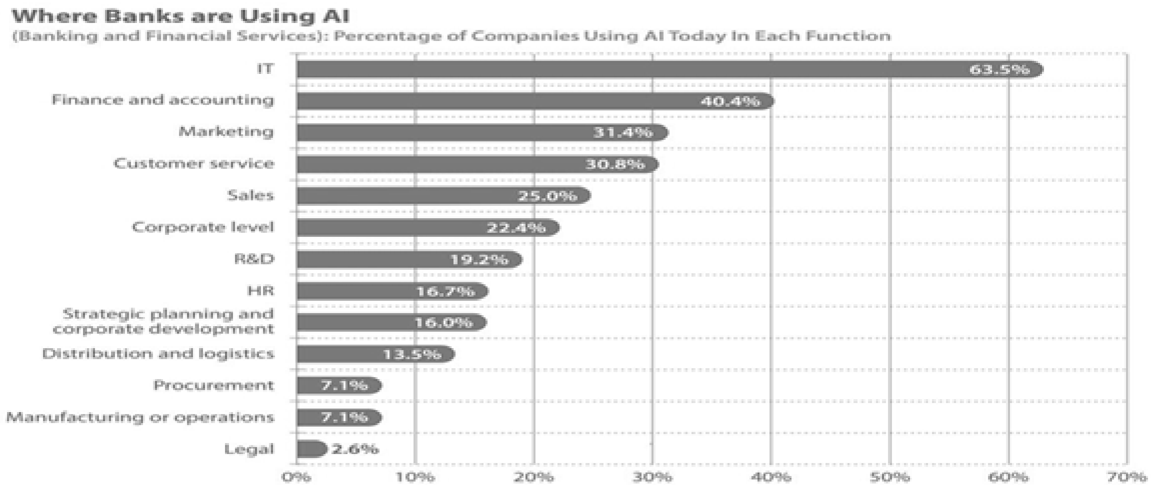


Image Source – Consultancy UK

4) **Automation and Digitization –** AI is also being used by several banks and financial service companies to automate processes and reduce human errors. J P Morgan Chase is now using an AI program called COIN to analyze complex contracts saving about 360,000 hours in manpower (Mosby, 2018). Canara Bank has launched Mitra and Candi robots at some of its offices. SBI is also using AI to study in real time the facial expressions of its customers to determine if they are happy or sad. ICICI has also introduced AI to ease over 200 of its processes. AI is being increasingly used by banks and finance companies to spot patterns or trends among vast resources of data and to reduce the time and manpower required for back office and repetitive processes.

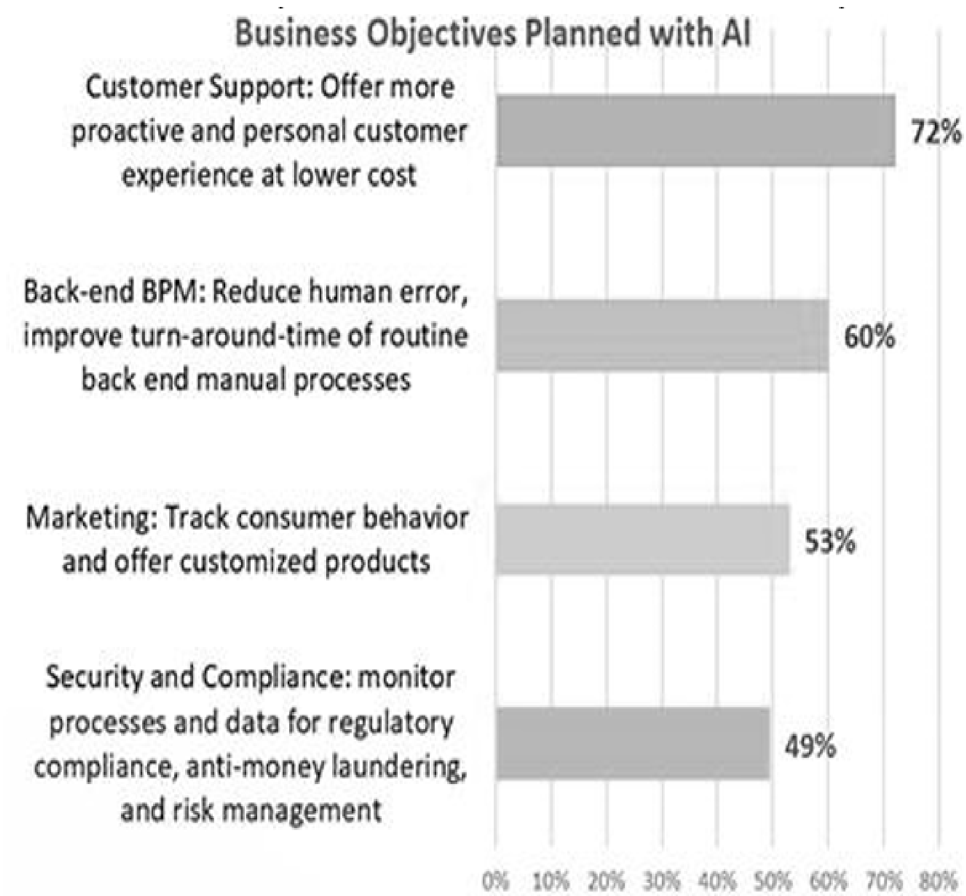
5) **Bionic advising –** Bionic advisory services combine the expertise of a machine and a human together. (Maruti Tech, 2018) This enables us to get customized and effective results, without relying entirely on one component. This model values human knowledge and logical reasoning. Collaborating between the two, will enable us to get data based results combined with human inputs and viewpoints. This is a model adopted by many companies currently and can be the future of financial decision making.

B) IMPACT OF THESE INNOVATIONS

1) On the consumer – Through AI, a consumer can get the best value from the services. The customizations and solutions that AI can generate for each customer would save time and money and raise efficiency. Complicated procedures, waiting in queues, endless paperwork would all come to an end. Predictive analysis would help a consumer to plan ahead and make informed choices.

2) On the competitors – When one company in the industry comes up with an AI invention it disrupts the existing industry conditions. Thus, to survive competitors will also have to innovate and offer new AI based services. Rapid adoption which leads to rapid innovation will enable the industry as whole to include AI in their processes and bring all round efficiency.

3) On the economy – When the banking and finance industry innovates in AI, the benefits pass down to the other industries such as IT, Data Analytics, Fin-Tech etc. Every industry that contributes right from the idea to the execution of an AI program will benefit in terms of less costs and more efficiency. The economy as a whole will benefit since the services offered to the various components of society will be through an effective allocation of resources.



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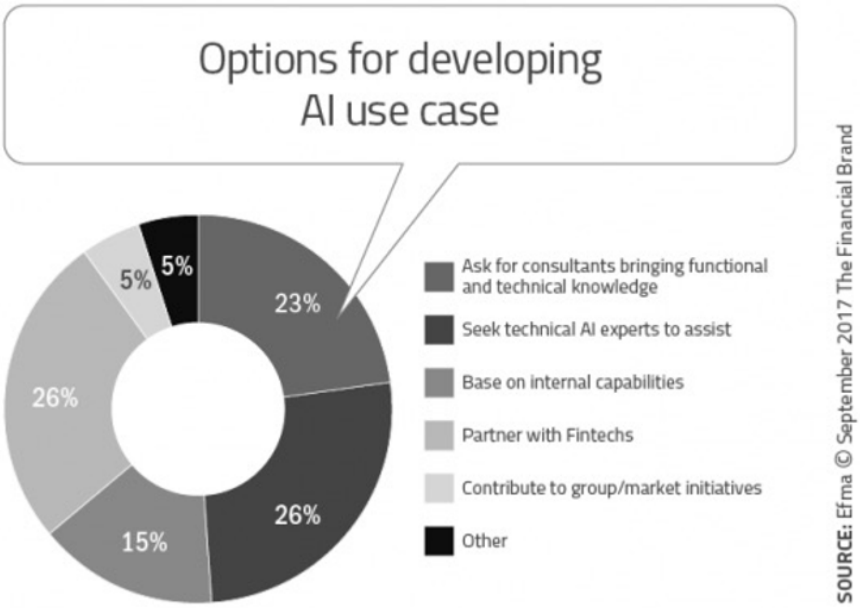

Image Source: Financial Brand

C. **THE CHALLENGES FACED WHILE DEVELOPING AI IN INDIA**

1) **Lack of credible and quality data –** Data is the lifeline of AI. If there is no credible and quality data available then AI functions of fraud detections and Know Your Customer (KYC's) can no longer operate. Thus, it is necessary to have structured mechanism to collect, verify and standardize data for AI. (Bhushan, 2018)
2) **Multiple languages –** India has over 150 languages. AI programs that rely on speech and voice recognition would need more natural language processing. Hence, with so many different languages, it becomes difficult to bring AI available everywhere. A solution could be to start with the major Indian languages and then move towards the local languages.
3) **Data privacy –** Privacy becomes a major concern when large files of data are stored online. Data can be easily hacked for terrorist or political reasons. This can be a major threat to national security and India needs to formulate stringent privacy regulations. GDPR (General Data Protection Regulation) is an example of regulations for EU countries. (Bhushan, 2018)
4) **Data Scientists –** The field of data science needs to be further developed. While the machine does majority of data analysis, human intervention is needed to check the data being entered and the verify the results. Working with universities and creating in-house training programs will go a long way in creating effective data scientists. (Bhushan, 2018)
5) **Redundant employees –** Since there are employees who are not highly skilled in the certain areas of banking and finance, their job may soon be declared redundant. This can cause unemployment of the employees whose mechanical jobs could easily be replaced by AI.
6) **Identification of right use cases –** It is very important to identify the correct use cases where AI can be implemented. With the help of domain experts and data scientists, AI implementations can be successful in the suitable departments of a banking or finance company. (Mosby, 2018)

CONCLUSION/ FINDINGS

The Banking and Finance industries are one of the first industries to start implementing AI on such a large scale. The processes of customer service, payments, lending, bionic advising, etc. have all been automated and digitized by the advent of AI. AI has enabled the sectors to analyze vast reserves of data and give personalized suggestions to the customers. Through the data collected above it can be concluded that –

1) Several Indian banks have taken the leap in implementing AI including HDFC bank, SBI bank, Canara Bank. 93% bankers say that they are increasingly relying on data to derive critical and automated decision making. 36% of large financial institutions are currently investing in AI and 70% plan to in the near future. (Mosby, 2018)

2) Several financial service companies are also using AI to provide personalized services in portfolio management, risk assessment, fraud detection, etc. Most of the mechanical and monotonous paperwork is now being automated.

3) AI has significant impact on the consumer. Consumer can get personalized and value added services. There is increasing need for a consumer to make informed choices and AI does exactly that by analyzing data and giving output in the form of suggestions.

4) AI also impacts the industry and economy. An industry develops with innovation and there is all round efficiency. An economy benefits with reduces costs and optimum allocations of resources human and capital resources.

5) AI is also facing several challenges in the Indian landscape. Multiple languages and lack of reliable data being the key issues.

6) Formal education and more planning in the fields of data science and AI engineers needs to be implemented.

7) Data access and privacy must be protected by stringent regulations. Thus, the Indian Government will have to implement appropriate laws.

8) Data theft and hacking is possible by hackers. Data can be misused by terrorist organizations and for political agendas. Appropriate security measures must be in place especially in the banking and finance sector.

In order to gain the full benefits of AI in the banking industry, it cannot be applied in the unorganized piecemeal manner (Mosby, 2018). A workforce that can implement AI at the enterprise level will be highly valued. AI being used to supplement human intelligence will bring about positive and long lasting benefits to the economy. Thus, with future innovations in AI, job roles will also have to be re-evaluated in order to create a perfect balance between man and machine.

REFERENCES

1) Chugh N. and Jaiswal, S. How AI is disrupting the banking sector in India. Silicon India Magazine. Retrieved from https://technology.siliconindiamagazine.com
2) Mosby, S. (2018, May 14). AI and the future of banking. Retrieved from https://yourstory.com
3) Kumar, N. (2018, July 9). Artificial Intelligence in the Banking Sector. Retrieved from http://www.bankingfinance.in
4) SBI and other banks using AI big time improve efficiency. (2018, July 1) Retrieved from https://economictimes.indiatimes.com
5) Maruti Techlabs. Ways AI is transforming Finance Industry. Retrieved from https://www.marutitech.com
6) Bhattacharya, A. (2018, May 8). How AI is redefining the financial services landscape. Retrieved form http://www.forbesindia.com
7) Bhushan, K. (2018, July 9). AI in Indian Banking – Challenges and Opportunities. Retrieved from https://www.livemint.com

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A CRITICAL APPRAISAL OF METHODOLOGIES TO ESTIMATE UNPAID HOUSEHOLD SERVICES: REVIEWING THE LITERATURE

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ABSTRACT
Unpaid work is the work that is not remunerated in terms of money. Unpaid household work includes routine activities such as cooking, washing, cleaning, child care, adult care, etc. This paper discusses various methodologies suggested by different researchers and evaluates them critically.

Keywords: Unpaid household services, Methodologies, Critical appraisal

INTRODUCTION

The concept and measurement of the National Income has undergone considerable changes over the years. National income accounting has drawn attention of several economists, politicians and sociologists. It has been treated as a tool to measure economic performance of a nation, to compare the progress of one country to another, to understand the elements of income, output, savings and investment in an economy, to develop various macroeconomic policies and so on. However, these methods have been criticized due to some of their limitations. One such limitation was the non-inclusion of non-marketable activities performed in the economy like the unpaid household services produced by the economy.

Accordingly, the objective of this research paper is to understand the evolution of the concept of ‘Unpaid household services’, various methodologies to estimate the same, their pros and cons, and its application in the researches carried out in India.

1. HISTORY OF THE EVOLUTION OF THE CONCEPT OF NATIONAL INCOME AND ITS LIMITATIONS

If we look back in the history, in 1665, William Petty coined the first estimates of the National Income and wealth of England.Later in 1669, Gregory King carried out an integrated statistics system used as the ancient method of national accounts.The first attempt to develop such measures was undertaken in late 1920s and 1930s, by Colin Clark and Simon Kuznets. Later on, Richard Stone from UK contributed further in the construction of national income accounts during World War II.Simon Kuznets presented the original formulation of Gross Domestic Product (GDP) in his reports to the U.S congress for National Income 1929-35. His report included all the economic production by firms, individuals, and government which is formally known as GDP. After 1944, GDP was considered to be standard tool to measure economic activities by the World Bank. An IMF publication states that "GDP measures the monetary value of final goods and services—that are bought by the final user—produced in a country in a given period of time (say a quarter or a year)."According to Marshall’s definition “the labour and capital of country acting on its natural resources produce annually certain net aggregate of commodities, material and immaterial including services of all kinds. This is the true net annual income or revenue of the country or national dividend.” Here, net means deduction of depreciation from gross national income and to this income from abroad is added (Dickisnon, 2011;Hemawad, 2015; Niklas,2016).

Various methods of estimating the National Income have evolved so far such as Income method, Output method, Expenditure method, and Value Added method. But these methods have limitations which are listed as below.

1. Inadequate Data: National income data are collected by group of people who are not trained enough to do the task. Hence, it does not ensure reliability.

2. Unaccounted Income: There is huge unreported illegal income earned by people that are not included in the national income estimates of the country. This makes national income estimates as under estimates.

3. Self-Employment Data: In case of self employed persons it is very difficult to find out the different inputs provided by the owner himself. He might be using his own land, capital or labour in the business. This leads to difficulty in measuring income of self-employed person.

4. Self-consumption goods: In developing countries like India farmers keep a large portion of food and other goods produced on the farm for self consumption which is not included in national income. If the farmer had to

sell entire produce in the market, he would buy what he needs for self-consumption out of his money income. If he keeps the same produce for self-consumption, it has money value that must be included in the national income.

5. Services of Housewives: Inclusion of services of housewives in national income is the biggest difficulty. A housewife is not paid for her services such as cooking, cleaning, tailoring, washing, taking care of children and elderly member of the family, etc. All these activities have no market value. Thus it is not included in national income estimates. On the contrary, if these activities are outsourced to servants, cook, or maid then they are paid and it is included in national income estimates. Thus, national income is underestimated by excluding the services of housewives (Ironmonger, 1996; Luxton, n.d.; Stiglitz, Sen, & Fitoussi, 2009; Dickisnon, 2011; Hemawad, 2015).

2. UNPAID HOUSEHOLD SERVICES: THE CONCEPT

When some tasks or activities are not remunerated, they are not included in the national income accounting. Such tasks or activities are known as unpaid work. There are some goods and services that are difficult to be assessed in terms of money, for example, cooking for self and family, taking care of children etc.Such services are not taken into account in national income as it is difficult to keep a record of these activities (Vanek, 1974).

As defined by Kabeer (2008) "Any purposeful activity undertaken to produce valued goods or service and which can in principle be delegated to someone else." Thus, work paid in cash or kind is called 'paid work' whereas activities performed without any payment are known to be 'unpaid work'.

It has been found that most of the domestic tasks reveal a strong gender division of labour in households, with women shouldering greater responsibility (Niklas, 2016). As per McMullin (2005) in the study of pattern of unpaid work, women who are married and have children engage more in unpaid housework then their older female counterparts.

However, the biggest issue is that household work is not taken as work and its value is excluded from GDP calculations (Postner, 1992).Some feminist economists reacted strongly to the invisibility of female labour in national income accounting. Activists like Federici (1974) argued that male economic production was impossible without women's uncompensated "non economic" labour. This was supported differently by other feminist economists. In 1999 the New Zealand economist Marilyn (2003) suggested it is time and not money value to be measured for household activities. She moved beyond GDP as a measure of welfare. She emphasized more on time-use surveys.

3. VARIOUS METHODOLOGIES TO ESTIMATE UNPAID HOUSEHOLD SERVICES

Reviewing the existing literature, one comes across primarily three methods to estimate Unpaid Household services, namely, 'Time-use survey', 'Replacement Method', and 'Opportunity cost'. What follows is a discussion of these three concepts, advantages and limitation of each.

3. a. Time-use Survey Method

Time is an important asset for everybody and its use can be analysed to develop indicators of welfare of human beings. Time use surveys give a complete picture by providing detailed information about how an individual spends his/her day on different economic and non-economic activities. Accordingly the method of Time-use surveys has also been comprehensively used by various economists in assessing the unpaid household services (Hirway, 2009a).

Advantages

1. Time use survey highlights the hidden areas of society, which is not visible in current statistical system
2. It helps us to focus on paid and unpaid work of men and women and policy formulation.
3. It helps to understand estimates of work and workers and therefore national income.

Limitations

1. These surveys do not consider the efforts and efficiency of activities. No distinction is made, for example, between slow and fast workers, such as, slow women spending hours on cooking and a fast woman cooking very fast.
2. Another limitation of Time use survey is ignoring the use of technology. Like for example the use of electronic gadgets like mixers, blenders, etc, affect the time consumed for the same task and thus do not give clues to the use of gadgets, in reducing the time consumed.

3. Time use surveys do not consider the hazards associated with particular jobs and only considers the time taken. For example, if a homemaker cooks on wood or charcoal fuel based cooking stove it deteriorates her health and can be hazardous and toxic to use.
4. People may not be able to give clear data on time usedasobserved in developed and developing countries
5. It is expensive and time-consuming method.

Nevertheless, most of these limitations are also not captured in the traditional statistical methods to estimate the national income (Hirway, 2009b, 2010; Harvey and Pentland, 2002)

3. b. Replacement method

The Replacement method proposes that household production can be measured at the rate of services purchased from the market.It equals the values of household activities as the cost of hiring someone to perform the household tasks. Accordingly, it attempts to value the unpaid household work considering that if it was outsourced to someone who would charge for doing a task, how much would have to be paid for the activity, is the estimate of the household services provided. For example a cook in the locality charged Rs. 2000 for cooking three meals per day, and then Rs. 2000 is taken as the value for cooking even when it is not outsourced. Similarly the economic cost of various activities like sweeping, moping, dusting, washing clothes, utensils, teaching kids and ironing clothes are estimated.

Advantages

1. It gives a precise economic value to the unpaid household services
2. It is easy to estimate the economic value

Limitations

1. Charges paid for the same activity may differ from place to place
2. Averaging out the charges for activity may not consider the standard deviation and may or may not be accordingly allowed to replace the unpaid household services
3. A household may be willing to pay higher if it lacks a choice in certain circumstances, but to hire a person and in other cases the same activity may be paid lower. So replacement cost is responsive to both demand and supply of the activity and may not present a true picture of the worth of the activity.

3. c. Opportunity Cost method

The opportunity cost method considers that the purpose of valuation is to determine personal value as opposed to the value of services; that is, the opportunity cost method takes into account the individual characteristics of the person, such as age and educational attainment. As the concept of opportunity cost holds in economics, it estimates the cost of doing an activity with the cost of not doing that activity. For example, if a homemaker was not involved with unpaid household activities, what would have she earned by being involved in paid activity. For example, a MSc. Degree holder chooses to be a homemaker and carry out unpaid household activities, and then the value of her unpaid household activities is the income that she would have earned in the job market if she was involved in paid activity.

Advantages

1. A numerical value can be assigned to the non-economic activity undertaken
2. Truly considers the worth of time spared for doing unpaid household work

Limitations

1. Eventhough the activity performed may be the same by two homemakers, depending upon their own capabilities to undertake paid work, the value of same activity will differ. Accordingly it is difficult to reach at an aggregate estimate for the nation as a whole.
2. Job markets reward even the same capabilities differently at a point of time. For example two different candidates with same degree may be offered different incomes, and so which one to be considered for unpaid household services estimation is a dilemma
3. Job market may reward the same capabilities differently at different points of time. Hence the same unpaid household services will be valued differently at different point of time if opportunity costs were considered.

4. USE OF DIFFERENT METHODOLOGIES BY VARIOUS RESEARCHERS

In context of Time use surveys, estimating the value of non-market activities like child-care management of the household, elder and sick care along with the routine household activities is challenging. This is due to lack of explicit market value of her services as it is considered to be non-market output (Guruprasad, 2016). Also, data on such activities are not available. According to Becker (1965), households allocate their time to carry out wage work, household activities and leisure. Thus the theory of allocation of time can be applied. Dasgupta (1977) in a study in Africa observed that women spent more time on farm activities. . Rajivan (1999) studied the policy implications of gender equity with time use survey during July 1998 to June 1999 in six states of India; found out that women spent more time on Extended-System of National Accounts and non-System ofNational Accounts than men. Most of these activities are non-market hence not valued. Mukherjee and Sengupta (2006) conducted Time use survey to collect primary data from 50 households in West Bengal on gender disparities in rural work. They observed that it was gender division of labor that pushed women to subordinate social and economic activities and make their contribution unaccountable. Hirway (2009a) suggested estimating time used on domestic activities and calculate its value atleast in a satellite account as a starter.

Alfonso, Hans and Rolf (2001) analysed the time allocation to housework and child care based on 1997 Swiss Labor force Survey Data. It also states that depending on social economic factors men's contribution has not been affected as much as women's time to housework and child care. There is also an attempt to find monetary value to the time allotted to house and care work. They used replacement method as well as opportunity cost method.

Cushing and Rosebaum (2012) discussed method to be adopted after collecting data on time spent on household work. They suggested the replacement cost method by assigning dollar value to hours devoted for household work. Ahir (2015) also used both time use survey and the replacement method to estimate and compare the economic worth of unpaid household services carried out by working women and homemakers, females and males.

As for the opportunity cost method, Stratton and Iza (2012) discussed about household work distribution based on opportunity cost analysis. According to this a partner who has lower opportunity cost in the market spends more time on household work and care.

According to Hersch and Stratton (1994) the higher the husband's share of household income in American dual earner households, the lesser time he spends and the more time his wife spends on housework.

CONCLUSION

Homemakers provide the base for progress of the household, society and economy. In order to understand the needs and capacities of communities and the nation, their work should be recognized, valued and appreciated. Accordingly, a rigorous research is required to be undertaken regarding exploring further the advantages and limitations of various methodologies applied to estimate the economic worth of unpaid household services. It is equally important to undertake various empirical researches in different locations to understand the difficulties in such limitations and compare the outcomes. Whenever the policy framers are willing to incorporate such considerations, they would be better equipped to do so, if necessary empirical evidences would have been gathered.

REFERENCES

- Ahir, K.V. (2015). An estimation of unpaid household services: A case study of Kachchh. ISBN 978-93-83047-71-0. Bricks publications.
- Alfonso Sousa, P.; Hans, S. and Rolf, W. (2001).The allocation and value of time assigned to housework and child-care: An analysis for Switzerland. *Journal of Population Economics,* European Society for Population Economics, vol. 14(4).pp. 599-618.
- Becker, G. S. (1965). A Theory of the Allocation of Time.*Economic Journal,* 75 (299).pp. 493-517.
- Cushing, M.J. and Rosenbaum, D.I. (2012). Valuing Household Services: A New Look at the Replacement Cost Approach.*Journal of Legal Economics* 19(1).pp. 37-60.
- Dasgupta, B. (1977). *Village Society and Labour Use*.Oxford University Press, New Delhi.
- Dickinson, E. (2011).GDP: a brief history, Foreign Policy. January, 3. Retrieved as on 20.1.19 from https://foreignpolicy.com/2011/01/03/gdp-a-brief-history/
- Federici, S. (1974).Wages against housework.pp. 74-87 Retrieved as on 21.1.19 from https://warwick.ac.uk/fac/arts/english/currentstudents/postgraduate/masters/modules/femlit/04-federici.pdf

- Guruprasad, M. (2016).Economics for Everyone: Evaluating Economic Activity-Home Economics – Housewives Contribution to the Economy.IndiaInfoline. May 28.Retrieved as on 21.1.19 from https://www.indiainfoline.com/article/news-top-story/economics-for-everyone-evaluating-economic-activity-home-economics-%E2%80%93-housewives-contribution-to-the-economy-116052800707_1.html
- Harvey A.S. andPentland W.E. (2002). Time Use Research. In Pentland, W.E.; Harvey A.S.; Lawton M.P. and McColl, M.A. (eds) *Time Use Research in the Social Sciences.* Springer, Boston, MA.pp. 3-18.
- Hemawad (2015).History of National Income calculation.February, 18. Retrieved as on 20.1.19 from http://www.econleaks.com/history-of-national-income-calculation/
- Hersch, J. and Stratton, L. (1994). Housework, Wages, and the Division of Housework Time for Employed Spouses.*American Economic Review*, vol. 84, issue 2, May.pp. 120-25.
- Hirway, I. (2009a). *Time use surveys: Concept, classification and related issues: Lesson from the Indian Pilot Time Use Survey*. Retrieved as on 19.1.19 from http://www.eclac.cl/mujer/noticias/noticias/3/22983/IndiraEUTStwsa-09.pdf
- Hirway, I. (2009b). Mainstreaming Time Use Surveys in the National Statistical System in India.*Economic and Political Weekly*, XLIV(12).
- Hirway, I. (2010). Time-Use Surveys in Developing Countries: An Assessment. In *Unpaid Work and the Economy*. pp. 252-324. DOI 10.1057/9780230250550_11
- Ironmonger, D. (1996). Counting outputs, capital inputs and caring labor: Estimating gross household product. *Feminist Economics*, 2:3. pp. 37-64. Retrieved as on 27.1.19 from DOI: 10.1080/13545709610001707756
- Kabeer, N. (2008). Paid work, women's empowerment and gender justice: Critical pathways of social change. Retrieved as on 1.2.19 from http://eprints.lse.ac.uk/53077/1/Kabeer_Paid-work_Published.pdf
- Luxton, M. (n.d.). Valuing unpaid work in the home. Social Science and Humanities Research Council of Canada. Retrieved as on 24.1.19 from https://www.criaw-icref.ca/images/userfiles/files/UnpaidWork.pdf
- Marilyn, W. (2003).Counting for Something!Recognizing Women's Contribution to the Global Economy through Alternative Accounting Systems".Gender and Development, Vol. 11, no.May.
- Mcmullin, J. (2005). Patterns of Paid and Unpaid Work: The Influence of Power, Social Context, and Family Background. *Canadian Journal On Aging* (La revue canadienne du vieillissement). 24. 225-36.
- Mukherjee, S.R. and Sengupta, P. (2006). Gender Disparities in Rural Work: A Time Use Survey - based Evaluation in Rural West Bengal.*Research Journal, Social Sciences*, Vol. 14, No. 2.pp. 1-44.
- Niklas, G. (2016).*To Value Household Work: A Study on the Size of Household Production and its Effects on the National Accounts*. Bachelors Thesis, Department of Economics, School of Economics and Management,Lund University. Retrieved as on 18.1.19 from http://lup.lub.lu.se/luur/download?func=downloadFile&recordOId=8880517&fileOId=8884129
- Rajivan, A.K. (1999). *Policy implications for gender equity: The India Time Use Survey, 1998-1999*. Paper presented to the International Seminar on Time Use Studies, 7-10 December 1999,Ministry of Statistics and Programme Implementation, India.
- Stratton, L.S. and Iza (2012). The Role of Preferences and Opportunity Costs in Determining the Time Allocated to Housework.*American Economic Review*, No. 6436,102(3).pp. 606-611.
- Stiglitz, J. E.; Sen, A. and Fitoussi, J.P. (2009).*Report by the Commission on the Measurement of Economic Performance and Social Progress*. Retrieved as on 15.1.19 from http://www.insee.fr/fr/publications-etservices/dossiers_web/stiglitz/doc-commission/RAPPORT_anglais.pdf

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- Vanek, J. (1974). Time spent in housework. *Scientific American*, *231*(5), 116-121. Retrieved as on 29.1.19 from http://www.jstor.org/stable/24950221
- Postner, H.H (1992) *Review of If Women Counted: A New Feminist Economics.* Review of Income and Wealth, Series 38, No. 2, June. Retrieved as on 22.1.19 from http://www.roiw.org/1992/237.pdf
- Winkler, A.E. (2002).Measuring time use in households with more than one person.*Measuring Time Use, Monthly Labor Review*.pp. 45-52. February. Retrieved as on 23.1.19 from https://www.bls.gov/opub/mlr/2002/02/art3full.pdf

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GROWTH AND DEVELOPMENT OF E-GOVERNANCE IN INDIA

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ABSTRACT
E-Governance or 'Electronic governance' associated with carrying out the functions and achieving the results of governance through the utilization of ICT (Information and Communications Technology). While Governance relates to safeguarding the legal rights of all citizens, an equally important aspect is concerned with ensuring equitable access to public services and the benefits of economic growth to all.

The goal of e-governance is to offer a variety of ICT services to citizens in an efficient and economical manner and to strengthen the relationship between government and citizens using technology. In this study an attempt has been made to understand how introduction of e-governance is useful to citizens of India.

Keywords: E-governance, ICT, Government, citizens.

INTRODUCTION
E-governance, expands to **electronic governance**, is the integration of **Information and Communication Technology (ICT)** in all the processes, with the aim of enhancing government ability to address the needs of the general public. The basic purpose of e-governance is to simplify processes for all, i.e. government, citizens, businesses, etc. at National, State and local levels.

ICT provides efficient storing and retrieval of data, instantaneous transmission of information, processing information and data faster than the earlier manual systems, speeding up governmental processes, taking decisions expeditiously and judiciously, increasing transparency and enforcing accountability. The genesis of 'computerization in governance' efforts in the Indian context can be traced to the early 1960s. It was in the 1990s, however, that the e-government discourse emerged, in parallel with the liberalization of the country's economy, in its current form as 'technology-mediated administrative process-restructuring to promote good governance'. In this transition, ICTs emerged as an important policy priority, for their twin potential for catalyzing growth, and enabling systemic reforms in governance structures.

OBJECTIVES OF THE RESEARCH
- To study the concept of E-governance.
- To analyse the introduction and growth of ICT in India.
- To highlight the major changes occurred in Indian economy because of E-governance.
- To analyse the acceptance of ICT by the Indian population.

DEVELOPMENT OF INDIA
India has followed a different path of development, we went from agriculture to service and to automation and all this happened because of the intelligence of 1.2 billion people. The reasons for our growing economy can be as follows:
- A fast-growing population of working age.
- India has a strong legal system and many English-language speakers.
- Wage costs are low in India closing some of the productivity gap.
- India's economy has successfully developed highly advanced and attractive clusters of businesses in the technology space.

E-GOVERNANCE MODELS
E-GOVERNANCE services can be shared between citizens, businessman, government and employees. These four models of e-governance are as:

1.2.1 Government to citizens (G2C)

1.2.2 Government to government (G2G)

1.2.3. Government to employees (G2E)

1.2.4. Government to businessman (G2B)

- **GOVERNMENT TO CITIZENS (G2C)**

This model of e-governance refers to the government services which are shared by citizens. Here, citizens visit to the link of services that they want to use. This model will stregthen the bond between government and its citizen. Type of services which are provided by this model includes: -

- Payment of online bills such as electricity, water, telephone bills etc.
- Online registration of applications.
- Copies of land-record.
- Online filling of complaints.
- Availability of any kind of online information.

- **GOVERNMENT TO GOVERNMENT (G2G)**

This model refers to the services which are shared between the governments. There is lots of information that need to be shared between various government agencies, department and organizations. These types of services or information are as:

- Sharing of information between police department of various state.
- Government document exchange which includes preparation, approval, distribution, and storage of all governmental documents is also done through e-governance.
- Most of the finance and budget work are also done through e-governance.

- **GOVERNMENT TO BUSINESSMEN (G2B)**

Through this model, bond between private sector and government increase and businessmen use to communicate. They share information through this model like: -

- Collection of taxes.
- Rejection and approval of patent is also done by this model.
- Payment of all kind of bills and penalty.
- Sharing of all kind of information, rules and data.
- Complaints or any kind of dissatisfaction can be shown by this.

- **GOVERNMENT TO EMPLOYEES (G2E)**

This model increases the transparency between government and its employee. Here, employee can keep a check on the functioning and working of government and government can keeps on its employees. Information that can be shared by this model: -

- All kind of data submission (attendance record, employee record etc) from various government offices is done by this model
- Employee can file all kinds of complaints and dissatisfaction by this model.
- All kind of rule- regulation and information for employees can be shared by this.
- Employees can check their payment and working record.
- Employees can register all kind of working forms online.

E-GOVERNANCE INITIATIVES IN INDIA

E-Governance is the interaction between citizens and government through electronic media. These are basically efforts made to modernize government functioning. E-Governance makes use of technological tools like Internet, public kiosks etc. to complete many government activities. For example, if a common man needs some financial loan or a retired person wants to apply for pension, he/she should be able to apply for the same through internet center without physically going to the required office. Going to a government office for a small task and wait for a long time could be a tiresome job.

The citizens should have a choice of going to the Internet centers or the government offices to get their works done with the Government. The recent studies show that in last couple of years, E-Governance is getting its influence. Many projects are running in India to enhance efficiency of the government. The list of such projects has been listed below: -

THE GRAMSAT PROJECT
This is one of project of Indian Government in Orissa. The goal of the project was to eradicate illiteracy in rural areas. This project connects many blocks there to share information. The project was implemented by Hughes Escorts Communications his organization was responsible for holding all the activities like planning, designing, implementation, and maintenance etc. this project made use of the application like internet, Development Information Network (DIN) and National Resource Information System (NRIs). It included many performance-enhancing tools like spoofing, prioritization, compression and packet filtering.

MISSION 2007
This project had the same goal means to spread literacy all over the India. The goal was to interconnect more than 20,000 villages through a hub. The villagers were provided with 2Mbps bandwidth to each node through leased line. Total area covered with the fiber optics was 670,000 km through wireless lines, fiber optics and satellite links.

IT FOR RAILWAY RESERVATION SYSTEM
The Government of India has set up Community Information Centers (CICs) in the North East and Sikkim. These CICs provide broadband Internet access over a LAN to allocate information or data. The objective of this project was to provide online reservation facility to the passengers.

E-SUVIDHA
This project was accomplished to provide services like –birth registration, death registration, marriage certificates, category certificates etc. They also provide information about agricultural prices and related matters, and educational and employment opportunities.

NATIONAL TAX INFORMATION EXCHANGE SYSTEM (TINXSYS) PROJECT
People from all over the country make use of this project. It provides a faster and easier way to pay tax including VAT (Value Added Tax). This project is accomplished by 3i infotech and makes use of technical tools like software development, data migration, countrywide networking, data centers, disaster recovery services, application support, facilities management, IT infrastructure services, call centre etc.

The Ministry of Company Affairs, Government of India as a part of governance reforms has undertaken MCA 21 Project. As the flagship E-Governance initiative of the Government of India, this project aims at fulfilling the aspirations of the stakeholders in the 21st century through adoption of a service-centric approach. The bottom line of this unique initiative is the improved speed and **certainty in the delivery of MCA services. This improvement is primarily enabled through the mechanism** of secure electronic filing (e-Filing) for all the services provided by the Registrar of Companies including incorporation of a company, annual filing and other event based statutory filings. This project is being implemented through a public private partnership and the portal www.mca.gov.in has become operational w.e.f. 30th January 2006. The e-filing operations as been launched from 18th Feb. 2006 from the Registrar Office, Coimbatore, which has been selected as a pilot site and thereafter at other locations by the end of April 2006. At the current point in time, detailed information on the process of e-filing is available.

METHODOLOGY
The study has been conducted by using secondary data i.e. Journals, Website and other internet sources.

CONCLUSION
The induction of information technology into governance, especially at the rural level, is not an easy task due to unstructured nature of rural development, low literacy levels and reluctance to adopt information technology. Regional disparities which were already glaring in poverty, employment generation, literacy is widening further. E-governance will be successful only if we start to undertake due efforts to implement it in all blocks and districts and spread it to the grass root level.

Although there are so many examples of very good E-Governance projects in India, still the results are not very good. According to the recent survey 15 percent of the projects are successful, 35 percent are partial failures and 50 percent are failures. To make these projects a real success, stress should be given on the awareness among common public, not only on the use of technology.

Being the largest democratic country, India must show an example to other in this context. But in last many years we have not seen the efficiency of public servants, who are supposed to be the some of the best brain of India. For attaining developed status our public service system must work in a better way. Citizen must participate in various activities, if we really want to see India as a developed nation. Public service must be strengthened in India in true spirit, if we want to become to become a developed nation in near future.

BIBLIOGRAPHY

- https://www.tutor2u.net/economics/reference/india-economic-growth-and-development
- https://egov4women.unescapsdd.org/country-overviews/india/the-evolution-of-e-government-in-india-the-early-days
- http://www.insightsonindia.com/2014/11/23/e-governance-india-concept-initiatives-issues/
- Growth and Development of E-Governance in India.mhtml

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ENTERPRENEURSHIP - ENLIGHTENED WARRIOR IN BUSINESS DEVELOPMENT AND CHALLENGES

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ABSTRACT
Enlightened Warrior is the model of the 21st century leader. in the sense that a modern leader identifies opportunities before the competition, taking in information from all sides to spot possible new directions. The warrior side symbolizes a passion for achieving a goal motivating work force and also a willingness to go on the attack--against the competition, and against weaknesses in yourself and the organization. It's a war on complacency."Several new factors in the current business environment demand this kind of creative thinking, leadership experts say. One is the increasingly rapid pace of technological change, which opens up new possibilities for nearly every business. Two big changes are people-focused: the growing diversity of the nation's work force and Adaptability in making hard choices. The world has experienced profound changes in the early years of the 21st-century. Countless challenges—notably the rise of the global economy and its impact on countries everywhere—have forced leaders worldwide into uncharted territory and literally redefined what it takes to succeed. These challenges raised key questions to be addressed by comprehensive new research on means to meet the challenges. To succeed in the shifting business landscape of 21st century, leaders must rethink about the existing potential of the workforce as well required competencies to meet the forth coming challenges of the business. There is need to enhance high quality of people. Planned training & development programmes ensure the continuous development. Training is viewed as a cyclical ongoing process. People all over the world have realized this fact. High budget programmes have gained momentum, but continuity of 'high budget' is always questionable. Customized, tailor made programmes reflects the innovation. Tilting towards the practice of need-based training indigenises the whole process of training & development, one of the most important Human Resource aspects.

INTRODUCTION AND REVIEW OF LITERATURE
In the words of Dr. Kathleen Patterson and Dr. Paul Carr[1], "The 21st century organisation will most certainly need to negotiate some of the pertinent topics of the century from a global perspective. One area of paramount concern is the people factor. People are an extremely valuable commodity to almost any avenue of commerce – systems are in place for the people of an organisation; and by the people of an organisation." The article of Dr. Patterson highlights important role of executives who are instrumental in obtaining high success to the 21st century global organisation.
LeadershipZones

Figure-1

Reflection:In this zone, leaders assess their own motives, beliefs, attitudes, and actions. Reflective leaders look within and ask, "How can I make sure my own blind spots and biases don't cause me to make poor decisions?" and "How can I leverage my strengths to become a better leader?" To succeed in this zone, leaders: Take responsibility for their own mistakes. Reflection helps leaders avoid pitfalls in other zones, make the most of honest feedback, recognize the limits of their knowledge, and avoid repeating their mistakes. When leaders see their mistakes as a chance to learn and grow, they gain the ability—and credibility—to help others do the same.

Society: In this zone, leaders apply principles—such as fairness, respect, and "the greater good"—to balance individual and group welfare. Here, leaders attend to economic, environmental, and ethical matters that affect the larger society. Recent unethical business practices with worldwide consequences highlight the need for leaders to serve and encourage others to serve a larger good

Diversity: In this zone, leader's value and leverage human differences, including gender, ethnicity, age, nationality, beliefs, and work styles. Here, leaders prove their ability to work with diverse people and appreciate cultural perspectives. To succeed in this zone, leaders: • Make fair decisions, even if they have a negative impact on themselves.

Ingenuity: In this zone, leaders not only offer and execute practical ideas; they also help others do the same by creating a climate in which innovation can thrive.

People: In this zone, leaders connect with others on the human level shared by all to earn commitment, inspire effort, and improve communication of every kind.

Business: In this zone, leaders develop strategies, make and execute plans and decisions, organize the work of others, and guide effort toward predicted results.

Balancing these six zones can be daunting because it is nearly impossible to give equal attention to every zone all the time. Even so, increased awareness of the zones and activities can help leaders make conscious trade-offs in response to shifting conditions. Everybody says their employees are their top priority, but management consultants say few companies' actions show it. Changing work force dynamics make managing people an increasingly crucial skill for leaders.Leaders need to learn how to keep this new wave of younger workers happy, or risk losing them.Among the traits younger workers want from leadership and proper training are authenticity, accessibility and skill.

Management Training

People may insist that management training is absolutely unnecessary. Men and women from any areas could be promoted to managerial ranks and allowed to "sink or swim" i.e. learning to be managers through their own mistakes. Such approach underestimates the demands of management. There are other people who believe that management cadre people should come from B-schools with tremendously sophisticated knowledge and etiquettes. In the words of Peter Drucker, 'an institution that cannot produce its own managers will die. From an overall point of view the ability of an institution to produce managers is more important than its ability to produce goods efficiently and cheaply.' This calls for a planned approach to the development of its managerial persons.

There is a need to acknowledge & make provisions for leaning those developmental stages in the context of specially designed management training programmes. It brings in innovation & improvement in the management, which is, must in the era of globalisation – as growth depends to a great extent on the innovation & improvement of management. Improvement in the quality of product or reduction of cost or both gets in the competitive advantage, which could be the result of well trained management with up- to-date knowledge.

RESEARCH METHODOLOGY

For studying the Leadership Development to meet the Global challenges a research has been conducted and the data has been obtained from different corporate houses of Asian countries and European countries. An attempt is made to obtain the primary data from 157 managers/leaders at different levels from different corporate houses across the world with the help of structured questionnaire. The data provided information on the different aspects of the leadership traits required to meet the global challenges in general and on certain parameters in specific. Importance of training as an instrument to avail the required skills was also emphasized.

RESEARCH FINDINGS

As per the data collected from 157 manager cadre employees associated with the corporate of Asian and European countries, analysis of responses is as below:

Business Challenges

Responses to the survey item "Please select the TOP FIVE most pressing challenges that your organization will face over the next 1-3 years" were tabulated by organizational level, company size, and global region. The most important leadership practices identified by the survey were sorted into categories and results were tabulated overall and by organizational level, industry, and global region.

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Table-2: Five Top-rated challenges by global region

ASIA	EUROPE
Cost pressure	Cost pressure
Competitors	Growing the business
Improving customer satisfaction	Driving sales growth
Growing the business	Product/ service innovation
Technology challenges	Employee productivity

Table-3: Top-rated challenges in Asia

Asia	Reflection	Society	Diversity	Ingenuity	People	Business
Executives	70.4%	73.6%	74.3%	72.7%	71.8%	81.8%
Middle Manager	62.4%	60.0%	61.7%	61.4%	62.7%	65.9%

Table-4: Top-rated challenges in Europe

Europe	Reflection	Society	Diversity	Ingenuity	People	Business
Executives	40.8%	36.6%	33.0%	36.6%	42.3%	44.2%
Middle Manager	60.8%	55.3%	60.0%	60.8%	61.4%	66.1%

In Asia executives rated all six zones higher than did any other organizational level. In Europe, however it was middle managers who rated all zones higher than did other organizational levels. This finding may indicate greater acceptance of traditional leadership practices by European executives, as compared to executives in other regions,.

More and more employers on the globe are assessing the value return from each dollar spent on employees. The management is targeting specific programmes & practices for the employees, who value them the most, and these are becoming more important than ever.

There is a growing awareness about training and development programmes all over the world.

90.5% trainers fully agreed.Change in economy has brought awakening in the field of training and development.47.6% fully agreed 42.9% somewhat agreed

Growing competition is the real cause of growing demand for training & development programmes.52.4% fully agreed 42.9% somewhat agreed MNC has changed the HR scenario in world.

38.1% fully agreed, 38.1% somewhat agreed

Indian companies are adopting training & development programmes just because MNC organizes more training and development programmes.

19% fully agreed, 23.8% somewhat agreed, 42.9% disagreed

Training & development programmes have helped in creating desired attitudinal change among employees.
57.1% fully agreed, 38.1% somewhat agreed

Training & development programmes offered by corporate meets the specific needs of employees.

85.7% fully agreed.

In last ten years, Mumbai has witnessed explosion of training institutes.

47.6% fully agreed

28.6% somewhat agreed

The above data reflects the weight age and importance given to the training & development programmes by the managers of various organizations under the selected sample

SUGGESTIONS AND CONCLUSION

- Leadership in the 21st-century is more than ever a complex matrix of practices, which Vary by geography, organizational level, and individual circumstances.
- In all global regions, modern leadership may be distilled into six “zones,” or categories of best practices, which the study identified as Reflection, Society, Diversity, Ingenuity, People, and Business.

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- Effective leaders recognize their own leadership strengths and liabilities, adjust current strategies, adopt new strategies, and recognize strengths and liabilities in other people.
- Leaders strong in the Reflection zone are better equipped to leverage their strengths and reduce their liabilities in other zones. Leaders from organizations with greater geographic Scope, numbers of employees and worldwide revenues tend to value the Diversity zone more highly than leaders do in smaller organizations.
- Organizations with wider global operations identify their most pressing challenges in the Diversity zone, notably in "creating virtual workplace structures" and "succeeding with mergers and acquisitions."
- At the same time, leaders worldwide rank Diversity of lowest importance among all leadership zones.
- Training highly supports leaders to develop the required skills and bridge the gap of available talent and that of required talent so as to meet the global challenges.
- Various techniques of training programmes, which are in use defers from company to company and place to place. Only those techniques, which are most suitable and economical survives in long run. Though new concept is accepted and followed, its continuity is conditioned by the suitability. Thus, a touch of indigenization reflects from these innovative practices.

REFERENCES

- Dr. Patterson Kathleen and Dr. Paul Carr, 'The Twenyfirst Century: The Global Organisation – The People Factor', Effective Executive, The ICFAI University Press, October 2007, Pg 10.
- Kodwani Amitabh, 'Measuring Training: ROI; How important it is?' HRM Review, Feb 2004.
- Mishra R. K. 'Management Development & training' in 'Management dvelopment Skills for Excellence' by Satish Pai, S. Ravishankar & Others, Himalaya Publishing House, 2002.
- Di Kamp, 'The Excellent Trainer putting NLP to work', Jaico Publishing House, 1997.
- P. V. Raju, 'Profits through people', HRM Review, The ICFAI University Press, April 2005.
- Pfeffer L., 'Competitive Advantage Through People: Unleashing the Power of Workforce' HBS Press, Boston, 1994.
- Dr. B. Rathan Reddy, 'Effective Human Resource Training & Development Strategy', Himalaya Publishing House, Mumbai 2007.
- Crossan, M., Vera, D., & Nanjad, L. (2008). Transcendent
- https://www.entrepreneur.com/article/173522
- Leadership: Strategic Leadership in Dynamic Environments. The Leadership Quarterly, 19, 569-581.

IMPORTANCE OF DESIGN AND CERTIFICATION WHEN PURCHASING DIAMOND JEWELLERY

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ABSTRACT
It can easily be said that diamonds are a girl's best friend. There is always a fierce competition among women to look their best. Diamond jewellery is purchased not merely as a piece of possession of valuable jewellery it is also a status symbol and sign of ego. Jewellery designing is the art of creativity used in giving each piece of diamond jewellery a unique piece possessed by the buyer, designs may be traditional or modern Jewellery designs may be hand crafted or machine made. Designs are an important considerations when purchasing diamond jewellery. In addition to design the certification of diamond jewllery is also an important consideration. One cannot judge the quality and authencity of diamonds by merely observing it with naked eye. It takes an expert view to give information about the authencity of diamonds. There are many stones like Zircon a much cheaper, look similar to diamonds. Diamonds are certified on the basis of cut, clarity, colour and carat. The price will vary based on these basis. This paper studies the importance of design and certification in purchase of diamond jewellery. Primary data was collected from buyers of diamond jewellery. It studies the importance given to design and certificate by the buyers of diamond jewellery.

Keywords: Certification Design

IMPORTANCE OF DESIGN AND CERTIFICATION WHEN PURCHASING DIAMOND JEWELLER
INTRODUCTION

Jewellery design is the art or profession of designing and creating jewellery. Each design of jewellery is unique. The persons buying diamond jewellery place a lot of importance to design. They are often willing to pay use amount of money for outstanding design. The making charge of the jewellery is basically the cost of the creativity involved in designing. Jewellery is worn not only worn as a fashion statement but as a status symbol. On the other hand huge amount of money is spent on buying diamond jewellery. It is an investment which fetches returns in the future. It is also important to buy the correct quality. Under the naked eye one cannot judge the quality of a diamond. Neither one can know whether the diamond is genuine or a fake. Cut, colour, clarity and carat are the main aspects of a diamond which determine its value. Diamonds with defects or with low carat value fetch a lower price. Sellers provide a certificate of authencity to the buyer. This certificate is a guarantee stating the characteristics of diamonds which will determine the value of diamonds.

OBJECTIVES

1. To study the importance of design when buying of diamond jewellery .

2. To study the importance of certificate of purity when buying diamond jewellery.

METHODOLGY

A random sample of100 buyers were selected.

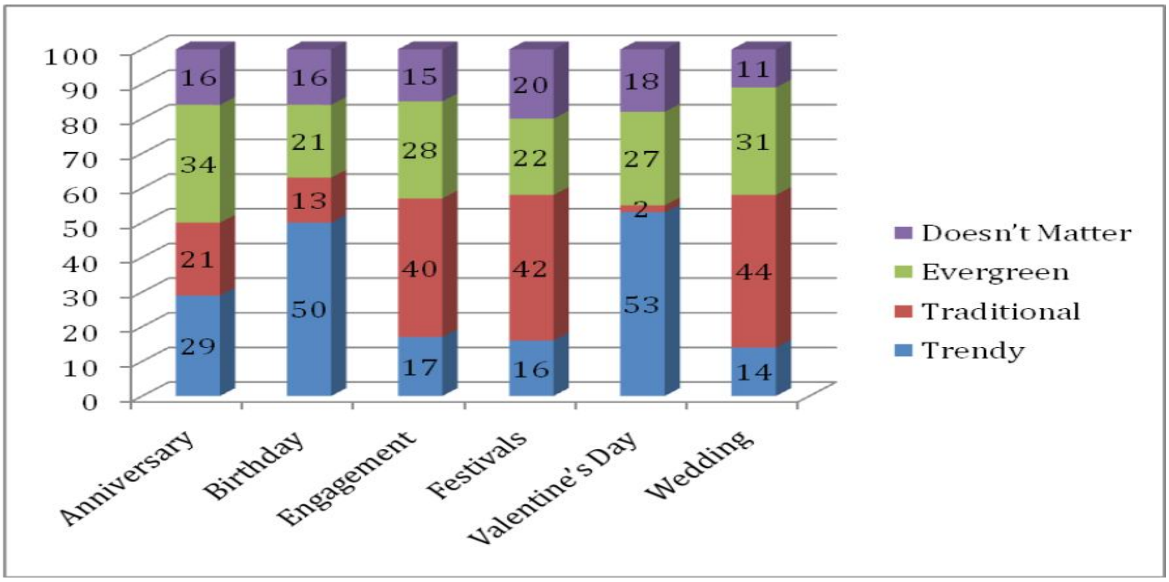
LITERATURE REVIEW

1. M. L. Varma, in his book has examined that compared to the size of the international market; the share of Indian gems and jewellery is very small. He opines that the sector lacks compatibility in terms of export production, infrastructure for proper hallmarking and assaying, fashion trends and design requirements of the advanced countries. According to him, there is an urgent need to focus on publicity campaigns, organization of exclusive shows and participation in international fairs to make a dent in the international market for precious metal jewellery.

2. Dilip Shah, in his article has expressed beautifully how gems and jewellery have been the pride of East for ages. According to him the uniqueness of Indian jewellery is that every region; every state in India has jewellery that reflects the taste of its own people and culture, retaining the aesthetic worth and flavour. Presently, 1.20 million goldsmith spread across the country are engaged in the trade passing on their skill and artistry down the generations. In addition to being a symbol of wealth and power, gold is regarded as 'pure' because of its untarnishability, even after years of use. Apart from ornamentation, precious metals continue to be associated with status and security.

DATA ANALYSIS

Q1.Importance of design and certification in purchasing diamond jewllery.



On the occasion of Anniversary, out of 100 women respondent 34% of women preferred evergreen design, 29% of women preferred trendy design, 21% of women preferred traditional design and for 16% of women choosing a type of design for the occasion of anniversary doesn't matter.

On the occasion of Birthday, out of 100 women respondent 50% of women preferred trendy design, 21% of women preferred evergreen design, for 16% of women choosing a design for the occasion of birthday doesn't matter and 13% of women preferred traditional design.

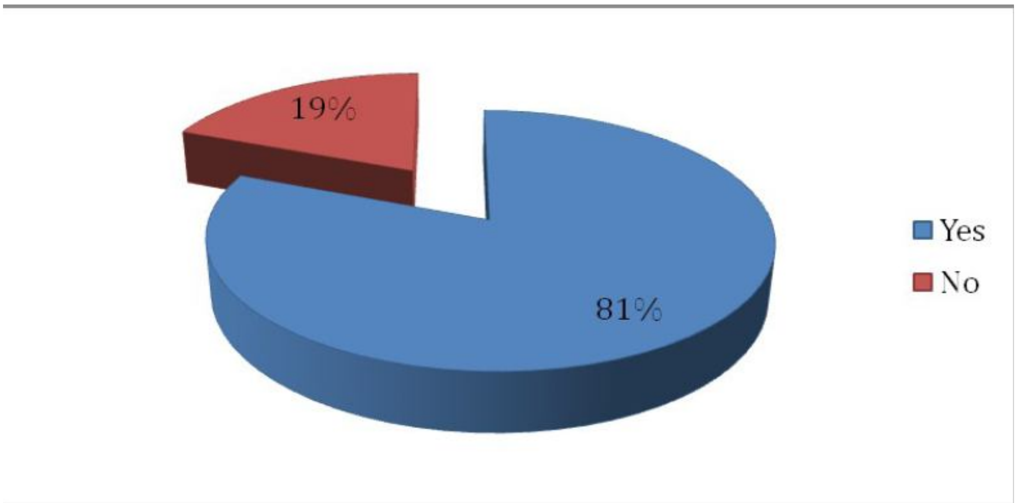
On the occasion of Engagement, out of 100 women respondent 40% of women preferred traditional design, 28% of women preferred evergreen design, 17% of women preferred trendy design and for 15% of women choosing a type of design for the occasion of engagement doesn't matter.

On the occasion of Festivals, out of 100 women respondent 42% of women preferred traditional design, 22% of women preferred evergreen design, for 20% of women choosing a design for the occasion of festival doesn't matter and 16% of women preferred trendy design.

On the occasion of Valentine's Day, out of 100 women respondent 53% of women preferred trendy design, 27% of women preferred evergreen design, for 18% of women choosing a design for the occasion of valentine's day doesn't matter and 2% of women preferred traditional design.

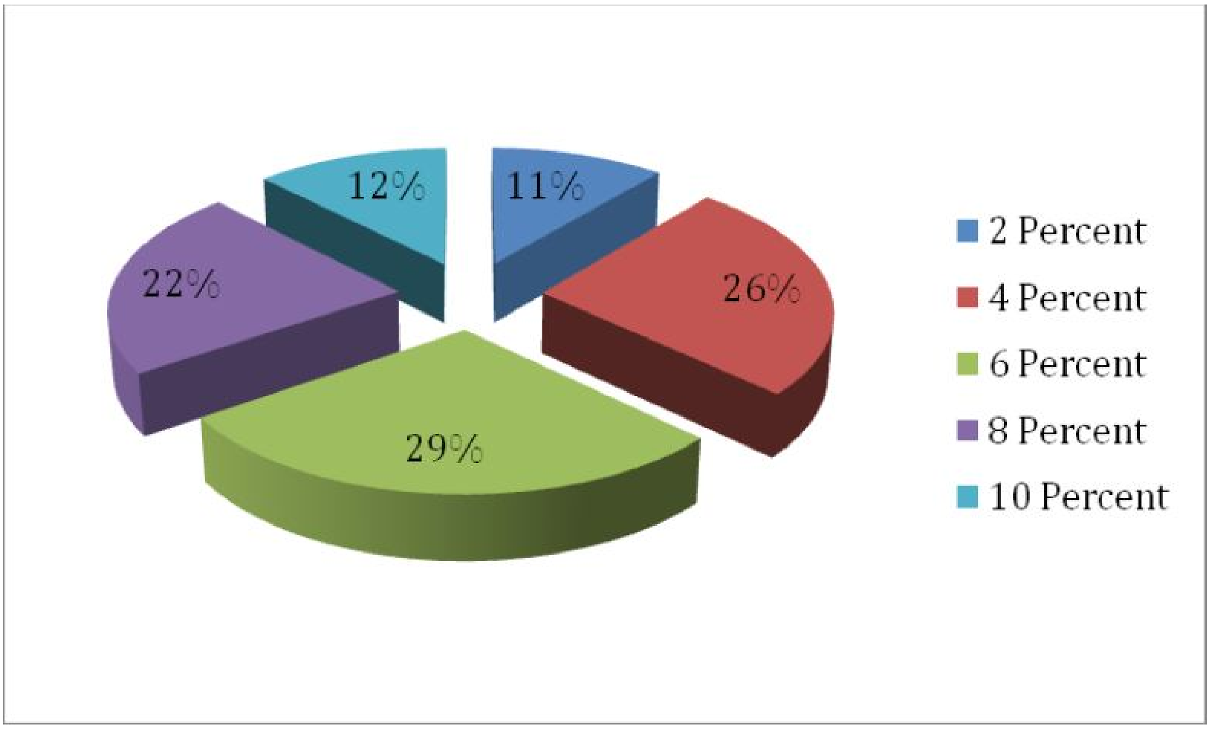
On the occasion of Wedding, out of 100 women respondent 44% of women preferred traditional design, 31% of women preferred evergreen design, 14% of women preferred trendy design and for 11% of women choosing a type of design for the occasion of engagement doesn't matter.

Q2,. Would you be ready to spend more money to get Certified Diamond jewellery



Among the 100 women respondent, 81% of women are ready to spend more money to get certified Diamond jewellery and 19% of women are not ready to spend more money to get certified Diamond jewellery.

If 'Yes' how much percentage of money, extra will you pay compared with uncertified jewellery?



Out of the 81% of women respondent who would like to spend more money to get certified Diamond jewellery, 29% of women are ready to pay 6 percent more compared to that of uncertified Diamond jewellery, 26% of women are ready to pay 4 percent more compared to that of uncertified Diamond jewellery, 22% of women are ready to pay 8 percent more compared to that of uncertified Diamond jewellery, 12% of women are ready to pay 10 percent more compared to that of uncertified Diamond jewellery and 11% of women are ready to pay 2 percent more compared to that of uncertified Diamond jewellery.

CONCLUSION

From the survey it became apparent that for various occasions women prefer to have different designs for diamond jewellery ranging from traditional to modern, trendy or evergreen. Among the buyers 81% women were interested in taking certificate for diamond jewellery and were willing to pay an additional amount.

REFERENCES

1. M. L. Varma, Gems and Jewellery, in Saxena, Sada Shankar and others (ed.), Thrust Sectors in India's Exports, New Delhi: Common Wealth Publishers, 1990.
2. Dilip Shah, CEO, Dpriya, "India: A Gold Jewellery Manufacturer for Home and Abroad", Solitaire International, The Indian Gem and Jewellery Magazine May-June 2001, pp. 25-28.

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ROLE OF BUSINESS INTELLIGENCE IN SUCCESSFUL ENTREPRENEURSHIP

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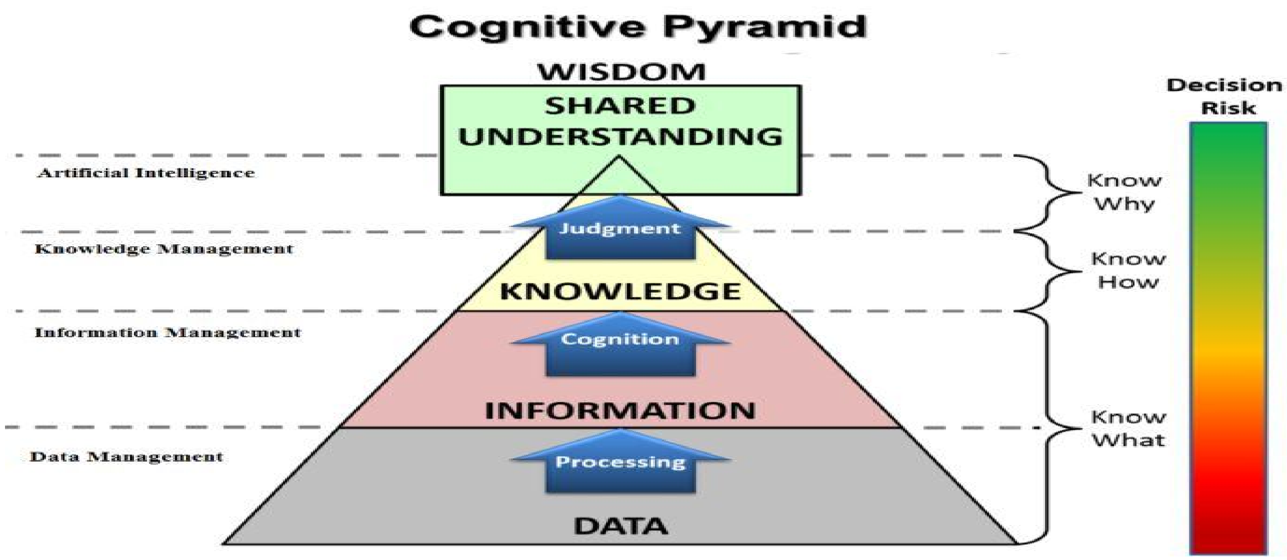
ABSTRACT
Earlier Entrepreneurs believed in their gut, not in Data or Analytics. But because of internet and rise of online businesses, which generates huge amount of data, now these entrepreneurs cannot survive without support of data analytics. Adaptation to dynamism and complex environment in today's society is key for firms to survive and prosper. With numerous competitors struggling to achieve smart market positions, startups work very hard to gain a foothold in the market. These startups are not scaled down version of larger firms, as many would think. These are just different in terms of their structures, resources available and management policies. In a strongly competitive, dynamic and volatile market, right and timely decision making is a must. That is when Business Intelligence comes into picture. With increased availability of data due to electronic modes of transactions, even startups rack up huge volumes of data within few months of their launch. Moreover, all aspects of running business are interconnected to cloud and mobile technology. Business Intelligence enables gathering of external data from market, connects it with company's internal data and then presents trends and outcomes in easy to understand format which helps in better understanding of situation which is required for better and fast decision making. This paper explores the potential of Business Intelligence to improve entrepreneurship and suggests various BI tools, use of which can empower the entrepreneurs and give them an edge over their competitors.

Keywords: Business Intelligence, Data Analytics, Visualization, ETL, OLAP, Entrepreneurs, SME, Cloud, Data Warehouse, Knowledge, KPI

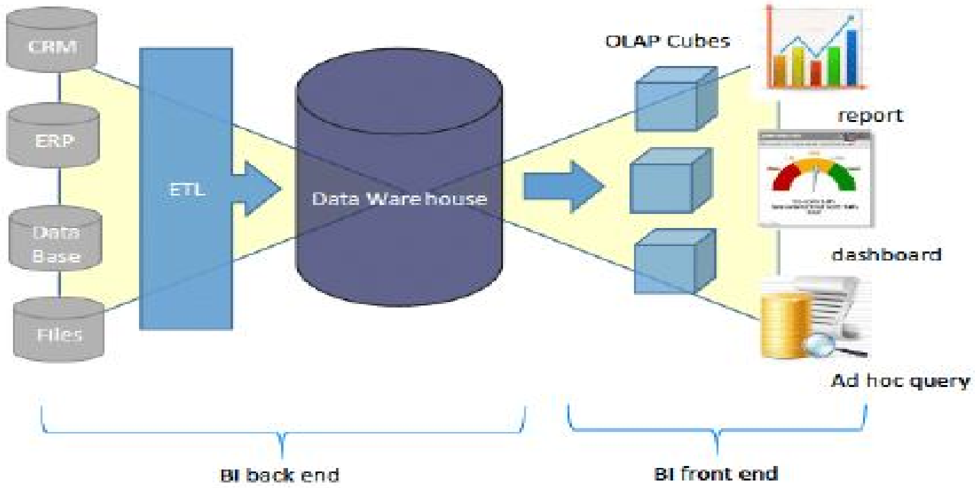
INTRODUCTION
An entrepreneur is a person who sets up a business taking on financial risk in the hope of profit. These dedicated businessmen put at stake not only their capital but also their reputation and career. Main reasons for their failure are:

- They do not analyze the market conditions and needs as often as required.
- They fail to look into the facts in depth.
- They do not give importance to customer satisfaction.

Business Intelligence provides an integrated set of tools, technologies and software products which are used to collect heterogenic data from dispersed sources in order to integrate and analyze data. Data alone do not provide any information. The following pyramid illustrates the various stages in which transformation of data takes place. At the lowest level is data, which taken alone is useless to the firm. At the next level, is information which results after the data is processed. On analyzing this information, knowledge is attained which helps firms in anticipating future events and taking decisions accordingly.



The diagram above clearly shows reduction in risk with knowledge attainment.



In the above diagram the architecture of Business Intelligence is shown. Data, structured or unstructured, is extracted from various heterogeneous sources and after cleansing it, i.e., after converting it to a common format, removing incorrect or incomplete records, it is loaded into the target Data Warehouse. This is done through ETL which is acronym for Extract, Transform and Load. Analytical tools like OLAP, Online analytical Processing, lets users assess, analyze and model business problems. Data Mining tools help in discovering patterns existing among data and various tools for reporting include graphic and multimedia interfaces which provide non-technical users information in more understandable format.

INITIAL FINDINGS

- According to Randstad WorkMonitor Survey, in 2017, 83% of Indian workforce prefers to be Entrepreneurs as against a global average of 53%.
- According to a UN report of 2014, with greatest population of youth in India, only 32% of country's youth is employed.
- While India has become third largest startup ecosystem, it lacks successful innovation.
- Recent study "Entrepreneurial India" by IBM institute found that 90% of Indian Startups fail within first five years and 77% of venture capitalist believe that the most common reason for their failure is lack of innovation. They lack new technologies or unique Business models.
- While India has filed 1423 international patents in 2015-16, Japan has filed 44,235, China has filed 29,846.
- A recent survey by Sisense showed that business owners biggest challenge is the data spread across multiple platforms makes timely and reliable data analysis impossible.

DISCUSSION

All these above facts point towards the need of using Business Intelligence tools. Some of the reasons why entrepreneur need the support of Business Intelligence tools are:

- They need to understand the past and present market conditions accurately in order to make right decisions.
- Frequent analysis of sales and expenditure pattern is very much required so that they can schedule their work and adjust marketing efforts accordingly.
- Key Process Indicators(KPI) need to be continuously monitored so that they can track their goals.
- Data is spread all over, at different places, in different format of files. These need to be consolidated in one place, in one format.

Until few years back, BI was expensive and reserved for elite data specialists and R&D professionals because of high capital required for hardware and software licenses. But now entrepreneur has access to cloud based BI tools which he or she can easily afford.

Benefits of using Business intelligence tools:

- It helps in managing expenditure optimally as it gives a clear visual picture of where spending is going and in which area it can be cut down and where more funds are to be pumped in.
- Frequent analysis indicates key areas where more time and effort should be invested in order to maximize the profit. Decisions can be made with one look on graphical reports rather than going through a 100 page report.
- Whether entrepreneurs need to track growth of their company or target a certain sales demographic, an analytic dashboard can show all these.
- Business Intelligence tools present data in format that is very easy to understand, with advanced visual features like charts, graphs etc which helps entrepreneurs to digest large amount of data at one glance.
- With Data Analytics and Business Intelligence, one can get a Bird's Eye view of what people are buying and what they are not. This helps in making effort management.

SUGGESTIONS

There is a general misconception among most of the entrepreneurs that these Business Intelligence tools are unaffordable for them. In fact, there are many inexpensive and even free BI software tools which they can use without any formal training and with great ease.

Some of the BI tools in mobile app are

- Roambi: It is used by 20% of fortune 50 companies. It changes raw business data into interactive graphics.
- Oracle Business Intelligence Application: This is designed for a single enterprise. This app makes use of a number of unstructured data to deliver intelligence across the organization, providing users at all levels with information they require to increase effectiveness of their team.

Other BI tools are

- DataRPM: It has search engine like qualities that allow users to use natural language in queries, just like they type while searching in Google.
- Sisense: It was founded in 2008. It is not only used for forecasting future scenario, it helps to fine tune day-to-day operations of a firm. It is a cloud hosted BI system which has launched a program that grants Startups free access to its Big Data Analytics features enabling them to track their performance, measure efficiency and carry out product market match processing.
- Google Analytics: It is very easy to set up. To use this, all you need is a Google Account. It is very user friendly. It is used to monitor website's performance. It helps in gaining information about customer buying patterns and hence can improve the conversion rate of the websites. It gives huge competitive advantage.
- SuperCROSS: With colour charting, it illuminates hidden trends and correlations so that important pieces of information do not get lost. It works in programmer free environment.
- Datapine: It is very economic. It removes challenges like cost, adoption, disparate data structures, lack of expertise etc. It plays a great role in consolidating data in one place.
- MotionBoard: It is also cloud based. It does not require any technical skill and is very cheap and user friendly.
- ReportPlus: It is data visualization software built for enterprises and can be deployed on-premise or via a private cloud. This is a self-service business intelligence software designed with accessibility and ease of use, allowing users to create, edit, and share their dashboards within a few clicks without IT assistance. Its drag-and-drop functionality and fuss-free touch-enabled swiping to switch among a wide selection of visualization types makes it easy to create vivid visualizations on any device. On-the-go accessibility ensures that even field employees are equipped with up to date and real-time information at all times.
- Hotjar: It is a cloud-hosted analysis and feedback solution designed to give you a deeper understanding into the behavior of users, visitors, and customers. Its purpose is to give total visibility on user interaction and engagement so that one can leverage their experiences to increase conversion rates. Two primary tools are offered – analysis and feedback. The first lets one observe and gauge user behavior while the seconds allows one to see the actual user activity on your site. Other tools and features included in the software are form analytics, heatmaps, visitor recording, and conversion funnel enabling one to further

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feel the pulse of your audience are tools designed to help listen to what your users say. One can roll out surveys, polls, surveys, user testers, and incoming feedback. There are also advanced feedback tools settings for more control over feedback widgets. Hotjar integrates with over a dozen third-party apps and supports up to 40 languages.

- Zoho Analytics: It is the data analytics app in the Zoho software family. It was formerly known as Zoho Reports which was re-engineered into a more robust cloud-hosted platform which comes complete with online reporting, drill down analytics, and self-service business intelligence. The software is designed to process big data, track KPIs, identify trends, and discover insights. Zoho Analytics provides tools and capabilities to give you a complete picture of your business' health and performance across the various units in your organizations. It is able to consolidate data coming from different sources and give you reports through dashboards and visualizations. The software comes with a smart assistant named Zia which harnesses AI natural language processing to give answers through reports and KPI widgets in response to the questions.

But before acquiring any tool, an entrepreneur must be very clear on following facts

- ✓ What they need to know- Their competitors data, their prices, strategies, targets, strengths and weaknesses. They should also know their business environment- best practices for instance.
- ✓ They should find reputed and reliable sources and then invest into websites which gather competitive intelligence.
- ✓ Right choice of Key Process Indicator should be made
- ✓ Such Business Intelligence tool should be used which is easy to learn and use and does not require technical skills. It should incorporate features like customized Dashboards, ad-hoc reporting etc.
- ✓ Built-in Data Analytics function for studying profits and trends should be available.
- ✓ Cloud based BI tool should be chosen preferably. If it is connected to cloud based storage, one can access data from wherever he or she wants, with an internet connection.
- ✓ Sound Data Security Governance plan should be in place to get protection against data breaches on cloud.
- ✓ It should be deployed quickly, then adjusted with time . Huge amount of time should not be wasted up front developing the perfect reports because needs will evolve as the business evolves. Those reports that provide the most value quickly, should be given priority.

With the help of BI tool Up Selling and Cross Selling opportunities can be found. This can significantly increase profits along with gaining customer satisfaction.

CONCLUSION

Whether you are a brand new entrepreneur or an experienced one with several years of experience, with the help of Business Intelligence, you can achieve success much earlier by not trusting your hunch but getting straight down to real facts and figures.

To grow, remain competitive and be successful, small businesses need to remain agile and innovative. They need to make quick, informed decisions and maximize utilization of their limited resources.

Best entrepreneurs are combining intuition with analytics. With arrival of self-service platforms, SMEs and Startups have now access to actionable and fast business intelligence, despite lacking buying power of larger Corporations.

It takes a lot of hard work, dedication and perseverance to get any business up and running smoothly. It is a continuous process that one has to work on, keeping a competitive edge. To sustain this edge, one must use Competitive Intelligence which can be acquired with the help of Business Intelligence.

REFERENCES

1. Reyes Gimenez, Rodrigo, Victor Jesus, "Business Intelligence:an innovative Technological way to influence Corporate Entrepreneurship".
2. Solomon Negash, "Business Intelligence", Communication of the Association for Information System, volume 13, 2004, 177-195
3. Celina, Ewa, "Approach to buildind and implementimg BI Systems", Interdisciplinary journal of Information, Knowledge and Management, Volume 2, 2007.

ISSN 2394 - 7780

4. Erika Taylor, "What Business Intelligence can do for growth of SME", Nov 2017.
5. "https://www.entrepreneur.com/" accessed on 10th Feb, 2019.
6. "https://financesonline.com/" accessed on 8th Feb, 2019.
7. "https://awakenthegreatnesswithin.com/ "accessed on 10th Feb, 2019.

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SUPERSTITIOUS ATTITUDE IN WOMEN

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ABSTRACT
Superstitious attitude is totally relying on super natural or difficult belief in magic or mysteries or supernatural objects, witchcraft and abject rituals. Superstitious attitude is generally based on mysterious and irrational fear of 'Unknown'. Instead of having scientific attitude towards life, people take decisions totally based on superstitions. They do not think realistically and reasonably and thus take wrong decisions. Such attitude makes a human totally dependent on their fate. Thus, in this article, an attempt has been made to find out the superstitious attitude in women.

Keywords: Superstition, Attitude, Mental health, Women.

INTRODUCTION

Superstition is an old Concept. It has thrived in all cultures. The world has never been free of superstitions at any stage in the history. In fact, this is one thing that has been common to all cultures. Not many would share Edmund Burke's observation that Superstition is the religion of feeble minds. Even of the best minds among philosophers and politicians have been superstitious. Generally speaking, superstitions are more prevalent in unenlightened or tribal cultures than in advanced culture, which means that ignorance and superstitions have a close relationship. Due to superstitions and wrong beliefs human becomes inactive and is worried about the occurrence of certain events which he considers bad. He is not willing to try to understand situation properly. He is inclined to see the situation unreliably and believes that coming events caste their shadows before. It is rather difficult to break the bonds of such beliefs. It has been said that there is no remedy to do away with this superstitious way of thinking.

OBJECTIVES

1. To study superstitious attitude in women.

REVIEW OF LITERATURE

A superstitious behavior can be defined as, "a behavior which does not have a clear technical function in the execution of skill, yet which is believed to control luck and/or other external factors" (Foster et al., 2006, p. 167). This definition creates the distinction between a superstitious behavior, and a common sport psychology tool known as a pre-performance routine (Foster et al., 2006). A pre-performance routine is a preplanned thought or behavior performed prior to a specific skill used to deliberately adjust arousal (Foster et al., 2006). Pre-performance routines have been widely studied in the athletic community (Foster et al., 2006; Wrisberg & Pein, 1992).

Superstition has been analyzed in prevalence and in performance in the worlds of athletics, academics, and economics (e.g., Bleak & Frederick, 1998; Dudley, 1999; Wright & Erdal, 2008). Superstition has been postulated to be positively associated with external locus of control, highn athletic identity, ambiguous intolerance, and high stress situations (Foster, Weigand & Banes, 2006; Todd & Brown, 2003). Sepher et al. (2005) (as quoted by Safari, Khodabakshi) in his study 'The study of example, elements and the reasons for occurrence of Superstitions & false Beliefs' found that women believed much in such beliefs and an educated person believes in such issues less than uneducated person. Regarding the relationship between superstitions beliefs and people's jobs, the lowest level of superstition beliefs are related to clerks & people involved in mental jobs. Superstition may often be thought of as the thwarting of bad luck through not breaking a mirror, not walking under a ladder, not opening an umbrella indoors, and many others. A behavior which does not have a clear technical function in the execution of skill, yet which is believed to control luck and/or other external factors (Foster et al., 2006, p. 167).

When analyzing superstition and performance, there is an important distinction between wishing away bad luck and the belief that a particular behavior, or lucky phrase or charm, will have a positive outcome on performance (Burke et al., 2006; Damisch et al., 2010; Dudley, 1998). Asser and Swan (1998) observed that when faith healing was used to the exclusion of medical treatment, the number o f preventable child fatalities and the associated suffering are substantial and warrant public concern. In their study of the causes of death of 172 children they concluded that 140 fatalities were from conditions for which survival rates with medical treatment would have exceeded 90 per cent, in 18 cases more than 50 per cent and all the rest except 3 would likely have had some benefit from clinical help.

Pathak (1992) experiential that science and technological temper is yet to be imbibed in our cultural fabric and the traditions of history and culture, feudalistic socio-political order, religion where superstition are all in its pervasive forms. Many educated people including science and technology experts, believe in faith healing, wear several stones to satisfy different 'grahas' different charms, amulets etc not to say about the common people. He has also suggested remedial measures through short and long time planning such as:

(i) Mass education against superstition and pseudo-science

(ii) Development o f industries and technologies appropriate to our culture and social needs

(iii) Value-based education system

(iv) Science and technology popularization government, semi-government and voluntary organizations

(v) Published materials on regional language.

CAUSES OF SUPERSTITION

- ✓ Superstition arises from lack of knowledge. It is a child of fear as well. Superstition is generally a legacy of our ancient civilization. But it is strange that the advancement of science and modern education can not eliminate superstition.
- ✓ An unaware human cannot understand the cause of lighting and thunder. He invents an imaginary explanation for the happening. He thinks that some unseen power is behind these natural events. There are people who believe in ghosts and spirits. They also believe in witch-craft. They think that the power of mantras controls everything. So lack of knowledge is the cause of superstition. Most of us are superstitious in some way or the other.

EXAMPLES OF SUPERSTITIONS INCLUDE

- ✓ belief in magic (e.g., spells and curses)
- ✓ belief in omens (good or bad)
- ✓ belief in good luck charms and rituals (a lucky penny, throwing salt over one's shoulder to avoid the "bad luck" incurred by spilling it)
- ✓ belief in divination (fortune telling and prophecy)
- ✓ belief in astrology (i.e., that our fates are determined by the positions of the stars and planets)
- ✓ belief in ghosts or a spirit world beyond what can be explained by science

CONCLUSION

Broadly, superstition is a belief in the supernatural, which is to say, a belief in the existence of forces or entities that do not conform to the laws of nature or a scientific understanding of the universe.

REFERENCES

1) Farasatkhah, Maghsood (1992) Judging in the sociology of religion, Qian press. No. 10.

2) Hedayat, Sadegh (1965) folklore culture of Iranian. Tehran: Sarcheshmeh press.

3) Inglehart, Ronald (1998) Cultural evolution in advanced industrial societies, Tehran: Kavir press.

4) Khashei, Hossein (2009) psychological bases of superstition, Pilgrim journal, No. 79

5) Khaladi Khademi, Hamid Reza (1996) astrology: from reality to superstition. Silk Road. No. 9.

6) Sedghi-Nejad, Rezvan (1994) what is superstition, Kurdistan, Golmehr press

7) Tavassoli, GholamAbbas (2001) Sociology of Religion, Tehran: Sokhan press.

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SUGAR CANE AND SUGAR CANE INDUSTRY: IT'S IMPORTANCE

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The sugar industry is playing a vital role in the India by contributing a major share to the national income and helping in the development of rural areas by being an agro-based industry. It has also emerged as a major foreign exchange earner. Nearly 70 percent of the country's working population is dependent on the agriculture and very significant portion of its national income comes from agriculture. Agricultural development followed by rural development is therefore, need of the hour to boost the national economy. Sugar industry is such an industry located in rural areas which provide opportunities for the upliftment of rural masses by providing employment for both educated and illiterates. 37 countries in the world produce sugar from sugar beet and 72 countries produce sugar from sugarcane. Out of 109 countries, 12 countries manufacture sugar from sugarcane as well as sugar beet.

Sugar Industry in India occupies a distinct position in the social and economic fabric of the society. It plays a pivotal role especially in the upliftment of rural masses. Nearly 70 percent of the country's population is dependent on agriculture and very significant portion of its national income comes from agriculture. Therefore, development of agricultural sector becomes necessary which can develop the rural economy. Hence, it becomes necessary to develop agro-based industries. The processing of agricultural produce particularly sugarcane has a strategic place in rural economy. It makes the commodity acceptable to the consumers and serves as a source of income for the producers and thus plays a vital role in the upliftment of rural economy.

Sugar industry has emerged as an important agro-processing industry during the Post-Independence era. It has been an instrument in resource mobilization, employment generation and creation of social infrastructure in rural areas and thus facilitated and accelerated the pace of rural industrialization. Sugar is generally made from sugarcane and beet. In India sugar is produced mainly from sugarcane. Sugar is a sweet crystalline substance, white or colourless when pure, derived from juices of various plants, chiefly the sugarcane and the sugar beet. Its chemical name is, Sucrose. It is an excellent source of energy. A teaspoonful of white sugar, for example, provides 18 calories of energy. It is of ancient origin. Its origin can be traced in the Sanskrit word 'Karkara' which means sand or gravel. Karkara had become 'Sakkare' in Prakrit language, which succeeded Sanskrit.

The sugar factories have a profound influence on the rural people in terms of their resources and economic benefits bestowed upon the cane-growers. Sugar Industry has brought about social and economic changes in rural India, by way of facilitating entrepreneurial activities, such as dairies, poultries, fruits and vegetable processing and providing educational, health and credit facilities to rural masses. India has maintained its position as the second largest sugar producing country in the world next to Brazil, having a share of over 15 percent of the world's sugar production.

India is the largest consumer of sugar in the world. The average per capita consumption of sugar was estimated at 18.3 kg/year in the year 2002-2003 which is estimated to increase to 23-24 kgs by the year 2010. India produces sugar from sugarcane. In India, 65 to 70 percent of the sugarcane output is used for manufacturing sugar and 30 to 35 molasses for percent for making gur and khandasari. Sugar industry is a major supplier of alcohol and ethanol producing units. Bagasse is used for power generation as well as paper production. Ethanol can be used as fuel.

Karnataka has emerged as one of the major industrially developed states in India. Recently it has outstanding achievement in the field of computer software attracting the national and international firms. Karnataka is one of the prosperous states in terms of agricultural economy and agro-based industrial activities too. Sugar industry is one of the important agro-based industries in Karnataka. Karnataka is the fifth largest producer of sugarcane in India contributing about 10 percent of the entire production. The agro-climatic condition in Karnataka is highly congenial for higher sugarcane yield and recovery, and since long, sugarcane has been cultivated as a major commercial crop in Karnataka. Suitable soil and climatic conditions have been responsible for a large area of agricultural land coming under sugarcane crop and subsequently good number of sugar factories being established in Karnataka.

Today, sugarcane is considered highly remunerative cash crop as compared to other crops. Hence a large number of farmers are going on in favour of sugarcane cultivation in the state. Sugar industry has given employment to the extent of 30-35 lakhs people directly and indirectly in rural areas of Karnataka.

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The sugar industry is predominated by the co-operative sector, which is acting as the crucial strength power for socio-economic revolution in rural areas. They have organized development programmes and created a great deal of influence on the life of the rural people and their income. In the total industrial production, the contribution of sugar industry is considerable and out of it, the contribution of co-operative sugar industry has been immense in the industrial economy and social development of the villages.

At present, there are nearly 553 registered sugar factories having capital investment of Rs.50,000 crores and annual production capacity of average 180 lakhs Metric Tonnes. The average annual turnover of the industry is to the tune of Rs. 25,000 crores. The Central and State Governments receive annually more than Rs. 2500 crores as excise duty, purchase tax and cess from the sugar industry.

Sugarcane is one of the important cash crops grown in India, providing employment to a large number of people and contributing to the growth of vital rural economy. As an essential commodity, its consumption has increased lot. Although sugarcane occupies less than 8 per cent of the cultivated area of the country, it has been significant in transforming the subsistence mode of agriculture to commercial farming. It is the third largest crop in the country in terms of value, next to rice and wheat. Sugarcane cultivation helps to bring about several changes in the economy

More than 4.5 crore farmers are engaged in sugarcane cultivation, harvesting and ancillary activities and about 5 lakh rural people get direct employment in the industry. Thus, the setting up of sugar industry gives us an idea about the importance of it, which is shown as below:-

- To grind [crush] the entire sugarcane grown by millions of sugarcane growers and convert it into a value added product [sugar] useful to all.
- To improve the economic status of millions of sugarcane growers by purchasing their sugarcane at a reasonable price and also by providing employment to rural masses.
- To produce sugar for meeting the demand for sugar within the country as well for exporting it to earn sufficient foreign exchange.
- To produce by-products like, bagasse, molasses, press-mud etc, which are used as raw materials for other industries like, pulp, paper-board industries from bagasse, alcohol, yeast, glutamate and citric acid etc from molasses, biogas and manure from press mud etc.,
- To bring out an overall socio-economic development of the rural people throughout the country.
- It provides raw material to sugar, gur and khandsari industries which in turn exert influence on frural economy in many ways.
- Sugarcane being a cash crop, has raised the income level of cultivators who are now in a position to allocate more funds to the development of agriculture leading to increase in productivity. The additional income increases the purchasing power of farmers which in turn helps in the improvement of living standard and status.
- Sugarcane cultivation and resultant setting up of sugar factories, has to some extent reduced the rural unemployment and consequent migration of people to cities. The sugarcane based industries help absorb some of the unemployed population in the region.
- The sugar industry has enhanced agricultural productivity by providing various inputs like fertilizers, improved implements, technical knowhow, financial assistance etc. The allied industries producing alcohol, spirit, chemicals, cattle feeds, fertilizers, paper etc., have also strengthened the economy of the region.
- Besides, many sugar factories have introduced educational, cultural and other social activities in their command areas thereby adding to overall development of the region.

Sugar industries are located within the sugarcane growing areas which need infrastructural facilities like transportation, communication, electrification, irrigation, agro-service centres, banks etc. Besides, sugar factories provide assured markets to sugarcane growers for sugarcane. As such, the cultivators tend to devote their irrigated lands to sugarcane cultivation.

The processing of agricultural produce, particularly sugarcane has a strategic place in rural economy. It makes the commodity acceptable to the consumers and serves as a source of income for the producers. This processing, however, involves an expert knowledge of heavy financing and full time attention. It is not possible for individual farmers to take up sugar processing individually. They must pool their knowledge and resources and take up the job on a co-operative basis. In this venture, the cane-growers will develop a new confidence hither to unknown to illiterate or semi-literate men of small means in their ability to organize and run large capital intensive projects.

The sugarcane cultivation, however, suffers from inadequate water supply and low productivity, although the area under sugarcane has increased, it is subject to fluctuations during the last thirty years Regional disparity in sugarcane cultivation is also there, which is largely influenced by physical, socio-economic and organizational factors. The productivity of sugarcane is also influenced by the combined effect of these factors which cause inadequate supply of sugarcane to the industry.

REFERENCES

1. Desai, M.R. “Sugar Industry in Karnataka”, *Co-Op. Sugar* Vol.32, No.7, March. 2001 p.521-525.
2. Dharmaraj, S. “Role of Sugar Industry in Indian Economy” Southern Economist, Vol. 46, No. 17, January 1, 2008.
3. Kanaga Anbuselvam S.P. and N. Narasivayam, Emerging Trends in Sugar Industry, Southern Economist June 1, 2005 page 25.
4. Karche R.M., Sugar Co-operatives in Developing Economy, Parimal Prakashan, Aurangabad, First Edition, 1989.
5. Kulkami D.G., *“Essay on Sugar Industry in India - Its Present Position and Future Development”,* Poona, Jnyan Jyoti; Prakashan, 1975.
6. Mane P.M. “A study of Economic Input on the Farmers in a Sugar Co-operative Area of Maharashtra” Indian Co-operative Review, (24) (2) pp. 189-206.
7. Pruthi S., *“History of Sugar Industry in India”,* Reliance Publications House, New Dehli, 1995.
8. Shina, R.V., *“Sugar Industry in India”,* Deep & Deep Publications, New Delhi 1998.
9. Shivajirao, G. Patil, Co-operatives Tryst with Destiny, Cooperative Sugar, November 1997, Vol.29, No, 30.

FACTORS IMPACTING TRAINING TRANSFER OF BEHAVIORAL SKILLS IN ORGANIZATIONS

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ABSTRACT
Organizations have been training their workforce on a continual basis to ensure employee productivity, enhanced skills, increased morale and loyalty amongst its employee and a host of other benefits. However, the increase in training activities has not been complimented by actual implementation on the job. Technical skills have been comparatively easy to transfer as compared to behavioral skills which are tacit in nature. Companies have long been grappling with the issue of transfer of training at the workplace, the absence of which renders the whole training exercise as futile. This paper attempts to highlight the conditions/factors that influence and impact the process of training transfer in global organizations, especially with regards to behavioral skills. The paper has been presented in the form of an integrative literature review to investigate the factors impacting transfer at the workplace. Furthermore, recommendations have been made to enable organizations to facilitate a congenial environment supporting the process of transfer of training.

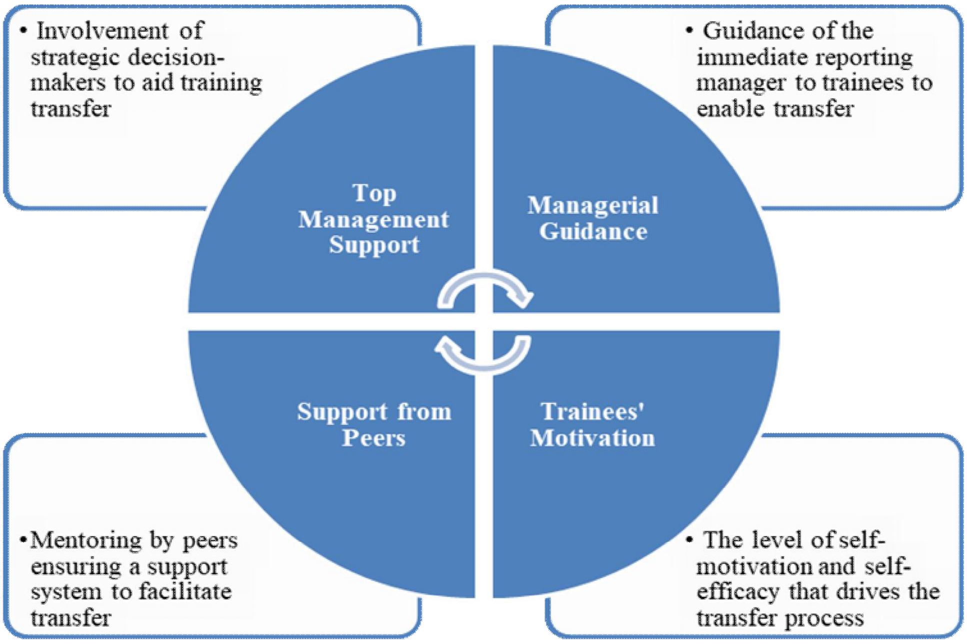
Keywords: training transfer, behavioral skills, management support, managerial guidance

INTRODUCTION
Organizations across the world invest huge sums of money and resources every year, in training their employees. Yet seldom do organizations ensure that the delivered training is yielding the desired benefits. The absence of a functional training transfer system in companies is the reason why training programs fail to deliver the necessary output in a post-training environment. Training transfer is the mechanism through which organizations ensure the application of skills and knowledge acquired during the training program, back at the workplace (Burke & Hutchins, 2007). However, it is imperative to note that for training transfer to be successful, organizations need to take into consideration all the necessary factors impacting training transfer. Several factors such as support from the top management, guidance by the immediate reporting manager, support from peers/colleagues, and motivation level of the trainees' are amongst the major ones that influence the process of training transfer within organizations.

OBJECTIVES
The study aims to achieve the following objectives:
1. Identifying factors/conditions impacting training transfer of behavioral skills in organizations
2. Recommending necessary course of action to ensure effective training transfer at the workplace

REVIEW OF LITERATURE
Training programs serve an important role in the strategic Human Resource Development (HRD) framework of an organization (Kucherov & Manokhina, 2017). However, mere training delivery without the training transfer tools to compliment the process, may render the training program to be an exercise in futility. Results of a survey conducted for learning and development professionals revealed that merely 34% of the trainees actually apply the learnings from the training program back on the job (Saks & Belcourt, 2006). It is necessary therefore, that organizations adopt follow-up techniques such as supervisor consultations and peer support to facilitate post-training implementation of delivered knowledge and skills at the workplace (Martin, 2010). Research has shown that organizations tend to benefit favorably from a positive training transfer and enjoy a better rate of return on investments, while the employees also demonstrate enhanced work performance and attitude (Nazli & Khairudin, 2018). Unfortunately, when the employees do not use the knowledge acquired during the training program, the resources spent on the training tend to get wasted (Latham, 2007).

FACTORS IMPACTING ORGANIZATIONAL TRAINING TRANSFER
There are a multitude of factors that impact the process of training transfer in global organizations. However, an attempt has been made to highlight the most pertinent conditions or factors influencing training transfer in organizations. These factors are applicable to every organization that aims to establish a training transfer mechanism, and serve as guide posts to establish a systematic learning implementation process.



1. **Top Management Support**

   The top management is the vital entity in the organization to facilitate a congenial environment in the organization. They also act as the sponsors of the training transfer initiative, and make the key decision of investing in the post-training implementation of tools and techniques to aid transfer. Tools such as coaching, mobile learning applications, e-learning and other supporting tools of transfer require substantial investment in terms of time, money and other resources. This requires unflinching support by the top management members who act as catalysts towards the effective establishment of the transfer process. Research by (Brinkerhoff & Montesino, 1995) suggests that in organizations where the top management fails to provide support towards training transfer, the employees not only demonstrate lesser application of training but are also likely to experience the process of transfer to be challenging. Organizations where there is absence of buy-in from the top management, fail to ensure successful on-ground implementation of concepts and skills delivered during training programs.

2. **Managerial Guidance**

   There have been numerous studies done in the past focusing on the impact of supervisory support on training transfer (Huczynski & Lewis, 1980; Michalak, 1981). Employees heavily rely on their reporting managers to apply what they have learnt during the course of their training intervention. The manager is the single most important person in the organization who acts as a catalyst for the trainee(s) to build positive reinforcement in terms of applying the learnt skills and knowledge. On the other hand, absence of support from the reporting supervisor may also lead to discouragement for the trainees and may turn out to be counter-productive in the objective of achieving transfer of knowledge. Evidence suggests that the absence of active role of a supervisor tends to impact the transfer process negatively in the organization (Hawley & Bernard, 2005).

3. **Support from Peers**

   Research has proven that peers tend to exercise substantial influence on co-workers at the workplace. Peers therefore play an important role in enabling trainees to apply the learned concepts back at the workplace. Peers at times perform the role of a mentor who would handhold the trainees to seek solutions to the problems being encountered in workplace scenarios. Similarly peers can speed up the transfer curve to ensure that trainees are able to accomplish results at a faster pace. Organizations therefore, need to incentivize employees who mentor trainees in the transfer process, using rewards and recognition initiatives (Chauhan, Ghosh, Rai & Shukla, 2016).

4. **Trainees’ Motivation**

   It is essential to understand that training transfer can effectively be leveraged only when the trainees undergoing the training intervention are willing to apply the tenets of the program delivered. Studies by (Sackett, Gruys, & Ellingson, 1998) suggest that an individual’s motivation and ability tend to impact performance at the workplace. Training transfer is a voluntary act and therefore requires the trainees to take ownership of implementation of the learnings in a post-training scenario. Motivated trainees are likely to demonstrate high morale and stand a better chance to accomplish superior results for the training insights they have gained. It is equally significant to emphasize that trainees' motivation needs be complimented with trainees' efficacy. The competency of learners to apply the acquired skills and knowledge back at the workplace is also a key determining factor. Research by (Colquitt, Le Pine & Noe, 2000) reveals that the intelligence levels demonstrated by the trainees tends to have a positive correlation with the application of learnings back at the workplace and is negatively correlated to the anxiety levels.

5. **Miscellaneous Factors**
Training transfer is a complex procedure; one that demands investment in terms of time, money and effort. Hence the factors that impact the seamless execution of training transfer are also varied in nature. Although the above mentioned conditions are essential to ensure successful transfer in organizations, it is equally important to highlight that there are other factors too that influence the results of a transfer mechanism in companies. Some of the noteworthy conditions that impact the transfer process include the following:

i. *Organizational Climate* – Trainees are often found complaining that although they are willing to apply their learnings from the training program back at the workplace, the organizational ecosystem may act as a deterrent to application of learned knowledge and skills. This dissuades the trainees to act with confidence thus making the training process less impactful. It is extremely important for organizations to remove impediments in the work environment to encourage seamless training transfer (Rossett, 1997). A supportive organizational climate will foster the process of transfer. For instance, when the organization is experiencing a growth period, it also tends to have a positive influence on the ecosystem within the organization thus galvanizing the spirits of the employees to apply their acquired skills and knowledge from the training environment to the job context. On the other hand, periods characterized by high tension or turmoil may also lead to disenchantment of the trainees and thus adversely affect their implementation efforts. Some examples include situations whereby the company is experiencing negative growth or witnessing business upheavals on account of factors such as labor issues, client escalations or even internal conflicts.

ii. *Organizational Culture* – Another relevant factor associated with success or failure of training transfer is the inherent organizational culture. Companies that imbibe a *learning culture* experience a seamless flow of knowledge from the training room to the work environment. The presence of a supportive culture in the organization enables the trainees to perceive the training delivered as a positive tool both for personal growth and for career enhancement.

CONCLUSION

The study of factors impacting training transfer of behavioral skills in organizations is a vast area of research and therefore demands further investigation on this subject domain. It is recommended that the global research community approaches this body of knowledge with a lot of intent and purpose with a view to establish effective training transfer systems in organizations. For organizations to truly reap the benefits of training, it is quintessential that they complement the classroom training delivery with a robust transfer process. Therefore, it is necessary to do an indepth analysis of all the factors that impact the training transfer system within the organization. Decision-makers need to be proactive in their efforts to identify the conditions that influence the transfer system and thus ensure utilization of appropriate tools and techniques to facilitate on-ground implementation by trainees of acquired knowledge and skills, back at the workplace.

REFERENCES

- Brinkerhoff, R. O., & Montesino, M. U. (1995). Partnerships for training transfer: Lessons from a corporate study. *Human Resource Development Quarterly*, 6(3), 263-274.
- Burke, L. A., & Hutchins, H. M. (2007). Training transfer: An integrative literature review. *Human Resource Development Review*, 6(3), 263-296.
- Chauhan, R., Ghosh, P., Rai, A., & Shukla, D. (2016). The impact of support at the workplace on transfer of training: a study of an Indian manufacturing unit. *International Journal of Training and Development*, 20(3), 200-213.
- Colquitt, J. A., LePine, J. A., & Noe, R. A. (2000). Toward an integrative theory of training motivation: A meta-analytic path analysis of 20 years of research. *Journal of Applied Psychology*, 85(5), 678–707.
- Hawley, J. D., & Barnard, J. K. (2005). Work environment characteristics and implications for training transfer: A case study of the nuclear power industry. *Human Resource Development International*, 8(1), 65-80.

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- Huczynski, A. A., & Lewis, J. W. (1980). An empirical study into the learning transfer process in management training. *Journal of Management Studies, 17* (3), 227–240.
- Kucherov, D., & Manokhina, (2017). Evaluation of training programs in Russian manufacturing companies. *European Journal of Training and Development*, 41(2), 119-143.
- Latham, G. P. (2007). Work motivation: History, theory, research, and practice. Thousand Oaks, CA: SAGE.
- Martin, H. J. (2010). Improving training impact through effective follow-up: Techniques and their application. *Journal of Management Development*, 29(6), 520-534.
- Michalak, D. F. (1981). The neglected half of training. *Training and Development Journal, 35* (5), 22–28.
- Nik Nazli, N. N. N., & Sheikh Khairudin, S. M. H. (2018). The factors that influence transfer of training and its effect on organizational citizenship behaviour: Evidence from Malaysia civil defence force. *Journal of Workplace Learning*, 30(2), 121-146.
- Rossett, A. (1997). That was a great class, but....*Training & Development*, 51(7), 18-25.
- Sackett, P. R., Gruys, M. L., & Ellingson, J. E. (1998). Ability-personality interactions when predicting job performance. *Journal of Applied Psychology, 83*(4), 545–556.
- Saks, A. M., & Belcourt, M. (2006). An investigation of training activities and transfer of training in organizations. *Human Resource Management*, 45(4), 629-648.

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BIG DATA ANALYTICS: A FUTURISTIC APPROACH IN SHAPING THE RETAIL SECTOR

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ABSTRACT

Big Data pertains to datasets which are not only huge, but also complex in nature, over the top high in velocity and variety. Hence, it becomes complicated to manage this data by adopting several traditional mechanism and methods.

In the present scenario technology plays a crucial role which makes it convenient to analyze the available data for decision-making, with the help of various innovative tools and applications. Data analysis is one of the important analytical technique that is revolutionary in the area of technology. Big data analytics is a game changer that is used by the retailers to be proactive with the latest insights relating to the potential customers empowering their decision making about pricing, customer's preferences, velocity, volume, variety and marketing. Several electronic devices, mobile apps, sensors, Bluetooth and Wi-Fi facilitates a testing ground for the big data tools and techniques in the retail industry.

This paper explores how big data is and how it can be applied using varied analytics methods and tools in shaping the future of retailing and being abreast with new trends. The data is collected through two sources, primary and secondary. The primary data is collected using semi-structured interview and questionnaires from retailers and vendors.

Further, this study investigates some strategic fields to uncover hidden trends pertaining to price optimization, forecasting demand, identifying customer profiles, creating customer loyalty and recognize the highest scope for return on investment (ROI) which helps the retailer to identify use of data analytics in transforming the landscape.

Numerous concerns would be recognized to incorporate data analytics in the retail sector in full swing. There are several challenges that includes unavailability of people with adequate skills, insufficient support from suppliers, managerial issues related to sharing of information and physical competence of the supply chain to acknowledge the real time changes apprehended by big data. Eventually the moral, ethical, security and privacy matters that may emerge by the usage of big data in the retail sector may also be highlighted.

We recommend that big data analytics may provide unforeseen insights and convenience in decision making in retailing. As big data analytics has vast horizons, if it is appropriately utilized and applied in retail sector, it can focus on predictive research.

Keywords: Big data, retail industry, data analytics.

INTRODUCTION

Big data is non conventional method of administering the latest digital data. Big data from an organisation's perspective is about discovering relevant data set from vast amount of data oftenly described as three V`s that is velocity, variety and volume remodelling promptly into the consumable models and bringing out significant apprehension for formulating business strategies. These apprehensions can be used to upgrade various angles of the business right from sales and marketing, to operations and research and customer assistances.

Big data productively examines huge volumes of distinct data and helps the organisations attain a profound understanding consumer demand. Big data is fetching enormously as an essential resource for decision making.

Retail is one of the most rapidly moving and finest domain business sectors. Retail sector is extremely competitive wherein one experiences innovation and constant changes which once occurred becomes obsolete over a period of time.

Big data empowers the customers in the retail sector to monitor and preferably understand diverse information from multiple sources like emails, customer relationship management, sensors, inventory management system, mobile applications, etc. According to the recent trend, the industry can re-order this supply for their best selling products and modify the price of the products in real time and manage the distribution of the products across divergent stores to direct their sales more efficiently. This bestows the retail sector altogether with discrete approach of focus towards the datasets that are convenient at their disposal.

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To ensure customer satisfaction these organisational datasets can be gathered through social media, data streams, which can be used for better sales projection and suitable campaign, can be designed to match their valuable customers. To revamp operational decisions throughout all platforms, data analytics can assist retailers and suppliers to track demand in retail stores in real time to check hottest products lasts in merchandise.

From the decision maker's point of view, the importance of big data lies in its proficiency to deliver facts, information and useful knowledge based on which decisions can be taken. The companies are presently familiar to inspect internal data like sales, stock and shipment and also external data like supply chain and consumer markets. With the type of unstructured data becoming greater in size it is inevitable to make more knowledgeable decisions formed on drawing purposeful conclusions from the data**.**

OBJECTIVE OF THE STUDY

1. To study the relation between big data and big data analytics in retailing.
2. To explore the strategic areas relating to various variables such as price optimization, forecasting demand, identifying customer profiles, creating customer loyalty and recognise the highest scope for Return on Investment (ROI) with reference to big data analytics in retail sector.
3. To investigate the challenges faced by retail sector in implementing big data analytics.
4. To analyze several analytics methods and tools applied in reshaping the retail sector.

CHALLENGES FACED BY RETAIL SECTOR

1. Retailers have by now initiated positioning data analytics at the core of their operations. Over the value chain acquisition, marketing and sales, inventory operations, supply chain and customer management.
2. Although they now require to demonstrate a big data environment, which can process new and historical data. Thus this can be beneficial in optimizing their yields through analytics formed decision making. However, several challenges are faced by big data analysis and management. One has to keep in mind various aspects to maximize the full potential of big data.
3. Components like privacy, liability policies, security and intellectual property are required to be rigorous with reference to big data, in order to ensure security and compliance of data.
4. As big data inculcates extravagant analytics therefore highly skilled professionals are required to be included in the team as to utilize and functionalize big data analytics. Moreover the organisations need to incorporate information from different sources of data usually from third parties and also deploy effective data to such a surrounding.
5. A lot of time the organisations fall in short-sightedness and fail to execute insights from retail analytics. Hence, this can be established by constant modification of retail trends where a specific team is assigned the task of arranging and implementing the insights.

STRATEGIC AREAS OF BIG DATA ANALYTICS IN RETAIL SECTOR

1. Prize Optimization

Online retailing is formed on vigorous pricing as the price of the product is controlled by many factors, such as seasonal demand, competitors pricing, demand in the market, inventory, etc. Data analytics is one of the most critical aspect in price determination. Algorithms performs multiple activities like track demand, check inventory levels and competitor's policies and thus react automatically to market diversity in real time, which enables actions that can be considered depending on the judgement in a secured manner. Price optimization aids in deciding when prices are to be reduced which is generally known as mark down optimization. Formerly, analytics has been used by retailers for dropping down the prices at the completion of the buying season for a definite product line, when the demand has declined. Presently depending on machine learning price adjustment is possible in real time and suggestions or proposal are sent to a distinct set of customers who has shown interest to purchase the product or has already purchased it earlier.

2. Forecasting demand

Nowadays retailers have access to analytical tools at their disposal which enables them to know the customers buying tendency. Prediciting demand has become more conducive now and retailers can conveniently discover if a specific product is having high demand in the market for a particular period of the year, or in a certain city or a group in order to adjust the inventory. Retailers collect a lot of information from various social networking websites to interpret the variation in customer preferences to scrutinize and promote the products that are

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gaining importance and positive feedback in the market. On the other hand those products which have a negative or neutral feedback may not be scrutinized or promoted.

3. Identifying customer profiles
Identifying customer profiles is also essential in data analytics in retailing as the retailers have a terrific way of recognising the customers and provide them with the desired product. The customer is now segmented on the basis of more polished and factual data depending on customer loyalty programs, transaction history and social media communications. It is favourable for the retailers to get a complete view of the customer and make customized products available to them as per their past preferences or according to the similar buying patterns of other customers.

4. Creating customer loyalty
Retailers needs to identify the customer's requirement, suggest products and services that meets their expectation and keeps them updated about every stage of the selling process. The selling process includes booking, selling and delivery of the products up to the receipt of feedback from the customer. However, it not easy for the retailer to fulfil the needs and wants of the customer as they have varied tastes and preferences. Big data analysis has made it convenient for the retailers to recommend appropriate products to the customer by introducing innovative techniques like marketing campaigns to connect to a particular segment. It facilitates the retailer to understand the customers buying pattern or their perspective to purchase specific product, in turn connecting with them at each and every step to end the sales process.

5. recognise the highest scope for return on investment (roi)
An association of the retailer with each customer can have a huge influence on the existing and prospective customer base. Unwinding the latest idea to the entire sales department is a risky venture as an inappropriate decision could result into instant as well as elongated loss. Ideally, well-known organisations revealed that the best way to distinguish the cause-and-effect relationship amidst two indicators namely key performance and strategic shift by adopting test-and-learn approach.

RETAIL ANALYTICS TOOLS AND METHODS FRAME WORK:-
The retail analytics tools and methods framework is one that the retailers can utilise to construct their schemes that comprises of four dimensions specifically, supply chain, merchandising, store operations and marketing.

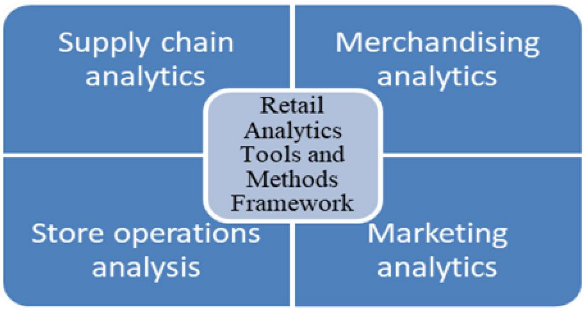
1. Supply chain analytics
Retailer can apply analytics to raise supply chain and product allocation to curtail prices. Structured data can be merged with unstructured data and then this data can be used to detect outliners, root cause analyses, remodel and visualize data. Progressive analytics solutions uses a global positioning system which assists in tracking and comprehending the actions of the drivers spotting the dangerous point on the routes etc. Thus, this can help to decrease the cost based on better and safer logistics.

2. Merchandising analytics
Merchandising analytics helps the retailers to stock the right product at the right time and at the right place. Further it empowers the planners to regulate their merchandising decisions to fulfil the customer expectations. For every stock keeping unit (SKU) the retailers can determine some attributes like package size or flavour, brand those are relevant to the customers. The actual sales of the SKUs can be used to evaluate and predict the future demand at attribute level. Moreover, these evaluations can be used to predict the demand for any integration of attributes in addition to those products which the retailer is planning to take into account in its assortment. Hence, analytics enables the retailer to explore new products that have exorbitant possibility of selling.

3. Store operations analytics
Almost all the retailers are opting for sensors, electronic devices and mobile applications to collect and examine information for better decision making. Retail stores are extensively acquiring sensors as it helps the retailer to know the stock levels and they can automatically restock the shelves with the help of several electronic devices such as Radio Frequency Identification(RFID), surveillance cameras, shelf sensors etc helps to track the departments of the store that gets maximum rush normally over various hours of the day. Due to the launch of the latest innovations like smart price tags which aids in changing the price in real time, mirrors that enables an individual to try clothes virtually and packaging keeps a track of freshness of products and makes the customer vigilant that they are closer to the end of their shelf life.

4. Marketing analytics

To keep pace with dynamic demands of the customer and assure loyalty, retailers consider marketing analytics as one of the vital frame work for in-depth customer understanding and enhance customer service. Marketing analytics promptly blends all the pertinent customer data with social media data with regards to Point of sale (POS) systems, loyalty cards, customer Relationship management (CRM) system, etc., to conduct sceptical analytics to optimize efficient marketing decisions. It also augments multichannel performance, upgrades marketing efficiency and magnifies social media existence.



RESEARCH METHODOLOGY

Research Design

The research design is descriptive in nature that studies about the characteristics of the particular retailers, vendors and professionals.

Sampling Design and Size

The sample pertaining to the current research study included the target population of medium to large retailers, big data analytics vendors and professional organizations in order to three different perspectives on the usage of big data analytics in the retail sector.

Various retailers, IT professionals and vendors were selected as respondents who had experience in numerous fields such as business intelligence, head of merchandise systems, retail architect, software developer, managing director, consultant, etc and were selected based on recommendations from some of the retailers interviewed. The information was gathered from a sample size of 50 through semi-structured interview and questionnaire.

DATA COLLECTION

Primary and secondary Data

For the present study primary data is gathered by using semi-structured interview and questionnaires from number of retailers, vendors and professionals.

The secondary data and information has been sourced from various websites, journals, articles, publications, etc.

Statistical Tools

The data collected through questionnaires were analyzed using simple percentage analysis

Table-1: Professional Background of the Respondents

Sr. No.	Occupation of the Women Respondents	No. of Respondents	Percentage
1	Retailer	14	28
2	Vendors	12	24
3	Professionals	24	48
	Total	50	100

INTERPRETATION

Above table 1 reveals that 28% of the respondents are retailers, 24% of the respondents are vendors and 48% are professionals

Table-2: Classification Based on past experience of the respondents on analytics stating that whether the respondent was analyzing and generating big data

Sr. No.	Analyzing and Generating Big Data	No. of Respondents	Percentage
1	Yes	29	48
2	No	21	42
	Total	50	100

INTERPRETATION

Above table 2 reveals that 29% of the respondents have past experience on analytics and they are analyzing and generating big data and 21% of the respondents are not having past experience on analytics and they are not analyzing and generating big data.

Table-3: Classification Based on currently the growing demand for big data and is big data analytics relevant to your job function

Sr. No.	Big data relevant to Job function	No. of Respondents	Percentage
1	Yes	27	54
2	No	23	46
3	Total	50	100

INTERPRETATION

Above table 3 reveals that 27% of the respondents agree that currently there is growing demand for big data analytics and it is relevant to their job functions whereas 23% of the respondent disagree that currently there is not much growing demand for big data analytics and it is not relevant to their job functions.

TABLE 4: Classification Based on attributes that are associated with the term Big Data Analysis

Sr. No.	Attributes associated with Big Data	No. of Respondents	Percentage
1	Volume	24	48
2	Variety	14	28
3	Velocity	08	16
4	Value	04	08
	Total	50	100

INTERPRETATION

Above table 4 reveals that 24% of the respondents viewed that size of volume of data plays a very vital role in finding out value from the data that is whether a specific data can be considered as big data or not. 14% of the respondents viewed that variety of data available is classified as structured and unstructured is an important attribute of big data. 8% of the respondents viewed that retailers process their data in real time (velocity). 4% of the respondents viewed that with the help of latest technologies valuable data can be derived.

Table-5: Classification Based on Price Optimization as one of the key in Strategic Area of Big Data Analysis in Retail Sector

Sr. No.	Opinion	No. of Respondents	Percentage
1	Strongly Disagree	-	-
2	Disagree	03	06
3	Neither Agree nor Disagree	12	24
4	Strongly Agree	11	22
5	Agree	24	48
	Total	50	100

INTERPRETATION

Above table 5 reveals that 6% of the respondents disagree with price optimisation as one the key in Strategic Area of Big Data Analysis in Retail Sector, 24% of the respondents neither agree nor disagree with price optimisation as one the key in Strategic Area of Big Data Analysis in Retail Sector, 22% of the respondents strongly agree with price optimisation as one of the key in Strategic Area of Big Data Analysis in Retail Sector, and 48% of the respondents agree with price optimisation as one the key in Strategic Area of Big Data Analysis in Retail Sector

Table-6: Classification Based on Forecasting Demand as one the key in Strategic Area of Big Data Analysis in Retail Sector

Sr. No.	Opinion	No. of Respondents	Percentage
1	Strongly Disagree	04	08
2	Disagree	08	16
3	Neither Agree nor Disagree	11	22
4	Strongly Agree	10	20
5	Agree	17	34
	Total	50	100

INTERPRETATION

Above table 6 reveals that 8% of the respondents strongly disagree with demand forecasting as one the key in Strategic Area of Big Data Analysis in Retail Sector, 16% of the respondents disagree with demand forecasting as one the key in Strategic Area of Big Data Analysis in Retail Sector, 22% of the respondents neither agree nor disagree with demand forecasting as one of the key in Strategic Area of Big Data Analysis in Retail Sector, 20% of the respondents strongly agree with demand forecasting as one the key in Strategic Area of Big Data Analysis in Retail Sector, 34% of the respondents agree with demand forecasting as one the key in Strategic Area of Big Data Analysis in Retail Sector.

Table-7: Classification Based on Identifying Customer Profiles as one of the key in Strategic Area of Big Data Analysis in Retail Sector

Sr. No.	Opinion	No. of Respondents	Percentage
1	Strongly Disagree	05	10
2	Disagree	07	14
3	Neither Agree nor Disagree	10	20
4	Strongly Agree	11	22
5	Agree	17	34
	Total	50	100

INTERPRETATION

Above table 7 reveals that 10% of the respondents strongly disagree with identifying customer profiles as one of the key in Strategic Area of Big Data Analysis in Retail Sector, 14% of the respondents disagree with identifying customer profiles as one the key in Strategic Area of Big Data Analysis in Retail Sector, 20% of the respondents neither agree nor disagree with identifying customer profiles as one of the key in Strategic Area of Big Data Analysis in Retail Sector, 22% of the respondents strongly agree with identifying customer profiles as one of the key in Strategic Area of Big Data Analysis in Retail Sector, 34% of the respondents agree with identifying customer profiles as one of the key in Strategic Area of Big Data Analysis in Retail Sector.

Table-8: Classification Based on Creating Customer Loyalty as one of the key in Strategic Area of Big Data Analysis in Retail Sector

Sr. No.	Opinion	No. of Respondents	Percentage
1	Strongly Disagree	01	02
2	Disagree	02	04
3	Neither Agree nor Disagree	16	32
4	Strongly Agree	08	16
5	Agree	23	46
	Total	50	100

INTERPRETATION

Above table 8 reveals that 2% of the respondents strongly disagree with creating customer loyalty as one the key in Strategic Area of Big Data Analysis in Retail Sector, 4% of the respondents disagree with creating customer loyalty as one of the key in Strategic Area of Big Data Analysis in Retail Sector, 32% of the respondents neither agree nor disagree with creating customer loyalty as one of the key in Strategic Area of Big Data Analysis in Retail Sector, 16% of the respondents strongly agree with creating customer loyalty as one of the key in Strategic Area of Big Data Analysis in Retail Sector, 46% of the respondents agree with creating customer loyalty as one of the key in Strategic Area of Big Data Analysis in Retail Sector.

Table-9: Classification Based on Recognizing the Highest Scope for Return On Investment as one of the key in Strategic Area of Big Data Analysis in Retail Sector

SR. NO.	OPINION	NO. OF RESPONDENTS	PERCENTAGE
1	STRONGLY DISAGREE	03	06
2	DISAGREE	08	16
3	NEITHER AGREE NOR DISAGREE	12	24
4	STRONGLY AGREE	11	22
5	AGREE	16	32
	TOTAL	50	100

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INTERPRETATION

Above table 9 reveals that 6% of the respondents strongly disagree with recognizing the highest scope for return on investment as one of the key in Strategic Area of Big Data Analysis in Retail Sector, 16% of the respondents disagree with highest scope for return on investment as one of the key in Strategic Area of Big Data Analysis in Retail Sector, 24% of the respondents neither agree nor disagree with highest scope for return on investment as one of the key in Strategic Area of Big Data Analysis in Retail Sector, 22% of the respondents strongly agree with highest scope for return on investment as one of the key in Strategic Area of Big Data Analysis in Retail Sector, 32% of the respondents agree with highest scope for return on investment as one of the key in Strategic Area of Big Data Analysis in Retail Sector.

FINDINGS

The aim of this study was to explore the extent of use of big data analytics in the retail sector. The access of big data analytics was used by incorporating insights from retailers, vendors and professionals in order to facilitate a wider interpretation and analysis of the usage of big data analytics in the retail sector.

A clearer picture of big data and general understanding of it is still lacking in several retail sectors as surveyed in the findings. The findings also show the major of the big retailers, vendors and professionals are increasing the use of big data in their organizations.

Majority of the respondents agree that in the past they have analyzed and generated data utilizing big data analytics.

Further, classification was done based on currently the growing demand for big data and is big data analytics relevant to your job function and majority of the respondents agreed to it. Also the respondents gave their view pertaining to the various attributes which were associated with big data analysis.

48% of the total respondents are influenced that price optimisation is one the key in strategic area of big data analysis in retail sector whereas 34% of the respondents were of the view that forecasting demand is one the key in strategic area of big data analysis in retail sector. Further, 34% of the respondents agreed identifying customer profile is also an important key strategic factor in big data analysis. 46% of the respondents stated that creating customer loyalty should be taken into consideration. Finally, 32% of the respondents put forth their view that big data analysis is one of the key in strategic area in recognizing the highest scope for return on investment.

CONCLUSION

In this research, the study was to check the innovative use of Big data analytics in the retail sector, which has in a short time ago gained immense interest due to its recognize unparallel probability.

In this information generation stage, we are currently living in voluminous varieties of high velocity data are being produced every day on digital based transactions.

Hence big data analytics can be applied to gathering, storage and analysis of enormous amount of data which will be impossible in past. These new data are providing voluminous information facultative its interdependence using new technology. Hence big data analytics can be applied to edge business change and boost decision making. People may say big data may be unproductive or worthless, but in this developing e-commerce world it is an integral part that changes the concept of marketing and directly reach to the target customers.

As the technology spread our world becomes even more definite, so we can figure its growth in next few years. Buying and selling is more organised through big data in retail sector.

REFERENCES

1. Chandramana Sudeep B (2017),Retail analytics brining success in Retail Industry with Business Analytics,Research Journal of social science & management, 07(04) pp.159-166
2. Ridge M,Johnston K and O Donovan b (2015) The use of Big data analytics in the retail industries in south Africa,African Journal of Business Management,9(19) pp.688-703
3. Dr.patanayak S (2017).Big data : Game changer in retail market of India- a study Research gate pp.1-8
4. Aklas E and Meng Y (2017).An exploration of big data practices in retail sector.MDPI 1(12) pp.1-28
5. Elgendy N and elragal A (2014). Big Data Analytics : A literature review paper.ICDM pp.214-217
6. Dr. Chauhan P, Mahajan A and Lohare D (2017). Role of Big data in retail customer-centric marketing,2(3) pp.484-488

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SELF-OTHER CONSTRUING IN MALE & FEMALE ADOLESCENCE

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ABSTRACT

The present study has been conducted with the objective in mind Why do the significant others vary from person to person according to their sex & qualification keeping in mind the problem of study their investigation intends to know how does the individual relate with his own self & with other.
The specific purpose of the study is to identify the relationship network in male & female students of class "9^{th} 10^{th} 11^{th} & 12^{th} class levels".

Significant others refer to that person who influence our life and who have greater importance in our life. For example according to one student the teacher is his significant other. The sense is that teacher has influenced his life by his own style as talking, well behavior, honesty, impartial etc. significant others vary from person to person according to their age and sex.

In the present study Rep Grid Technique has been used. It was developed by Kelly in 1955 to identify the important constructs; a person uses to construe significant people in his or her life. Rep Grid form was formed taking into consideration the seven significant figures that have been derived from circle technique.

For the scoring, frequency of constructs were counted on the basis of Rep Grid form. In the next face the number of similarity pole and contrast pole; in four groups were counted. For the analysis in Rep Grid test firstly Chi-Square of similarity and contrasts constructs for each role was computed. Result shows that Chi-Square of three roles brothers, sisters and teachers are statistically significant in terms of similarity and contrast pole. To measure the discriminatory power of the roles standard deviation were found out for each role.

The standard deviation value for role by male students of 9^{th} and 10^{th} standard and junior college level shows that teacher and mother have greater variance scores and father, brother and friend have very narrow range of variability. Female students of 9^{th} ,10^{th} and junior college level shows that self , mother and friend have greater variance score and brother and father have narrow range of variability . Thus it could be said that the male and female students of both levels of education do not construe themselves or others in the same manner

Keywords: significant others, constructs, similarity pole, contrast pole

INTRODUCTION

The society plays an important role in the life of human beings .The basic fact of the society is human relation ship. It directly influences the life of human beings .It does not remain constant but keeps on changing from individual to individual since it involves different individuals at different times . It is also important that dominance of relationship can change from individual to individual. For some one teacher may be significant for some other, parents may be significant.

The present study is an attempt to explore the network of relation ship. Relationship as defined by Hinde & Stevenson-Hinde, 1987, the individual is dealt with not as an isolated entity but as a social being formed by a firming part of a network of relationship, which are crucial to it... Significant relationship is established by feeling of love & emotions. It is not based on any purpose.

In this study the significant relationship has been found out by Rep-Grid test which is based upon Kelly theory of cognitive constructs. A construct is a category of thought by which the individual constructs or interprets his or her personal world of experience. Kelly has suggested that entire network of relationship and the personality of an individual becomes known through the constructs that are employed. Experience and people are construed through these constructs which vary from person to person

OBJECTIVES

1. Why people construe their significant others in different way by putting them up either on similarity pole or contrast pole.
2. Why do the significant others vary from person to person according to their sex and qualification.
3. To find out the discriminatory power of different roles

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DESIGN
In the present study exploratory design has been used. An exploratory research is one where little knowledge relevant to the problem is available to the research & consequently we are not able to formulate an explicit hypothesis regarding the problem out of curiosity, the researcher concludes research, collects data & analysis the data.

VARIABLE
Two types of variables have been used
1. **Predictor variables- Sex-Male & Female students, Education level,9th 10th 11th and 12th**

2 **Criterion variables –significant others, self-others constructs**

SIGNIFICANT OTHERS Significant others refer to that person who influence our life and have greater importance in our life.

SELF-OTHER CONSTRUCT Man specifically observes that certain events are similar to each other ie they share some common properties and different from other events . The way in which two elements are construed to be similar or alike is called the constructs (similarity pole) of constructs dimension ,the way in which they are contrasted with the third element is called the (contrast pole) of the construct dimension.

SAMPLE For conducting the study, 100 students have been selected in which 50 were male and 50 female . These students were selected from 9th 10th 11th and 12th class level as four different appropriate education levels.

TOOLS
REP GRID TECHNIQUE
Rep Grid Technique: Rep Grid Technique was used for elicitation of constructs that the subjects use to construe their significant other figures in their lives. Rep Grid is one of the forms of "Role Construct Repertory Test"' which was developed by Kelly in 1955 to identify the important constructs, a person was to construe significant people in his or her life.. The subject is then instructed to enter the first row of the matrix to the columns where three people designated by circles are located.

METHODOLOGY Grid form was used on hundred students out of which fifty were male and fifty were female. The subjects were asked to report that which of the two roles were similar on what basis and dissimilar on what basis. Once it was decided that two of the figures are similar but different from the third. He inserts as "X" in the two circles which correspond to the two persons who are similar. The third circle has to be left blank. In this way all the forms have been filled by each subject.

SCORING The frequency of constructs was counted on the basis of Rep Grid form. In the next phase, the number of "similarity pole"," contrast pole" in four groups were counted.

DATA PROCESSING AND ANALYSIS In Rep Grid test while analyzing the data firstly a "2X4" contingency table was formed keeping similarity and contrast construct on one axis and Male and Female of "9th and 10th standard " and "11th and 12th standard level " on the other axis, then "Chi Square" was computed for each role. To measure the discriminatory power of the roles standard deviations were found out for each role.

RESULT AND DISCUSSION. Keeping the total number of similarity & contrast construct on one axis and the male, female on the other axis .In which males and females are further divided into subgroups as males of 9th, 10th and first year, second year class and females of 9th 10th and first year, second year class. In this way seven contingency tables are made like self, mother ,father, brother, sister ,friend ,teacher.

Table-1 Construing "self" on the similarity poles

A 1=9th and 10th class

A2= 11th and 12th class

	Male		Female	
	A1	A2	A1	A2
Similarity pole	12	25	21	28
Contrast pole	15	29	21	14

Similarly 2x 4 contingency tables for rest of the roles were made to examine the placement of these roles on similarity /contrast poles.

Later the data obtained in the contingency tables were run for chi square in order to see the relationship between the type of construct similarity and contrast pole in both level of class and sex.

Table-2: Chi Square values for seven roles according to the placement on similarity and contrast pole

Sr No	Roles	Chi-square	Level of significance
1.	Self	5.008	>.05
2.	Mother	4.525	>.05
3.	Father	6.946	>.05
4.	Brother	14.195	<.01
5.	Sister	9.757	<.05
6.	Friend	4.902	>.05
7.	Teacher	12.653	<.01

From the above table it is evident that the Chi-Square values of 3 roles Brother, sister & teacher are statistically significant this shows a marked difference in the cognitive construing of these roles in reference to the males & females according to their classes. A significant difference in the construing of these roles represent that these roles are perceived differently by the student of different levels of class & sex .and the Chi-Square values of the rest of the 4 roles are statistically not significant. This indicates that there is not much difference in construing of different roles in four groups.

Teacher has significant role in student's life but it varies according to age, sex & nature of the student.

Some of the roles are generally perceived to the similar to other ones (self, mother, father, friend) while the other are usually identified in terms of dissimilarity.

It is evident from the result that most of the roles have been placed most of the time on similarity construct category.. But the construct obtained for the role "teacher" fall more in the contrast category than in the similarity category..

To measure the discriminatory power of the roles, standard deviations were found for each role separately for male and female students of both levels of class.

Table-3: The Variance In Ascending Order For Roles By Male Students Of 9th and 10th Class Level

ROLE	VARIANCE
Teacher	1.39
Mother	1.21
Sister	1.08
Self	1.03
Brother	0.70
Father	0.51
Friend	0.37

It is evident that the S.D for various roles employed by male groups range from 0.37 to 1.39.

It is seen that the role like "teacher" and "mother" show greater variance score which indicates that these roles hold greater importance in cognitive system of the male. It shows that "mother" is sometimes be serious sometimes be polite.In contrast the score for the role "friend" and "father" which represents a very narrow range of variability.

Table-4: The variance in ascending order for roles by male students of 11th and 12th class Level

ROLE	VARIANCE
Mother	1.11
Teacher	1.00
Self	0.98
Sister	0.74
Father	0.33
Brother	0.31
Friend	0.23

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It is seen that role like “teacher” and “mother” show greater variance score which indicate that these roles hold greater importance in the cognitive system of male students of 1st year and 2nd year. In contrast the score of “friend” and “brother” “Father” which shows the narrow range of variability.

Table-5: The variance in ascending order for roles by female students of 9th and 10th

ROLE	VARIANCE
Self	0.87
Mother	0.69
Teacher	0.69
Sister	0.57
Friend	0.40
Brother	0.36
Father	0.32

It is seen that the role like “self” and “mother” in female student show greater variance score which indicates that theses roles hold greater importance.

In comparison of male and female students of class 9th and 10th standard it is seen that the role of “mother” shows greater variance in both group. The role like “father” shows narrow range of variance in both groups. In the case of construing the roles there is no sex difference. But construing the role “self” and ”brother” there is significant difference in both group, male and female of 9th and 10th class.

Table-6: The variance in ascending order for roles by female students of 11th and 12th

ROLE	VARIANCE
Mother	0.90
Friend	0.85
Self	0.81
Teacher	0.63
Sister	0.46
Brother	0.33
Father	0.30

It is evident that the S.D value for various roles employed by female student of class first and Second year group range from .30 to .90. It shows that the less variation in all the roles. This concludes that students rated all the roles more or less same manner. The role like “mother” and “friend” show greater variance. In contrast the score of “father” and “brother” which show least range of variance.

The S.D values, for the roles rating by male students of junior college level group range from 0.23 to 1.11 the S.D value for role rating by female students of the same class group range from 0.30 to 0.90, shows that there is less variation in roles, in data of female students than male students of the 11th and 12th standard level.

A comparison of the S.D value for the roles rating by male students of 9th and 10th class level group range from 0.37 to 1.39 and S.D value for role rating by female of same class group ranges from 0.32 to 0.87. range, indicates the greater difference.

CONCLUSION

On the basis of the observation of two tables of male and two tables of female students it can be said that role like “mother” which show greater variance in all groups because in some construct “mother” has been rated high rating as “loving”, “helping” but in some constructs “mother” has been rated very low. The role of “father” shows the narrow range of variability in all the groups.

Thus concluding it could be said that the male & female students of both levels of education do not construe themselves or others in the same manner.

SUGGESTIONS

Male and female children must get same atmosphere and treatment from their significant others so that there should be less difference between female and male children to construe their significant others.

REFERENCES

1. Burger I.M : “Personality Theory & Research” Wordsworth Publication Company (1986)
2. Field.S.P & Field.A.W: “Personal Construct Consistency Psychological Reports”, (1961)
3. Hurlock.E.B: “Personality Development”, Mc Graw Hill Publication(1976)

4. Hyille.L.A & Ziegler.D.I:"Personality Theories: Basic Assumptions Research & Applications", Mc Graw Hill & Company (1981)

5. Kelly G .A: "The psychology of personal constructs",N ew York Norton publication (1955)

6. Kundu .C. : "Personality Development, A Critique of Indian Studies", Vishal Publication(1977)

7 Liebert R .M and Spiegler M.D: Personality : Strategies and Issues . The Dorsey Press (1978)

8. Mischel, Walter: "Introduction to Personality", Holt, Rinchart, Winston Inc.(1976)

9. Payne.D.E: "Role Constructs Versus Part Constructs & Interpersonal Understanding", Unpublished Doctoral Dissertation Chio State University (1956)

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CUSTOMER'S SATISFACTION TOWARDS ONLINE SHOPPING BEHAVIOUR WITH SPECIAL REFERENCE TO SURAT CITY

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ABSTRACT
Online shopping means, the purchasing the products and service buy from the vendors using electronic media and more specifically the internet. E-marketing, internet marketing and online marketing are frequently interchange, can often be considered synonymous. Online shopping is recent phenomenon in the field of E-business and definitely going to be the future of shopping in the world. Online shopping means, bringing shopping malls and shopping store at our own home. the above research is conducted by considering the important role of the customers in shopping of goods are service and it is observed that online shopping is affected by education level and income level of the customer. Whose education level is below S.S.C they do not prefer online shopping. Housewife's share in online shopping is very minute. It is found from research that electronic goods, Ornaments and clothes are most demanded by the customer through online shopping. Different types of the attractive offers are available on online shopping are the most inducing factor to encourage people to shop online. A customer is known as the king of the market so it is very important for the manufactures, producers, industrialist, service providers and distributers to give a royal treatment to their king i.e. the customers. Royal treatment to the customer means to provide him 100% shopping convenience. But now everything is available to customers at their fingertips. All this is possible due to online marketing or E-marketing.

With the increasing internet literacy, the prospect of online marketing is increasing in India. The consumers indulging in online shopping consider many factors. If companies analyse the factors affecting consumer behavior towards online shopping and the relationships between these factors and the type of online buyers, then they can devise effective marketing strategies to convert potential customers into active ones, while retaining existing online customers.

Keywords: Online shopping, Customers Buying Behaviour

INTRODUCTION
A customer is known as the king of the market so it is very important for the manufactures, producers, industrialist, service providers and distributers to give a royal treatment to their king i.e. the customers. Royal treatment to the customer means to provide him 100% shopping convenience. They should not have any trouble in searching the products; they should get a wide variety of products so that they can wake proper choice from the various products available. Customers can select the product according to their likes and purchasing power. There was a time when customer had to roam from one place to another or from one market to another market. But now everything is available to customers at their fingertips. All this is possible due to online marketing or E-marketing.

Online shopping means, the purchasing the products and service buy from the vendors using electronic media and more specifically the internet. E-marketing, internet marketing and online marketing are frequently interchange, can often be considered synonymous. Online shopping is recent phenomenon in the field of E-business and definitely going to be the future of shopping in the world.

ADVANTAGES OF ONLINE SHOPPING
ACCESS
Online shopping allows us to shop from any vendor among many at anytime. Anywhere in the world. Virtual window shopping enables all users to shop at their leisure and across multiple market places. Online shopping provides 24×7 services.

TIME SAVER
There is no need to travel here and there in search of product. Online shopping provides all the information about the availability of the product, price, rate of discount, after sale services, warranty period etc.

COMPARISON
Online shopping enables us to compare the price of the product, equality of the product, accessories provided, extra delivery charges, modes of delivery goods etc. offered by different vendor.

ONLINE DEALS AND PROMOTIONS

Before you checkout, you can scour the internet for online coupon codes or special discounts. Many companies send coupons to their customers who have opted into their email marketing campaigns, delivering them with the latest product or service information and what current promotions they are currently holding.

DISADVANTAGES OF ONLINE SHOPPING

TIMINGS

One of the major disadvantages of the online shopping is that we cannot get the delivery of the goods on the spot. We have to wait for the delivery of the product. In short we can say that it is not suitable when the product is required very soon.

SHIPPING COST

Though some companies offer free flat rate shipping, it still may come at a cost. For instance, a clothing may offer free shipping but at a minimum of a $50 purchase.

REFUNDS/ CHANGE THE PRODUCTS

If an item comes damaged or not as described, we will want to return the item or money refunded. Depending on where you purchased your item, there can be different policies for refunds and returns; this process is tedious and is prolonged since you would have to ship back the item and wait on the buyer to refund your payment.

LACKS PERSONAL CONTACTS

In online shopping vendor cannot persuade to any customer as they don’t have any personal contact with the customer.

LITERATURE REVIEW

Donal Rogan (2007) explains the relationship between consumer behavior and marketing strategy. He states that strategy is about increasing the probability and frequency of buyer behavior. Requirements for succeeding in doing this are to know the customer and understand the consumer’s needs and wants.

Monsuwe et al. (2004) created a framework to work through their study that would allow the consumer's understanding its attitude toward online shopping. The attitudes and beliefs are separated from the consumer psychological characteristics and mainly determined by the learning and prior experience. Sensitive to the evolution of the prices the buyers are mostly in relation to the purchase of products at the lowest price or get the best value for the money they spend through online shopping (Bellenger, 1980).

The current literature on consumer online purchasing decisions has mainly concentrated on identifying the factors, which affect the willingness of consumers to engage in Internet shopping. In the domain of consumer behavior research, there are general models of buying behavior that depict the process which consumers use in making a purchase decision. These models are very important to marketers as they have the ability to explain and predict consumers‘ purchase behavior. The classic consumer purchasing decision-making theory can be characterized as a range extending from routine problem-solving behaviors, through to limited problem solving behaviors and then towards extensive problem-solving behaviors.

SCOPE OF THE STUDY

This research paper is focus only on the customer of Surat city.

NEED FOR THE STUDY

This particular study will helpful to those vendors who are selling their products by online. It will enable them to know the expectations of the customer, problem faced by them in online shopping. It will enable to design any particular site or application for the customer. The study will also indicate us whether online shopping creates any threats to our traditional method of shopping. Whether fix shop small scale retailer, fixed shop large scale retailer like mall and super markets or itinerant retailer would lose their existence and relevance from the Indian market.

OBJECTIVES

- To find out the factors affecting the online shopping behavior.
- To study the behavior of online shopping.
- To study the factor important while using the Online shopping.
- To study the Satisfaction level of Online shopper.

Research design specifies the methods and procedures for conducting a particular study.

A research design is the arrangement of conditions for collection and analysis of the data in a manner that aims to combine relevance to the research purpose with economy in procedure. Research design is broadly classified into three types as….

- Exploratory Research Design
- Descriptive Research Design
- Causal Research Design

Researcher has chosen the exploratory research design.

EXPLORATORY RESEARCH DESIGN

Exploratory research study is also termed as formative research studies. The main purpose of such study is that of formulating a problem for more precise investigation or of developing a working hypothesis from an operational point of view. The major emphasis of such studies is of the developing of discovery of idea and insight.

SAMPLE DESIGN

A Sample Design is a definite plan for obtaining a sample from a given population. It refers to the technique to the procedure adopted in selecting items for the sampling designs are as below:

SAMPLE SIZE

The substantial portions of the target customer that are sampled to achieve reliable result are 100.

DATA COLLECTION

The study was conducted by the means of personal interview with respondents and the information given by they were directly recorded on questionnaire. For the purpose of analyzing the data it is necessary to collect the vital information.

There are two types of data, this are-

- Primary Data
- Secondary data

COLLECTION TECHNIQUE

Primary Data: Questionnaire method

Secondary Data: Being an explanatory research it is based on secondary data of National & International Journals, articles, government reports, books, newspapers and magazines covering wide collection of academic literature on online shopping.

DATA ANALYSIS & FINDINGS:

Table-1: Demographic summary of survey Customers:

Gender	Frequency	Percentage
Male	76	76
Female	24	24
Total	100	100

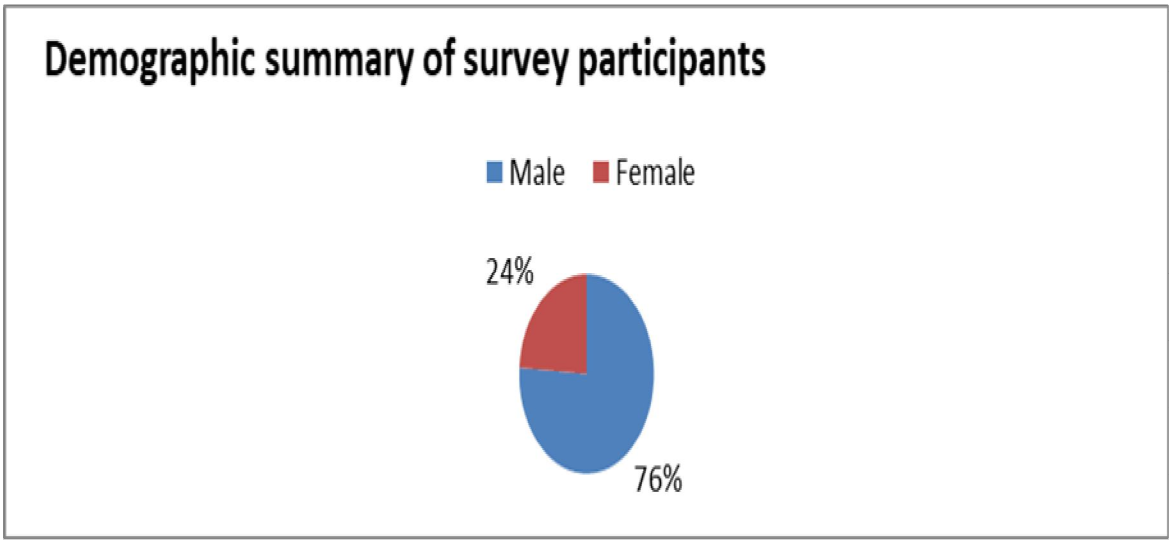


Table-2: Age wise summary of survey Customers:

Age	Respondents
16- 25 years	70
26- 35 years	23
36 & Above	7
Total	100

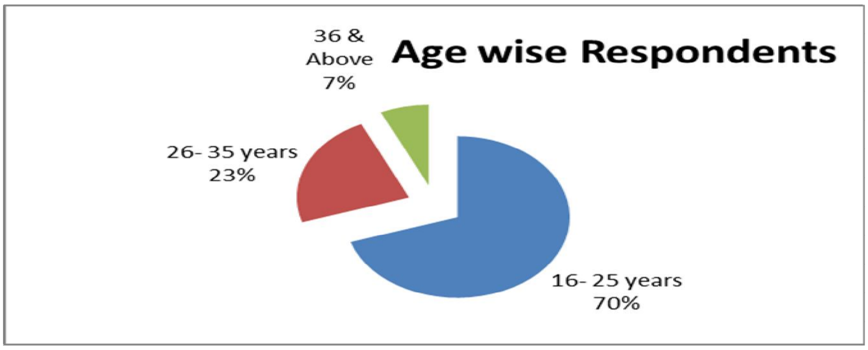
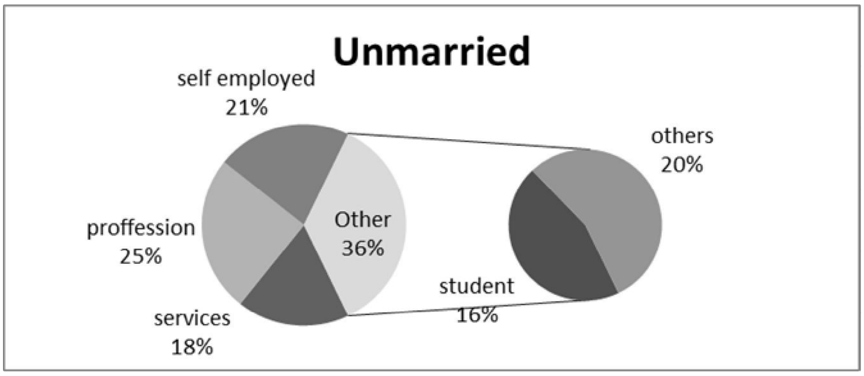


Table 1 illustrates this survey results 76 % of male and 24 % of female respondents participated in the online shopping survey. At the same time Table 2 illustrates as 70 % of the respondents in the survey plunge into the category of 16-25 years age, 23 % participants plunge into the category of 26-35 years age group, while rest of the respondents 7% plunge into the category of 36 years age and more. The results of the survey reveal that investigation on online shopping attracting mostly young population age group of 16 – 25 years old.

Table-3: Marital Status wise summary of survey Customers:

	services	Profession	self employed	student	others	Total
Married	8	4	22	4	6	44
Unmarried	10	14	12	9	11	56



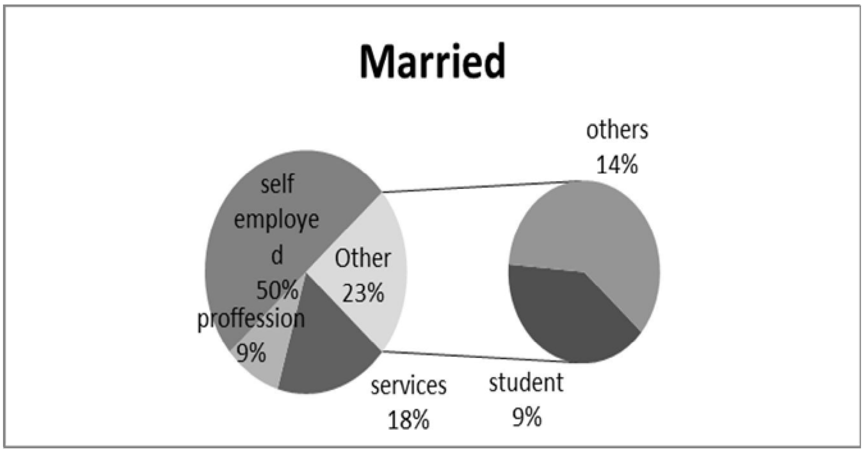
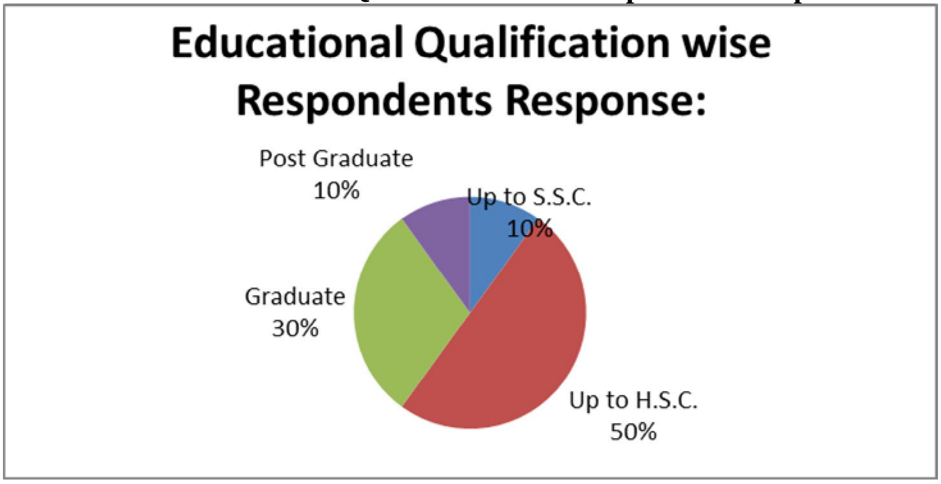


Table 3 illustrates this survey results of married respondents in 50%, self employed, 9% Professionals, 18% doing service, 9% students and 14% are other respondents whereas in unmarried respondents 21% self employed, 25% Professionals, 18% are doing service, 16% students and 20% are other respondents are using online shopping.

Table-4: Use Online shopping or not?

Online Shopping:	
Yes	92
No	08

Table-5: Educational Qualification wise Respondents Response



CONCLUSION

- From the above findings it can be concluded that female student and working women do more online shopping as compare to housewives.
- Electronic products and clothes are two most demanded products on online shopping.
- It is also observed that whose education level is up to S.S.C they do not do online shopping.
- It is also found that percentage of unmarried who shop online more than married.
- Stupendous & enormous expansion of Internet from the last decade, the people of Surat are taking interest in online shopping.
- When people try to do online shopping while they are sitting in their homes and work place, after getting good service response, quality of product, competitive price and on time delivery through online shopping, they always try to recommend their friends and family members for online shopping.
- Time is the major concern for the people while shopping online. All and sundry desires to save time while shopping. Majority of the people are time conscious when they are involved in shopping whether physical shopping or online shopping.
- Trust and security is the main factor that hinders people from purchasing online.
- Most of the respondents perceived that online shopping involves less effort than physical shopping.
- Every one prefers the website for online shopping which is familiar with the language that a person knows so that he or she can easily understands the particulars about the product to shop online but if a consumers does not know the language he / she would not be able to purchase anything from that particular website and the consumer prefer to shop physically rather than online shopping.

In overall respondents have positive attitude towards website language which is convenience for online buyers to shop online their products easily. About 46% of the respondents have agreed with this expression and 30% are neutral in this regard and 24% of the respondents weren't agreed with this factor.

REFERENCES

1. Baty, J. B., II, & Lee, R. M. (1995). Intershop: Enhancing the vendor/customer dialectic in electronic shopping. Journal of Management Information Systems, 11(4), 9-31.
2. Bellenger, Danny E., Robertson, Dan H., and Greenburg, Barnett A. (1977), "Shopping Center Patronage Motives," Journal of Retailing, 53, 29-38.
3. 4. Bhatnagar, A., Misra, S., and Rao, H.R., 2000, "On Risk, Convenience, and Internet

4. Monsuwe, P.T., Dallaert, C. G. B & Ruyter, K. (20040. 'What drives consumers to shop online? A literature review' 'International Journal of Service Industry Management 15: 1, 102 – 121.
5. Smith, D. A. & Rupp, T. W. (2003). 'Strategic online customer decision making: leveraging the transformational power of the Internet' 'Online Information Review 27: 6, 418 – 432.
6. www.ijsrp.org/research-paper-0613/ijsrp-p1853.pdf
7. ijcsi.org/papers/IJCSI-9-3-1-486-495.pdf

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A STUDY OF JOB SATISFACTION OF ROAD TRAFFIC EMPLOYEES (IN MUMBAI SURBURBAN AREA FROM BANDRA TO DAHISAR)

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INTRODUCTION

The success or failure of an enterprise largely depends on the people who man the organisation. In the words of Alfred Marshall **“the most valuable of all capital is that invested in human beings”**. From social point of view, an enterprise combines two sorts of resources: a group of human beings and a group of physical assets. The latter in isolation of the former is useless.

Job satisfaction is one of the important factors which have drawn attention of managers in the organisation as well as academicians. Various studies have been conducted to find out the factors which determine job satisfaction and the way it influences productivity in the organisation. Though there is no conclusive evidence that job satisfaction affects productivity directly because productivity depends on so many variables, it is still a prime concern for managers. Job satisfaction is the mental feeling of favourableness which an individual has about his job.

It is often said that **“A happy employee is a productive employee”**. Job satisfaction is very important because most of the people spend a major portion of their life at their working place. Moreover, job satisfaction has its impact on the general life of the employees also, because a satisfied employee is a contented and happy human being. A highly satisfied worker has better physical and mental well-being.

JOB SATISFACTION - MEANING AND DEFINITION

Job satisfaction refers to a person’s feeling of satisfaction on the job which act as a motivation to work. It is not the self-satisfaction, happiness or self-contentment but the satisfaction on the job. Satisfaction does mean the simple feeling state accompanying the attainment by an impulse of its objective. Research workers differently described the factors contributing the job satisfaction and the job dissatisfaction.

“Job satisfaction is a pleasurable or positive emotional state resulting from the appraisal or one’s job or job experience” - E.A.Locke

“Job satisfaction will be defined as the amount of overall positive effect or feelings that individuals have towards their jobs” - Fieldman and Arnold

“Job satisfaction is the set of favourable or unfavourable feelings with which employees view their work” - Keith Davis and Newstrom

Job satisfaction is a result of employees’ perception of how well their job provides those things that are viewed as important. It is generally recognized in the organisational behaviour field that job satisfaction is the most important and frequently studied attitude.

LITERATURE REVIEW

Paul E. D’cunha (1997) : Paul E. D’cunha (1997) summarizes the findings concerning how road employees feel towards work, including: cultural and gender differences in job satisfaction and personal and organizational causes; and potential consequences of job satisfaction and dissatisfaction. He provides with a pithy overview of the application, assessment, causes and consequences of job satisfaction of on road and off road employees.

Sophie Rawat (2008) : Sophie Rawat (2008) reveals how to create a happier work life, without changing career. She provides practical and realistic guidance on how one can achieve optimal job satisfaction and overcome the obstacles that make so many of them unhappy at work. She finds the reason behind the obstacles and suggest various views need to be amended for Employees on road.

PROBLEM OF THE STUDY

Only with a group of satisfied employees in the company can lead into success. For employees satisfaction the company must provide adequate welfare measures. By conducting a job satisfaction survey we can analyse whether the employees are satisfied or not and also whether they are motivated by the general, welfare, financial and other related factors.

Problems are classified as security of job, payments or salary, vacation salary, leave, working hours, appointment, workload and other duties which are allotted to them which in terms affect job satisfaction of the employees and because of such looking conditions they undergo stress with other health issues which even affects the quality of performance given by the employees.

This study will undergo all the problem related to Job satisfaction of road traffic employees on road which would include various issues such as Health, Financial, Social, Individual and other factors that affects these employees.

OBJECTIVE OF THE STUDY

1. The main objective of the study is to evaluate various factors affecting road traffic employees while performing on road.
2. To understand the different prospects available for road traffic employees while performing on road.
3. To conduct a brief study to analyse the various functions performed by these sections.
4. To recommend measures to various factors affecting road traffic employees and suggestion that would help them satisfy with their job and give quality performance.

RESEARCH HYPOTHESIS STATEMENT

The Research Hypothesis statement for the study of Job satisfaction of road traffic employees is -

H0- Employees prospect or factors that are not affected because of the problems which they face while performing.

H1- Employees prospect or factors that are affected because of the problems which they face while performing.

DESIGN OF THE STUDY

1. SAMPLE SIZE

A Sample size of 200 respondent will be selected from on Road traffic employees from Bandra to Dahisar- Mumbai Suburban Area.

2. SOURCE OF DATA

Sources of Data for the study would be as follows:-

a) Primary Data: - This data would be collected using well-structured questionnaire from various on road employees in Mumbai Suburban Area.

b) Secondary Data: - Secondary data are collected from books, journals, manuals, RTO website and informal talk with the officers and the employees.

3. SAMPLING METHOD

For the purpose to make the study convenience Simple sampling method will be selected that would include on Road traffic employees from Bandra to Dahisar- Mumbai Suburban Area.

4. DATA COLLECTION

The data will be collected using questionnaire from Bandra to Dahisar- Mumbai Suburban Area from various Road traffic employees.

5. AREA OF RESEARCH

The research will be collected in Mumbai Suburban region that is from Bandra to Dahisar.

6. STATISTICAL ANALYSIS AND INTERPRETATION OF DATA

Tools and techniques involves various accounting techniques and statistical tools like percentages and ratios, which is used as a device to analyse and interpret the cost and value of human resources of the company as it is one of the most powerful tool of financial analysis.

Graphs, tables, figures and bar diagrams are used, as it helps in presenting quantitative facts in simple, clear and effective pictures and are also attractive and create lasting impression.

SIGNIFICANCE OF THE STUDY

The study aims to achieve and evaluate various factors affecting the satisfaction level of employees while performing on road and maintaining such a huge network road with traffic loads on it. The study here has given importance to the problems which they face while performing and other factors that affects their performances. The emphasis is to put on the different factors affecting on their work place such as Income pattern, work load, other duties apart from the relevant one, and various constrains faced by them. The study makes contribution to the existing literature in terms of understanding the various dimensions and factors affecting road traffic employees from Mumbai Suburban region that is from Bandra to Dahisar.

SCOPE OF THE STUDY

This study will be undertaken to find out the Problems and various factors affecting the on road traffic employees and measure their satisfaction on job. This study will be conducted in Bandra to Dahisar- Mumbai Suburban Area from various Road traffic employees to find out their views and level of satisfaction on their job and to know the relationship between factors affecting and level of satisfaction on job. The hypothesis is developed to analyse the relationship between the variables.

LIMITATION OF THE STUDY

1. The sample size of 200 which is very limited as compared to total work force in the suburban region of Mumbai.
2. Due to the busy work schedule of the road traffic employee chances are there that response to the questionnaires may be with lack of full concentration.
3. Insufficient time lead to inadequate focus in all sections.
4. Time and money would be constrained in this Research.

EXPECTED RESULTS AND SUGGESTIONS

The expected result work will provide a Novel Approach to improve the quality of working conditions which will increase their satisfaction level and attempt to remove various factors affecting on road traffic employees Mumbai suburban region. All problem related to job on road and factors affecting them will be given suggestions and recommendation to improve the working conditions and develop various policies to enhance better quality work from the employees. And the study will also emphasis to the employees for better prospects and welfare rights to employees.

TENTATIVE SCHEME OF CHAPTERISATION

1. INTRODUCTION

This chapter will deal with the general introduction about the topic Job satisfaction of road traffic employees in Mumbai suburban region from Bandra to Dahisar. This chapter will highlight the objective and hypothesis behind conducting the research. It clarifies the limitation, methodology adopted, scope and importance of the study.

2. REVIEW OF LITERATURE

Review of literature is regarding factors affecting on road employees in Mumbai suburban region for they are unsatisfied with the job and this major factors would be reviewed in this chapter.

3. FACTORS AFFECTING ROAD TRAFFIC EMPLOYEES

The main objective of the study is to evaluate various factors affecting road traffic employees while performing on road. To conduct a brief study to analyse the various functions performed by these employees and factors affecting them in this chapter.

4. PROBLEMS FACED AND JOB SATISFACTION

This study will undergo all the problem related to Job satisfaction of road traffic employees on road which would include various issues such as Health, Financial, Social, Individual and other factors that affects these employees and which leads to job dissatisfaction.

5. CONCEPTUAL FRAMEWORK

This chapter will help us to study the concept of Job satisfaction related to road traffic employees and that would be framed in proper research methodology format which will ease in study the research for future aspects. The framework would help in review of literature for different aspirants who wish to study the research conducted by me.

6. DATA ANALYSIS AND INTERPRETATION

This chapter will include all analysis done using tools and techniques involves various accounting techniques and statistical tools like percentages and ratios, which is used as a device to analyse and interpret the same in various forms.

7. RECOMMENDATION , SUMMARY AND CONCLUSION

This chapter includes various recommendation, summary and conclusion.

REFERENCES

1. ‘Commitment in the Workplace, Theory, Research and Application’, Thousand Oaks, CA. Sage Publications.

2. Job Satisfaction', Society for Human Resource Management.
3. 'Happy at Work : Ten Steps to Ultimate Job Satisfaction', Pearson Education Limited
4. Paul E. D'cunha, Sophie Rawat (2008), Rahul Limbachiya (2008), Krishna Vaiti (2004), Faiz Shaikh (2007) their research papers published on various sites and journals.

Websites

1. www.sciencedirect.com
2. http://inflibetnet.acin./spuin/stream/10603/jobsatisfaction/17.com

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A STUDY ON THE GERIATRIC POPULATION AS THE EMINENT TARGET AUDIENCE FOR THE PRINT INDUSTRY

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ABSTRACT
The research revolves around the South Bombay senior citizen population and their style and reason for reading newspapers daily. The research helps to understand whether their intent of reading newspapers is either driven by boredom or for a particular purpose. The research has been executed on that section of the geriatric population between the age group of 60 years and above. The research strives to highlight whether the geriatric population of South Mumbai is more inclined towards reading newspapers and are well considered as the target audience of the newspaper industry. The research conducts crucial and imperative findings on the newspaper reading preferences, habits, psychology and motivation of individuals in the retirement years in reading dailies. The research thereby emphasises the scope of improvements that newspaper agencies can consider to retain and expand their potential target audience.

Keywords: Newspaper, Dailies, South Mumbai, Geriatrics, Reading, Preference, Reasons.

INTRODUCTION
For centuries, newspapers were a vital source of entertainment, information and knowledge. With the invent of the World Wide Web, social media platforms seem to pose a serious threat to the print industry. However, there still exist a section of the society who prefer consuming news the old school way, as compared to staying glued onto their fourth screens. The geriatric population read newspapers for multiple reasons and it is thereby imperative to gauge what sections and content interest the target audience, so as to refine the product and ensure constant loyalty. The theoretical basis that helped to ascertain the reason behind the findings are: Uses and Gratification Theory and Readership Theory. The need for such a research is to provide the much required respite to the print media from the increasing threat it faces in the hands of social media. And with substantiate efforts from the journalism industries in upgrading their printing quality, style sheet, font size, paper colour and size of the newspaper, the print industry isn't going anywhere for years to come.

REVIEW OF LITERATURE
Newspapers play a vital role in advocating dimensional adaptation and contributing towards building a multicultural and harmonious society. An article by **(Arulraj & Viji, 2008)** states that, "According to the National Household Education Survey carried out in 1999, 50% of the U.S. population aged 25 and above, read newspapers once a week. However, they read magazines more often." The article also cited that, "Reading newspaper can help improve reading habits, general knowledge and create awareness about the various happenings in the society. Reading is considered both fun and an enlightening activity." Speaking about the youth, in a study by **(Brewster Porcella, 1964)** proves that, "Thirty-four percent of college going students reads books, 54% read magazines and 93% read the newspapers. Talking about High school students, 20% read books, 40% magazines and around 88% read newspapers. In all, 21% adult teenagers were seen reading books, 40% read magazines and a whole lot of 85% were inclined to read newspapers." The 2015 Digital News Report conducted in 12 countries on digital news consumption based on a survey conducted by YouGov of online news consumers **(Nic Newman, David A. L. Levy , & Rasmus Kleis Niel, 2015)** confirms that, 'the move to mobile, the rise of video, the growth of social discovery and the prospects for native advertising to have taken a toll on the print media industry.' Further testifying, **(Reuters, 2015)** a press release reported stating, 'Print media agencies are struggling to cut through the access of mobiles phones to such as Facebook, Apple and Google. These problems are compounded by the increasingly fewer number of people who are willing to pay for their journalism.'

RESEARCH METHODOLOGY
The research will be carried out on the geriatric population (senior citizens) who reside in the Southern side of Mumbai, so as to prove or nullify my hypothesis using the 'Survey Method'. The Methodology used herein is the 'Random Sampling Method'.

Aim: To Study the Geriatric Population as the Future Potential Target Audience for the Print Industry..

OBJECTIVES
1. To find out whether the geriatric population of South Mumbai prefer reading newspapers.

2. To understand the motive behind the geriatric population of South Mumbai to read newspapers.
3. To find out the kind of content and sections of English dailies that cause the geriatric population to read newspapers.

RESEARCH QUESTIONS

1. Do the geriatric population of South Mumbai prefer reading the hard copy instead of the online versions and applications?
2. How often do the geriatric population of South Mumbai read newspapers?
3. What motivates the geriatric population of South Mumbai to read newspapers?
4. What sections and stories of the newspapers are the geriatric population of South Mumbai interested in?

HYPOTHESIS

1. The geriatric population of South Mumbai prefer to read the hard copy of a newspaper over technological options.
2. The geriatric population of South Mumbai read newspapers in the morning every day.
3. The geriatric population of South Mumbai read newspapers to make use of their spare time.
4. The geriatric population of South Mumba are more inclined towards crime and crossword sections, and community stories of the newspaper.

DATA FINDINGS AND ANALYSIS

This research provides answers to the fate that beholds the print industry amidst the growing threat from online presence by affirming what the potential target audience in the future looks like.The findings of the data collected through survey and personal interview method on 56 senior citizens, through the method of random sampling are as follows:

Table-4.1: Classification of Geriatrics Who Accept to Reading Newspapers					
	Answer	Frequency	Percent	Valid Percent	Cumulative Percent
	Yes	54	96.4	96.4	96.4
	No	2	3.6	3.6	100.0
	Total	56	100.0	100.0	

Chart 4.1

The findings here clearly denote that 96% of the geriatrics read newspapers, barring only 4% of the population who either pursue some other hobby or leisure.

Table-4.3: Classification of Regularity in Reading Newspapers					
	Regularity	Frequency	Percent	Valid Percent	Cumulative Percent
	Daily	48	85.7	85.7	85.7
	Alternate days	3	5.4	5.4	91.1
	Once a week	3	5.4	5.4	96.4
	Not Applicable	2	3.6	3.6	100.0
	Total	56	100.0	100.0	

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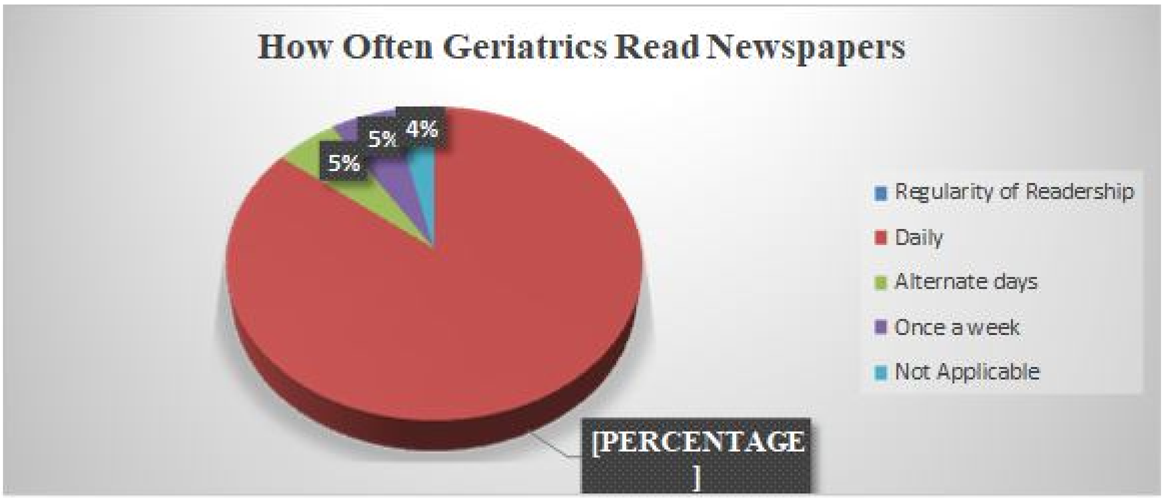
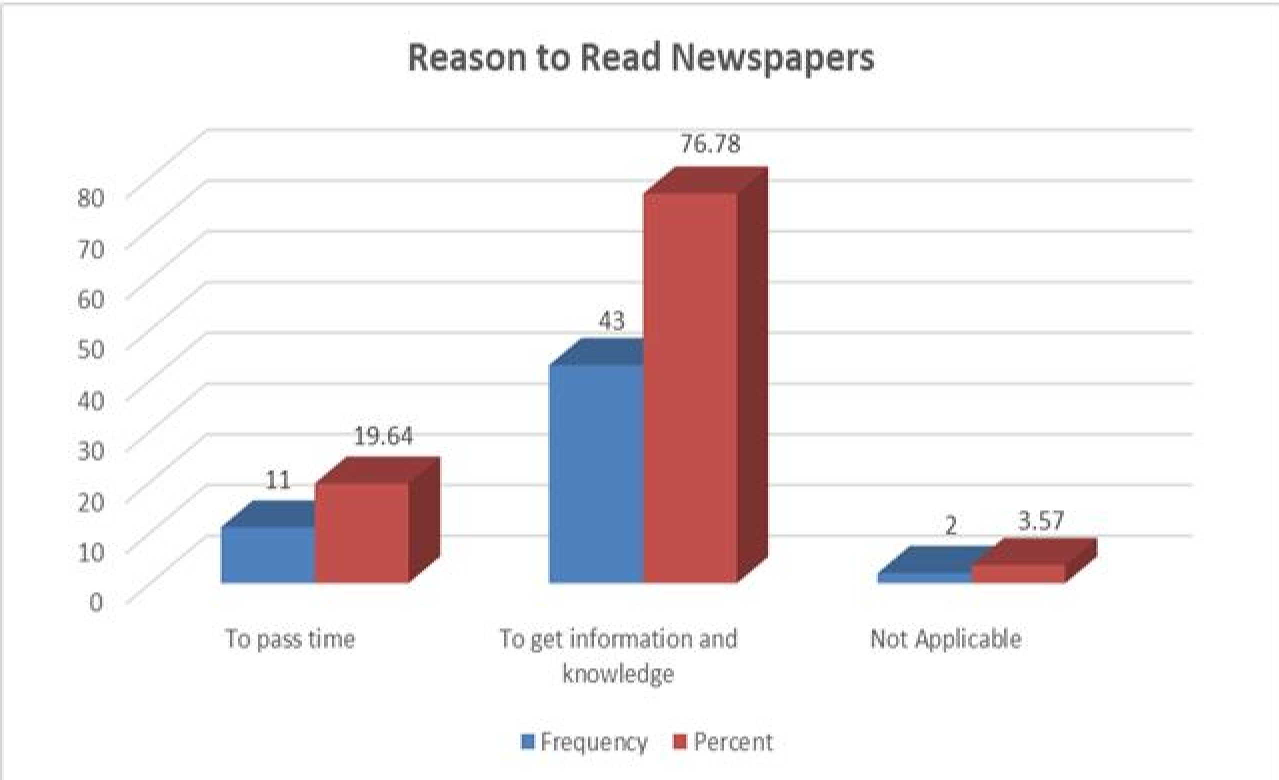
Table 4.3



As seen in Table 4.3 and Chart 4.3, with immense leisure time at hand, 48 people (86%) of the geriatrics read newspapers on a daily basis. With 3 people (5%) accepting that they read either on alternate days or once a week respectively.

THE MOTIVATION BEHIND READERSHIP Table 4.4					
	Reason	Frequency	Percent	Valid Percent	Cumulative Percent
	To pass time	11	19.6	19.6	19.6
	To get information and knowledge	43	76.8	76.8	96.4
	Not Applicable	2	3.6	3.6	100.0
	Total	56	100.0	100.0	

Chart 4.4



As most of the senior citizens are retired people, they have more time at their disposal which is why 77% (43 people) of the geriatric population reads newspapers to gain information and knowledge, while 20% (11 people) read newspaper to pass time (Table 4.4, Chart 4.4)

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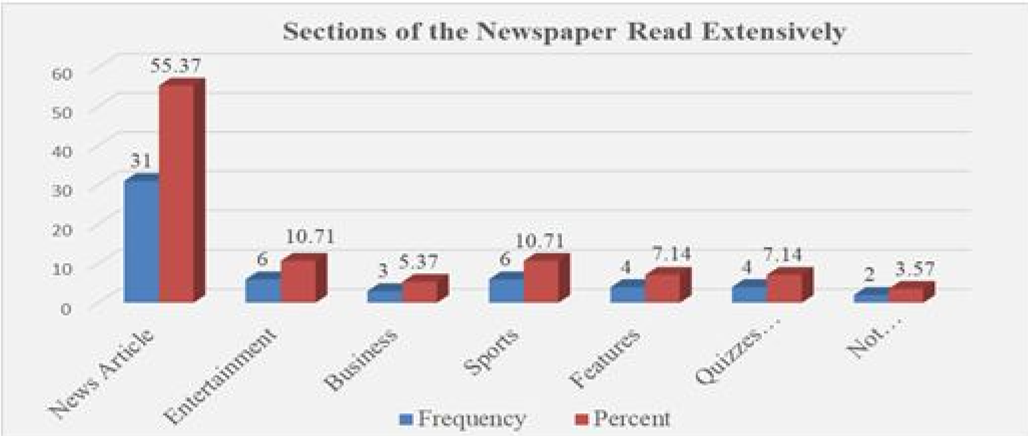
CLASSIFICATION OF SECTIONS OF THE NEWSPAPER READ EXTENSIVELY BY GERIATRICS

Table-4.5

Sections of the Newspaper Read Extensively	Frequency	Percent	Valid Percent	Cumulative Percent
News Article	31	55.4	55.4	55.4
Entertainment	6	10.7	10.7	66.1
Business	3	5.4	5.4	71.4
Sports	6	10.7	10.7	82.1
Features	4	7.1	7.1	89.3
Quizzes and Jokes	4	7.1	7.1	96.4
N.A.	2	3.6	3.6	100
Total	56	100	100	

Chart 4.5



According to Table and Chart 4.5, 55% of the geriatrics are drawn towards news articles, followed by 10.71% enjoying entertainment section, 5.37% enjoy Business, 10.71% towards Sports, 7.14% choose features, while another7.14% enjoy the quizzes and jokes section of the newspaper. This shows that senior citizens read newspapers for information and knowledge as most geriatrics are interested in news articles more than anything else. It was also noticed that more males than females chose sports as one of their interests in the newspaper.

CONCLUSION

The study majorly succeeded in answers all the objectives of the research to the best of its potential. With immense time at hand post retirement, the research proves that seniors utilise this time in reading newspapers on a daily basis, thereby driving its sales. Seniors choose to read newspapers to quench their thirst for knowledge and information, contrary to the pre-conceived notion about them merely making the most of their spare time. The research suggest that organizations can choose to cater additional space in their newspapers to news articles, followed by sports, business and interactive columns like quizzes, to ensure brand loyalty from the geriatrics for years to come.

SCOPE OF FUTURE STUDY

There is enough scope for research to be carried out in the future with regard to the geriatric's preference for print over online media.

REFERENCES AND BIBLIOGRAPHY

1. Arulraj, & Viji. (2008, January 02). News Paper Reading Habit Among the Professional College Staff Members for Various Points of View: a Survey. Retrieved from articlebase: http://www.articlesbase.com/college-and-university-articles/news-paper-reading-habit-among-the-professional-college-staff-members-for-various-points-of-view-a-survey-295276.html
2. Brewster Porcella. (1964). A SUMMARY OF RESEARCH ON THE READING INTERESTS AND HABITS. *University of Illinois Graduate School of Library Science*, 44.
3. Douglas A. Gentile . (2013). Catharsis and Media Violence: A Conceptual Analysis. *societies*, 20.
4. Duncan, P. H., & William Goggin. (n.d.). Reading Habits, patterns and Interest of Older Active Readers. *Virginia Commonwealth University*, 5.

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A STUDY ON EXPONENTIAL GROWTH IN INDEX FUTURES AND INDEX OPTIONS OF NSE

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Assistant Professor[2], L. S. Raheja College of Arts and Commerce, Mumbai

ABSTRACT
Introduced in 2000, financial derivatives market in India has shown a remarkable growth both in terms of volumes and numbers of traded contracts. Financial derivatives have earned a well deserved and extremely significant place among all the financial instruments (products), due to innovation and revolutionized the landscape. Derivatives are tool for managing risk. Derivatives provide an opportunity to transfer risk from one to another. Launch of equity derivatives in Indian market has been extremely encouraging and successful. The growth of derivatives in the recent years has surpassed the growth of its counterpart globally. The study reveals that there has been an exponential growth in turnover of contracts traded in index futures and options from 2001-02 to 2017-18 and the growth has been much more in index options as compared to index futures.
Keywords: Derivatives, Growth, Index Futures, Index Options, NSE, contracts traded and turnover.

INTRODUCTION
Derivatives trading in the stock market have been a subject of enthusiasm of research in the field of finance. The derivatives are defined as the future contracts whose value depends upon the underlying assets.
Financial markets are, by nature, extremely volatile and hence the risk factor is an important concern for financial agents. To reduce this risk, the concept of derivatives comes into the picture. The primary objectives of any investor are to maximise returns and minimise risks. Derivatives are contracts that originated from the need to minimise risk.

SIGNIFICANCE OF THE STUDY
India’s experience with the launch of equity derivatives market has been extremely positive, by world standards. NSE is now one of the prominent exchanges, amongst all emerging markets, in terms of equity derivatives turnover. There is an increasing sense that the equity derivatives.

REVIEW OF LITERATURE
Gong-meng Chen, Michael Firth and Oliver Rui (2001) have examined the dynamic relationshipbetween returns, volume, and volatility for major nine national stock indexes for the period from 1973to 2000. Their results show a positive correlation between trading volume and absolute value of stock price change. The results of the study were found robust across all nine major stock markets, implying that there are similar returns, trading volume, and volatility patterns across all markets under study.

Pilar and Rafael (2002), examined the effect of introduction of derivatives on the volatility andtrading volume of underlying Ibex-35 index by using GJR model and result that trading volume increased significantly but conditional volatility decreased after introduction of derivatives

NathGolaka C(2003), his paper on ―Behaviour of Stock Market Volatility after Derivatives‖, examined the behaviour of volatility in equity market in pre and post derivatives period in India using static and conditional variance. It observed that for most of the stocks, the volatility had come down in the post derivative period while for only few stocks in the sample, the volatility in the post derivatives has either stayed more or less same or has increased marginally.

Mukherjee and Mishra’s[9] (2006) study empirically investigated the usefulness and impact of twonon-price variables-open interest and trading volume from option market preceding the Nifty index in underlying cash market in India. The empirical findings confirm that the open interest based predictors are significant in predicting the spot price index in underlying cash market in both the periods, just after the initiation of the index option in the market and in the later sub period.

OBJECTIVES OF THE STUDY
The following are the objectives of the study
1. To study the in growth Index Future and Index Option in terms of number of contracts traded.
2. To study the growth in Index Future and Index Option in terms in terms of turnover.
3. To explore the various reasons for the growth in Index Future and Index Option in NSE.

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4. To study CAGR of Index Future and Index Option.

Hypothesis

Ho- There is not tremendous growth in Index Future and Index Option in terms of number of contracts traded.

Ho- There is not tremendous growth in Index Future and Index Option in terms of turnover.

Research methodology- To carry the study of the growth in Index Futures and Index Options of NSE, CAGR (Cumulative Average Growth Rate is studied from 2000-01 to 2017-18.The data is collected from secondary source. Growth in terms of turnover and number of contracts traded is obtained from NSE website.

DATA ANALYSIS

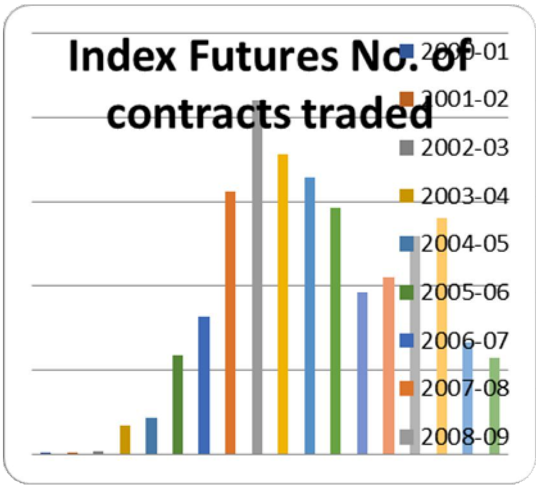
I. Growth of Index Futures and Index Options of NSE on the bases of number of contracts traded

Table – 1: No. of contracts traded in Index Futures and Options

Year	Index Futures	CAGR	Index Options	CAGR
	No. of contracts traded		No. of contracts	
2000-01	90580		-	
2001-02	1025588	1032.25%	175900	
2002-03	2126763	107.37%	442241	151.42%
2003-04	17191668	708.35%	1732414	291.74%
2004-05	21635449	25.85%	3293558	90.11%
2005-06	58537886	170.56%	12935116	292.74%
2006-07	81487424	39.20%	25157438	94.49%
2007-08	156598579	92.18%	55366038	120.08%
2008-09	210428103	34.37%	212088444	283.07%
2009-10	178306889	-15.26%	341379523	60.96%
2010-11	165023653	-7.45%	650638557	90.59%
2011-12	146188740	-11.41%	864017736	32.80%
2012-13	96100385	-34.26%	820877149	-4.99%
2013-14	105252983	9.52%	928565175	13.12%
2014-15	129303044	22.85%	1378642863	48.47%
2015-16	140538674	8.69%	1623528486	17.76%
2016-17	66535070	-52.66%	1067244916	-34.26%
2017-18	57674584	-13.32%	1515034222	41.96%

Source: Complied and calculated from the data taken from www.nseindia.com

Graph 1.1



Graph 1.2

Table 1.1, Graph 1.1 and 1.2 depicts the exponential growth Index futures and options in terms on number of contracts traded. In case of index futures, the contracts traded has risen from 1025588 in 2001-02 to 57674584 in 2017-18 which translates into phenomenal growth of 5524%. In case of index options, the contracts traded

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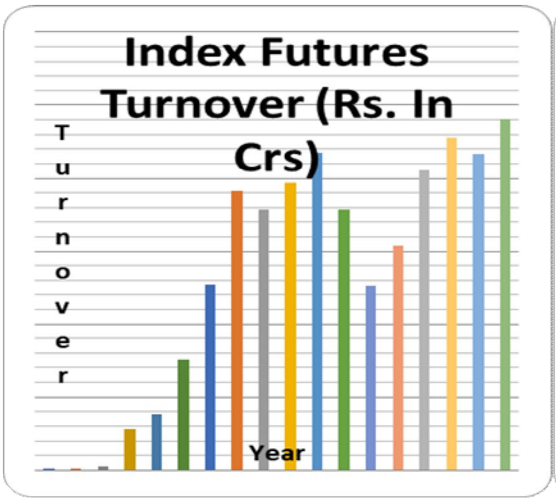
has risen from 175900 in 2001-02 to 1515034222 in 2017-18 which translates into phenomenal growth of 861204%. Thus it is evident that there has been an exponential growth in number of contracts traded in index futures and options from 2001-02 to 2017-18 and the growth has been much more in index options as compared to index futures

Table 2 -Growth of Index Futures and Index Options of NSE on the bases of number of contracts traded

Year	Index Futures	CAGR	Index Options	CAGR
	Turnover (Rs. In crore)		Premium Turnover**Turnover (Rs. In crore)	
2000-01	2365			
2001-02	21483	808.37%	1299	
2002-03	43952	104.59%	112.7	-91.32%
2003-04	554446	1161.48%	991.48	779.75%
2004-05	772147	39.26%	2356.98	137.72%
2005-06	1513755	96.04%	5770.52	144.83%
2006-07	2539574	67.77%	17650.87	205.88%
2007-08	3820667.27	50.45%	29286.09	65.92%
2008-09	3570111.4	-6.56%	91715.58	213.17%
2009-10	3934388.67	10.20%	124416.58	35.65%
2010-11	4356754.53	10.74%	192637.87	54.83%
2011-12	3577998.41	-17.87%	253068.22	31.37%
2012-13	2527130.76	-29.37%	184383.24	-27.14%
2013-14	3083103.23	22.00%	244090.71	32.38%
2014-15	4107215.2	33.22%	265315.63	8.70%
2015-16	4557113.64	10.95%	351221.01	32.38%
2016-17	4335940.78	-4.85%	350021.53	-0.34%
2017-18	4810454.34	10.94%	460653.71	31.61%

Graph 2.1



Graph 2.2

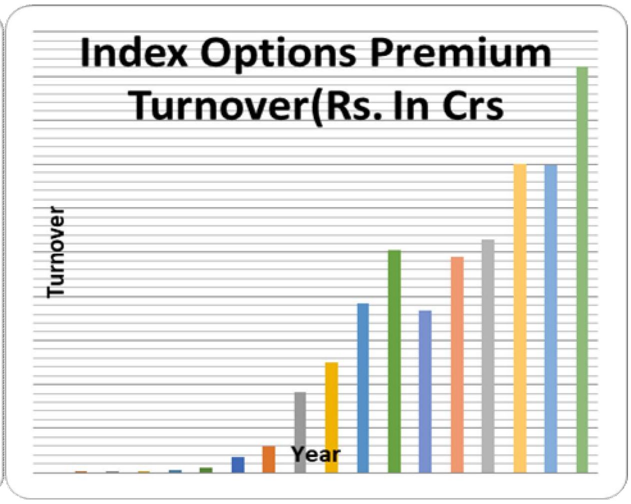


Table 2, Graph 2.1 and 2.2 depicts the exponential growth Index futures and options in terms of turnover. In case of index futures, the turnover has risen from Rs. 21483 crs in 2001-02 to Rs. 4810454 in 2017-18 which translates into phenomenal growth of 22292%. In case of index options, the turnover has increased from Rs. 1299 Crs in 2001-02 to Rs. 460653 crs in 2017-18 which translates into phenomenal growth of 35362%. Thus it is evident that there has been an exponential growth in turnover of contracts traded in index futures and options from 2001-02 to 2017-18 and the growth has been much more in index options as compared to index futures**.**

FACTORS CONTRIBUTING TO THE EXPLOSIVE GROWTH OF DERIVATIVES

1. Price Volatility

The changes in demand and supply influencing factors culminate in market adjustments through price changes. These price changes expose individuals, producing firms and governments to significant risks. The advent of telecommunication and data processing bought information very quickly to the markets. Information which would have taken months to impact the market earlier can now be obtained in matter of moments. Even equity holders are exposed to price risk of corporate share fluctuates rapidly.

This price volatility risk pushed the use of derivatives like futures and options increasingly as these instruments can be used as hedge to protect against adverse price changes in commodity, foreign exchange, equity shares and bonds.

2. Globalization of the Markets

Earlier, managers had to deal with domestic economic concerns; what happened in other part of the world was mostly irrelevant. Now globalization has increased the size of markets and as greatly enhanced competition .it has benefited consumers who cannot obtain better quality goods at a lower cost. It has also exposed the modern business to significant risks and, in many cases, led to cut profit margins

3. Technological Advances

In recent times India has seen the introduction of algorithmic trading. Many brokers provide facility of online trading through the mobile. These facilitated the more rapid movement of information and consequently its instantaneous impact on market price.Derivatives can help a firm manage the price risk inherent in a market economy. To the extent the technological developments increase volatility, derivatives and risk management products become that much more important.

4. Advances in Financial Theories

Advances in financial theories gave birth to derivatives. Initially forward contracts in its traditional form, was the only hedging tool available. Option pricing models developed by Black and Scholes in 1973 were used to determine prices of call and put options. The work of economic theorists gave rise to new products for risk management which led to the growth of derivatives in financial markets.

5. Entry of Foreign Institutional Investors (FII)

India’s policy stance has changed towards attracting foreign direct investment (FDI. The Indian Govt also adopted a steady FII policy to encourage them to invest in Indian equity markets. Huge amount of inflows in Indian Equities necessitated the use of derivative instruments such as Index futures, index options, Stock Futures & Stock Options by the FII to hedge their portfolio of Indian Equity against global and domestic headwinds.

CONCLUSION

It is evident that there has been an exponential growth in number of contracts traded in index futures and options from 2001-02 to 2017-18 and the growth has been much more in index options as compared to index futures

There has been an exponential growth in turnover of contracts traded in index futures and options from 2001-02 to 2017-18 and the growth has been much more in index options as compared to index futures.
Factors contributing to the explosive growth of derivatives are price volatility, globalization of the markets, technological developments and advances in the financial theories. Increased inflow of capital into the equity markets by Foreign Institutional Investors (FII) also played a major role in phenomenal growth of equity F&O in India.

REFERENCES

1. Sushan Thomas: “Derivatives markets in India”. Tata McGraw- Hill, New Delhi. 1998.
2. John C. Hull, "Futures and options markets", 2nd ed., PHI Learning Private Ltd., New Delhi, 2009.
3. Ashutosh Vashishtha, Satish Kumar, “Development of Financial Derivatives Market in India- A Case Study”, International Research Journal of Finance and Economics, ISSN 1450-2887 Issue 37, 2010.
4. Juhi Ahuja (2012), “Indian Capital Market: An Overview with Its Growth” VSRD International Journal of Business & Management Research.

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A STUDY ON AWARENESS OF YOUNG INVESTORS ABOUT INVESTMENT IN MUTUAL FUNDS: WITH SPECIAL REFERENCE TO THE STUDENTS OF LALA LAJPATRAI COLLEGE OF COMMERCE AND ECONOMICS

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INTRODUCTION

A mutual fund is a trust that pools the savings of a number of investors who share a common financial goal. A mutual fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed portfolio at a relatively low cost. Anybody with an investible surplus of as little as a few thousand rupees can invest in mutual funds. Each mutual fund schemes has a defined investment objective and strategy.

Different investors have different motivations, but it is a very good to think about investment an early stage; because when it comes to investing, whether stocks, bonds or real estate, time is money. The more time the investor gives his money to grow the better chance he has at earning profits which, when reinvested, compound to build a bigger portfolio for him. College is expensive and paying for it can be difficult for many families whether their parents are footing the tuition bills or they have liability in terms of repayment of loans, if the students have extra money from a part time job or gifts, they can plan for investing in stocks, bonds, mutual funds, real estate or other venture like buying of a vehicle, start a business, payback family member’s liability (loan) or can even save for study abroad.

The present study aims at studying the level of financial awareness of the students of Lala Lajpatrai College about the mutual funds investment.

It also aims to study the impact of three independent variables i.e.

- Personal savings
- Personal interest
- Peer group behavior

On the dependent variable i.e. financial awareness

NEED FOR RESEARCH

The present study focuses upon how the investment training given to young minds influences their investment behavior patterns and help to make them the right investment choice at the right point of time. It is also an attempt to study the psychological traits of young students which strongly influence their future investment plans.

OBJECTIVES OF STUDY

1) To study the level of financial literacy and awareness of youth investors about the mutual funds.
2) To study the impact of young Investors peer group behavior on their investment decisions.
3) To study the relative preference of various investment avenues available in the financial markets.
4) To study the relative preference & choice of various mutual fund schemes by the young Investors.

METHOD OF DATA COLLECTION AND SAMPLE DESIGNING

1) Primary method of Data Collection has been used.

2) The relevant Data for the present research is collected through the questionnaire and also through telephone conversation with the financial experts, who are also the alumni of the Lala Lajpatrai College.

The senior most executive and financial trainers also shared their views about the present study through telephonic interviews.

The sampling design includes simple random sampling technique.

The size of the sample consists of total=106 students of Lala Lajpatrai College from various courses ranging from undergraduate , graduate, post graduate and self-financing courses.

The common factor amongst all the students’ respondents is that they all belong to commerce stream (in which 'finance' is the core subject).

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HYPOTHESIS OF STUDY
Hypothesis of the study

Ho : There is no significant relationship between awareness of mutual funds and investor's perception about it's future benefits.

H1 : There is a significant relationship between awareness of mutual funds and investor's perception about it's future benefits.

Ho : Attitude of young investors influences their investment in mutual funds.

H1 : Attitude of young investors does not influence their investment in mutual funds.

LIMITATIONS
1. It is also restricted to perception of only commerce colleges in South Mumbai.
2. Sample size to only 106 students.

SCOPE
1. The scope of study is restricted to only mutual fund investments.
2. It is also limited to young college going students at UG and PG levels.

RESEARCH RELATED INFORMATION
Primary Data collected through telephonic interviews is summarized as follows:
1) Prof .Mr. Kishore Mehta (C.A.) by profession ex-lecturer at Lala Lajpatrai College is of the following opinion:

"Mutual funds have its own benefit of expertise and experience. Investor needs to be aware that many mutual funds operate simultaneously with many schemes each suitable to the particular type of investor

2) Alumni of Lala Lajpatrai College, Mr.Juzer Doctor, (BCOM (Batch 2013)) who is C.A. by profession gives following opinion:

"Mutual fund does not require you to invest in huge money; you can always start with small i.e. Systematic Investment plan which starts with minimum Rs500 per month. SIP will inculcate the habit of savings in your young days.''

4) Mr.YashGala, who is studying in the final year of BMS of Lala Lajpatrai College institute of management, said that,"The main benefit of having mutual funds for the students is that they are the tax saving instruments"."Every youth today thinks of doing something on their own and it's much for them to invest so as to grow and save their own money".

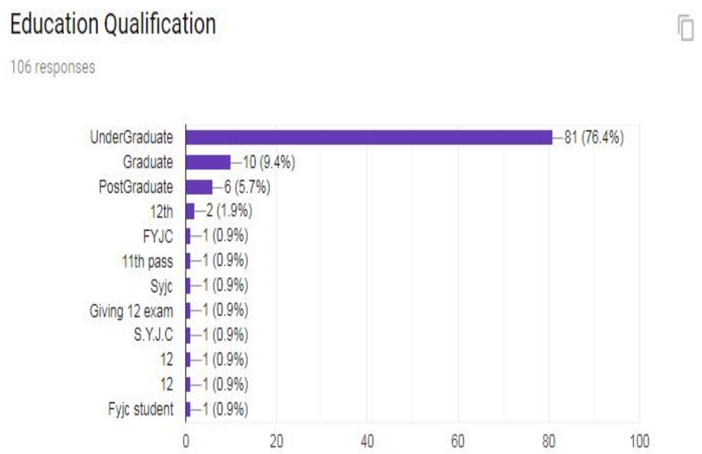
5) Company Secretary and Legal practitioner by profession, Mr. Hritik Jain (ex-student of Lala Lajpatrai College, BCOM Batch 2013) is of the following opinion:-

"The initiative taken by government with the ads "mutual fund sahi hai " has surely intrigued the minds of young generation.However, I believe that having financial literacy is not synonymous with general education one receives in college. The commerce students may have more Idea of the mutual funds than someone from science or arts background.

DATA ANALSIS AND INTERPRETATION
The results of the collected responses & feedback to the questionnaire distributed to 106 students (respondents) is given below :-(Quesionwise) (Out of total 106 respondents 57 are female and 49 are male.(more or less equal proportion).

1) Educational qualification
Amongst total 106 respondents 91 are undergraduate out of which 10 belongs to Junior College students, 10 are graduates and 6 are postgraduates.The highest percentage of response coming from the undergraduate students which shows their curiosity, enthusiasm and interest towards learning and entering into the new world of financial markets.

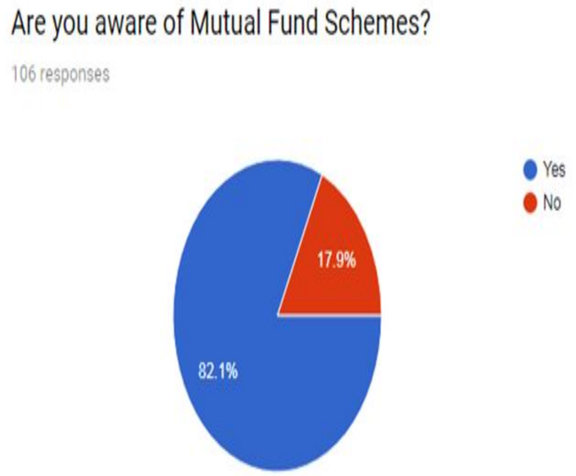
Very few response came from graduates and postgraduates, as due to their exams, viva and practical submission, having their busy schedules.



2) Awareness about mutual funds

82% of the students gave positive response about their awareness regarding mutual funds investment, showing their higher level of financial literacy and awareness about investment options available to them.

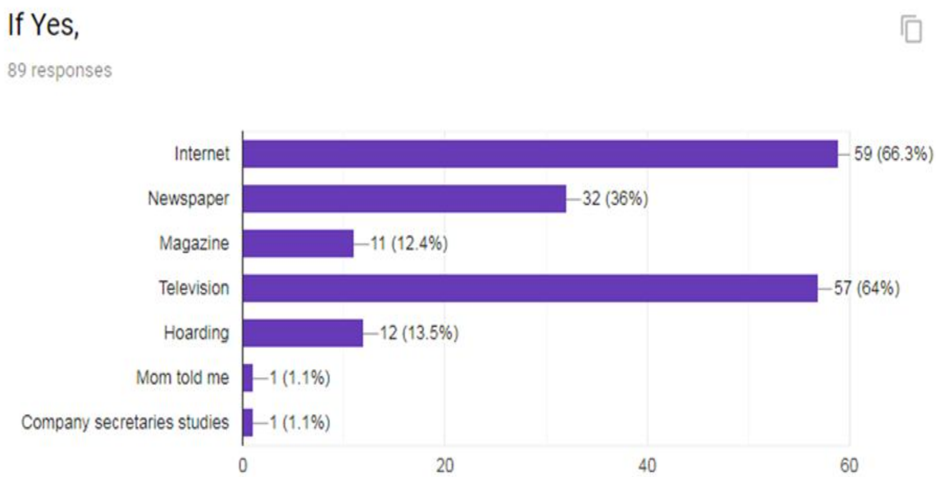
18% of the students are unaware about mutual funds may be due to their lack of interest and due to absenteeism in the college academics.



3) Sources of finance related information and whom would you like to consult while investing?

Amongst the students those are aware of mutual funds, the highest score is given to the internet being the source of information (66.3%), the second highest score is given to T.V.(64%) being the popular medium of Advertising.

Third highest score is given to Newspaper (36%) being the source of information &updating of knowledge. The hoarding & Magazine's scored very less (12%).



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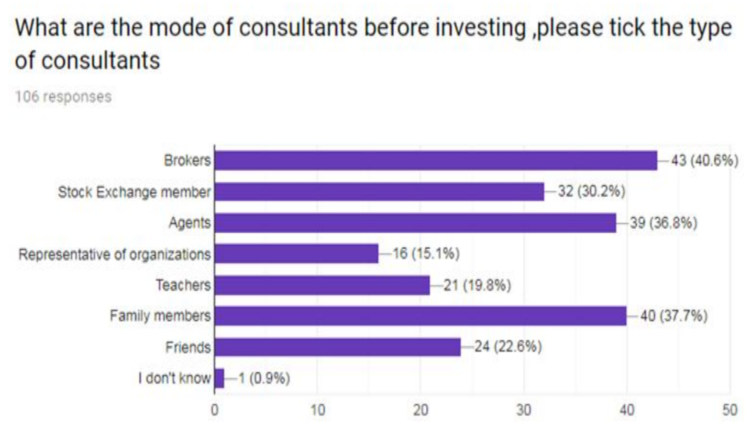
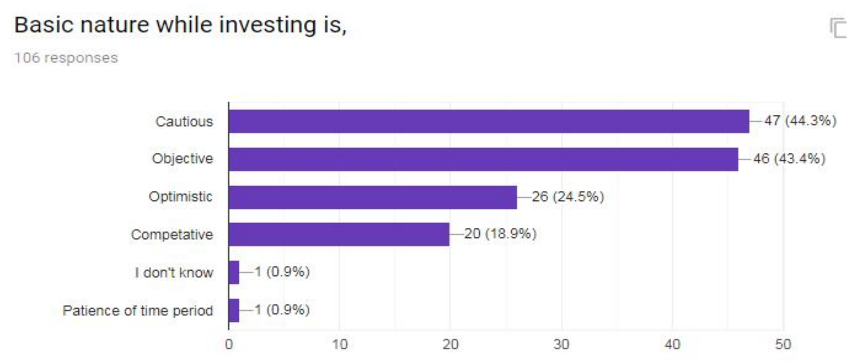


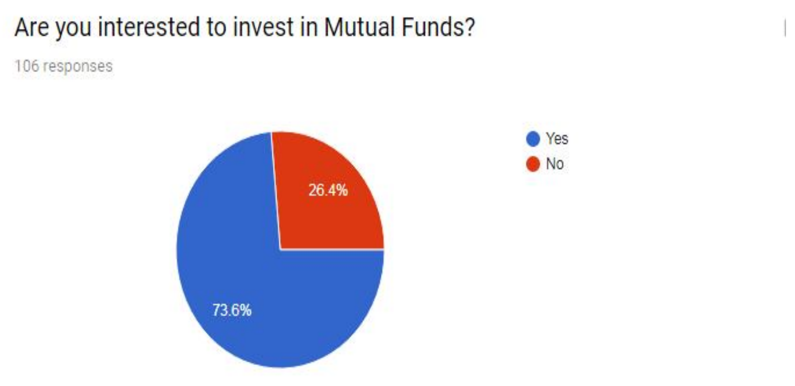
4) Basic nature of young investor while investing

In response to this question 47 out of 106 respondents are of the opinion of acting "cautious" while investing and 46 respondents would like to be "objective" while investing. 26 respondents feel optimistic, while very few (i.e.=20) feel that they would behave"competitive"while investing.



5) Are you interested to invest in mutual funds?

The highest proportion (i.e.76%) of the respondents has shown their interest towards investment in mutual fund and 26% respondents are not interested in mutual fund investments. The 'interest 'factor being the psychological aspect of individual personality is influenced by many internal and external factors of one's surrounding and environment. Even age factor, family responsibility, financial status affects 'interest' about investment decision.



6) Which scheme to invest in?

Out of 106 total respondents 90 are in favor of investing in SIP (Systematic Investment Plan). This may be due to the little amount of savings at the disposal of students and small earnings (monthly) from their part-time jobs.

So, monthly investment plan is highly preferable; only 16 are in favor of Lump-sum investment may be because of thinking about long term investment or future plans to buy a vehicle.

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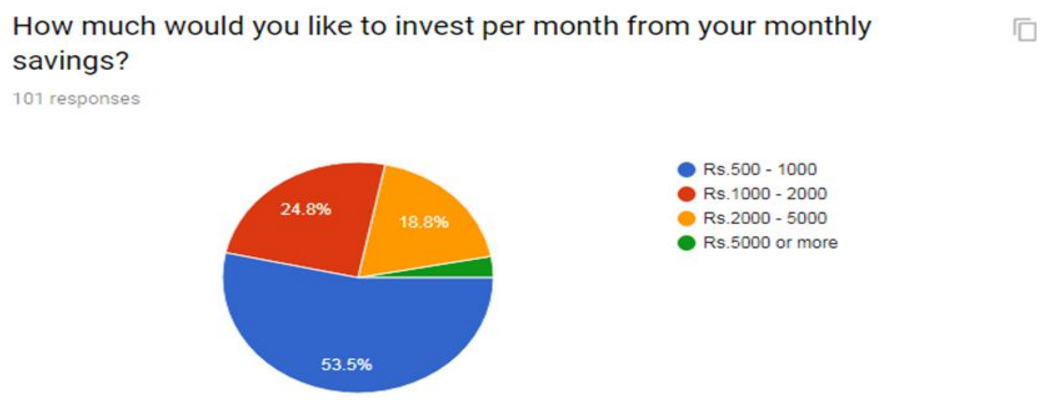
I	Banks	57	54%
II	Stock market	53	50%
III	Gold	32	30%
IV	Real estate	27	25.5%
V	Post office	9	8.5%

The above table shows that Banks are the most preferable options to invest in by the young investors, apart from investment in mutual funds. The second preference being stock market .Investment in gold is the third choice and investment in real estate is the fourth choice of young investors very few i.e. only 9 responses in favor of investment in post office.

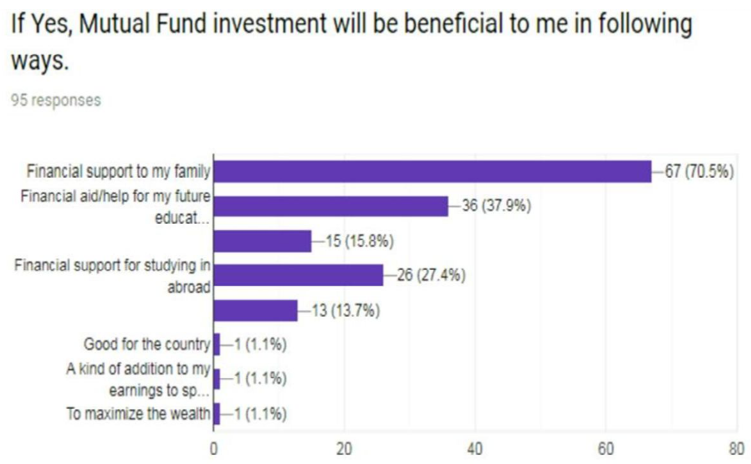
9) How much would you like to invest per month from your monthly savings?
In answer to this question, we got 54% of respondents who would like to invest about Rs 500 to Rs 1000 in mutual funds schemes. This is but obvious due to their small savings and / or small earnings from the part-time jobs.

25% respondents are willing to invest Rs 1000 to Rs 2000 per month in mutual funds and 19% respondents are willing to invest Rs 2000 to Rs 5000 per month in mutual funds.

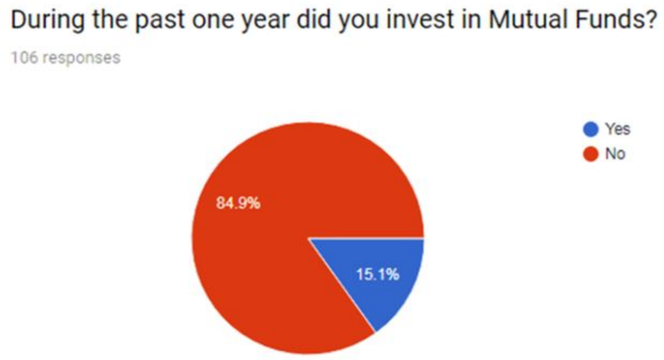


10) Do you feel mutual funds investing will be beneficial to you in future?
In reply to this response 91.5% respondents said 'Yes' and 8.5% said 'No'.

11) If yes, how it is beneficial?
Out of the respondents who replied 'yes' i.e. positively responded for the advantages of mutual funds, 71% feels that it is a great financial support to their families, 38% feels that investment in mutual funds will help them financially to their future education, and 27% feels that it will help them to finance for studying abroad.



In reply to this, 84% said that they did not invest in past one year in mutual funds & 15% said that they have invested in mutual funds in past one year.



TESTING OF HYPOTHESIS AND RESULTS

Hypothesis of the study

H_o : There is no significant relationship between awareness of mutual funds and investor's perception about it's future benefits.

H_1 : There is a significant relationship between awareness of mutual funds and investor's perception about it's future benefits.

Table. 1 Chi-Square Frequency Table [X^2] freq. Table)

Dimensions		Observed Frequency(O)	Expected Frequency(E)	(O – E)	$(O – E)^2$
1	Very Low	5	21.2	- 16.2	262.44
2	Low	6	21.2	- 15.2	231.04
3	Neutral	8	21.2	- 13.2	174.24
4	High	20	21.2	- 1.2	1.44
5	Very High	67	21.2	45.8	2097.64
Total =		106	-	-	2766.80
$(O – E)^2$ divided by E =					130.5094

Formulaes:

1) Expected Frequency (E) = $\frac{\text{Total number of observed Frequency}}{\text{Number of dimension}}$

= $\frac{106}{5}$

= 21.2

Therefore, Expected Frequency (E) = 21.2

2) Degree of freedom = (number of dimensions – 1)

= (5–1)

= 4

At Degree of freedom = 4, and at 5% level of significance the critical value of chi-square test is 9.488.

calculated of chi-square value = 130.5094.

Since the calculated value of chi-square is greater than the table value (130.5094 > 9.488), the null hypothesis (H_o) is Rejected

I t means there is a significant relationship between the awareness about mutual funds investment and the perception of investors about it's future benefits.

Hypothesis of the study

H_o : Attitude of young investors influences their investment in mutual funds.

H_1 : Attitude of young investors does not influence their investment in mutual funds.

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Table. 2 Chi-Square [X^2] freq. Table)

Dimensions		Observed Frequency(O)	Expected Frequency(E)	(O – E)	$(O – E)^2$
1.	Highly not influential	14	21.2	- 7.2	51.84
2.	Not influential	12	21.2	- 9.2	84.64
3.	Neutral influential	10	21.2	- 11.2	125.44
4.	Influential	17	21.2	- 4.2	17.64
5.	Highly influential	53	21.2	31.8	1011.24
TOTAL:		106			1290.80
				$(O–E)/E^2$	60.88679

The critical value of chi-square test (X^2 test) at 5% level of significance, and at Degree of freedom 4, is 9.488.

The calculated value of chi-square frequency (from the above table) is 60.88679.

Therefore, X^2 calculated value > X^2 critical value, H_o is rejected.

Therefore, the attitude of young investors have influence on their investment in mutual funds.

CONCLUSION

1) Young investors are well aware of mutual funds investing.
2) They show positive response about investment in mutual funds, especially in (SIP) systematic investment plan on monthly basis.
3) Young investors have a strong positive perception about the future benefits yielded from their investment in mutual funds.
4) Knowledge of various investment avenues available in the market, helps to create interest about mutual funds investment amongst the young investors and develops positive attitude towards the investment.
5) The mass media of advertising, especially T.V., mobile and internet, creates lots of financial awareness amongst the young investors (new online applications about invt. & e-banking).
6) Young investors are smart and techno-savvy, futuristic and optimistic, highly intellectual and very practical in nature.

SUGGESTIONS AND RECOMMENDATIONS

1) To arrange "mock stock" programs conducted by financial experts and professional trainers of the stock exchanges (especially by BSE). This will help the students as well as teachers to get hands on training and practical knowledge about dealing in various securities.
2) At Junior College level, a project work must include the Industrial visits to various financial institutions as well as interview sessions with brokers.
3) Arranging the series of seminars by financial experts for knowledge updates is another important suggestion.
4) Practical training must be given about investing money through internet i.e. “online computer applications and updating with the latest online applications for young investors with the help of I.T. professionals and trainers.

REFERENCES

1. Investment analysis and behavior by Mark Hirschey (Univesrsity of Kansas)-& John Nofsinger (Washington state Universirty)-Tata MCGraw-Hill Publications
2. Psychology of investment & investors preferences By Sushant Nagpal ISBN-81-89915-63-0 (year 2007)
3. Investment behavior & Risk Management by Ch. Krishnudu, B. Krishna Reddy, G. Rama Krishna Reddy(Global Research Publications, 2009)ISBN-81-89630-13-X
4. Investment Behaviour – The Psychology of planning and investing byH. Kent Baker & Victor Ricciardi (2014)Published by John Wiley & Sons, Hoboken, New Jersey.

 ISSN 2394 - 7780

5. "Everything you wanted to know about investing" byKotak & CNBC-TV 18 (Edition-2008)Published by network 18 publications pvt ltd., New Delhi.

6. Investment : principles & concepts (12th edition, 2014) by Charles.P.JonesPublished by Wiley India pvt.ltd., New Delhi.

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A STUDY ON MULTIPLE REGRESSION ANALYSIS FOR PRIMARY ACTIVITY

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ABSTRACT:
The present study deals with the dairy activity is a subsidiary to agriculture in India. In India, where 80 per cent of the farmers are small holders, agriculture should be supplemented with the subsidiary occupation such as dairying, cattle breeding etc. In those activities, dairy is leading activity and plays a vital role in the rural economy. The researcher concludes that the quantity of milk is the function of four variable namely Number of lactations, consumption of green fodder, Body weight and Fat content. Also, the curve representing the quantity of milk and green fodder show the linear relationship between both.

Keywords: A2 Milk, Regression Analysis, Curve Fitting, Linear relationship

1.0 INTRODUCTION:
Milk is the total sustenance for the new-born child. It contains the fundamental micro-nutrients needed for growth and development of human health. Milk generation /production takes place all around the Globe. Worldwide demand for dairy continues to expanding in large part due to population growth, rising incomes, urbanization and westernization of diets in countries such as China and India. With the increasing demand for dairy, there is growing pressure on natural resources, like Milk. WWF (World Wild Life) works with dairy farmers, industry groups, and other stakeholders in various countries to conserve and protect natural resources like milk and cattle habitat. Most common economically important milk constituent's traits include fat, protein, SNF, lactose and ash. These characteristics and associated benefits have made milk an important part of the diet. Amongst the milk constituents, beta- casein has gained importance and popularity amongst the health-conscious people due to its recent health related issues. Beta casein composition of milk and milk products has become an important economic trait of dairy animals. Our indigenous dairy animals produce A2 milk and India is endowed with rich A2 dairy animals since our civilizations, protecting the masses from ill effects of A1 milk. It is a matter of great concern for the health of people in India. There is an urgent need to go through our breeding policies to stop producing A1 milk and to maximise A2 milk. Also, its need of an hour to understand the factors responsible for maximizing the amount of A2 milk in Dairy farming, thus focusing on preserving on natural resources.

Thus, an attempt was made by the researcher to study the Mathematical Modelling for A2 type of milk. The concepts of Applied Mathematics namely; Curve analysis. Also, Statistical concepts were used to test hypothesis.

2.0 RESEARCH METHODOLOGY
2.1 OBJECTIVE OF STUDY
To evaluate the proposed mathematical model representing quantity of Milk.

To study the curve representing milk and Fodder consumed.

2.2 SCOPE OF STUDY
The study was restricted to only one breed of cow in certain places of Junagadh.

2.3 VARIABLES UNDER STUDY
Dependent Variable =Y= Quantity of Milk per Day

2.4 INDEPENDENT VARIABLES:
X1= Number of Lactation of the Gir cows

X2= Quantity of Green fodder/ grass consumed by the Gir cows

X3= Body weight (kg) of the Gir cows

X4= Fats (%)

2.5 SAMPLE TECHNIQUE
The sample of 100 Gir cows were selected using simple random sampling technique.

2.6 RESEARCH DESIGN
The research design Deployed was Descriptive in nature.

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2.7 STATISTICAL AND MATHEMATICAL TECHNIQUE USED

The techniques used for the analysis were Multiple regression and curve fitting.

2.8 LIMITATIONS OF RESEARCH

1) The researcher has made an attempt to include secondary information with source of references, and the researcher has believed that secondary information is authentic.

2) There is no control over respondent's biasness. Thus, even though the researcher has made an attempt to collect authentic information from the care takers, it is observed that care takers biasness while collecting primary information forms the prominent limitation of research.

3) However, the study was restricted to Few places of Gujarat. Only selected region of Gujarat was considered for the research, thus neglecting the other regions.

4) The researcher claims that limited time period and limited budget (cost) are indeed the limitations of research.

5) The researcher has made a genuine attempt to obtain a sample by convenient sampling method of those caretakers of cow sheds who were ready to share the information. But there were caretakers of cow sheds and were not ready to share their experience.

7) A limited sample size of 100 was considered by the researcher for this study.

3.0 DATA ANALYSIS AND INTERPRETATION

3.1 Multiple Regression: In order to generate credible evidence to test the hypotheses, statistical tests were used on the primary data collected. Beginning with a preview, this chapter presents details of the outcomes of the descriptive statistics, dependence models and the interdependence mathematical models.

The Researcher has proposed the Mathematical model using the multiple Regression Analysis.

The Proposed Mathematical model includes one dependent variable and eleven Independent variables.

Dependent Variable =Y= Quantity of Milk per Day

Independent Variables: X1= Number of Lactation of the Gir cows

X2= Quantity of Green fodder/ grass consumed by the Gir cows

X3= Body weight (kg) of the Gir cows

X4= Fats (%)

Table 3.1.1 Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	No. of Lactation	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	Fats (%)	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	Body Weight (kg)	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	Quantity of green fodder/ grass per day (kg)	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

Source: SPSS a. Dependent Variable: Quantity of milk (Ltrs/Day)

Table 3.1.2 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.880[a]	.774	.772	1.479	.774	336.444	1	98	.000
2	.899[b]	.809	.805	1.369	.034	17.350	1	97	.000

3	.910[c]	.827	.822	1.308	.019	10.326	1	96	.002
4	.917[d]	.841	.835	1.259	.014	8.524	1	95	.004

Source: SPSS a. Predictors: (Constant), No. of Lactation

b. Predictors: (Constant), No. of Lactation, Fats (%)

c. Predictors: (Constant), No. of Lactation, Fats (%), Body Weight (kg)

d. Predictors: (Constant), No. of Lactation, Fats (%), Body Weight (kg), Quantity of green fodder/ grass per day (kg)

Table 3.1.3 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	735.889	1	735.889	336.444	.000[b]
	Residual	214.351	98	2.187		
	Total	950.240	99			
2	Regression	768.412	2	384.206	204.962	.000[c]
	Residual	181.828	97	1.875		
	Total	950.240	99			
3	Regression	786.070	3	262.023	153.221	.000[d]
	Residual	164.170	96	1.710		
	Total	950.240	99			
4	Regression	799.588	4	199.897	126.053	.000[e]
	Residual	150.652	95	1.586		
	Total	950.240	99			

Source: SPSS

Table 3.1.4 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	12.014	.321		37.422	.000			
	No. of Lactation	.943	.051	.880	18.342	.000	.880	.880	.880
2	(Constant)	7.307	1.168		6.254	.000			
	No. of Lactation	.781	.062	.728	12.680	.000	.880	.790	.563
	Fats (%)	.884	.212	.239	4.165	.000	.701	.390	.185
3	(Constant)	4.045	1.509		2.681	.009			
	No. of Lactation	.565	.089	.527	6.322	.000	.880	.542	.268
	Fats (%)	.872	.203	.236	4.304	.000	.701	.402	.183
	Body Weight (kg)	.015	.005	.245	3.213	.002	.809	.312	.136
4	(Constant)	-1.826	2.481		-.736	.463			
	No. of Lactation	.567	.086	.529	6.595	.000	.880	.560	.269
	Fats (%)	.823	.196	.223	4.200	.000	.701	.396	.172
	Body Weight (kg)	.016	.005	.256	3.487	.001	.809	.337	.142
	Quantity of green fodder/ grass per day (kg)	.253	.087	.120	2.920	.004	.103	.287	.119

Source: SPSS a. Dependent Variable: Quantity of milk (Ltrs/Day)

Equation: Quantity Milk = - 1.826 + 0.567x(No. of Lactation) + 0.823x(Fat%) + 0.016x(Body Weight) + 0.253x(Green Fodder/day)

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Thus, the Mathematical Model or Prediction Equation is given by the following equation

f (x_1, x_2, x_3, x_4) = -1.826 +0.567x_1 + 0.253x_2 +0.016x_3 +0.823x_4

Thus, the quantity of Milk is the function of four significant variables namely Number of Lactation, Fat (%), Body Weight (Kg) and Green Fodder consumed per day.

3.2 Curve Fit – Quantity of Milk on Quantity of Green Fodder/Grass

Table 3.2.1 Model Description

Model Name		MOD_1
Dependent Variable	1	Quantity of Milk
Equation	1	Linear
Independent Variable		Green Fodder
Constant		Included
Variable Whose Values Label Observations in Plots		Unspecified

Source: SPSS

Table 3.2.2 Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.103	.011	.000	3.097

Source: SPSS

The independent variable is Green Fodder.

Table 3.2.3 ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	10.060	1	10.060	1.049	.008
Residual	940.180	98	9.594		
Total	950.240	99			

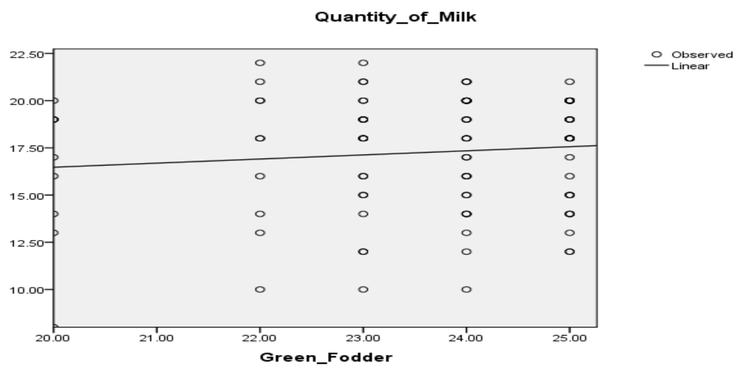
Source: SPSS

The independent variable is Green Fodder.

Table 3.2.4 Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
Green Fodder	.217	.212	.103	1.024	.008
(Constant)	12.125	5.004		2.423	.017

Source: SPSS



Source: SPSS Fig 3.2

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INTERPRETATION

Let y= Quantity of Milk and x= Green Fodder

Thus, the equation corresponding to the curve representing the quantity of milk and Body Weight is in Gir cow is given by y= 12.125 +0.217x

The above equation is significant when tested by ANOVA as p value =0.008

β value = 0.103, this means one Quantity of Milk increases 10.3% with each kg. increase of Green Fodder by Gir Cow.

4.0 CONCLUSION

From the findings the researcher concludes that the quantity of milk is the function of four variable namely Number of lactations, consumption of green fodder, Body weight and Fat content. Each independent variable has a significant contribution on the quantity of A2 type of milk in Gir Cows. Also, the curve representing the quantity of milk and green fodder show the linear relationship between both. Quantity of Milk increases 10.3% with each kg. increase of Green Fodder by Gir Cow. Thus, the farmers or the owners of the cow sheds should focus on the quality of fodder which is provided to the Gir cows. Also, for awareness, Training programmes should be implemented to educate and assist the dairy farmers in respect of breeding, feeding management technique, marketing of milk and milk products. Government should develop small milk processing units which help to increase the income of milk producers. By considering the suggestions given above, the dairy activities in the region should be strengthened for the economic development of the region.

5.0 REFERENCES

- A2 Corporation 2006. 2006 Annual Report. Available at www.a2corporation.com
- Bell, S.J., Grochoski, G. T and Clarke, A. J. (2006) Health implications of milk containing beta casein with the A2 genetic variant. Crit Rev Food Sci Nutr 46, 93–100.
- Eenennam, A. & Medrano, J.F. (1991) Milk protein polymorphism in California dairy cattle. J Dairy Sci 74, 1730–1742.
- Heaney, R.P. (1999) Bone biology in health and disease: A tutorial. In: Modern Nutrition in Health and Disease, 1327–1338.
- Khate, K., Kataria, R.S. and Joshi. B.K. (2012) Screening of taurine and crossbred breeding bulls for A1/A2 variants of β-casein gene. Indian Journal of Animal Sciences 82 (2), 183–186.
- Kostyra, E., Sienkiewicz-Sz apka, E., Jarmo owska, B., Krawczuk, S. And Kostyra, H. (2004) Opioid peptides derived from milk proteins. Pol J Nutr Sci 13/54, 25–35.

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HERBAL SKIN AND HAIR CARE COSMETICS PURCHASE FREQUENCY IN SOUTH GOA

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ABSTRACT
Herbs have been used in maintaining and enhancing human beauty. Indian women have used herbs like sandalwood and turmeric for skin care, henna for hair color, and natural oils to perfume their bodies. Elaborate herbal beauty treatments were carried out in India palaces to heighten sensual appeal and maintain general hygiene. The purpose of this paper is to determine the frequency of using herbal skin and hair carecosmetics, which was analysed on the basis of never, twice a week, once a week, once in 15 days, once a month, frequency of using herbal skin care products like soaps, cream, cosmetics, powder gel and face pack and herbal hair care cosmetics such as oils, shampoos, conditioners, serums, henna powder, styling gel and average expenses amount spent on herbal cosmetics. The data was collected through survey questionnaire using sample of 180 consumers of herbal cosmetics in south Goa. The hypothesis formulated for the study is to find out if there is a significant difference in the opinion of the respondents towards using skin and hair care herbal cosmetics.Various statistical analyses were used such as Annova including percentage analysis, simple charting, and tabularformat.The findings may be useful to retailers, marketers and practitioners to recognize and better understand new trends that occur in the natural cosmetics industry.

Keywords: frequency, skin care, hair care,herbal cosmetics.

INTRODUCTION
Indications of consumer'spositiveattitudes do notnecessarily lead to actual environmentally friendlypurchasing behavior (Laroche et al., 2002). Green products market is expanding worldwidein various industries, like food, fashionand cosmetics (Cervellon and Carey, 2011). Research papers related to natural cosmetics has increased(Kim and Seock, 2009; Johri and Sahasakmontri, 1998; Dimitrova et al., 2009; Rybowska, 2014; Cervellon et al., 2011). Green purchase is a specifickind of eco-friendly behavior that is expressed by consumers concern for environment Chen (2001). The probability and willingnessto give preference for eco-friendly features in products over traditional products is green purchase intention (Rashid et al., 2009). Tsakiridou et al. (2008) highlightthe intention to purchaseand actual purchase of green products gap, dueto higher prices. Eco cosmetic products areperceived as luxuryitems because they are non-availability andexpensive (Rybowska, 2014).

THEORETICAL PERSPECTIVE
Fong Sheing yee and Susan chin Tee Suan (2012) in their study focuses to analyze the purchasing behavior of the young generation on skincare products. Aqueveque (2006) studied that people normally purchase facial skin care according to their needs. Batra and Kazmi (2004) for facial skin care product, the factors that influence the buyer would include: beliefs in product attribute, environmental concern, demographic and personal characteristics which makes facial skin care product purchase. (Dickson and Sawyer 1990) observed that lower prices do not really affect the purchasing decision. Bobinski et al. (1996) studied consumers as purchasing products during the discount period. Environmentalism has become an important issue in the market. (Brown, 1996; Kalafatis et al., 1999). Consumers are willing to pay higher price to purchase products that are environmental friendly. Alston and Prince Roberts (1999) observed that there was a willingness to pay slightly more for environmental improvement in cleaning products. Skin with brighter complexion, smoother surface is perceived as healthier and attractive (Igarashi et al. 2005). Skin treatment and care is necessary for the overall wellbeing of the person (Grossbart & Sherman 2009). Facial skin problems can be particularly stressful and can seriously affect confidence and quality of life (Anon n.d.). Shampoos are widely used as cosmetic products for cleansing hairs and scalp in our daily life (Ishi, 1997). Popularity of herbal shampoo among consumers is rising because of the belief that these products are of natural origin are safe and free from side effects (Manikar and Jolly, 2001). Herbal formulations considered as alternatives to synthetic shampoo but formulating cosmetics using completely natural raw material is difficult (Shinde et al., 2013). A large number of medicinal plants which have beneficial effects on hair and are commonly used in formulation of shampoo Firthouse, 2009).

REVIEW OF LITERATURE
Natural herbs when used for their aromatic value in cosmetic preparation are termed as herbal cosmetics [1]. Productsformulated, using permissible cosmetic ingredients which forms the base where one or more herbal ingredientsare used to provide cosmetic benefits are called Herbal Cosmetics [2]. Herbal cosmetics influences

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skin functions and provide nutrientsfor skin or hair [3]. There is common belief that chemical based cosmetics areharmful to the skin and an increased awareness amongconsumers for herbal products triggered the demand fornatural products and natural extracts in cosmeticspreparations [4]. The only hope for sustainable supplies of cheaper medicinesfor growing population is medicinal plants [5].Women used cosmetics for health care,but recently men also use cosmetics, which is increasing the cosmetic industries future. Rising demand from men andwomen [6], and market expansion numerous competitors are emerging in, herbal products industry [7]. Number ofplants are used to develop a herbal skin care product, andfrom seeds, fruits,barks, woods, leafs, roots, flowers, pollen to coconut oil, milk, honey, salt, and water[8].The importance of herbal ingredients as healing agentsand their beauty care role is now widely recognized, andas a result, interests in exploitation of medical and aromaticas pharmaceuticals, herbal remedied, flavorings, perfumes,cosmetics and other natural products has been increasing in the last few years [9].Cosmetics that are used for hair care purpose applied orally and should not be used for therapeutic purpose [10–11].

OBJECTIVES OF THE STUDY

To find out if there is a significant difference in the opinion of the respondents towards using skin care product, the frequency of using the herbal skin and hair care herbal cosmeticsby the respondent, and theaverage amount spent on herbal cosmetics.

LIMITATIONS OF THE STUDY

Time is a major constraint, the study is restricted to south Goa only, and the statistical tools are used to analyze the data with its own limitations. The data collected is based on the questionnaire and the results would be varying according to the options of the individuals. Only 180 respondents were taken as the sample. This research and its results are only applicable to the respondents of south Goa, and are not applicable to any other places. It is not generalized, the results are subject to change according to the perception and opinion of the respondents, and some of the respondents were reluctant to give responses.

RESEARCH DESIGN

The hypothesis formulated for the study is if there is significant difference in the opinion of the respondents towards using skin care and hair care herbal cosmetics.

Sample size:180

Area of study: Select areas in South Goa

Data collection instrument: Survey questionnaire

Sampling Method:Convenient sampling

Statistical tool

The statistical tool used in data analysis and interpretation were Annova including percentage analysis, simple charting, tabulation tools.

Tabular presentation

1.1. Frequency of using herbal Skin care products

	soaps	cream	cosmetics	powder	gel	face pack
Never	23	22	27	63.3	76	55
Twice a week	41	34	21	10	5	8
Once a week	16	24	21	9	6	9
Once in 15 days	10	12	15	9.4	7	9
Once a month	10	8	16	8.3	6	19

Source: Primary Source

ANOVA						
Source of Variation	**SS**	**df**	**MS**	**F**	**P-value**	**F crit**
SSBC	4787.457	4	1196.864	5.60109	0.003423	2.866081
SSBR	0	5	0	0	1	2.71089
Error	4273.683	20	213.6842			
Total	9061.14	29				

H_0 there is a significant difference towards not using skin care product

H_1 there is a significant difference towards using skin care product

Using Annova, if $F<F_c$ there is no significant difference i.e. H_0 and if $F>F_c$ there is a significant difference i.e. H_1. In the table, F=5.60 and F_c=2.87 hence, there is a significant difference in the level of satisfaction of the product. And, F=0 and F_c=3, there is no significant difference in the opinion of the respondents towards using skin care product. In the above table 1.1 the frequency of using the herbal Skin care products by the respondent. It can be seen as herbal soaps and creams were used mostly in twice a week. Majority of people never used Herbal powder, herbal gel and herbal face pack.

1.2 Frequency of using Herbal Hair Care products

Frequency	Oils	Shampoos	Conditioners	Serums	Henna Powder	Styling Gel
Never	63.89	67.22	60.56	63.89	69.44	71.11
Twice a week	17.78	16.67	13.33	14.44	10.56	7.78
Once a week	8.89	7.78	12.22	10	11.11	7.78
Once in 15 days	5	6.11	10	7.22	5	5
Once a month	4.44	2.22	3.89	4.44	3.89	8.33

Source: Primary Source

ANOVA						
Source of Variation	**SS**	**df**	**MS**	**F**	**P-value**	**F crit**
Rows	16157.26	4	4039.314	393.7444	1.05E-18	2.86608
Columns	1.67E-05	5	3.33E-06	3.25E-07	1	2.71089
Error	205.1744	20	10.25872			
Total	16362.43	29				

H_0 there is a significant difference towards not using hair care product

H_1 there is a significant difference towards using hair care product

Using Annova, if $F<F_c$ there is no significant difference i.e. H_0 and if $F>F_c$ there is a significant difference i.e. H_1. In the table, F=393 and F_c=2.71 hence, there is a significant difference in the level of satisfaction of the product. And, F=3.25 and F_c=1, there is no significant difference in the opinion of the respondents towards using hair care product. In the above table 1.2 the largest percent of people never use the herbal oils i.e. 63.89%, similarly larger percent of people never use other herbal hair care product such as shampoos, conditioners, serums, heena powder and stylish gel. Around 5% people have used oils, heena powder and stylish gel mostly once in 15 days. Least percent of people have preferred using shampoos, conditioners and serum in once in 15 days.

1.3 Average expenses amount spent on herbal product

	Amount spent
<200	31.11
200-399	20.56
400-599	17.22
600-799	11.11
800-999	13.89
>1000	06.11

Source: Primary Source

o	e	t=o-e	t2	t2/e
33.33	20	13.33	177.6889	8.884445
21.67	20	1.67	2.7889	0.139445
10.56	20	-9.44	89.1136	4.45568
24.44	20	4.44	19.7136	0.98568
10	20	-10	100	5
			t	19.46525
			cv	9.487729

FINDINGS AND INTERPRETATION

In the above table and graph 1.3 it is given the average expenses amount spent on herbal product. Majority (31%) of people spend less than 200 rupees and minority (6%) of people spend more than 1000 rupees

CONCLUSION

As consumer income risesand lifestyles change it offers a great potential for value growth thanks to rising disposableincomes and growing consumer demand for better products. The cosmetic and toiletries producersface strong challenges in expansion which hold strongfuturegrowth potential. With the emergence ofonline retailing there is market growth. Increasing consumerpreferences towards the use of natural cosmetic products and awareness about the difference of natural and synthetic ingredients present in skin care products andawareness level contributed by education, exposure to media and advertisements displaying the use of unique ingredients used in their products to create unique selling point have made buyers quite conscious about what they are wearing and is forcing the cosmetic and toiletriesmanufacturers to change strategies.

REFERENCES

[1] Sweetalmond [online], Available from:http://www.cosmeticsinfo.org/ingredient_details.php?ingredient_id=403

[2] Glaser DA, (2004). Anti-ageing products and cosmeceuticals. Facial Plast Surg, *Clin N Am*, 12(4), 363-372.

[3] Larsson, S.C.; Bergkvist, L.; Naslund, I.; Rutegard, J.; Wolk, A. (2007).Vitamin A, retinol, and carotenoids and the risk of gastric cancer: a prospective cohort study. *Am. J. Clin. Nutr*. 85(2); 497–503.

[4] Almond [online], Available from: http://en.wikipedia.org/wiki/Almond

[5] Lucuma uses [online], Available from: http://www.familycontent.com/health/herbs/lucuma

[6] Blanchin, A., Chareyron, C. & Levert, Q. (2007).The customer behavior in the men's cosmetics market, School of Business and Engineering, University ofHalmstad. Brown, I.R. (2006), Mastering marketing: a comprehensive introduction to the skills of developing and defending your company's revenue, (2 ed.),Thorogood Publishing, pp 204-208.

[7] Bryman, A. & Bell, E (2007). Business Research Methods: Second Edition. Oxford University press: New York. Borden, N (1964).The concept of themarketing mix, *Journal of Advertising Research*.

[8] Cheng, S.O., Ding, H.T. & Fan, S.C. (2010), Factorsaffecting consumption behavior of metrosexual toward male grooming products, Vol.6, No.1February 2010, Pp. 574- 590.

[9] Christopher, S. T., Piaw, T. C. & Kee, W. K. (2007), Supply chain analysis: A handbook on the interaction of information, system and optimization, Volume 119 of International series in operations research & management science, pp 14-22.

[10] Patwardhan B. (2000). Ayurveda: The designer medicine. Indian Drugs.37: 213–227.

[11] Grabley S, Thiericke R. (1999). Bioactive agents from natural sources: Trends in discovery and application. Adv. Biochem. Eng. *Biotechnol*.64: 101–154.

[12] Alston, K. and Prince Roberts, J. (1999), "Partners in new product development: SC Johnson and the alliance for environmental innovation", Corporate environmental strategy, 6(2), pp.110-28.

[13] Aqueveque, C. (2006). Extrinsic cues and perceived risk: the influence of consumption situation. *Journal of Consumer Marketing,* 2(4), pp. 237–247.

[14] Batra, S. K. and Kazmi, S.H.H. (2004), „Consumer Behaviour- Text and Cases", New Delhi: Excel Books.

[15] Brown, M. (1996) Environmental policy in the hotel sector: „„green"" strategy or stratagem. *International Journal of Contemporary Hospitality Management* 8(3), 18–23.

[16] Cervellon, M., Carey, L. (2011), "Consumers' perceptions of 'green': Why and how consumers use eco fashion and green beauty products", *Critical Studies in Fashion & Beauty*, Vol. 2, No. 1-2, pp. 117-138.

[17] Cervellon, M., Rinaldi, M., Wernerfel, A. (2011), "How green is green? Consumers' understanding of green cosmetics and their certification", Proceedings of 10th International Marketing Trends Conference, Paris, France, January 20-21th, pp. 1-24.

[18] Dimitrova, V., Kaneva, M., Gallucci, T. (2009), "Customer knowledge management in the natural cosmetics industry", *Industrial Management & Data Systems*, Vol. 109, No. 9, pp. 1155-1165.

[19] Fong sheingyee, Susan chin yee Suan. (2012).Analysis of the Purchasing behavior on skincare products among the young generation. *International Journal of Undergraduate studies*, 1 (1), 8-14.Retreived from http://www.study mode.com /essays / analysis-of-The-Purchasing-Behaviour-On-1346956.html.

[20] Johri, L. M., Sahasakmontri, K. (1998), "Green marketing of cosmetics and toiletries in Thailand", *Journal of Consumer Marketing,* Vol. 15, No. 3, pp. 265-281.

[21] Kim, S. K., Seock, Y. (2009), "Impacts of health and environmental consciousness on young female consumers' attitude towards and purchase of natural beauty products", *International Journal of Consumer Studies*, Vol. 33, No. 6, pp. 627-638.

[22] Laroche, M., Bergeron, J., Tomiul, M., Barbaro-Forleo, G. (2002), "Cultural differences in environmental knowledge, attitudes and behaviours of Canadian consumers", *Canadian Journal of Administrative Sciences,* Vol. 19, No. 3, pp. 267-283.

[23] Rashid, N. R. N. A., Kamaruzaman, J., Kamsol, M. K. (2009), "Eco-labelling perspectives amongst Malaysian consumers", *Canadian Social Science,* Vol. 5, No. 2, pp. 1-10.

[24] Rybowska, A. (2014), "Consumers attitudes with respect to ecological cosmetic products", Zeszyty Naukowe Akademi Morskiej w Gdyni, Vol. 84, pp. 158-164.

[25] Tsakiridou, E., Boutsouki, C., Zotos, Y., Mattas, K. (2008), "Attitudes and behaviour towards organic products: an exploratory study", *International Journal of Retail & Distribution Management*, Vol. 3, No. 2, pp. 158-175.

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AN INTERACTION EFFECT OF, PARENTING, SELF CONCEPT, STYLE OF LEARNING AND THINKING ON CAREER ASPIRATIONS OF GOVERNEMENT PRE-UNIVERSITY COLLEGE SCIENCE STUDENTS

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INTRODUCTION

Education is never ending process, which is intricately interwoven with life, enriching the individual with a variety of experience, kindling the flames of knowledge with constant probing into the mysteries of life, within and without. Each educational institution should produce educated, intelligent individual who can think independently not a mass which can be manipulated. Herbert Spencer said "Education is the training of completeness of life; it will bring out the perfection which is latent in every man".

CONCEPT AND DEFINITIONS OF SCIENCE

According to Webster's New Collegiate Dictionary, **the definition of science is "knowledge attained through study or practice," or "knowledge covering general truths of the operation of general laws, especially as obtained and tested through scientific method and concerned with the physical world."**

Science refers to a system of acquiring knowledge. This system uses observation and experimentation to describe and explain natural phenomena. The term science also refers to the organized body of knowledge people have gained using that system. Less formally, the word science often describes any systematic field of study or the knowledge gained from it.

John Woodburn and E.O.Obourn consider science as that human endeavor that seeks to describe with even increasing accuracy, the events and circumstances which occur or exist within our natural environment.

From these two definitions three basic principles of the nature of science can be identified i) An accumulated and systematized body of knowledge ii) The scientific method of inquiry and iii) The Scientific attitudes. The first point indicates the product of science while second and third points indicate the 'process' of science. In other words, science is both a product and process.

Rationale for the study – Empirical Evidences for the selected variables

The research studies conducted so far in the areas of students Parenting, Self concept, Style of Learning and thinking and correlate of achievement form the basis for setting objectives and hypotheses for the present study. Thus, the critical appraisal of the related studies is presented below;

i. Parenting

Ukoha (2011) reported that many factors have been blamed for the lack of interest in vocation. Parents today are preoccupied in money making; they have allowed the time they are supposed to be with adolescents to teach value and norms of the society to be spent on watching films and internet programmes. They have allowed their brains to be filled with chunks, leaving other important things of life. Ukoha asserts that environment plays about 50 percent role in influencing what an adolescent learns or becomes.

Fisher and Griggs (1994) studied the factors that influence the Career Development of youths. They found that family functioning has a greater influence on career development than either family structure of parent's educational and occupational status.

ii. Self concept

Adenubi (2008) found in his study the self concept is reflected in the way an individual sees himself. The self concept and vocational interest of adolescents depend on how he or she perceives the experiences rather than the parent's type of occupation. With the knowledge of all these that affect self concept and all that are affected by self concept, one wonders the direction of effect on level of self concept and sex.

Melgosa (2002) in the study of self concept and vocational choice, observed that proper vocational education will equip students to better vocational choice.

iii. Style of Learnng and thinking

Sara, Safyanu shuaibu (2007) in the study effects of learning styles on career preferences , observed that students particular learning style greately affects his choice or preference of one career over the other. It has been also reported that Sexx difference in learning style exists among the senior secondary school students in Jigawa State as well as career preference.

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Yakasai (1991) reported that in recent times though field dependents and field independents can be found in both sexes, the child rearing practices and religious implications in the study area tends to make both male and female differ in learning style.

OBJECTIVES OF THE STUDY

To study the effect Self concept, Parenting, Style of Learnng and thinking on Career aspirations of Government Pre-University Science college Students.

HYPOTHESIS

There is no significant interaction effects of self concept (Low and high), parenting (Low and high) and style of learning-thinking (Low and high) on career aspiration of Government Pre-University College Science students

Variables

Independent Variables to be considered in the study

i. Parenting

ii. Self concept

iii. Style of Learning and thinking

Dependent Variable to be considered in the study

i. Career Aspiration of the students

RESEARCH TOOLS USED FOR THE STUDY:

❖ *Self concept.*

In order to measure this variable, the self concept Rating Scale (SCRS-D) constructed by Pratibha Deo will be used.

❖ *Learning and Thinking Style (SlAT-V)*

In order to measure this variable, the Style of Learning and Thinking constructed by D.Venkataraman will be used.

❖ *Career Aspiration (CAS-SA)*

In order to measure this variable, the Career Aspiration Scale constructed by Sarita Anand will be used.

❖ *Parenting*

In the present study Parenting, which is a independent variable, will be measured by developing an Parenting Tool by the Investigator

COLLECTION OF DATA

Required data relating to parenting, self concept and Style of Learnng and thinking of the students will be obtained by administering Science Parenting, Self concept , Style of Learning and Thinking, Career aspiration among Pre-University Science college students. The investigator will collect the essential data by visiting different Pre-University Science colleges from Bijapur and Bagalkot District. The sex, management and location of the Colleges will be collected through a personal data proforma.

Hypothesis: There is no significant interaction effects of self concept (Low and high), parenting (Low and high) and style of learning and thinking (Low and high) on career aspiration of Government Pre-University College Science students

To test or accomplish above hypothesis the three way ANOVA with interaction design was performed and the results are presented in the table given below.

Table: 3-way ANOVA between self concept (Low and high), parenting (Low and high) and style of learning and thinking (Low and high) on career aspiration of Government Pre-University College Science students

Sources of variation	Degrees of freedom	Sum of squares	Mean sum of squares	F-value	p-value
Main effects					
SC	1	7.96	7.96	0.3221	0.5711
PA	1	5.19	5.19	0.2102	0.6472
SLT	1	144.97	144.97	5.8671	0.0165*

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2-way interaction effects					
SC x PA	1	27.64	27.64	1.1185	0.2917
SC x SLT	1	0.49	0.49	0.0199	0.8879
PA x SLT	1	9.58	9.58	0.3875	0.5344
3-way interaction effects					
SC x PA x SLT	1	18.81	18.81	0.7614	0.3841
Error	169	4175.92	24.71		
Total	176	4390.57			

*p<0.05

From the results of the above table, it can be observed that

- The main effect self concept (Low and high) on career aspiration of Government Pre-University College Science students is found to be statistically not significant ($F=0.3221$, $p>0.05$) at significance level of 5 percent. Therefore, the H_0 is not rejected and H_1 is rejected. It means that, the Government Pre-University College Science students with low self concept (49.14±5.56) have smaller and not significant career aspiration scores as compared to Government Pre-University College Science students with high self concept (51.11±4.35).
- The main effect parenting (Low and high) on career aspiration of Government Pre-University College Science students is found to be statistically not significant ($F=0.2102$, $p>0.05$) at significance level of 5 percent. Therefore, the H_0 is not rejected and H_1 is rejected. It means that, the Government Pre-University College Science students with low parenting (48.90±5.64) have smaller and not significant career aspiration scores as compared to Government Pre-University College Science students with high parenting (51.95±3.33).
- The main effect style of learning-thinking (Low and high) on career aspiration of Government Pre-University College Science students is found to be statistically not significant ($F=5.8671$, $p<0.05$) at significance level of 5 percent. Therefore, the H_0 is rejected and H_1 is not rejected. It means that, the Government Pre-University College Science students with low style of learning-thinking (48.71±5.48) have smaller and significant career aspiration scores as compared to Government Pre-University College Science students with high style of learning-thinking (53.78±0.61).
- The interaction effects self concept (Low and high) and parenting (Low and high) on career aspiration of Government Pre-University College Science students is found to be statistically not significant ($F=1.1185$, $p>0.05$) at significance level of 5 percent. Therefore, the H_0 is not rejected and H_1 is rejected. It means that, the Government Pre-University College Science students with low & high self concept and low & high parenting have similar career aspiration scores.
- The interaction effects self concept (Low and high) and style of learning-thinking (Low and high) on career aspiration of Government Pre-University College Science students is found to be statistically not significant ($F=0.0199$, $p>0.05$) at significance level of 5 percent. Therefore, the H_0 is not rejected and H_1 is rejected. It means that, the Government Pre-University College Science students with low & high self concept and low & high style of learning-thinking have similar career aspiration scores.
- The interaction effects parenting (Low and high) and style of learning-thinking (Low and high) on career aspiration of Government Pre-University College Science students is found to be statistically not significant ($F=0.3875$, $p>0.05$) at significance level of 5 percent. Therefore, the H_0 is not rejected and H_1 is rejected. It means that, the Government Pre-University College Science students with low & high parenting and low & high style of learning-thinking have similar career aspiration scores.
- The interaction effects self concept (Low and high) parenting (Low and high) and style of learning-thinking (Low and high) on career aspiration of Government Pre-University College Science students is found to be statistically not significant ($F=0.7614$, $p>0.05$) at significance level of 5 percent. Therefore, the H_0 is not rejected and H_1 is rejected. It means that, the Government Pre-University College Science students with low & high self concept, low & high parenting; low & high style of learning-thinking have similar career aspiration scores.

Further, if F is significant, to know the pair wise comparisons of interactions effects of self concept (Low and high), parenting (Low and high) and style of learning-thinking (Low and high) on career aspiration of Government Pre-University College Science students by applying the by Scheffe's multiple posthoc procedures and the results are presented in the tables given below:

Table: Interaction effects of self concept (Low and high) and parenting (Low and high) on career aspiration of Government Pre-University College Science students

Interactions	Low SC x Low PA	Low SC x High PA	High SC x Low PA	High SC x High PA
Mean	49.22	48.47	46.71	53.89
SD	5.78	3.42	4.07	0.58
Low SC x Low PA	-			
Low SC x High PA	p=0.9597	-		
High SC x Low PA	p=0.2939	p=0.8049	-	
High SC x High PA	p=0.0004*	p=0.0118*	p=0.0001*	-

*p<0.05

From the results of the above table, it can be seen that,

- The Government Pre-University College Science students belongs to low self concept with low parenting and low self concept with high parenting do not differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to low self concept with low parenting and low self concept with high parenting have similar career aspiration scores.
- The Government Pre-University College Science students belongs to low self concept with low parenting and high self concept with low parenting do not differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to low self concept with low parenting and high self concept with low have similar career aspiration scores.
- The Government Pre-University College Science students belongs to low self concept with low parenting and high self concept with high parenting differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to high self concept with high have higher career aspiration scores as compared to Government Pre-University College Science students belongs to low self concept with low parenting.
- The Government Pre-University College Science students belongs to low self concept with high parenting and high self concept with low parenting do not differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to low self concept with high parenting and high self concept with low have similar career aspiration scores.
- The Government Pre-University College Science students belongs to low self concept with high parenting and high self concept with high parenting differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to high self concept with high have higher career aspiration scores as compared to Government Pre-University College Science students belongs to low self concept with high parenting.
- The Government Pre-University College Science students belongs to high self concept with low parenting and high self concept with high parenting differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to high self concept with high have higher career aspiration scores as compared to Government Pre-University College Science students belongs to high self concept with low parenting. The mean scores are also presented in the following figure.

Table: Interaction effects of self concept (Low and high) and style of learning-thinking (Low and high) on career aspiration of Government Pre-University College Science students

Interactions	Low SC x Low SLT	Low SC x High SLT	High SC x Low SLT	High SC x High SLT
Mean	48.97	52.67	46.89	54.04
SD	5.63	0.52	3.97	0.20
Low SC x Low SLT	-			
Low SC x High SLT	p=0.3677	-		
High SC x Low SLT	p=0.4314	p=0.1113	-	
High SC x High SLT	p=0.0001*	p=0.9458	p=0.0001*	-

*p<0.05

From the results of the above table, it can be seen that,

- The Government Pre-University College Science students belongs to low self concept with low style of learning-thinking and low self concept with high style of learning-thinking do not differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to low self concept with low style of learning-thinking and low self concept with high style of learning-thinking have similar career aspiration scores.
- The Government Pre-University College Science students belongs to low self concept with low style of learning-thinking and high self concept with low style of learning-thinking do not differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to low self concept with low style of learning-thinking and high self concept with low style of learning-thinking have similar career aspiration scores.
- The Government Pre-University College Science students belongs to low self concept with low style of learning-thinking and high self concept with high style of learning-thinking differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to high self concept with high have higher career aspiration scores as compared to Government Pre-University College Science students belongs to low self concept with low style of learning-thinking.
- The Government Pre-University College Science students belongs to low self concept with high style of learning-thinking and high self concept with low style of learning-thinking do not differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to low self concept with high style of learning-thinking and high self concept with low style of learning-thinking have similar career aspiration scores.
- The Government Pre-University College Science students belongs to low self concept with high style of learning-thinking and high self concept with high style of learning-thinking do not differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to low self concept with high style of learning-thinking and high self concept with high style of learning-thinking have similar career aspiration scores.
- The Government Pre-University College Science students belongs to high self concept with low style of learning-thinking and high self concept with high style of learning-thinking differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to high self concept with high have higher career aspiration scores as compared to Government Pre-University College Science students belongs to high self concept with low style of learning-thinking. The mean scores are also presented in the following figure.

Table: Interaction effects of parenting (Low and high) and style of learning-thinking (Low and high) on career aspiration of Government Pre-University College Science students

Interactions	Low PA x Low SLT	Low PA x High SLT	High PA x Low SLT	High PA x High SLT
Mean	48.77	53.25	48.14	53.86
SD	5.67	0.50	3.30	0.59

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Low PA x Low SLT	-			
Low PA x High SLT	p=0.3781	-		
High PA x Low SLT	p=0.9777	p=0.3593	-	
High PA x High SLT	p=0.0001*	p=0.9969	p=0.0081*	-

*p<0.05

From the results of the above table, it can be seen that,

- The Government Pre-University College Science students belongs to low parenting with low style of learning-thinking and low parenting with high style of learning-thinking do not differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to low parenting with low style of learning-thinking and low parenting with high style of learning-thinking have similar career aspiration scores.
- The Government Pre-University College Science students belongs to low parenting with low style of learning-thinking and high parenting with low style of learning-thinking do not differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to low parenting with low style of learning-thinking and high parenting with low have similar career aspiration scores.
- The Government Pre-University College Science students belongs to low parenting with low style of learning-thinking and high parenting with high style of learning-thinking differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to high parenting with high have higher career aspiration scores as compared to Government Pre-University College Science students belongs to low parenting with low style of learning-thinking.
- The Government Pre-University College Science students belongs to low parenting with high style of learning-thinking and high parenting with low style of learning-thinking do not differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to low parenting with high style of learning-thinking style of learning-thinking and high parenting with low have similar career aspiration scores.
- The Government Pre-University College Science students belongs to low parenting with high style of learning-thinking and high parenting with high style of learning-thinking do not differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to low parenting with high style of learning-thinking and high parenting with high style of learning-thinking have similar career aspiration scores.
- The Government Pre-University College Science students belongs to high parenting with low style of learning-thinking and high parenting with high style of learning-thinking differs significantly with respect to their career aspiration scores at significance level of 5 percent. It means that, the Government Pre-University College Science students belongs to high parenting with high style of learning-thinking have higher career aspiration scores as compared to Government Pre-University College Science students belongs to high parenting with low style of learning-thinking.

Table: Interaction effects of self concept (Low and high), parenting (Low and high) and style of learning-thinking (Low and high) on career aspiration of Government Pre-University College Science students

Interactions	Low SC x Low PA x Low SLT	Low SC x Low PA x High SLT	Low SC x High PA x Low SLT	Low SC x High PA x High SLT	High SC x Low PA x Low SLT	High SC x Low PA x High SLT	High SC x High PA x Low SLT	High SC x High PA x High SLT
Mean	49.12	53.00	47.50	52.33	46.25	54.00	52.00	54.04
SD	5.82	0.00	3.12	0.58	3.73	-	-	0.20
Low SC x Low PA x Low SLT	-							
Low SC x Low PA x High SLT	p=0.9702	-						

Low SC x High PA x Low SLT	p=0.9916	p=0.8891	-					
Low SC x High PA x High SLT	p=0.9901	1.0000	p=0.9423	-				
High SC x Low PA x Low SLT	p=0.6975	p=0.7010	p=0.9996	p=0.8029	-			
High SC x Low PA x High SLT	-	-	-	-	-	-		
High SC x High PA x Low SLT	-	-	-	-	-	-	-	
High SC x High PA x High SLT	p=0.0074	1.0000	p=0.0500*	p=0.9999	p=0.0019*	-	-	-

*p<0.05

From the results of the above table, it can be seen that
A significant difference was observed between interactions of Government Pre-University College Science students belongs to

- low self concept x high parenting x low style of learning-thinking and high self concept x high parenting x high style of learning-thinking
- high self concept x low parenting x low style of learning-thinking and high self concept x high parenting x high style of learning-thinking at significance level of 5 percent.
- But other combinations of interaction effects of three independent variables on Career aspiration are not found to be statistically significant at 5% level. The mean scores are also presented in the following figure.

EDUCATIONAL IMPLICATIONS

- The colleges should provide at risk students with mentors from various professions to encourage them to pursue higher education.
- Counselling by experts can certainly help by giving advice on helping parents understand students needs and behaviours, parenting skills and correction of parents' irrational beliefs and negative thinking.
- Family Life Education programmes and mental health services may be organized at college level to enhance and equip the students for betterment of career aspirations
- Teacher should use different maxims of teaching, proper method of teaching, experiments be demonstrated in the laboratory, create democratic type of atmosphere and encourage the students to equip proper style of learning and thinking.

REFERENCES

- Adenubi, M. (2007). Self Concept and Locus Control: Two factors determining educational achievement. Education today 1 (1) 58-60
- Best J. W. (2000). *Research in Education.* Prentice – Hall of India Pvt., Ltd., New Delhi.
- Brooks, J. the Process of Parenting (2^{nd} Ed). Palo Alto, CA: Mayfield,1987
- Deb, Madhu and Grewal, Hirdai Pal (1990). *Relationship Between Self concept and Academic Achievement of Undergraduate Home Science Final Year Students.* India Educational Review, Vol.25 (3): 71-74.
- Ekennia, C.C.(2011). *Carrer Interest Inventory (CII) User''s Manual.* Federal government of Nigeria: Federal Ministry of Education, Basic and Secondary Education Department, School Support Division, Guidance and counseling Banch. Chin and Chis resource concept LTD Owerii, Imo State.
- George, E.I. (1996). *A Comparative Study of the Adjustment and Achievement of 10 Years and 11 Years Schooling in Kerala State.* Dept. of Psy. Kerala, University.
- Ghalsasi, P.G. (1988*). A Descriptive and Experimental Study in the Field of Self concept / Skills of Students in Secondary Schools,* Ph.D., Edn., Poona Univ.
- Jyoti, A. D. and Ramakrishnaiah, D. (2000). *The Relationship Between Scholastic Achievement and Academic Adjustment of Junior International Students* . Journal of Psychological Researches, 44(2),

CONSTITUTIONAL REGULATION OF DEATH PENALTY

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INTRODUCTION

There has been a long quest of human beings to curb and control deviance and promote conformity to normative behaviour in human culture since times immemorial. Various ways and means have been attempted in this direction. The criminologists, jurists, sociologists and legal professionals have dealt with various aspects of the crime and the penal systems. Death penalty is one of the most debated, ancient forms of punishment in almost every society.

Key words: Constitutional validity, Death penalty, Crime, Supreme Court.

Challenge on constitutional validity of death penalty

The constitutional validity of death penalty has been challenged in a number of cases and this has been done on a number of grounds. The controversy of death sentence assumed new significance introduced by the Indian Supreme Court in the interpretation of Article 21 read with Article 14 and 19.

The epoch making and precedent shattering decision of Maneka Gandhi v. Union of India laid down the doctrine of reasonable procedure for the deprivation, of life and personal liberty. The Supreme Court held that the procedure for the derivation of life and personal liberty must be fair, just and reasonable and not fanciful, oppressive or arbitrary.

Beginning of constitutional regulation of death penalty

The 'rarest of rare' standard has at its core the conception of the death penalty as a sentence that is unique in its absolute denunciation of life. As part of its concerns for human life and human dignity, and its recognition of the complete irrevocability of this punishment, the Court devised one of the most demanding and compelling standards in the law of crimes. The emergence of the 'rarest of rare' dictum when the "alternative option is unquestionably foreclosed" Bachan Singh v. State of Punjab was very much the beginning of constitutional regulation of death penalty in India.

The death penalty is most prominently used in Iran, China, Pakistan, Saudi Arabia and the United States of America.

Death penalty was declared to be unconstitutional

The constitutionality of the death penalty in India came in the 1973 case of Jagmohan Singh v. State of UP . The petitioners argued that the death penalty violated Articles 14, 19 and 21 of the Constitution of India. It was argued that since the death sentence extinguishes, along with life, all the freedoms guaranteed under Article 19(1) (a) to (g), it was an unreasonable denial of these freedoms and not in the interests of the public.

Further, the petitioners argued that the discretion vested in judges in deciding to impose death sentence was uncontrolled and unguided and violated Article 14 of the Constitution of India. Finally, it was contended because the provisions of the law did not provide a procedure for the consideration of circumstances crucial for making the choice between capital punishment and imprisonment for life, it violated Article 21. The decision of the US Supreme Court in Furman v. Georgia in which the death penalty was declared to be unconstitutional as being cruel and unusual punishment was also placed before the Constitution Bench. This case was decided before the CrPC was re-enacted in 1973, making the death penalty an exceptional sentence. The Bombay High Court declared it to be unconstitutional in 2010, Indian Harm Reduction Network v. The Union of India Bombay High Court and the Act was finally amended to remove it only in 2014.

Death penalty was a permissible punishment

In Jagmohan, the Supreme Court found that the death penalty was a permissible punishment, and did not violate the Constitution. The Court held that: The impossibility of laying down standards is at the very core of the criminal law as administered in India, which invests the Judges with a very wide discretion in the matter of fixing the degree of punishment. That discretion in the matter sentences as already pointed out is liable to be corrected by superior courts. The exercise of judicial discretion on well-recognized principles is, in the final analysis, the safest possible safeguard for the accused. The Court also held in Jagmohan Singh case.

If the law has given to the judge a wide discretion in the matter of sentence to be exercised by him after balancing all the aggravating and mitigating circumstances of the crime, it will be impossible to say that there would be at all any discrimination, since facts and circumstances of one case can hardly be the same as the

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facts and circumstances of another. Around the same time, just before the CrPC of 1973 became law, the Supreme Court also commented on the wisdom of the introduction of the post-conviction hearing on sentence in the case of Ediga Anamma v. State of Andhra Pradesh.

In commuting the death sentence to life imprisonment, the Court observed the following:

In any scientific system which turns the focus, at the sentencing stage, not only on the crime but also the criminal, and seeks to personalize the punishment so that the reformatory component is as much operative as the deterrent element, it is essential that facts of a social and personal nature, sometimes altogether irrelevant if not injurious at the stage of fixing the guilt, may have to be brought to the notice of the Court when the actual sentence is determined.

The law's changes were, in the view of the court, expressive of a tendency "towards cautious, partial abolition and a retreat from total retention." In a statement that reflects concerns that has acquired a resonance, the court said, "a legal policy on life or death cannot be left for ad hoc mood or individual predilection and so we have sought to objectify to the extent possible, abandoning retributive ruthlessness, amending the deterrent creed and accenting the trend against the extreme and irrevocable penalty of putting out life."

Special reasons" in imposing the death sentence

In 1979, the case of Rajendra Prasad v. State of Uttar Pradesh , discussed what the "special reasons" in imposing the death sentence could be. The Court found itself confronting, not the constitutionality of the death sentence, but that of sentencing discretion. The Court per majority (of two judges) said, "special reasons necessary for imposing death penalty must relate, not to the crime as such but to the criminal." They drew the focus in sentencing to reformation, even as they held that it was not the nature of the crime alone that would be relevant in deciding the sentence. The Court said, "the retributive theory has had its day and is no longer valid. Deterrence and reformation are the primary social goals which make deprivation of life and liberty reasonable as penal panacea."

Mandatory death penalty

Despite the fact that the Supreme Court found the mandatory death penalty to be unconstitutional and arbitrary, the Parliament has since enacted laws that continue to prescribe the mandatory death penalty. The Suppression of Unlawful Acts against Safety of Maritime Navigation and Fixed Platforms on Continental Shelf Act, 2002, in Section 3(g)(i), the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989, in Section 3(2)(i) and Section 27(3) of the Arms Act continue to prescribe a mandatory death sentence. The mandatory death sentence was also introduced into the Narcotics and Psychotropic Substances Act 1985 by amendment in 1989.

Death penalty and anti-terror laws

Many laws under which the death penalty continues to be imposed have to do with terrorist offences. For example, death sentences under the Terrorist and Disruptive Activities Act, 1987 ('TADA'), Prevention of Terrorism Act, 2002 ('POTA'), and Unlawful Activities Prevention Act, 1967 ('UAPA'), continue to be imposed and upheld. For one thing, these death sentences are implemented even when the underlying law in some of these cases has either been repealed (TADA) or has lapsed (POTA). TADA in particular was repealed in the face of criticism for not respecting fair trial guarantees and amidst widespread allegations of abuse. Provisions in the TADA, POTA and now UAPA did not provide for the full range of fair trial guarantees: they defined offences vaguely, thus compromising the principle of legality; reversed the presumption of innocence in certain instances; allowed for long periods of pre-charge detention; made certain confessions to specific police officials admissible as evidence; and limited the right to appeal by only allowing appeals to the Supreme Court.

International legal norms

International legal norms have evolved to restrict the lawful use of capital punishment in a very narrow variety of cases, and a very limited manner. India continues to sentence individuals to death and execute them, and has also opposed all five General Assembly resolutions on a moratorium. In doing so, India keeps company with a minority of countries who retain the death penalty, and an even smaller number who actually carry out executions, a list that includes China, Iran, Iraq and Saudi Arabia.

The Supreme Court has responded to the concern that capital sentencing is "judge centric," by articulating another formulation of the Bachan Singh doctrine. The Court has held in cases like Gurvail Singh @ Gala v. State of Punjab that three tests have to be satisfied before awarding the death penalty: the crime test, meaning the aggravating circumstances of the case; the criminal test, meaning that there should be no mitigating

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circumstance favouring the accused; and if both tests are satisfied, then the rarest of rare cases test, "which depends on the perception of the society and not "judge-centric", that is whether the society will approve the awarding of death sentence to certain types of crime or not. While applying this test, the Court has to look into variety of factors like society's abhorrence, extreme indignation and antipathy to certain types of crimes."

Under India's international obligations, therefore a person sentenced to death has a right to appeal the imposition of the death sentence, and the state has an obligation to provide such an appellate forum. However, where the death penalty is imposed for the first time at the level of the Supreme Court, this right is negated. Take for example, the case of Simon v. State of Karnataka . In this case, 4 persons were convicted for capital offences. The case was tried by the TADA court, and the first and only appeal lay before the Supreme Court. The TADA Court convicted the accused and sentenced them to life imprisonment. The convicts appealed the decision to the Supreme Court. No appeal was filed either by the State or the victims for the enhancement of sentence. However, the Supreme Court suo motu enhanced the sentence of the 4 appellants to death. The Supreme Court was therefore the first and only court to impose the death penalty. The offenders had no forum available to them for appealing the decision. It is noted in this regard that the Commission, in its 187th Report, had recommended that, "where in case the Supreme Court thinks that the acquittal is wrong and the accused should be convicted and sentence to death; or it thinks that the sentence for a term or life sentence is to be enhanced to a death sentence, then the Supreme Court may direct the case to be placed before the Hon'ble Chief Justice of India for being heard by a Bench of at least five judges. This also requires the Supreme Court's rules to be amended." However, this recommendation has not been implemented.

The legitimacy and legality of the death penalty crosses social, cultural, religious and historical fields. United Nations' condemnation of the death penalty, there are still a lot of countries that retain the provision of capital punishment in their legislation.

REFERENCES

- [1] AIR 1978 SC 597.
- [1] (1980) 2 SCC 684, at para 209.
- [1] (1973) 1 SCC 20.
- [1] Criminal Appeal No. 1784/2010.
- [1] (1974) 4 SCC 443.
- [1] (1979) 3 SCC 646.
- [1] Christopher Bennett "Considering Capital Punishment as a Human Interaction" Crim Law and Philos (2013) 7:p.367-382.
- [1] Deborah W. Denno "Capital Punishment and The Human Rights Norm" William A. Schabas (1996), the Death Penalty as Cruel Treatment and Torture: Capital Punishment Challenged in the World's Courts, Boston: Northeastern University Press, 288.
- [1] (2004) 1 SCC 74.
- [1] Patrick Lenta A.E Douglas Farland "Desert, Justice and Capital Punishment" Crim Law and Philos (2008)
- 2:273–290.

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INTERNATIONAL MARKETING – CHALLENGING OPPORTUNITY FOR INDIA

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ABSTRACT
As the globalization is growing, firms are getting international and from international, they are growing global. Internationalization has become very usual to firms these days as they sell and buy products from variety so sources and places within and outside their domain. International marketing has made lives very easy as the availability of goods and services are now being insured to all, regardless where they are residing currently. If we see and observe closely, we will find that actually international marketing has made our purchasing pattern richer and diversified as compared to previous times. It is because of international selling/production of merchandise that our day to day activities and consumption patterns are reorganized/ redefined. India has been at the epic centre of all this happing and tectonic shifting in terms of market forces are concerned. Not solely consumers/customers area unit being heavily benefited still from international promoting development. There area unit many dynamics of international promoting once it involves completely different regions and nations all across the planet. The product/service compositions and strategies change, the approach towards the customers change, more importantly the entire marketing concepts are redesigned, keeping in mind the different sets of behavioural patterns of buyers. Most of the planet has become one largest market with all most similar traits and international promoting sees the various nations jointly and check out to perpetually cater the distinctive needs of it. International promoting is clearly completely different with domestic promoting however each have important similarities conjointly. These similarities and distinction between domestic and international promoting is incredibly attention-grabbing combination to envision and learn still. The firm which has expertise in domestic marketing can use it efficiently internationally, once it grows to that level. Reversely the firm that has substantial quantity of expertise in international promoting will use their international learning in line of work native customers/users additional effectively and with international experience which may satisfy the purchasers higher and might place the corporate into a really dominating position. The international promoting incorporates a completely different system and set of challenges altogether, there area unit several factors that directly and indirectly contribute within the success and failure of international promoting. Since globalisation has been pushing companies to urge out from their thus referred to as domain, and offer their products/services to vast market. This pushing is usually not welcome by companies and that they parish within the method. On the contrary international marketing helped firms to performed better and earned revenues/profits. The present paper is an attempt to understand the core concepts of international marketing and all the challenges/opportunities which are constantly faced by international marketing. This paper also investigates the various other aspects like similarities and contrast between domestic and international marketing. The scope of international marketing is very huge in India; this paper also underlines this particular aspect with proper explanation.

Keywords: International marketing, Strategies, Globalization, Ecosystem, Market, Customers satisfaction.

INTRODUCTION
International marketing is one of the most important aspects of globalization in terms of satisfaction of customers/users. The entire world has become a single market, firms cannot depend upon a single market anymore, and they have to offer their product/services to more than one market (situated in more than one country). This offering of product/services to more than one market calls for marketing in those markets also. Now the basics of marketing are very similar both locally and outside of home domain, but the complications are uncountable. The important thing which comes across one's mind that, why firms are compelled to go international? The answer to this question can vary from company to company but the important reasons and common reasons can be given after observation that its competition in home market and possible demand of firm's product internationally, force firms to get international. After the globalization started taking shape in the world and particularly in India, firms find it very easy to move into any international territory with their standardized product/services. The overall impacts of open markets and liberal government policies have truly worked as engine of growth for group action merchandising. Not only the firms are getting benefited from such expansion of market but the customers are also benefited by such widening of scope of their products and quality assurance. Digital age has conjointly compete an important role in conveyance new ideas and innovative approaches to apply in obtaining wider client base internationally. Marketing of merchandise and services need completely different degree of experience in international domain, the traditional approach has to modified and new ways must be adopted when dealing with international level of competition and quality specification.

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Marketing has become backbone of the business activities and this transition has taken place very rapidly, the interesting fact remain that the marketing is very consistent with sales and profits of firms. Marketing conjointly helps in manufacturing such merchandise and services that have the larger capability to satisfy customers/users, based on proper and objective research. International marketing rely on certain tools in pursuing the customer satisfaction, that is marketing research and marketing intelligence. Marketing has emerged as an important and effective tool for increasing sales and revenues for the firm and putting it into a better position than its closest competitors. Marketing conjointly serves the companies so as to develop a product/service as per the need and desires of shoppers. In marketing the customer is given the greatest emphasis and his tastes and preference are incorporated into the product and service's features. Marketing is kind of opposite to merchandising, where the customers are neglected entirely and interests of sellers are put on the top. Marketing has written the foundations of the games once more and have helped the organizations to perform higher in cementing their positions in current business competition. Now the companies have gotten skilled facilitate and help from different departments still to properly implement the promoting methods for the larger advantages of companies and customers each.

RESEARCH METHODOLOGY

The present research is based on exploratory nature and the information are collected from different sources to get an exact idea regarding the various inputs of international marketing. The research paper is descriptive in nature as well, where concept of international marketing is analyzed and understood from various angles/dimension possible. There are various sources from where the information for the present research paper has been collected, during the collection utmost care has been exercised to avoid any discrepancies and misleading fact. The information that has collected is strictly from secondary sources and their credibleness has been insured already because the sources of such information/inputs square measure quite reliable. Following are the sources from where the information/inputs have been collected-

1. Text books of International marketing from various authors.
2. Research papers on international marketing and its various components.
3. Various online resources and online study sites
4. Various research reports and other relevant published data on international marketing.
5. Other published both online/offline material related to international marketing.

OBJECTIVES OF THE STUDY

Each study have some objectives Associate in Nursingd this study isn't an exception therein regard. The objectives of the study work because the beacon for the study which implies objectives guide the complete study to a logical conclusion. The standard study has number of objectives and it meets all its objectives during the course of research. The present study has the following objectives to achieve

1. To understand the core concept of International marketing in Indian Prospective.
2. To define the key similarities and contrast of International marketing and domestic marketing.
3. To underline the characteristics of International marketing along with its needs to firms.
4. To explain the importance of International marketing in today's globalized era.
5. To chalk out the various challenges usually encountered during International marketing particularly in India and;
6. To furnish the set of suggestions to improve effectiveness of International marketing.

The present research paper is an attempt to meet all those said objectives with proper explanation of gathered information via various sources.

HYPOTHESIS FOR THE STUDY

Although the research is based on secondary data/inputs, but still the study intents to keep certain presupposition which shall be proved/rejected in due course of research tenure. The hypotheses for this study square measure as following

H1 International promoting is helpful to nations like India.

H0 International promoting isn't helpful to nations like India.

H1 International promoting could be a terribly difficult activity globally.

H0 International promoting isn't in the slightest degree difficult activity globally.

LITERATURE REVIEW

Literature review is the accumulation of all the relevant work, already done on the topic of the research. The literature review method additionally helps to find out the precise plan of the subject in hands. International marketing has been a topic of wider studies; it has been studied from all possible dimensions both in India and globally. The chunks of those prominent studies are given in the following manner.

Taneja Girish, Dr. Girdhar, Rajan and Neeraj Gupta, in their research paper title "Marketing Strategies of Global Brands in Indian Markets" (2012) wrote that "With increasing globalization and international trade, a number of international brands square measure going in India that is one in all the quickest growing and extremely competitive markets within the world. Though, most of the world corporations did not perceive the requirements of Indian shoppers also because the market characteristics however there square measure a number of of them World Health Organization have been successful in positioning their brands into the Indian market because they attempt to understand well the needs of target group before introducing a brand into the market. Even a number of the foremost triple-crown brands in today's time had committed many blunders or mistake whereas at first going in Indian market. For instance, Kellogg's, McDonald's, LG, Reebok and Coca-Cola are among such global brands who initially introduced standard products by following standardized global strategies but later realized their mistakes and thus changed their product or services in keeping with the requirements of Indian shoppers and have become triple-crown. This analysis is a shot to research why some international brands, that are successful globally, fail to attract significant market share in India."

2.Steenkamp, Jan-Benedict E.M. and Hofstede ,Frenkel Ter in their research paper title "International market segmentation: issues and perspectives" (2002) wrote that "International market segmentation has become an important issue in developing, positioning, and selling products across national borders. It helps firms to focus on potential customers at the international-segment level Associate in Nursingd to get an applicable positioning across borders. A key challenge for firms is to effectively affect the structure of nonuniformity in client desires and needs across borders and to focus on segments of shoppers in numerous countries. These segments mirror geographic groupings or teams of people and incorporates potential shoppers World Health Organization square measure probably to exhibit similar responses to promoting efforts."

3. Ghauri, Pervez and Cateora, Philip in their book title "International Marketing"(2009) wrote that "These forces affecting the international business have led to a dramatic growth in international trade and have contributed to a perception that world has become a smaller and dependent place.3 If we look at the Swiss Multinational Company, Nestlé, 'The Food Company of the World', it claims its product square measure sold-out in each country within the world. It has factories in additional than eighty countries and it's several brands that square measure recognised everywhere the globe.4 Toyota and its subsidiaries sell their cars in more than one hundred seventy countries, giving it a presence in additional countries than the other motor vehicle manufacturer"

Kozak,Yuriy and Smyczek,Slawomir in their altered book title "INTERNATIONAL MARKETING" (2015) found that "Increasing integration with the globe community, AN entry of the domestic enterprises into the foreign markets and intensifications of development of latest sorts of the international business area unit the most gift tendencies of economy reforming for countries with transitive economy. These countries have recently started their integration into system of the globe economy, and therefore the method this method can present itself, potency of any economic and social development of the states, as organic subsystems of world economy depends. Efficiency of prevalence in world financial set-up is outlined by potency of foreign economic activity of its business structures. Successful activity of the enterprises in the foreign markets is possible only at skill ful use of receptions and methods of the international marketing activity."

5.Saxena,Sandeep in his research paper titled "Challenges and Strategies of Global Branding In Indian Market" (2012) writes that "number of well-known global brands have derived much of their sales and profits from nondomestic markets for years, for example, Coca-Cola, Shell, Bayer, Rolex, Marlbordo, Pampers, and Mercedes-Benz to name a few. Brands such as Apple computers, L'Oreal cosmetics, and

Nescafe instant occasional became fixtures on the worldwide landscape. The successes of these brands have provided encouragement to many firms to market their brands internationally. A number of alternative forces have conjointly contributed to the growing interest in world promoting. These area unit perception of slow growth and exaggerated competition in domestic markets , Belief in enhanced overseas growth and profit opportunities , Desire to reduce costs from economies of scale, ought to diversify risk and Recognition of world quality of shoppers. Today corporations going world, unceasingly pioneer their ways for worldwide success. Global Marketing needs clear vision regarding the 4P's i.e., Product modification, Pricing problems, Promotion combine ways to stick to the cultural sentiments, language and lifestyle patterns of foreign consumers and right distribution channel to penetrate deeper. Other challenges embody appropriate Packaging and building complete for acceptance within the foreign market"

6. Viswanathan, Nanda K. and Dickson, Peter R. in their research paper title "The fundamentals of standardizing global marketing strategy" (2007) find out that "The increase in world trade, an increasing integration of the world's major economies, and the onward march of globalisation, will mean that decisions on standardization and adaptation of marketing strategies will continue to be an important issue for academic research and marketing practice. In spite of the substantial analysis on standardization/adaptation of promoting strategy for over forty years, the theoretical foundation for standardization/adaptation research remains weak (Ryans et al., 2003). There has been with the exception of Jain (1989), Cavusgil et al. (1993) and Johnson and Arunthanes (1995) little attempt to develop a theoretical framework that would be informative on standardization issues. In addition, the existing theoretical foundations of standardization "center on the perception of consumer homogeneity and/or the movement toward homogeneity" (Ryans et al., 2003). While client homogeneity is a very important issue, the dimensions of marketing strategy go beyond a consideration of the customer. In explicit, competition plays a crucial role within the development of promoting strategy and consequently in selections on the degree of standardization of promoting strategy."

Ahmed, Manzoor, Ullah, Shafi and Aftab Alam in their research paper article title "Importance of Culture in Success of International Marketing" (2014) found out that "It's very important to discuss about the importance of culture in international promoting, after firstly understanding what an international marketing is and what culture is. Culture is effective for doing exchange native market however it's additional important for international promoting, the reason being that in international marketing people have different believes, nature, culture, or language. All these aspects produce the matter of managing folks in international promoting therefore it's necessary for any organization to grasp the cultural variations before going for business in international markets."

MEANING AND DEFINITION OF INTERNATIONAL MARKETING

International marketing can be defined simply as the application of marketing principles and concepts to more than one nation. But contrary to common belief, there is a slight difference between what is known as international marketing and global marketing, which is believed to be similar term, but it is not so. There is Brobdingnagian distinction that distinguishes international promoting from world promoting. International marketing sees the world in different markets and segments and caters according to it. On the other hands, global marketing sees the entire world as a whole unit and does not distinguish market on any grounds and prepares products and services for global customers rather than for any one nation's customers. International promoting has the fundamental principles kind of like domestic promoting

According to the yank promoting Association (AMA) "International promoting is that the transnational method of designing and corporal punishment the conception, pricing, promotion and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives."

Definition by consultants- The definition of a number of the experts on international promoting can facilitate in any understanding the core construct of international promoting. These definitions are very crucial in understanding the core as well as the various dimensions of international marketing.

"The result's a worldwide approach to international promoting. Rather than that specialize in country markets, that is, the differences due to the physical location of customers groups, managers concentrate on product markets, that is, groups of customers seeking shared edges or to be served with constant technology, emphasizing their similarities regardless of geographic areas in which they are located"

Muhlbacher, Helmuth, and Dahringer (2006) "International promoting is that the performance of business activities that direct the flow of a company's product and services to customers or users in additional than one nation for a profit"

Cateora and Ghauri (1999) "International promoting is that the application {of promoting|of selling|of promoting} orientation and marketing capabilities to international business" Muhlbacher, Helmuth, and Dahringer (2006) "The international market goes on the far side the export trafficker and becomes additional concerned within the selling atmosphere within the countries during which it's doing business"

Keegan (2002)

In straightforward words International selling will be outlined as "An application of promoting ideas and principle across 2 or additional nations, for the motive of maximization in sales and market share, International selling is all concerning marketing in international territories, it's a gradual process and just an extension of domestic marketing, as most of the concepts remain same"

The above set of definitions, in a way clear out the various characteristics and further provide clarification regarding the concept of International marketing. The definition given above provide the following characteristics of International marketing

1. It is just an extension of domestic marketing in terms of core concepts.

2. It helps firms to expend into newer markets and tap possibilities available outside of domestic domain.

3. this can be a plan that is very hand in glove to globalisation.

4. International selling needs high quantity of skills and experience.

5.Almost every firm dreams of getting into foreign market, International marketing is one of the most important tools for doing so.

INTERNATIONAL selling AND INDIA: A PERSPECTIVE

Because the globalisation has up and Indian markets became additional and additional liberal by facilitating privatization, the importance of International marketing is on the rise. Earlier thereto, International marketing was not very talk of the town in India due to several reasons. Firms only focused on domestic customers. After almost a quarter of century of post globalization has passed, experts see it as the new order of internationalisation of domestic firms. Indian product and services have gained a very important place in world market, new and innovative means of marketing have helped firms to get more out of the box (Domestic Domain) and faucet the opportunities prevailing outside the domestic domain. This willing internationalisation has acutely helped in the growth and firm establishment of international marketing in India. Earlier thereto International selling had a really minimal impact on Asian country corporations, but now the situation has changed and keeps on changing adding new dimensions and experiences. Likewise, one could say or observe the following in terms of International marketing environment in India. 1. The angle of corporations that area unit well established in domestic markets area unit are actuated to travel on the far side the domestic domain thanks to many reasons together with high demands of Indian products with competitive prices.

2. the assistance and incentives provided by government bodies additionally helped corporations to travel additional than their usual space of operating.

3. the expansion in selling infrastructure like media, information technologies etc have played an important role in spreading the concept of International marketing.

4.Success stories of corporations already operating internationally has vie a vital role in motivating corporations to require up international selling to unfold their presence outside of Asian country.

5. Growth in selling expertness and quality of competent individuals within the field of International selling additionally helped and adjusted the complete perception towards internationalization.

6. A new wave/generations of entrepreneurs have emerged who dream big and do not want to restrain to domestic profits only. They want to venture out and appearance for newer and higher opportunities. This angle additionally formed the newer avenues for bigger application of International selling.

7. The trust on Indian product has exaggerated multi folds and this has pushed the internationalization of Indian corporations additional. The product area unit particularly in demand in developing nations.

KEY DIFFERENCE BETWEEN INTERNATIONAL MARKETING AND DOMESTIC MARKETING

Domestic and International marketing have the various similarities including the goal/objective of marketing, principles and thoughts of marketing. Along with these similarities, they are different on many grounds as well. The most important differences are listed below, but the major difference remains the area coverage from both the practices. Unlike in domestic marketing, the area which is covered is very vast and may include many countries. To understand it higher let's begin to list out variations between domestic and International selling.

1.Domestic marketing refers to marketing activities within the legal and geographical borders of the nation, on the other hands International marketing refers to marketing activities outside of the legal and geographical boarders of the nations but the activities remain the same.

2. The area which the domestic marketing serves is small as compared to International marketing, on the other hands International marketing serves relatively large area and customers. 3. Government intervention is very minimalistic in domestic marketing but in International marketing governments of involving nations become very intervening and cautious as the national security and International issues is involved.

4. unfold of business operation in domestic selling is incredibly low and restricted to 1 nation, but the spread of business operation in International marketing is very high and is spread over to several nations right away that's what makes it advanced.

5. the employment of technology in domestic selling is incredibly low and reflects the domestic technological atmosphere, unlike it International marketing uses high and cutting edge technology with latest innovation and Updation to cater all the markets it targets.

6. Domestic selling has comparatively low risk proportion as compared to International selling because the familiarity and past expertise of coping with economic process is incredibly useful in mitigating the danger. The proportion of risk terribly|is extremely|is incredibly} high in International selling as all the economic process and factors area unit adjoin several nations and it becomes very risky to deal with them.

7. demand of finance in domestic selling stay terribly low as compared to International selling as against of it the necessity of finance rises with International selling because it deals with multiple countries as compared to domestic marketing.

8. Research is very important in both the types of marketing, but in domestic marketing the usage and scope of marketing research is confined to one nation alone, on the other hands the marketing research is vital and multi dimensional in International marketing. As its plays a crucial role in gathering and processing of valuable marketing data to make appropriate decisions in more than one country.

In a way we can put it like it, that International marketing and domestic marketing are distant siblings, who theoretically perform the same functions but practically they are worlds apart. Again if you leave the magnitude and complexities, you will find more similarities than differences between both as nature of the task executed by both is similar in nature.

CHARACTERISTICS OF INTERNATIONAL MARKETING

Like any other business management and international business enhancer, International marketing has a lot of capacities to contribute in the growth of world trade and International trade in particular. International trade rides on the waves of International selling and in an exceedingly manner it helps in growth, establishment and expansion of International trade. Thus International selling has several characteristics that keep it except for the similar prevailing ideas. Some of the leading characteristics are as followed- Caters a huge market- Unlike domestic marketing, International marketing caters/servers a relatively huge market which might be spread to many nations at a time. This distinctive feature makes International selling tougher and additional complicated in nature. As the market gets larger and greater therefore will the associated challenges and complexities.

- Includes uncontrollable elements- International marketing deals with greater risks and uncertainties it make International marketing more unique in nature. Although there's research tool obtainable however some factors stay uncontrollable and can't be predicated with pinpoint accuracy.
- Requires deeper competency and sharp skills-International marketing is very skilful jobs and requires deeper understanding and competencies to deal with its unique challenges. International selling is extraordinarily complicated and includes newer challenges, to deal with such adverse and never before situations such sharp skills are required which are not so looked after in domestic marketing.
- Deals with huge and stiff competition- One of the most important characteristics which International marketing has is dealing with worldwide competition and it makes International marketing more one of a kind. It is not so that domestic marketing does not deal with competition, but the matter of the fact is the nature and intensity of competition is quite different and unique. Such level of competition makes International selling additional completely different and additional ability needed field of operating.
- Developed countries have highest participation in International marketing- Unlike domestic marketing, developed economies dominate the International marketing scenario. In a sense if we have a tendency to build a listing of prime countries concerned in International selling operation, it will include most developed nations only. It indicates their reason for development over under developed nations.

OTHER CHARACTERISTICS OF INTERNATIONAL MARKETING INCLUDE

- Handles and involves Large-scale operation
- Subject to International restrictions
- Carries a ultra sensitive nature.
- Advanced technology plays a crucial role
- Requires certain specialized bodies.
- Requires long term planning

During the finding out the basic characteristics of International marketing, one could make out that the International marketing has diverse characteristics then its close rival domestic marketing. By closely looking at the distinctiveness of International selling offers America the honest understanding of true shade of International selling.

10. IMPORTANCE CUM OPPORTUNITIES OF INTERNATIONAL MARKETING IN GLOBALIZED ERA

The importance of International marketing can be understood from many point of view and various stands/stances can be observed during the process. International selling is that the necessary demand or economic process and increasing the horizons, selling and being into different parts of the world. International selling is really that vehicle that lets companies travel worldwide with their exclusive product and services. International selling truly helps in enlargement of International trade/Business by promoting it through numerous selling techniques. Although International selling includes range of importance in current globalized ear, some of the those importance are as following-

1. Plays an important to expand existing target market of firm, now firms can sell their products to larger number of customers than ever before. Firms reach gets widened beside its revenue/profit creating capacities.

2. International selling vital from the purpose of read of skyrocketing the complete price as selling is all concerning stigmatisation and positioning firm’s product and its name. Such exposure becomes very helpful in establishing a global brand as it gives internationalized shade to the firm.

3. International selling helps in obtaining connected with the planet, as it connects all the customers of firms with one product/service. It is like having extremely diversified customer base. It also helps in developing new and innovative products as well.

4. Plays a crucial role in gap doors for future prospects for companies in numerous markets and for client in numerous countries.

5. The most important advantage of International marketing is to facilitate international business which enables customers to consume such products which are not produced in their vicinity. Such goods/services help in uplifting the overall standards of living of people in targeted markets.

6. International selling uses latest and innovative production technologies that reciprocally reduces the general price of the product. This helps customers to consume products at very low prices. It has been observed that in some cases that domestic products are dear than the International products.

OTHER NOTABLE ADVANTAGES OF INTERNATIONAL MARKETING INCLUDE-

1. Helps in reaping the benefits of competitive advantage.
2. Production/Consumption of new and innovative products/services.
3. Increase in consumption due to huge supply from outside of country.
4. Increases total production of firm thus giving it advantages of economy of scale.
5. Increases export earnings of firm, mostly earning foreign exchange of high value.
6. Challenging natural calamities and overcoming from it.
7. Knowledge and cultural progress between nations and reaping global peace and harmony.
8. Country image improvement.

CHALLENGES FACED BY INTERNATIONAL MARKETING IN INDIA AND ALIKE COUNTRIES-

International marketing faces number of challenges in its day to day working. These bound state of affairs

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typically referred as challenges may be opportunities yet provided the sort of leadership the international firm has. The important thing is that domestic marketing also faces lots of challenges in executing its designated work, but the challenges faced internationally are a bit different and complex as compared to domestic challenges. Some of these challenges ar terribly obvious therefore may be met with none abundant effort. On the other hands some challenges are very risky and need special/ experts assistance to come out from. One of the most important things about International marketing is that, challenges are country specific and tend to change their shape/effects/scope as per the time and venue in specific. Furthermore, changing globalization's scale and drastic shifts in consumer behaviours worldwide only widens the challenge scope of International marketing. Some of the leading challenges featured by international selling ar listed below-

1. Facing extreme diversity in culture- International selling has got to affect extreme varied cultures and communities, which have their own set of values and beliefs. The biggest challenge to handle the unique perception and practices of these distinct groups becomes very challenging for International marketing. Now international marketing has to adopt different set of strategies and way of execution, it only translates into more problems and challenging situations.

Extremely different marketing environment-International marketing has to deal with extremely different marketing environment in each of the nations it targets to sell its products/services to. Each country with different sets of political and legal setup along with technological aspects makes International marketing more complicated and thus become a great challenge to face to.

3.Different consumer behaviour- International marketing faces one of the challenges in terms of different countries having different consumer behaviour. The difference in taste and hobbies and other aspects make the work of International marketing a bit complicated than it already is.

4.A certain perception towards foreigners- Marketing also has to deal with a pre judged mentality of people staying in different countries associated with foreigners. International selling is completed by foreign companies solely so that they face such prejudice additional. This challenge has been prevailing from a very long time.

5.Problem in selecting promotion tools- As against to domestic marketing, international marketing deals with diversities and complexities in terms of culture/religion/demographical segments etc, choosing a promotion tool or methods becomes very challenging it such scenarios. A lot of contemplation is required for choosing the best mode for promotion/advertisement in foreign land, it only increases the work and challenges for International marketing.

6.Different market forces in different markets- One of the most prominent challenges with the International marketing faces is dealing with different market forces in different markets. Each international market is consisting of different market forces, referred as uncontrollable factors. It takes loads of efforts and vigour to formulate a counter policy for coping with one forces of 1 market; one will imagine the mammoth task of dealing with multiple markets at the same time.

7.Challenge of dealing in different markets at the same time- Firms when gets international sells its products and services to customers of more than one nation. It caters more than one market thus the challenge of dealing with multiple markets with limited resources surfaces. Such a challenge is not visible in domestic marketing, but creates a lot of uncomfortable situation for international firms.

11.1. A number of THE additional distinguished CHALLENGES FOR INTERNATIONAL MARKETING-

1. Difference in buying behaviour.
2. Over interference of government and law.
3. Regulation of international laws.
4. Language and cultural difference along with human behavioural patterns.

After seeing the huge and humongous challenges which are constant faced by International marketing, one thing is very clear that it is not very easy to stay into international markets and perform day to day functions like domestic selling. On the other hands, it is extremely challenging and nerve braking attempt be in such hostile and uncontrolled business environment where foreign entities are seen as invaders. Companies should operate with caution during this regard and practices of International selling ought to be performed underneath the oversight and steering of experts/skilled individuals.

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SUGGESTIONS TO OVERCOME CHALLENGES OF INTERNATIONAL MARKETING

As we have seen that International marketing is one of the most important areas of international firms functioning in different countries. The challenges and risks listed above are severing in nature; they seriously injure the intentions of international firms. The firs and the foremost step in curbing the intensity of challenges and adverse situation can be resolved by conducting a detailed marketing research by professional/experts of the field. Other than that; following steps could also be considered for the same purpose-

1.International firm should develop a detailed and in depth understanding towards the targeted market regarding all the dimension and possible challenges. Firm ought to list them out and prepare resources and alternative tools to beat initial problems/challenges.

2.International firms should develop sensitivities towards the cross culture of each countries they are working. This understanding may be very useful in coping with challenges of International selling.

3.Hire people with greater experience and understanding in dealing with challenges of International marketing, such people can be of very help in identification and dealing with challenges subject of International business.

4. Conduct a detailed and objective research time to time related to current and potential

challenges in International market. Such researches will really facilitate in obtaining out of the issues even before you get into them.

5.Develop people to people contact is a best strategy to avoid challenges in International marketing and this contact can also give you first hand information regarding the minute details and specifications regarding the culture. Such associate exercise helps in understanding the Dos and Don’ts of a selected country.

6.Firms must do some ground work before venturing out into International marketing. Such ground work includes studying about the marketing environment with details and working on compliance and convergences rather than contrast.

Apart from above mentioned steps one could always relay on firsthand experiences and secondary research done on certain issues in certain countries. Although the risks and uncertainties are tremendous in International marketing, yet number of firms getting into International business and pursuing. International marketing may include many challenges and obstacle, but the way outs are also many and such uncertainties can be managed with proper resources in hands and commitment towards a better growth of company

CONCLUSION AND FINDINGS OF THE STUDY

One could understand the importance of International marketing by simply understanding the core issue that, firms cannot sustain for longer period of time without getting out from their domestic domain. In easy terms, if firms want to grow and expand/diversified then going international is the only way forward. Apart from this theory, there are many other theories which compel the firms to out of their domestic setup, during this entire research article some of the prominent reasons have surfaced due to which firms get International. Actually the entire journey of International marketing begins with an idea of getting into International trade, once the decision has been made then other aspects are discussed and worked upon as well. Company which wish to be in International business will have to adopt international ways of doing and executing functions like marketing, finance, promotion, planning and strategies etc. As mentioned one of the aspect is marketing. This concept associated understanding of International promoting is sort of difficult for brand new companies however existing companies see this as simply an extension of their domestic promoting approaches. With growth in globalization and industrialization, International business has become very necessary and comparatively easy to undertake. Firm are now very confidant and committed towards expanding themselves into international territories for reaping benefits and tapping profits/gains. As domestic domain typically (Most of the times) proves to be scant for survival of over a definite numbers of companies. Again, it's one among the numerous reasons why companies get international, but one could underline here that the reasons for getting internationalized are many and each firm has its own time frame and mindset to decided over how and when to go international. The present research paper had many objectives and purposes which were closely linked to tell the entire picture of International marketing. During the research it is also observed that Internationalmarketing has different set of challenges and advantages as well. But one factor has been clearly understood that for future growth and extreme profits, firms must move out of the domain environment. Other than that, the major findings of the present study are as follows

1. International marketing is the process of applying marketing principles across the domestic domain of a country for the same reasons and purposes and objectives as of domestic marketing. This is vital to notice that the conceptually International promoting doesn't take issue from domestic promoting.

2. With the constant growth in industrialization, entrepreneurship and globalization; International business has grown only and with international business grew International marketing.

3.Firms which especially belong to India and other developing nations have grown a lot in international business; such countries also played the role of host very successfully.

4.With the constant development in education and professionalization of business procedure, International marketing experts have come on board for making the process of Internationalization as smooth as possible including executing International marketing as well.

5. There is no doubt that the process of Internationalization is very challenging and full of uncertainties and poses a lot of difficulties as we have seen the list in this research paper. But with correct designing and decisive leadership such challenges will be met with success because the suggestion listed show.

6. International marketing has been very beneficial for the countries like India as Indian firms have the product and services which can be sold in international markets on a fair price. International business also helps in generating employment and further helps in shaping skilled workforce, these two statements are very strong in the favour of International marketing.

7. the current analysis work started keeping sure objectives in mind, all the objectives have been fulfilled with proper evidential arguments8. Technology and other marketing environmental factors are playing very crucial role in expansion and diversification of firms from domestic to international and from international to global.

9.The level of roles and encouragement the government of India has been offering to firms who wish to get into international market has changed and grown in last few years and this has reflected upon the recent ground breaking growth of Indian origin firms operating internationally and involved into international business.

10.The present research paper was based on alternative and null hypothesis which are as following-

H1 International marketing is essential to nations like India.

H0 International marketing is not essential to nations like India.

H1 International marketing is challenging opportunity globally.

H0 International marketing is not at all challenging opportunity globally

Based on the findings and observations supported by adequate substance different hypothesis area unit accepted and null hypothesis area unit rejected.

REFERENCES

1. Ahmed, Manzoor, "Importance of Culture in Success of International Marketing", European Academic Research , Vol. I, Issue 10, January 2014. ISSN 2286-4822.

2. Viswanathan, Nanda, K. and Dickson, Peter, R. "The fundamentals of standardizing global marketing strategy", International Marketing Review, Vol. 24 No. 1, 2007. Emerald Group Publishing Limited.

3. Saxena, Sandeep "Challenges and Strategies of Global Branding In Indian Market", IOSR Journal of Business and Management (IOSRJBM),Volume 4, Issue 1 (Sep,-Oct. 2012). ISSN: 2278-487X

4. "International Marketing" edited by Kozak, Yuriy and Smyczek,Slawomir. ISBN-9786610601719. Year, 2015.

5. Steenkamp, Jan-Benedict E.M and Ter Hofstede,Frenkel "International market segmentation: issues and perspectives" International Journal of Research in Marketing .(2002)

5. Taneja Girish, Dr. Girdhar, Rajan and Gupta, Neeraj "Marketing Strategies of Global Brands In Indian Markets". Journal of Arts, Science & Commerce, Vol. III, Issue –3(3), July 2012.E-ISSN 2229-4686.ISSN 2231-4172

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Liu, W.B, Wongcha A, & Peng, K.C. (2012), "Adopting Super-Efficiency And Tobit Model On Analyzing the Efficiency of Teacher's Colleges In Thailand", International Journal on New Trends In Education and Their Implications, Vol.3.3, 108 – 114.

- **Text Book:**

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- **Article in magazine:**

Holloway, M. (2005, August 6). When extinct isn't. *Scientific American, 293*, 22-23.

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